

# AN INTERCEPT SURVEY OF WALKING ALONG NEW LOTS AVENUE PRIOR TO A STREET LIGHTING IMPROVEMENT

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## ABSTRACT

In 1995, the NYC Department of Transportation sponsored research to determine whether lighting tailored to support considerations to which pedestrians are sensitive has the potential to influence pedestrian activity and attitudes during evening walks and perhaps increase use of city streets after sundown. East New York in Brooklyn was selected because the local population has a strong custom of street use and while safety is a local problem, the area is experiencing a revitalization. Three poorly lit yet often used sites were selected for low-cost, supplemental street lighting improvements. Would better lighting increase a sense of security and comfort and affect changes in pedestrian perception, attitude and activity? An intercept survey was developed to monitor longitudinal changes in these relationships with a controlled comparison six months before and after the lighting installation.

The intercept area encompassed the intervention sites that are located: 1) upon the front of a community center, neighborhood library and an historic church; 2) along the main street to link these civic uses with the IRT terminal and surrounding retail; and, 3) at two intersections under the elevated IRT to enhance access between residences and the main street. Baseline data were collected on three July evenings between 6 and 9 pm. This was conducted by interviewing the trip maker en route, which involved having walkers who were passing by respond to survey questions about aspects of their walk trip characteristics and activities as well as affective and person-related characteristics. Three hundred twenty-four usable surveys were collected, equivalent to 0.05% of the total population within 0.6 miles of the IRT terminal.

With the exception of children under 12, the number of male and female participants was nearly even, with about 2% more males agreeing to answer questions of the survey team. Almost a third of the participants did have a car available for their personal use and a third of this subgroup were women. Of the 11% who live alone, half as many were women, who also tend to live with children or an elder.

Women participants walk slightly less frequently, less far and less long. It appears that more than half who arrive at the site by public transportation and depart on foot are women. Women in particular indicated that they arrive by the IRT and will walk home if a transfer bus does not arrive and if the conditions are right for walking. Men are more likely to arrive and depart from the area on foot or by car or arrive on foot and depart by public transportation. Of the top three trip purposes, commuting (31%), shopping (19%), and hanging out or visiting with friends (13%) the distribution among women and men was equal. On the other hand, of the 12% who were conducting personal business, 15% more were men. Twice as many women were engaged in a civic activity; while a third more of the 9% who were strolling or playing in the street were men. Most participants, 49%, engaged in no other activities aside from the primary purpose of their walk; of the 48% who did one or two additional activities, 4% more were women many of whom were commuters. Although a small number of the total participants, men were almost twice as likely to conduct three or more secondary activities.

Women and men ranked five benefits of walking in the same descending order: exercise, cost savings, seeing a friend or acquaintance, being around others in public, and conserving the environment. Of five possible changes that would encourage participants to walk more in the evening: 23% of women and 21% of men stated that being able to see who is on the street after dark is the single most important factor. Beyond this factor female and male participants did not agree. Twelve percent of the women stated that shops open later in the evening would be the most compelling reason to walk more after dark, while 17% of men wanted more recreational and entertainment opportunities. Although the total remaining 15% of participants indicated that safe intersections and a good street appearance would be more important in encouraging evening walks, safer intersections ranked higher among women (7.74%), while 5.29% of the men were more concerned with better overall street appearance.

About 17% of both male and female participants are not comfortable walking alone after dark. Yet there appears to be a predictable link between gender and sense of comfort after dark. While 39% of all participants were comfortable walking alone, half as many were female. Of the 42% who prefer to walk with others, 15% more were female. More women indicate they never walk after dark. Tests for the equality of means show a t-value of 3.67. If a woman must go out after dark and would prefer to not walk, 15% indicated they would take a cab, 13% use public transportation and 11% will drive a car. Interestingly, almost twice as many men indicated they do not go out after dark if they must walk; however this tendency to not go out after dark significantly correlated with living alone, which is the choice of more men than women.

This study is an attempt to understand, or at least acknowledge, the role of multiple factors in affecting various changes in a small spatial area. Women and men appear to use and perceive this neighborhood activity center in different ways. The final analysis will help identify what changes in activity and attitudes occur in response to this specific street lighting design approach, and will provide an opportunity to explore whether changes in pedestrian travel behavior will be different among the men and women who use this neighborhood center.