## Title

# Johnny Walks to School - Does Jane? Sex Differences in Children's Active Travel to School 

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# J ohnny Walks to School—Does J ane? Sex Differences in Children's Active Travel to School ${ }^{1}$ 

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## Comment on This Article


#### Abstract

Communities are traditionally built with one transportation mode and user in mind-the adult automobile driver. Recently, however, there has been an international focus on the trip to school as an opportunity to enhance children's independent active travel. Several factors must be considered when designing programs to promote walking and bicycling. This paper examined the influence of child sex on caregivers' decisions about travel mode choice to school.

Caregivers of children in grades three to five from ten California Safe Routes to School communities were surveyed on their child's normal travel mode to school and factors that determined travel decisions. Results indicate that the odds of walking and bicycling to school are 40 percent lower in girls than boys; however, this relationship is significantly moderated by the caregiver's own walking behavior. The findings suggest that programs that focus on increasing children's active travel to school should consider multiple influences on health behavior, including the neighborhood physical activity of parents.


Keywords: children, sex, active travel, school, health

## I ntroduction

We are born to travel. As soon as we have the strength, our bodies carry us to many destinations-crawling around our homes, running around the yard, walking to a friend's house, and eventually hurrying to our automobiles. At different ages, we travel to various places by many modes. Yet the environment in which we live is traditionally best planned for a single mode of travel-the automobile. This narrow transportation planning vision compromises all of our travel decisions, but increasingly so for children and the caregivers who must provide them transportation to their important activities such as education and social events (Beauumont and Pianca 2002).

The literature on children's travel, while relatively limited, serves to highlight three main points: 1) children's travel needs have an impact on household travel patterns due to the largely auto-dependent nature of those needs; 2) school travel is an opportunity to shift a portion of auto trips to active (walking and bicycling) travel trips if accessibility, safety and the social benefits of the experience are recognized and addressed; and 3) an active travel trip to school may still be compromised because caregivers grant differing levels of child freedom based on the child's sex.

Data from the 2001 National Household Travel Survey (NHTS) indicates that the private vehicle is the dominant mode of transportation for youth under 18 years of age, representing over 75 percent of all trips (McDonald 2005). In contrast, walking constitutes only 12 percent of all trips for this age group; however, when the trip distance was under one-half mile, walking was the transportation mode 42 percent of the time. Obviously, the majority of youth in this age classification cannot drive; therefore, someone provides them with transportation when distance and other factors become barriers. Research suggests that the greatest burden of this passenger-serving trip making falls on women. In a survey of 100 U.S. households, Rosenbloom (1987) found that over 60 percent of caregivers identified mothers as their child's most frequent provider of transport (for both children under six and children 6-12 years of age), with active travel modes (walking and bicycling) accounting for approximately 10 percent or less for each mode in both age groups. Similarly, in an analysis of the 2001 NHTS data, McDonald found that mothers are five times more likely to be transporting children than fathers (McDonald 2005). Moreover, McGuckin and Murakami examined the 1995 Nationwide Personal Transportation Survey (the precursor to the NHTS survey) and found that women in households with children demonstrated greater trip-chaining behavior (i.e., tying multiple trips together between the origin and destination, e.g., home-school-store-work) than men, regardless of marital status. This pattern of a greater burden of trips on mothers held for the trip from work to home, and occurred across all child age groups (McGuckin and Murakami 1999). These studies highlight that children are trip generators, and can affect overall household quality of life by adding trips or limiting the work schedule or job opportunities of a caregiver if children are limited to dependent travel. The research also supports recently developed school travel programs that look at the school trip as an opportunity to shift an auto-dependent trip to an independent (or semiindependent) active travel trip.

Programs such as Safe Routes to School (SR2S) and Walk to School Day (WTSD) are attempts to change the physical environments and social norms associated with school travel. School travel has become a focus for encouraging active, independent travel in children since it is a trip that is made most days of the week and is theoretically possible to make independently, particularly for elementary/primary school-aged children. This is particularly true if the school is built as the nucleus of the neighborhood unit, as recommended by Clarence Perry long ago (Perry 1929). A recent article by Paul Osborne in this journal describes the historical context, current programs and policy activities in safe and active school travel in the United Kingdom, Denmark and the United States (Osborne 2005). Currently, public and political support for this activity is quite high, as can be seen by the creation of a national SR2S program as part of the recently passed United States Federal Transportation Bill (SAFETEA-LU).

School travel is significant for children, with approximately one-quarter of all trips made by five- to nine-year olds being for this purpose (NPTS 1997). In the U.S., the rate of walking to school is similar to that for all trips-approximately 13 percent-while private vehicles and school buses account for over 80 percent of travel to school (54 percent and 30 percent respectively) (McDonald 2005).
Several recent studies identified factors that contribute to the low rate of walking (Beaumont and Pianca 2002). The Centers for Disease Control and Prevention identified long distances and traffic danger as the primary barriers that parents reported for children traveling to school on foot or by bike (Dellinger and Staunton 2002). McMillan (2005a) proposed that the relationship between the urban form of a neighborhood and the trip to school is complex, with factors such as household transportation options, perceptions of traffic safety and personal safety, social/cultural norms and sociodemographics influencing caregiver decision-making on the mode choice to school. Her research found that while urban form had a modest effect on mode choice to school, caregivers' feelings about traffic and personal safety, as well as the travel distances between home and school of greater than a mile contribute to lower walking and bicycling rates. Factors such as a caregiver born outside of the United States, family support of active travel to school, and the importance of child social interaction on the trip to school, however, increased the odds of children's active travel (McMillan 2005b).

Active travel is encouraged for more than just transportation reasons. Walking and bicycling can promote a physically active lifestyle in young people, potentially leading to decreased rates of obesity and chronic disease associated with inactivity (Koplan and Dietz 1999). A physical activity survey of Russian schoolchildren found that children who did not report active travel to school more often did not meet health-related guidelines (Tudor-Locke et al. 2002). Similarly, a study of ten-year olds in England found those who walked to school were significantly more active overall than those who were driven. In particular, boys who walked to school showed more after school and evening activity than those who were driven (Cooper et al. 2003).

Traveling to school on foot or by bike also provides a different learning environment for children through discovery and problem-solving in the neighborhood setting
(Hillman 1999). Active travel that promotes transportation independence and physical and mental health is important for all children; however, studies indicate that differences exist across genders for travel and outside independent play (Valentine 1997; van Vliet-- 1983). In a study of Toronto teenagers (ages 14 to 16), van Vliet-- (1983) found that girls were driven to more places and walked more than boys, as compared to taking public transit or travel by bicycle. In addition, suburban boys had larger activity ranges than suburban girls (although no differences were seen between urban boys' and girls' activity ranges). Other studies support the general finding that boys have more spatial freedom than girls (Tindal 1971; Hart 1979; Bjorklid 1985; Matthews 1987). Previous research by Valentine on 8 to 11-year old children's use of public space in the United Kingdom however, found that girls were actually given more freedom since they were seen as more "sensible, logical and therefore responsible enough to manage their own safety" while the perception of boys was that they were "easily led, irrational, slow to mature and consequently...less capable of negotiating their own safety than girls" (Valentine 1997, 71). Why sex differences in travel exist, and what can be done to provide all children equal opportunity for active and safe travel to school, is an area of important research.

