

Use characteristics and mode choice behavior of electric bike users in China

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Abstract

In 2005, 10 million electric bikes were produced in China. Strong domestic sales are projected for coming years, raising concerns about the sustainability and potential regulation of this fairly new mode. Policy makers are wrestling with developing policy on electric bikes with little information about who uses them, why they are used, and what factors influence electric bike travel. This paper probes these questions by surveying electric bike usage in two large Chinese cities, Kunming and Shanghai. Demographic comparisons are made between the different modes and cities as well as differences in travel patterns. Electric bike users are found to travel considerably more than bicycle users. Also, most electric bike users would travel by bus if electric bikes were unavailable. This suggests that electric bikes are less of a transitional mode between human-powered bikes and full-blown automobile ownership, and more an affordable, higher quality mobility option to public transport.

Keywords: Electric bike; Electric motorcycle; Mode choice; China; Shanghai; Kunming; Two-wheeled vehicle; Travel behavior; Sustainable transport; Non-motorized transport