THE EFFECTS OF SHOPPING CENTER OWNERSHIP ON CENTER COMPOSITION IN PLANNED AND UNPLANNED SHOPPING CENTER HIERARCHIES

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ABSTRACT This paper undertakes an empirical examination of the internal composition of planned and unplanned shopping centers in planned and unplanned shopping center hierarchies. In both hierarchies, in comparison to planned centers, unplanned centers are found to have more replication of stores of types for which replication would represent excess capacity and fewer stores of types for which replication would reduce consumer search costs. It is also expected that constraints on entry in the planned hierarchy will result in higher turnover rates in a less regulated non-hierarchical sector of retailing and that planned and unplanned centers within the planned hierarchy will have similar turnover rates. These hypotheses are also confirmed by empirical tests.

1. INTRODUCTION
In recent years, regional scientists have extended the theoretical analysis of consumer shopping behavior and its implications for the size and locations of central places (i.e., shopping centers). Eaton and Lipsey (1982) showed that a hierarchy of central places could be derived in a model that allows for multipurpose shopping on the part of consumers and for profit maximizing locational choice on the part of firms. Some subsequent studies focused on building models of multipurpose shopping behavior in order to derive results on the rate of multipurpose shopping (e.g., Mulligan 1983, 1987; Ghosh and McLafferty 1984) and on its impact on the size of central places (e.g., Mulligan 1984; O'Kelly 1983a, 1983b). Other studies considered the locational choice of retail firms in a model that incorporates multipurpose shopping (e.g., McLafferty and Ghosh 1986, 1987; Ingene and Ghosh 1990). Thill and Thomas (1987) review much of this literature.

In those central place studies that allow for locational choice by firms, it is usually assumed that independent firms are free to choose their profit maximizing locations. This can result in the formation of "unplanned shopping centers" (i.e., centers created by the unrestricted clustering of stores). Eaton and Lipsey (1982) argued that these unplanned centers are like common property or open access resources (Gordon 1954), in that there are no restrictions

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on entry, while there are incentives for excessive, rent dissipating entry. Eaton and Lipsey further suggested that this could lead to the creation of "planned shopping centers," each of which is under the control of a single owner that enforces restrictions on entry into the center. As a result, rents are not dissipated through the creation of excess capacity (see also Ghosh 1986, pp. 93–94, for a similar observation).

It is important to consider that not all replications of stores of a given type in a shopping center (e.g., clothing or shoe stores) would represent excess capacity. To the extent that consumers carry out comparison shopping for certain types of goods, clustering of stores selling similar goods can reduce shopping costs for them. However, Stahl (1982a) has shown that even in this case, in the absence of controlled entry by a shopping center developer, all N firms selling a differentiated good will form a shopping center by locating in one marketplace. Stahl (1982b) suggested that the inefficiency of all firms locating in a single unplanned marketplace could give a developer an incentive to facilitate the decentralization of the location of stores into planned centers.

There are thus two reasons for the formation of planned shopping centers that are tied to the possibility of an inefficient tenant mix in unplanned centers. In the literature on central places, comparison and multipurpose shopping behavior have not yet been formally incorporated in the same model with locational choice by firms. Nevertheless, West et al. (1985) went ahead and performed a test for the differences between planned and unplanned shopping centers that one would expect from an empirical application of Eaton and Lipsey's (1982) central place theory, and from consideration of the differing attractiveness of planned and unplanned centers for stores catering to comparison shoppers. It was found that regional planned shopping centers in Edmonton, Alberta as compared to regional unplanned centers had significantly fewer stores of types for which replication would represent excess capacity, and far more stores of types for which replication would reduce consumer search costs and increase sales and profits. The implications of sole ownership suggested by Eaton and Lipsey were thus confirmed.

In the Edmonton cases studied by West et al. (1985), shopping center developers were free to construct new centers, redevelop old centers, and choose their tenants. The opening of new planned shopping centers could cause substantial declines in the sales and profits of stores in older (unplanned) shopping centers, resulting in the closure of stores and shift of the center out of retailing. Given the excess capacity and rent dissipation associated with unplanned centers, the substitution of planned for unplanned shopping centers should result in an increase in aggregate retail profits and might represent an efficiency gain as well.

In this paper, planned and unplanned shopping centers are once again empirically studied, but now using data from two different shopping center hierarchies. One of the hierarchies is in Edmonton and is "market-determined," in the sense of being the product of market forces constrained by zoning. The other hierarchy is in Canberra, Australia and is the direct and intended result of urban planning. Both of these hierarchies have some shopping centers that are controlled by single owners and some that are not. Therefore, the same