This paper contributes to the small but growing literature on children's travel to school by examining whether the sex of a child influences the travel mode choice to school and if the strength of the relationship between child sex and travel mode is modified by factors such as neighborhood safety, age of the child, social/cultural differences, socio-demographics and the caregiver's own walking behavior.

## Methods

The University of California, Irvine (UCI) conducted an evaluation of the California SR2S construction program from 2001-2004. The project involved a before-andafter assessment of the impact of street improvements on children's safe and active travel to school. Sixteen schools whose construction timeline and street improvements met the evaluation project criteria were recruited to participate in the project. Recruitment of each school occurred with the consent of the municipality awarded the construction project and consent at the school district level where required. The original sample included three Northern California schools and 13 Southern California schools, with the majority being surburban in nature.

The SR2S evaluation project collected three types of data both pre- and postconstruction: 1) caregiver survey data on child and household travel; 2) environmental assessment of the urban form on street segments within a quarter mile of each school, and 3) direct observation of traffic characteristics during school arrival and departure times (see Boarnet et al. 2005a; Boarnet et al. 2005b; and Boarnet et al. 2003 for more details on pre-post SR2S evaluation).

The pre- and post-construction surveys varied only in the addition of questions about the construction project and caregivers' own walking behavior. Due to the additional questions regarding caregiver physical activity, this analysis uses postconstruction survey data from the ten schools whose construction schedule
ultimately met the project timeline (Appendix A includes the complete questionnaire). ${ }^{2}$

Specifically, the caregiver survey captured information on:

- Caregivers' self-report of their children's travel to/from school and their own walking activity in the neighborhood;
- Caregivers' perceptions of safety (crime and traffic) for their children while walking/bicycling to school;
- Caregivers' perceptions of the degree to which neighborhood design features influence their own and their children's walking/bicycling behaviors;
- Caregivers' perceptions of driving behavior in the neighborhood around the school (both their own behavior and the behavior of others);
- Caregivers' attitudes towards walking, bicycling and the trip to school;
- Caregivers' feelings about the social and/or cultural norms about walking, bicycling and the trip to school;
- Caregivers' report of their own level of walking/bicycling activity;
- Caregivers' awareness and attitudes toward the improvement project (postconstruction survey only); and
- Demographic questions about the households.

All third- through fifth-grade classrooms at each of the ten schools participated in the project. Classroom teachers were provided information on the project and instructions on survey distribution and collection. A project information letter and caregiver survey was sent home with each child for the caregiver. The caregiver letter explained the project's purpose and instructions on completing and returning the survey. All children received a small incentive (e.g., a ruler or pencil) for participating in the project regardless of whether the caregiver returned the survey. The project provided each classroom teacher with a self-addressed stamped priority mail envelope to return the completed questionnaires to the research team at UCI. Survey response rate was 38.6 percent ( $N=1,244$ ). Questionnaires were not distributed a second time to capture non-respondents.

Descriptive statistics on children's travel to school and household characteristics are presented, followed by logit probability models used to determine if caregivers' choice of non-motorized versus motorized private travel to school, as reported in the survey, is influenced by the sex of their child and if so, whether that relationship differs based on perceptions/attitudes, socio-demographics and cultural/social norms. Sex is examined in relation to several variables found to significantly influence school travel mode choice in earlier analyses (McMillan 2005b; Dellinger and Staunton 2002), along with socio-demographic variables for control. Table 1 presents descriptions of the variables included in the logit models. Since the logit analysis compared coefficients across models, missing data was excluded from the analysis to ensure the model samples were the same.

Table 1. Parent survey variables in logit analysis

| Concept | Variable name | Operational definition | Attributes/ values |
| :---: | :---: | :---: | :---: |
| Dependent Variable | MODE | Mode of travel to school | $0=$ private vehicle or neighborhood carpool 1 = walk/bike |
| Neighborhood Safety | NOTSAFE | Neighborhood is not safe for child to was/bike to/from school | $\begin{aligned} & 1=\text { Not true at all } \\ & 2=\text { Not true } \\ & 3=\text { Neutral } \\ & 4=\text { True } \\ & 5=\text { Very true } \end{aligned}$ |
| Household Transportation Options | LICENSE | Number of licensed drivers in household | Actual number |
|  | MITOSC | Distance from home to school less than or equal to 1 mile | $\begin{aligned} & 0=\mathrm{No} \\ & 1=\text { Yes } \end{aligned}$ |
| Social/Cultural Norms | APRVFAM | How would family feel about parent's decision to allow child to walk to school | $\begin{aligned} & \hline 1= \text { Strongly } \\ & \text { disapprove } \\ & 2= \text { Disapprove } \\ & 3=\text { Neutral } \\ & 4=\text { Approve } \\ & 5=\text { Strongly approve } \\ & \hline \end{aligned}$ |
|  | BORNUS | Was parent born in the United States | $\begin{aligned} & 0=\mathrm{No} \\ & 1=\mathrm{Yes} \end{aligned}$ |
|  | DRVCONV | Driving is more convenient - fits parent's schedule better | $\begin{aligned} & 1=\text { Not true at all } \\ & 2=\text { Not true } \\ & 3=\text { Neutral } \\ & 4=\text { True } \\ & 5=\text { Very true } \end{aligned}$ |
|  | TIMEWLK | Time parent spends walking on a typical day | $\begin{aligned} & 1=<10 \mathrm{~min} / \text { day } \\ & 2=10-15 \mathrm{~min} / \text { day } \\ & 3=15-20 \mathrm{~min} / \text { day } \\ & 4=20-25 \mathrm{~min} / \text { day } \\ & 5=25-30 \mathrm{~min} / \text { day } \\ & 6=>30 \mathrm{~min} / \text { day } \end{aligned}$ |
| Sociodemographics | CHLDFEM | Reported sex of child | $\begin{aligned} & \hline 0=\text { male } \\ & 1=\text { female } \end{aligned}$ |
|  | CHLDAGE | Reported age of child | Actual number |
|  | HSHLDINC | Average annual household income | $\begin{aligned} & 1=<\$ 15,000 \\ & 2=\$ 15,001-35,000 \\ & 3=\$ 35,001-55,000 \\ & 4=\$ 55,001-75,000 \\ & 5=>\$ 75,000 \end{aligned}$ |


|  | YRSEDUC | Years of education of parent filling out survey | Actual number |
| :---: | :---: | :---: | :---: |
|  | WORKYOU | Work status of parent filling out survey (at least part-time?) | $\begin{aligned} & 0=\mathrm{No} \\ & 1=\mathrm{Yes} \end{aligned}$ |
| Interaction Terms | FEMNOTSAFE | Interaction of CHLDFEM and NOTSAFE |  |
|  | FEMHHINC | Interaction of CHLDFEM and HSHLDINC |  |
|  | FEMAWALK | Interaction of CHLDFEM and TIMEWLK |  |
|  | FEMAPRV | Interaction of CHLDFEM and APRVFAM |  |
|  | FEMUS | Interaction of CHLDFEM and BORNUS |  |
|  | FEMEDUC | Interaction of CHLDFEM and YRSEDUC |  |

## Results

The parent questionnaire asked about children's normal mode of travel to school. This analysis focuses specifically on travel differences across two categories of travel mode: non-motorized (walk/bike) versus motorized private travel (family vehicle/neighborhood carpool) (these two categories represent four collapsed categories). ${ }^{3}$

Over 50 percent of respondents lived within a mile of school. Walking and bicycling was reported as the normal travel mode to school by 21 percent of caregivers, while 69 percent reported traveling to school by automobile. Responses indicate that 59 percent of children were typically escorted by mothers to school, while only 13 percent indicated fathers as the normal escort to school. Fifty-four percent of the adults who bring a child to school returned home immediately afterwards, while 26 percent continued on to work and 6 percent conducted errands or other servingpassenger trips.

