

## **USABILITY OF PUBLIC TRANSIT BUS RAMP SLOPES FOR WHEELED MOBILITY DEVICE USERS**

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### **ABSTRACT**

Thirty-six wheeled mobility device users completed lab-based testing of an electromechanical access ramp commonly used in transit buses to evaluate the usability of six ramp deployment conditions. PWC users rated all conditions as easy to use, but found the most steep condition, when ramp segments measured 1:4.8 (Outside), 1:6 (Middle), and level with the bus floor (Inside) as neither acceptable nor unacceptable and neither safe nor unsafe to use. SC and MWC users shared similar ratings with each other across most conditions, except MWC users reported the steepest condition as very unacceptable and very unsafe for regular use. This research may help inform future design improvements and accessibility standards for ramps in public transportation vehicles, and may generalize to other vehicle types and ramps.