

RESIDENTIAL DEVELOPMENT AND BUSINESS LOCATION  
RAPPORTEUR'S SUMMARY

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Papers Presented

The following papers were presented in the session titled "Residential Development and Business Location."

"Decision Agent Models of the Residential Development Process--A Review of Recent Research," by Edward J. Kaiser and Shirley F. Weiss, Center for Urban and Regional Studies, University of North Carolina.

"Environmental Aspects of Municipal Policy Outputs: Planning and Growth-Related Policies," by Raymond J. Burby, III, Center for Urban and Regional Studies, University of North Carolina.

"Flight to the Fringes: An Empirical Study of Office Decentralization in Atlanta, Georgia," by Fred A. Tarpley, Jr., Lawrence S. Davidson, and David D. Clark, School of Industrial Management, Georgia Institute of Technology.

Discussion

Following the presentation of the three papers, Professor Joel Smith, of Duke University, began the discussion with comments directed to the Kaiser-Weiss paper. Professor Smith questioned the use of discriminant analysis as a predictive tool, noting that it tends to be too deterministic. The predictions which resulted from the use of discriminant analysis were also questioned as to whether the lower predictions were in fact worth the effort expended to obtain them given the fact that one might expect to "predict" 50 percent correct with no prior knowledge.

Professor Smith also noted that the univariate analysis which preceded the discriminant analysis had no obvious purpose since the discriminant analysis tested each variable for significance prior to its inclusion in the classification process. It was also noted that the distribution of the sample among the various categories of the dependent variable should be known in order to evaluate the results of the discriminant analysis.

Professor Kaiser's comments on the role of accessibility -- i.e. perhaps it has been weighted too heavily in past modeling efforts--were responded to by Smith, who noted that a sound case for excluding accessibility is yet to be made. It is possible, Smith noted, that accessibility is less important in Greensboro than in larger cities, such as Chicago. The importance of accessibility may vary with city size.

Professor Cleon Harrell, of North Carolina State University at Raleigh, added comments on the Kaiser-Weiss paper. He questioned whether the poorer predictions in the outer ring of the Greensboro urban area might be caused by the influence of other urban areas. Mr. Harrell also directed comments to the question of accessibility. He noted that the suggested tradeoff of accessibility for amenity by the consumer might in fact be justified.

Comments from the floor included questions on the role of the price of land

and the size of the parcel. Also questioned was the conclusions to be drawn from the superimposition of actual subdivision location over a computer drawn map of predicted subdivision location.

Concerning the Burby paper, Professor Smith questioned the use made of factor analysis. This technique could have been carried further, he noted. Professor Smith also questioned the concentration of the sample in the Southeast, and the implications of this concentration on the general applicability of the conclusions. He further noted that the influence of city size may have been underplayed.

On the relationship between the Kaiser-Weiss and Burby papers Smith noted that their directions seemed to lack a common end. Burby's conclusions seem to indicate that if a predictive model with potential for use as a planning tool for anticipating and influencing the shape of urban development was constructed, it would likely not be used.

In a brief rebuttal Burby indicated that he had included California in the sample as a control on the remainder of the sample which was located in the Southeast.

Professor Harrell directed comments to the Tarpley-Davidson-Clark paper. He noted that this paper presented an interesting new application of electronic data processing equipment. Decentralization of retail is occurring and is not understood. Therefore, the addition of new research aimed at contributing to the understanding of the decentralization phenomena is an important addition to location theory. However, the measures of economic activity are open to question. In fact, it is not known what measures, whether floor ratios or some other, are best.