Descriptive statistics provide a preliminary picture of the population who returned surveys. Survey respondents were almost equally split across those born in the United States and those not. The average age of the children represented in the survey responses was nine. Of caregivers filling out the survey, 61 percent reported working at least part-time, 25 percent did not work, and 14 percent did not report work status. Over 75 percent of households had at least two licensed drivers, while only 3 percent had no licensed drivers.

Approximately 52 percent of children represented in the survey were female and 43 percent were male. A preliminary cross-tabulation of travel mode to school by sex indicates that 27 percent of male children normally walk or bike to school, while
only 19 percent of female students do (Table 2). This association is statistically significant ( $p=0.000$ ), and provides initial evidence that sex differences may exist in active travel to school. The following logit analyses help to examine the relationship in greater depth, considering and controlling for other factors of influence on the travel mode to school, and examining how other factors may modify the strength of the relationship.

Table 2. Cross-tabulation of normal mode of travel to school by sex of child

|  | MALE |  | FEMALE |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $\underline{\mathbf{\%}}$ | $\underline{\underline{\mathbf{N}}}$ | $\underline{\mathbf{\%}}$ | $\underline{\underline{\mathbf{N}}}$ |
| Auto | 73 | 344 | 81 | 487 |
| Walk/bike | 27 | 128 | 19 | 115 |
| Total | 100 | 472 | 100 | 602 |

Pearson chi2(1) $=9.7099 \quad \operatorname{Pr}=0.002$

Table 3. Logit regression analysis of factors that influence the probability of walking/ bicycling to school

| I ndependent <br> variables | Coefficient | Std. <br> Error | $\mathbf{Z}$ | Percent <br> change in <br> odds (\%) |
| :--- | :--- | :---: | :---: | :---: |
| chldfem | $-0.54^{*}$ | 0.27 | -2.00 | -41.5 |
| chldage | $-0.31^{*}$ | 0.13 | -2.39 | -26.7 |
| bornus | -0.51 | 0.32 | -1.58 | -39.9 |
| drvconv | $-0.83^{* *}$ | 0.09 | -8.93 | -56.2 |
| aprvfam | $0.62^{* *}$ | 0.10 | 6.47 | 85.4 |
| notsafe | -0.03 | 0.10 | -0.31 | -3.0 |
| mitosc | $1.34^{* *}$ | 0.36 | 3.72 | 281.5 |
| hshldinc | -0.25 | 0.14 | -1.83 | -22.0 |
| license | -0.45 | 0.31 | -1.45 | -36.2 |
| yrseduc | -0.05 | 0.05 | -0.93 | -4.4 |
| timewlk | 0.13 | 0.08 | 1.68 | 13.6 |
| workyou | .017 | 0.31 | 0.54 | 18.0 |
| cons | 3.33 | 1.55 | 2.14 |  |

Number of cases $=600$
Pseudo R ${ }^{2} 0.4435$
** $\mathrm{p}<0.01$; * $\mathrm{p}<0.05$

## Logit Analysis

The regression results validate the preliminary finding that there is a clear association between the sex of a child and travel mode to school (Table 3). Being a female child reduced the likelihood of walking/bicycling to school when controlling for variables such as child age, perception of neighborhood safety, and household socioeconomics. This result suggests that active travel opportunities for young girls are constrained, which may have adverse impacts on their physical and/or mental health, cognitive development, and their households' quality of life.

Sex was not the only significant variable negatively affecting active travel to school. When caregivers put a higher premium on the convenience of driving to school, had more household income and, surprisingly, as children aged, the likelihood of walking/bicycling to school decreased. Conversely, a supportive family atmosphere for active travel, living within one mile of school and more walking on the part of the surveyed caregiver increased the likelihood of a child walking/bicycling to school.

Each of these results was anticipated based on prior research, with the exception of a reduced likelihood of active travel in older children (particularly since the survey represented only an elementary-aged population). It was anticipated that the opposite would be seen, with older children given more freedom to travel independently. As the analysis focuses on the home-to-school trip rather than the school-to-home trip, this result is likely not related to extracurricular activities.

The finding that children whose caregivers walk more are more likely to walk/bike to school themselves supports the hypothesis of active caregivers-active youth postulated in prior physical activity research, yet not always proven (Sallis and Owen 1999).

Caregivers' feelings about neighborhood safety were not significant factors, contradicting popular opinion and prior research (McMillan 2005b). The prior analysis done by McMillan did not control for children's sex or age, which may be two primary factors affecting caregivers' feelings about neighborhood safety in relation to active travel to school. Several socio-demographic variables also did not significantly affect the probability of a child walking/bicycling to school, including the caregiver's country of birth (U.S. vs. non-U.S.), the caregiver's years of education and the number of licensed drivers in the household.

Output from logit analyses such as coefficients and levels of significance (columns two and four in Table 3) only highlight associations between variables. They do not provide much guidance for programming and policies by indicating which factors are the most influential in caregivers' decisions about the travel mode to school. In contrast, the percent change in odds listed in the fifth column of Table 3 highlights the magnitude of effect each variable included in the logit model has on mode choice for school, while holding all other variables constant.

The odds ratios indicate that sex has a significant impact on the probability of active travel to school. Specifically, being female decreases the odds of
walking/bicycling to school by over 40 percent. Age also has a notable impact: with every year increase in age the odds of active travel reduces by 27 percent. The convenience of driving also significantly reduces the odds of active travel. Several variables positively impact walking and bicycling: a caregiver's reported walking activity and family support for walking/bicycling to school increased the odds of such activity. However, living within one mile of school appears to have the most significant effect on active travel to school. The odds ratios indicate a distance of less that one mile between home and school makes it almost three times more likely that a child will walk/bike to school. This validates earlier findings regarding the association between distance and travel mode choice and highlights the magnitude of impact distance may have on active travel opportunities for children.

