Public transit is an integral and important component of regional transportation systems. Currently many public transit agencies are under increasing pressure to operate more efficiently as the level of government funding reduces, or as a result of changing ownerships or regulations (Tsamboulas, 2006). This trend has stimulated much research interests to evaluate the performance of public transit systems. A glimpse of the literature reveals that existing research largely focuses on evaluating public transit agencies from management perspectives (De Borger et al., 2002; Triantis, 2004). Typically, the productivity of a public transit agency, as measured by its operating costs and revenues, is compared with productivities of similar agencies to determine the relative efficiency of the agency. Little attention has been given to the spatial aspects of a public transit system, such as the characteristics of local population, transportation network, employment and recreational destinations, and commuting patterns.

Significance of the Project
The most significant contribution of this project is to develop a new approach that leads to better and more meaningful evaluations of bus lines operated by a public transit agency. Our study comes across two research areas. The first is to use GIS for public transit planning. The second is to employ Data Envelopment Analysis (DEA) for performance evaluation.
Located equidistant between Los Angeles and the Palm Springs area, the university offers more than 70 traditional baccalaureate and master’s degree programs and a wide variety of education credential and certificate programs, including many that have earned national recognition.

Leonard Transportation Center:
Founded in 2006, the Center was created through a multi-year grant from the US Department of Transportation and matched with funding from the California Department of Transportation.

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