

## Research on Evacuating Persons with Mobility Impairments: Questionnaire for Occupants with Mobility Impairments

### Purpose

*This questionnaire is being conducted by the National Institute of Standards and Technology (NIST), an agency of the U.S. Department of Commerce.*

*The efficient evacuation of people from fire in a high-rise building is a critical concern both for existing buildings and for the design of new buildings. It is particularly important to address the needs of people who have difficulties evacuating quickly during a fire emergency. Elevators may assist in solving this problem if their safety is trusted. The focus of this research is to gain an understanding of the knowledge, views, and experiences of people with mobility difficulties regarding fire evacuation using elevators. The outcome will be guidance to designers and building managers on aspects of fire evacuation that concern occupants with mobility impairments and on how to improve elevator design and usage during fire emergencies.*

*This questionnaire will ask you for basic information on your mobility with regard to evacuation, your previous evacuation experiences, and your preferences on how to evacuate during a fire emergency. At the end of the questionnaire, you will be asked whether you would be willing to discuss these issues in more detail in a one-on-one interview with a member of the research team.*

*Completing this questionnaire is voluntary, and you may choose not to answer any specific question. Your assistance will be greatly appreciated to help improve the safety of high-rise building occupants.*

### Background

- 1) How many floors are in the building you work in? \_\_\_\_
- 2) What floor do you work on? \_\_\_\_
- 3) How long have you worked in the building? \_\_\_\_ (years)
- 4) During a normal workday, how do you move vertically from the main floor to your workplace?
  - Stairs
  - Elevator
  - I work on the main/ground floor
- 5) Please tell us about your everyday mobility on stairs, inside or outside of the workplace. Without assistance from another person but with the use of any mobility aid you normally use (crutches, cane, etc.), how many stairs can you go up or down?  
(Please choose the appropriate response for each item)

	Yes, easily	Yes, but with some difficulty	Yes, but with great difficulty	Not at all
A few steps?				
One flight of stairs?				
2 to 3 flights of stairs?				
4 or more flights of stairs?				

(For this research, a flight of stairs is defined as the stairs that lead from one floor to the next, even if they are in two sets.)

6) Please indicate which of the following mobility aids you use daily in your workplace:

- Crutches
- Cane/walking stick
- Wheelchair
- Other Please specify \_\_\_\_\_
- None of the above

7) How long have you been using one or more mobility aids? (Please select one.)

- Days
- Weeks
- Months
- Years

8) Do you require assistance during fire evacuations? (Please select one.)

- Always
- Often
- Sometimes
- Never

### Demographic Information

9) What is your age? (Please select one.)

- 0-25
- 26-35
- 36-45
- 46-55
- 56+

10) Are you? Male \_\_\_ Female \_\_\_

### Fire Evacuation Experience - Within the Past Year

11) Has the fire alarm sounded in your building within the past year? Y/N/Can't recall

12) Was there any instance within the past year in which you:

(Please select all that apply)

- Relocated to a staging area to wait for help
- Relocated to a refuge area for the duration of the incident (i.e., formal area of refuge, horizontal exit, remaining inside the stairwell)
- Left your floor

13) Within the past year, have you had to leave your floor during a fire drill or a real fire emergency?  
Y/N/Don't recall

a) Think about the time or times you left your floor. How did you travel?

(Please mark all that apply)

- Stairs without assistance from another person
- Stairs with assistance
- Stairs using evacuation device (e.g., stair descent device, mechanical lift, evacuation chair)
- Elevator without assistance from another person
- Elevator with assistance
- Other Please describe \_\_\_\_\_

b) Were you able to select the method of evacuation? Y/N/Can't recall

c) Between how many floors did you have to travel?  
(For multiple evacuations, please mark all that apply)

- \_\_\_ 1 floor
- \_\_\_ 2 to 4 floors
- \_\_\_ 5 or more floors

### Fire Evacuation Training

14) Have you received some form of training on the building fire evacuation procedures within the last year? This can include fire drills. Y/N/Don't recall

### Fire Evacuation Preferences

15) What are your preferred methods for responding to a fire emergency in rank order (from 1=most satisfactory to 9=least satisfactory):

- \_\_\_ Using stairs without assistance from another person
- \_\_\_ Using stairs with assistance
- \_\_\_ Using stairs using evacuation chair
- \_\_\_ Using elevator without assistance from another person
- \_\_\_ Using elevator with assistance
- \_\_\_ Remaining on the same floor

\_\_\_ Other Please describe \_\_\_\_\_

**Request for Participation**

16) Would you be willing to participate in a face-to-face or phone interview about your emergency experiences in buildings? Y/N

a) If yes, please provide your contact information:

Name \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

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