Table 4. Logit regression analysis of factors that influence the probability of walking/ bicycling to school, including interaction terms

| I ndependent <br> variables | Coefficient | Std. <br> Error | $\mathbf{Z}$ | P> \| z| |
| :--- | :--- | :--- | :--- | :---: |
| chldfem | -2.40 | 1.69 | -1.42 | 0.15 |
| chldage | $-0.35^{* *}$ | 0.13 | -2.42 | 0.01 |
| bornus | -0.51 | 0.46 | -1.12 | 0.26 |
| drvconv | $-0.84^{* *}$ | 0.09 | -8.88 | 0.00 |
| aprvfam | $0.64^{* *}$ | 0.13 | 4.75 | 0.00 |
| notsafe | 0.00 | 0.14 | 0.03 | 0.98 |
| mitosc | $1.33^{* *}$ | 0.37 | 3.63 | 0.00 |
| hshldinc | -0.09 | 0.19 | -0.46 | 0.65 |
| license | -0.42 | 0.32 | -1.33 | 0.18 |
| yrseduc | -0.13 | 0.08 | -1.73 | 0.08 |
| timewlk | -0.04 | 0.01 | -0.39 | 0.70 |
| workyou | 0.22 | 0.31 | 0.71 | 0.48 |
| femnotsafe | -0.10 | 0.02 | -0.53 | 0.60 |
| femhhinc | -0.34 | 0.26 | -1.33 | 0.18 |
| femawalk | $0.34^{*}$ | 0.016 | 2.18 | 0.03 |
| femaprv | -0.01 | 0.19 | -0.03 | 0.97 |
| femus | -0.01 | 0.64 | -0.02 | 0.98 |
| femeduc | 0.15 | 0.10 | 1.43 | 0.15 |
| cons | 4.82 | 1.83 | 2.64 | 0.01 |

Number of cases $=600$
Pseudo R ${ }^{2} 0.4551$
** $\mathrm{p}<0.01$; * $\mathrm{p}<0.05$

## I nteractions

The previous analysis verified that the sex of a child has a significant impact on a caregiver's decision about travel mode to school. What the regression did not show was whether the strength of this association is affected by other household characteristics. For instance, does a caregiver make different decisions about a boy walking/bicycling to school than a girl based on feelings of neighborhood safety, or family approval of active travel to school? Does the decision involve an interaction between the sex and age of a child, or a child's sex and a caregiver's own walking behavior? Table 4 presents the results from a second logit analysis which examined these questions.

Of the six interactions tested, only the interaction between the child's sex and the amount of time the caregiver spent walking on a typical day was significant ( $p<.05$ ). Since the coefficients from a logit analysis (column 2 of Table 4) indicate associations but do not lend themselves to useful interpretations, a post-test calculation of the interaction was conducted to determine predicted probabilities. This analysis indicated that the probability of a child walking/bicycling to school was 0.12 higher for girls than boys, taking into account the interaction with the amount of time a caregiver spent walking into account and holding all other variables constant at their means. This result suggests that a caregiver's activity level moderates the relationship between a child's sex and travel mode to school seen in Table 3. While the initial findings indicate that the odds of boys traveling to school by walking/bicycling are higher than for girls, this analysis shows that girls may be allowed equal or more freedom to travel by active modes depending on the amount of time their caregiver spends walking in the neighborhood.

## Conclusion

The results from our study, conducted in California, may not be generalizable to households in other states or countries. However, several findings were consistent with previous studies, such as the influence of distance on travel mode to school (Dellinger and Staunton 2002; McMillan 2005b). Our analysis focused on children's travel to school and whether the probability that the trip would be made by walking/bicycling was different for boys than girls. The results showed that sex does affect active school travel; specifically, boys are more likely to be allowed to travel "actively" to school than girls. ${ }^{4}$ However, a caregiver's own activity level changes the influence of sex on the mode choice to school. An active caregiver increases the likelihood that a female child will walk/bike to school. Caregivers who walk more may have greater familiarity with the neighborhood environment and may also provide a model for their children's own physically active behavior. The analysis also suggests that how a family values active travel to school is an important factor in mode choice.

These findings are important for two reasons. First, caregiver walking activity is a modifiable variable that can be targeted in interventions to promote more active travel to school. It suggests that the development of caregiver/family neighborhood walking/bicycling programs, for school travel or recreation, may have a positive impact on children's own walking/bicycling behavior. Secondly, in 1999 the prevalence of overweight children and adolescents aged 6-19 was
approximately 15 percent, while the prevalence in overweight adults was an alarming 65 percent, and age-adjusted ${ }^{5}$ obesity in adults was 30.5 percent (Flegal et al. 2002; Ogden et al. 2002). Encouraging not only children's active travel to school but also family physical activity can have a positive impact on this costly public health epidemic (Bassett and Perl 2004).

Finally, we can change our ideas about gender identity. In addition to recognizing the influence of the neighborhood's physical environment (e.g., streets, sidewalks, and parks), we should also note that the social construction of girls' identities as endangered or needing protection is inhibiting to them. It limits girls' travel and their independence (Day 1993; Day 2000; Valentine 1992). We should promote the construction of identities for girls that affirm their strength, competence, and independence, and that encourage them to actively explore their environments. This could go a long way toward creating a healthier society overall.

## Endnotes

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2. Six schools in the original sample had delayed construction timelines. Post-construction data collection at these schools was conducted in mid-late 2005 and data cleaning was underway at the time of this writing.
3. School bus and public bus travel was not included in the analysis because of concerns regarding accurate representation due to the response rates for these two categories of travel mode. For example, school bus riders made up only 6.3 percent of survey respondents, a figure much lower than the approximately 16 percent of public school students who ride school buses in the state of California (Ed-Data 2003; School Bus Fleet 2003). Since the survey focused heavily on the choice between walking and bicycling or driving, those parents whose children ride school buses may have perceived that the survey was not intended for them. Therefore, this paper represents the views of the parents of the non-school bus riding population, which is likely close to 85 percent of the population at each of the schools.
4. Caregivers were not directly asked whether the sex of their child influenced their decision regarding mode choice; the probabilities presented here are inferred.[0] The analysis also did not include any objectively measured variables of the neighborhood environment; prior analyses by one of the authors have examined the influence of environmental variables on travel mode to school (McMillan 2005b).
5. "Age-adjusted obesity in adults" indicates the effect of differences in the composition of the population being compared (in this case, age differences amongst the adult population) has been minimized by statistical methods (University of Alberta 2003).

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the University of California, Irvine. Their collective expertise spans transportation planning, urban design and behavior, and public health.

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Sustrans Safe Routes to Schools Project- www.saferoutestoschools.org.uk Young Transnet- www.youngtransnet.org.uk
International Walk to School Day- www.iwalktoschool.org
World Health Organization- www.euro.who.int/ childhealthenv

## Appendix A. Safe Routes to School Survey

## SAFE ROUTES TO SCHOOL

Thank you for taking the time to fill out this survey. The University of California, Irvine is partnering with local schools on a project that looks at walking and bicycling activity to and from school.

## Please fill out this survey tonight and send it back to school with your child tomorrow. This survey should be completed by an adult in the household.

If you have more than one child that attends school, please answer the questions thinking about the child who brought the survey home. If more than one child brings a survey home, please fill out and send back only one survey. Answering these questions will only take about 15 minutes of your time and anything you say in the survey will remain confidential. No one will know that these are your answers because your name and address are not written down anywhere. You can skip any questions you do not want to answer. We hope that you will take the time to fill out this brief survey on walking and bicycling to school.

