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Anthropometric Study of Ecuadorian Higher Education Community

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Abstract: A methodical evaluation of the higher education community in Ecuador was carried out in order to detect anthropometric differences between it and the populations of the United States of America, Mexico, China (Hong Kong) and Spain. This paper provides valid information that would allow the designers in Ecuador to propose ergonomic solutions based on anthropometric measurements that are appropriate for the Ecuadorian population. Ten basic anthropometric dimensions were measured from 790 subjects. Statistical analysis was used to compare the Ecuadorian measurements with that of the other countries. A comparison of genders within Ecuador's population was also conducted. The findings indicated that gender differences exist in several anthropometric measurements and they should be considered for design. Results also suggested that most of Ecuador's body dimensions are significantly different from the populations of the other countries. Therefore, using these international anthropometric databases when designing for Ecuadorian users is ergonomically inappropriate and could cause a negative impact on the Ecuadorians' health and productivity.

Keywords: Anthropometry, Ergonomics, Ecuador