You might have been asked to complete a similar survey approximately a year ago. If so, it is still important that you complete this survey. We are studying the effectiveness of a construction project that was designed to increase walking and bicycling safety near your child's school. This survey will give us important information on the effectiveness of that project, and more generally about walking and bicycling near your child's school.

Thank you very much for your help today.
Marlon Boarnet, PhD
Associate Professor, Department of Urban and Regional Planning
University of California, Irvine

## RUTAS SEGURAS A LA ESCUELA

Gracias por tomar el tiempo para contestar esta encuesta. La Universidad de California, Irvine se ha asociado con las escuelas locales en un proyecto conjunto que examina la actividad de ir a la escuela y regresar a la casa, caminando y/o en bicicleta.

## Por favor, llene esta encuesta esta noche y devuélvela a la escuela mañana con su niño. Esta encuesta debe de ser Ilenada por un adulto en la casa.

Si usted tiene más de un niño o niña que asiste a la escuela, por favor conteste las preguntas pensando en quien le trajo la encuesta a la casa. Si sus niños le han traído más de una encuesta, por favor complete y devuelva sólo una. Solamente le tomará unos 15 minutos para contestar estas preguntas. Cualquier información que usted nos proporcione será confidencial. Nadie sabrá que éstas son sus respuestas, pues ni su nombre ni su dirección serán anotadas en ningún sitio. Puede dejar en blanco cualquier pregunta que usted no desee contestar. (Note que utilizamos la palabra "niño" para referirnos a ambos sexos). Agradeceremos que se tome el tiempo para contestar esta encuesta sobre caminar e ir en bicicleta a la escuela.

Hace como un año, quizás se le pidió que completaran una encuesta similar a ésta. Si esto es el caso, aun es bien importante que complete esta encuesta. Estamos estudiando la eficacia de un proyecto de construcción que fue diseñado para hacer más a salvo el caminar y el montar bicicleta alrededor de la escuela de su niño. Esta encuesta nos dará información importante sobre la efectividad de este proyecto y también nos dará información general sobre el caminar y el montar bicicleta alrededor de la escuela de su niño.

Muchísimas gracias por la ayuda que nos ha brindado hoy.
Dr. Marlon Boarnet
Profesor Asociado, Departmento de Planeamiento Urbano y Regional
Office Use only
University of California, Irvine
No: Glnoak

These first few questions are about how your child normally gets to and from school (if the routine varies, please answer based on the most regular routine). Please answer the questions in both columns.

|  | To school | From/After school |
| :--- | :--- | :--- |
| 1. On a normal day, how <br> does your child travel to <br> school/from school? | a. Driven alone or with others in <br> household | a. Driven alone or with others in <br> b. Neighousehold <br> b. Walk <br> c. Neighborhood carpool carpool <br> c. Walk <br> d. Bike <br> e. Bike |
| e. School bus |  |  |
| f. Public bus or train |  |  |
| g. Other: Public bus or train |  |  |
| g. Other: |  |  |

7. About how far is it from your home to your child's elementary school?
a. less than $1 / 4$ mile
d. greater than 1 mile
b. $1 / 4-1 / 2$ mile
e. don't know
c. $1 / 2-1$ mile

## VIAJE A LA ESCUELA

Estas preguntas iniciales son sobre cómo va y vuelve normalmente el niño a la escuela (si la rutina varía, conteste basándose en la más frecuente). Por favor conteste las preguntas en ambas columnas.

|  | Yendo a la escuela | Regresando / después de la escuela |
| :---: | :---: | :---: |
| 1. En un día normal, ¿cómo viaja su niño a la escuela y regresa a la casa? | a. En auto, solo o con otros miembros de la familia <br> b. En un auto del grupo de la vecindad ("carpool") <br> c. Caminando <br> d. En bicicleta <br> e. Autobús de la escuela <br> f. Autobús de servicio público o tren Otro: $\qquad$ | a. En auto, solo o con otros miembros de la familia <br> b. En un auto del grupo de la vecindad ("carpool") <br> c. Caminando <br> d. En bicicleta <br> e. Autobús de la escuela <br> f. Autobús de servicio público o tren <br> g. Otro: $\qquad$ |
| 2. ¿Cuánto tiempo se demora su niño en ir a la escuela, o regresar de ella? | a. Menos de 5 minutos <br> b. 5-10 minutos <br> c. 11-20 minutos <br> d. Más de 20 minutos <br> e. No estoy seguro | a. Menos de 5 minutos <br> b. 5-10 minutos <br> c. 11-20 minutos <br> d. Más de 20 minutos <br> e. No estoy seguro |
| 3. Cuando su niño va a la escuela y regresa, ¿le acompaña algún adulto a su niño por todo el camino o parte de él? | a. Madre <br> b. Padre <br> c. Otro adulto de la familia <br> d. Otro adulto que no es de la familia <br> e. Otro: $\qquad$ <br> f. Ninguno; el niño viaja sin adultos $\rightarrow$ si contesta f, por favor no conteste la próxima pregunta | a. Madre <br> b. Padre <br> c. Otro adulto de la familia <br> d. Otro adulto que no es de la familia <br> e. Otro: $\qquad$ <br> f. Ninguno; el niño viaja sin adultos $\rightarrow$ si contesta f, por favor no conteste la próxima pregunta |
| 4. Después de llevar al niño a la escuela o recogerlo de ella, ¿a dónde va normalmente la persona adulta? | a. Regresa a la casa <br> b. Al trabajo, fuera de la casa <br> c. De compras o a hacer otras diligencias <br> d. A dejar otros niños o miembros de la familia <br> e. Otro: $\qquad$ | a. Regresa a la casa <br> b. Al trabajo, fuera de la casa <br> c. De compras o a hacer otras diligencias <br> d. A recoger o dejar niños u otros miembros de la familia a otras actividades <br> e. Otro: $\qquad$ |
| 5. ¿Participa su niño en alguna actividad antes o después de la escuela? | a. Sí <br> b. NO | a. Sí <br> b. NO |
| Si participa, ¿estas actividades toman lugar en la escuela, o en otro lugar de la comunidad? | a. en la escuela <br> b. en otro lugar de la comunidad | a. en la escuela <br> b. en otro lugar de la comunidad |
| 6. En los últimos dos meses, ¿qué tan frecuentemente ha caminado o ha ido en bicicleta su niño a la escuela y de regreso? | a. ninguna vez <br> b. aproximadamente una vez al mes <br> c. aproximadamente dos o tres veces al mes <br> d. una vez por semana <br> e. más de una vez por semana | a. ninguna vez <br> b. aproximadamente una vez al mes <br> c. aproximadamente dos o tres veces al mes <br> d. una vez a por semana <br> e. más de una vez por semana |

[^0]8. If your child were to walk/bike to and from school (or if your child does already walk/bike to and from school), would they have to do any of the following on their way to/from school?

| a. Cross a road with more than 4 lanes of traffic? <br> b. Cross a road at an intersection that doesn't have a street signal or a stop sign to stop <br> traffic? | YES | NO |
| :--- | :--- | :--- |
| c. Cross a road at an intersection without a painted crosswalk? | NO |  |
| d. Walk in the road or on the edge of the road because there is no sidewalk? | YES | NO |
| e. Walk or bicycle along a road or sidewalk that has traffic going more than 30 miles an <br> hour? | YES | NO |

## FEELINGS AND DECISIONS ABOUT TRAVEL TO/FROM SCHOOL

Now we would like to ask you some questions about what helps you decide how your child gets to school. Please answer these questions no matter how your child currently gets to school.
9. On a scale of 1 to 5 , with 1 being not true at all and 5 being very true, circle the number that best matches your feelings about your child's travel to/from school.

|  | Not true <br> at all |  |  | Very true |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| a. Walking or biking to/from school would be <br> good for my child's health | 1 | 2 | 3 | 4 | 5 |
| b. My neighborhood is not safe enough for <br> children to walk or bike to/from school alone | 1 | 2 | 3 | 4 | 5 |
| c. I worry about strangers or bullies in the <br> neighborhood approaching my child if he/she <br> is alone | 1 | 2 | 3 | 4 | 5 |
| d. The school is close enough for my child to <br> walk or bike | 1 | 2 | 3 | 4 | 5 |
| e. Driving my child to/from school is more <br> convenient/fits my schedule better | 1 | 2 | 3 | 4 | 5 |
| 盾 My child's bike will get stolen if he/she rides <br> it to school | 1 | 2 | 3 | 4 | 5 |
| g. I don't really think about how my child <br> should go to school | 1 | 2 | 3 | 4 | 5 |
| h. My child does not like to walk or bike <br> to/from school | 1 | 2 | 3 | 4 | 5 |

10. On a scale of 1 to 5 , with 1 being very unimportant and 5 being very important, circle the number that tells how important it is:

|  | Not very <br> important |  |  | Very <br> Important |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| a. ...for my child to get exercise <br> while going to/from school | 1 | 2 | 3 | 4 | 5 |
| b. ...for my child to interact with <br> other children while going to/from <br> school | 1 | 2 | 3 | 4 | 5 |
| c. ...for my child's trip to/from <br> school to be convenient for me | 1 | 2 | 3 | 4 | 5 |
| d. ...for my child to learn how to get <br> from home to school by walking or <br> biking | 1 | 2 | 3 | 4 | 5 |
| e....for my child to live close to <br> his/her school | 1 | 2 | 3 | 4 | 5 |

8. Si su niño caminara o fuese en bicicleta a la escuela y volviese de ella (o si ya lo está haciendo), ¿tendría que hacer alguna de las siguientes cosas de camino a la escuela o de regreso?

| a. ¿Cruzar una calle con más de 4 carriles de tráfico? | SI | NO |
| :--- | :--- | :--- |
| b. ¿Cruzar una calle en una intersección que no tiene una luz de tráfico o una señal de <br> parada que pare el tráfico? | SI | NO |
| c. ¿Cruzar una calle en una intersección que no tenga un cruce de calle pintado con rayas <br> para peatones? | SI | NO |
| d. ¿Caminar por la calle o por el borde de la calle porque no hay acera para peatones? | SI | NO |
| e. ¿Caminar o ir en bicicleta por una calle o una acera donde el tráfico vaya a más de 30 <br> millas por hora? | SI | NO |

## SUS SENTIMIENTOS Y SUS DECISIONES SOBRE EL VIAJE A / Y REGRESO DE LA ESCUELA

Ahora deseamos hacerle algunas preguntas sobre que toma en cuenta para decidir cómo llega su niño a la escuela. Por favor, contesta estas preguntas sin referirse a cómo está llegando ahora su niño a la escuela.
9. En una escala de 1 a 5 , en la que 1 es "nada cierto" y 5 es "muy cierto", circule el número que más corresponda a sus sentimientos sobre el viaje y regreso de su niño a la escuela.

|  | Nada <br> cierto |  |  | Muy <br> cierto |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| a. Caminar o ir en bicicleta a la escuela o de <br> regreso sería bueno para la salud de mi niño | 1 | 2 | 3 | 4 | 5 |
| b. Mi vecindad no es lo suficientemente segura <br> para que los niños vayan solos o en bicicleta a <br> la escuela y regresen | 1 | 2 | 3 | 4 | 5 |
| c. Me preocupa que si mi niño está solo, se le <br> puedan acercar gente extraña o valentones del <br> barrio | 1 | 2 | 3 | 4 | 5 |
| d. La escuela está lo suficientemente cerca <br> para que mi niño camine o vaya en bicicleta | 1 | 2 | 3 | 4 | 5 |
| e. Llevar a mi niño en auto a la escuela y traerlo <br> es más conveniente / encaja mejor en mi <br> horario | 1 | 2 | 3 | 4 | 5 |
| f. Le robarán la bicicleta a mi niño si va en ella <br> a la escuela | 1 | 2 | 3 | 4 | 5 |
| g. No pienso mucho en como mi niño debe de ir <br> a la escuela | 1 | 2 | 3 | 4 | 5 |
| h. A mi niño no le gusta caminar o montar en <br> bicicleta para ir o regresar de la escuela | 1 | 2 | 3 | 4 | 5 |

10. En una escala de 1 a 5 , en la que 1 es "nada importante" y 5 es "muy importante", circule el número que represente qué tan importante es:

|  | Nada <br> importante |  |  | Muy <br> importante |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| a. ...que mi niño haga ejercicio mientras va <br> o vuelve de la escuela | 1 | 2 | 3 | 4 | 5 |
| b. ...que mi niño tenga contacto con otros <br> niños mientras va o vuelve de la escuela | 1 | 2 | 3 | 4 | 5 |
| c. ...que el viaje de mi niño para ir o volver <br> de la escuela sea conveniente para mí | 1 | 2 | 3 | 4 | 5 |
| d. ...que mi niño aprenda a llegar de la <br> casa a la escuela caminando o en bicicleta | 1 | 2 | 3 | 4 | 5 |
| e. ...que mi niño viva cerca de su escuela | 1 | 2 | 3 | 4 | 5 |


|  | Very <br> Unlikely |  |  | Very <br> Likely |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 11. How likely is it that your child will walk or <br> bike to/from school in the next two months? | 1 | 2 | 3 | 4 | 5 |

12. On a scale of 1 to 5 , with 1 being strongly disapprove and 5 being strongly approve, please tell us
how the following people feel (or would feel) about your decision to allow your child to walk to school:

|  | Strongly <br> disapprove |  |  | Strongly <br> approve |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| a....your friends | 1 | 2 | 3 | 4 | 5 |
| b. ...your family | 1 | 2 | 3 | 4 | 5 |
| c. ...your husband/wife or <br> boyfriend/girlfriend | 1 | 2 | 3 | 4 | 5 |

## QUESTIONS ABOUT THE SAFE ROUTES TO SCHOOLS PROJECT NEAR YOUR SCHOOL

As part of the California Safe Routes to School construction program, a pedestrian-activated inpavement crosswalk lighting system was installed on Glenoaks Boulevard between Mt. Carmel Road and Waltonia Drive.

Please answer the questions in this section keeping in mind this Safe Routes to School construction project.
13. Have you noticed this new project?
$\qquad$ YES $\qquad$ NO
14. Is this project along the usual route that your child travels to school?

## _Y <br> YES

$\qquad$ NO
15. Think about how often your child walked or bicycled to school before the project described above was built. Would you say that your child now walks or bicycles to school:
a. Less than before the project described above was built.
b. The same amount as before the project was built.
c. More than before the project was built.
16. Would you say that the construction project described above had the following effects?

| Made walking or bicycling safer for children: | YES | NO |
| :---: | :---: | :---: |
| Made it easier for children to cross the street: | YES | NO |
| Slowed car traffic near the project: | YES | NO |
| Made drivers more aware of children walking or biking: | YES | NO |
| Separated walkers or bicyclists from car traffic: | YES | NO |

17. Thinking about the posible traffic projects that could have been built near your child's school, would you say that the Safe Routes to School project described above was:
a. The single most important construction project that could have been built
b. Among the few most important construction project that could have been built
c. Helpful, but not that important
d. Not at all important

|  | Muy <br> improbable |  |  | Muy <br> probable |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 11. ¿Qué probabilidad hay que su niño <br> camine o vaya en bicicleta a la escuela en <br> los próximos dos meses? | 1 | 2 | 3 | 4 | 5 |

12. En una escala de 1 a 5 , en la que 1 es "desaprueban firmemente" y 5 es "aprueban firmemente", por favor díganos cómo se sienten (o se sentirían) estas personas sobre su decisión de permitir que su niño camine a la escuela:

|  | Desaprueban <br> firmemente |  |  | Aprueban <br> firmemente |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| a....sus amigos/as | 1 | 2 | 3 | 4 | 5 |
| b. ...su familia | 1 | 2 | 3 | 4 | 5 |
| c. ...su esposo/esposa o su novio/novia | 1 | 2 | 3 | 4 | 5 |

## PREGUNTAS SOBRE EL PROYECTO DE CONSTRUCCIÓN DE LAS RUTAS SEGURAS A LAS ESCUELAS CERCA DE SU ESCUELA

Como parte del programa de las Rutas Seguras a Las Escuelas de California, un semáforo reemplazó una parada de cuatro vías en la intersección de la Avenida Loveland y la Calle Jabonería. Se hizo para reducir el tráfico pesado en esta área.

Por favor conteste las preguntas de esta sección teniendo en cuenta este proyecto de construcción de Rutas Seguras a las Escuelas.
13. ¿Ha notado usted este nuevo proyecto de construcción?
$\qquad$
Sí $\qquad$ NO
14. ¿Está este proyecto en la ruta habitual que sigue su niño para llegar a la escuela?
__Sí $\qquad$ NO
15. Recuerde con qué frecuencia su niño caminaba o iba en bicicleta a la escuela antes de que este proyecto se construyera. ¿ Diría usted que ahora su niño camina o va en bicicleta a la escuela:
d. Menos que antes de que se construyera este proyecto descrito arriba?
e. Lo mismo que antes de que se construyera el proyecto?
f. Más que antes de que se construyera el proyecto?
16. ¿Diría usted que el proyecto arriba descrito produjo los siguientes efectos?

Hizo más seguro para los niños el caminar o ir en bicicleta:
Hizo más fácil para los niños cruzar la calle:
Hizo bajar de velocidad al tráfico cerca del proyecto:

| $\begin{array}{r} \text { Sí } \\ \hline \text { Sí } \\ \hline \quad \text { Sí } \end{array}$ |
| :---: |
|  |  |
|  |  |

Hizo que los conductores notaran más a los niños que caminaban o iban en bicicleta:

| $\mathrm{SÍ}$ | NO |
| ---: | ---: |
| $\square \mathrm{SI}$ | $\quad \mathrm{NO}$ |

Separó a los que caminaban o a los ciclistas del tráfico de carros:
Si
NO
17. Pensando en los posibles proyectos de tráfico que se habrían podido construir cerca de la escuela de su niño, ¿diría usted que el proyecto de Rutas Seguras a la Escuela arriba descrito era:
a. El único proyecto de construcción más importante que se podría haber construido
b. Uno entre los pocos proyectos de construcción que se podría haber construido
c. Útil, pero no tan importante
d. Sin importancia

## QUESTIONS ABOUT HOW OFTEN YOU WALK

To help us understand how the Safe Routes to School program can make it easier for children to walk to school, we also need to know how much their parents or caregivers walk. Please answer the questions below about your own walking.
18. Why do you walk? Please write down the total number of walks that you took in the past week next to the reason you took that walk. Only include walks of at least 10 minutes. If you took a walk for more than one reason (for example, you stopped at the store while walking to work), please only count that next to your primary reason for taking that walk.
number of walks in past week
walking my dog (or other pet)
walking to a park, playground, or community pool
walking to a store or restaurant in my neighborhood
walking to a store or restaurant near my work
walking to my work
walking my child to school
walking to the bus (or bus stop)
walking for exercise around my neighborhood
just walking for leisure around my neighborhood
walking for other purposes (not listed above) $\qquad$
19. When you walked in the past week, how much of that walking was in the neighborhood where you live?
a. All of my walks in the past week were in the neighborhood where I live.
b. About three-quarters $(3 / 4)$ of my walks were in the neighborhood where I live.
c. About one-half $(1 / 2)$ of my walks were in the neighborhood where I live.
d. About one-quarter ( $1 / 4$ ) of my walks were in the neighborhood where I live.
e. None of my walks in the past week were in the neighborhood where I live.
f. I didn't have any walks in the past week.
20. On a typical day, about how much time do you spend walking, whether for leisure, exercise, or to get from one place to another?
a. Less than 10 minutes per day.
d. From 20 to 25 minutes per day.
b. From 10 to 15 minutes per day.
e. From 25 to 30 minutes per day.
c. From 15 to 20 minutes per day.
f. More than 30 minutes per day.

## BACKGROUND INFORMATION

These last few questions are just some general information about yourself and your family. Remember, all of this information is confidential.
21. a. How old is the child who brought home this survey?
b. What is the sex of the child who brought home this survey?

MALE
FEMALE
22. What grade is the child in who brought home this survey? $\qquad$
23. Which of the following categories best describes your marital status?

1. Living with someone (husband/wife or boyfriend/girlfriend)
2. Living alone (no husband/wife or boyfriend/girlfriend in the house)

## PREGUNTAS SOBRE CUÁN FRECUENTEMENTE CAMINA USTED

Para ayudarnos a comprender cómo puede el Programa de Rutas Seguras a la Escuela hacerles más fácil a los niños caminar a la escuela, necesitamos saber también con qué frecuencia caminan sus padres o las personas que los cuidan. Por favor conteste las siguientes preguntas sobre sus propios hábitos de caminar.
18. ¿ Porqué camina usted? Por favor escriba la cantidad de caminadas que usted hizo la semana pasada al lado del propósito por el que caminó. Solamente incluya las caminadas de por lo menos 10 minutos. Si hubo más de un propósito por el que caminó (por ejemplo, paró usted en el mercado en ruta a su trabajo), por favor, cuente solamente su propósito principal por el que caminó.

## Propósito

número de caminadas la semana pasada
Pasear al perro (u otro animal doméstico)
Caminar a un parque, campo de juegos o alberca comunal
Caminar a una tienda o restaurante de mi vecindad
Caminar a una tienda o restaurante cerca de mi trabajo
Caminar a mi trabajo
Caminar llevando mi niño a la escuela
Caminar al autobús/ ómnibus (o a la parada del autobús/ ómnibus)
Caminar por mi vecindad por hacer ejercicio
Caminar por mi vecindad solo por gusto
Caminar para otros propósitos (no indicado arriba)
19. Cuando usted caminó la semana pasada, ¿cuánto de ello lo hizo en la vecindad en que vive?
a. Todas mis caminadas de la semana pasada fueron en la vecindad en que vivo.
b. Cerca de tres cuartas ( $3 / 4$ ) partes de mis caminadas fueron en la vecindad en que vivo.
c. Cerca de la mitad ( $1 / 2$ ) de mis caminadas fueron en la vecindad en que vivo.
d. Cerca de una cuarta parte $(1 / 4)$ de mis caminadas fueron en la vecindad en que vivo.
e. Ninguna de mis caminadas de la semana pasada fueron en la vecindad en que vivo.
f. No hice ninguna caminada la semana pasada.
20. En un día típico, ¿cómo cuánto tiempo emplea usted caminando, ya sea por gusto, por hacer ejercicio o para llegar de un lugar a otro?
a. Menos de 10 minutos por día.
d. De 20 a 25 minutos por día.
b. De 10 a 15 minutos por día.
e. De 25 a 30 minutos por día.
c. De 15 a 20 minutos por día.
f. Más de 30 minutos por día.

## INFORMACIÓN HISTORIAL

Estas últimas preguntas son solamente de tipo general sobre usted y su familia. Recuerde que toda esta información es confidencial.
21. a. ¿Qué edad tiene el niño que le trajo esta encuesta?
b. ¿Cuál es el sexo del niño que le trajo esta encuesta?

MASCULINO
FEMENINO
22. ¿En qué grado está el niño que le trajo esta encuesta a la casa? $\qquad$
23. ¿Cuál de las siguientes situaciones describe mejor su estado matrimonial

1. Estoy viviendo con alguien (esposo/esposa o novio/novia)
2. Estoy viviendo solo/sola (no hay un esposo/esposa o novio/novia en la casa)
3. Please indicate how many people in your household are the following ages? (include yourself)

| $0-5$ yrs old | $6-11$ yrs old | $12-16$ yrs old | $17-60$ yrs old | Older than 60 |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |

25. How many people in your household have a driver's license?
26. On most days, how many cars are there in your household?
27. In the following table, please indicate the work status of all adults in the household, starting with yourself. Please indicate their relation to the child who brought this survey home (for example, father, older sister, aunt, grandfather, friend of the family)

| Relation | Currently work outside of the <br> home? |  | If working, average number of <br> hours worked per week |
| :--- | :--- | :--- | :--- |
| Example: Mother | YES | NO | 25 |
|  | YES | NO |  |
|  | YES | NO |  |
|  | YES | NO |  |
|  | YES | NO |  |

28. How long have you lived in this neighborhood?
a. less than 1 year
d. 11-20 years
b. 1-5 years
e. More than 20 years
c. 6-10 years
29. What country were you born in? $\qquad$
30a. How many years did you go to school?
30b. How many years did your spouse (if applicable) go to school? $\qquad$
30. How long have you lived in the United States?
a. less than 1 year
d. more than 10 years
b. 1-5 years
e. all my life
c. 6-10 years
31. What is your average annual household income?
a. less than $\$ 15,000$
d. $\$ 55,001-75,000$
b. $\$ 15,001-35,000$
e. more than $\$ 75,001$
c. $\$ 35,001-55,000$

## Please turn the page for the last question.

24. Por favor indique cuánta gente vive en la casa de las edades siguientes (inclúyase a usted)

| De las edades 0-5 | De las edades 6-11 | De las edades 12-16 | De las edades 17-60 | Mayor de $\mathbf{6 0}$ años |
| :--- | :--- | :--- | :--- | :--- |

25. ¿Cuántas personas de la familia tienen licencia de manejar?
26. ¿Cuántos autos hay en la casa casi todos los días? $\qquad$
27. En la tabla siguiente, por favor indique la situación de trabajo de todos los adultos en la familia, empezando con usted. Indique qué relación tienen con el niño que trajo esta encuesta a la casa (por ejemplo, padre, hermana mayor, tía, abuelo, amigo/a de la familia)

| Relación con el niño | ¿Trabaja presentemente fuera <br> de la casa? |  | Si está trabajando, promedio <br> de horas que trabaja a la <br> semana |
| :--- | :--- | :--- | :--- |
|  | SI | NO | 25 |
|  | SI | NO |  |
|  | SI | NO |  |
|  | SI | NO |  |
|  | SI | NO |  |

28. ¿Cuánto tiempo hace que vive en esta vecindad?
a. Menos de 1 año
d. Más de 10 años
b. 1-5 años
e. Toda mi vida
c. 6-10 años
29. ¿En qué país nació usted? $\qquad$
30a. ¿Cuántos años fue a la escuela? $\qquad$
30b. ¿Cuántos años fue a la escuela su esposola (si le es aplicable)? $\qquad$
30. ¿Cuánto tiempo ha vivido en los Estados Unidos?
a. Menos de 1 año
d. 11-20 años
b. 1-5 años
e. Más de 20 años
c. 6-10 años
31. ¿Cuál es el promedio de entradas anuales de su hogar?
a. menos de $\$ 15,000$
d. $\$ 55,001-75,000$
b. $\$ 15,001-35,000$
e. más de $\$ 75,001$
c. $\$ 35,001-55,000$

## Por favor vira la pagina para la pregunta final.

33. Your child's school is located at the star on this map. PLEASE PUT AN X IN THE SQUARE THAT CONTAINS YOUR HOUSE. Do not mark the exact location of your house if it happens to be on the map. If the street you live on is not on the map, please just write "house off map."


Thank you for your help today. Please give your completed survey to your child to return to school tomorrow. If you have any questions, please call the number listed on the letter that came with this survey.

## Have a nice day.

33. La escuela de su niño está ubicada donde aparece la estrella en este mapa. Ponga una $X$ en el cuadrado que contiene su casa. No marque el lugar exacto de su casa. Si la calle en donde vive no aparece en este mapa, por favor escriba "casa no está en el mapa."


Gracias por la ayuda que nos ha prestado hoy. Por favor dele la encuesta completada a su niño para que la devuelva a la escuela mañana. Si usted tiene alguna pregunta, por favor flame al número de teléfono que aparece en la carta que vino con esta encuesta.

Le deseamos que pase un buen día.


[^0]:    7. Aproximadamente, ¿qué lejos está su casa de la escuela elemental de su niño?
    a. Menos de $1 / 4$ de milla
    d. Más de 1 milla
    b. $1 / 4-1 / 2$ milla
    e. No lo sé
    c. 1/2-1 milla
