

Nontransportation Uses of the Urban Transportation Planning Package

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The use of the Urban Transportation Planning Package (UTPP) in the New York metropolitan area from the perspective of the New York Metropolitan Transportation Council (NYMTC) is described in this paper. The council has been designated by the governor of New York as the metropolitan planning organization (MPO) for the southern 10 counties of the state. The focus here is on the nontransportation uses to which the package has been or is being put.

INTRODUCTION

The uniqueness of place-of-work information is its availability at the small-area geographic level and in combination with other socioeconomic characteristics. The sole publicly available source of these data is the UTPP. Although the principal users of the UTPP have been those MPOs that purchased it, the nontransportation sector is learning about the package and is beginning to use the data. That the UTPP has acquired many users is an added tribute to its broad appeal to a data-hungry community among both the public and the private sectors.

Five UTPPs were purchased at the census-tract level in the New York metropolitan area. The council purchased the package for the New York, N.Y.-N.J., Standard Metropolitan Statistical Area (SMSA); the Nassau-Suffolk, N.Y., SMSA; and the Poughkeepsie, N.Y., SMSA. The New Jersey and Connecticut Departments of Transportation purchased statewide UTPPs. The three agencies then exchanged the files. The council has provided copies of the files or tabulations therefrom to numerous governmental agencies and to requesters from the private sector. The uses of small-area place-of-work data for land use planning, social service and economic development planning, and local public decision making are described.

LAND USE PLANNING

A land use inventory was conducted for the New York metropolitan area in 1963. It was updated in 1970 through the use of aerial photography (for nonresidential uses) and the 1970 Census of Housing. Forecasts were then made for incremental future years beginning with 1980. The inventory and forecasts arrayed land use at the square-mile level. This 1980 land use forecast envisioned a growing metropolitan area, which has not been the case. In fact, the area actually lost population and showed no employment growth.

Before the arrival of the UTPP, it was necessary to revise the 1980 land use inventory in the metropolitan area. The residential land use inventory was updated by applying the ratio of housing units from the 1980 and 1970 censuses to the 1970 residential land use. Because the UTPP was not available, employment information from two other data sources was used to update the nonresidential land use. In New York City, private employment data were

obtained from Dun and Bradstreet, and governmental employment figures were available from the U.S. Bureau of Labor Statistics. Historical rates of nonresidential land use per employee were applied to the 1980 employment to obtain the revised 1980 nonresidential land use values.

Outside New York City the departments of labor for the states of Connecticut, New Jersey, and New York supplied 1980 employment at the Minor-Civil-Division (MCD) level. The ratio of 1980 to 1979 MCD employment was applied to the 1970 nonresidential land use at the square-mile level to derive the revised 1980 nonresidential values.

Admittedly, this methodology is less sophisticated than ideal. As a consequence the five UTPP files are being accessed to develop a file of worksites for each square mile. Historical comparisons from the special 1970 Worker File, which was developed from the 1970 census for the Tri-State Regional Planning Commission, are available and will be used to assess the validity of the revised 1980 nonresidential land use inventory. Adjustments are anticipated once this comparison has been completed. These adjustments will be carried forward to the existing land use forecasts for future years. The key ingredient will be the use of small-area worksites from the UTPP.

SOCIAL SERVICES AND ECONOMIC DEVELOPMENT PLANNING

Various uses have already been made of worksite information by the public health sector. The county health departments on Long Island are responsible for developing strict environmental regulations. It is known that such new regulations will have an impact on future growth in Nassau and Suffolk counties. The UTPP has been used to obtain the number of jobs in major employment centers. These employment centers are individual villages and unincorporated places. Employment statistics are not readily available except from the UTPP where tract-level worksites have been accumulated to form the base-year (1980) employment. Knowing the anticipated future number of jobs in each major employment center, the two health departments have been able to ascertain the number of jobs that will be affected by the stricter environmental regulations. The county commerce and industry and planning boards will now be able to propose alternative economic development schemes so as not to adversely affect the local economies.

An additional use of UTPP data in the health field involved a study of the dual health insurance coverage of interstate commuters. Information from the UTPP was provided to quantify the major concentrations of New Jersey and Connecticut residents working in New York City and New York State. The study is being carried out to reduce the medical costs for multiworker households, which may have dual insurance coverage.

Several uses of the UTPP have been made in economic development planning by the public sector. The two suburban counties on Long Island--Nassau and Suffolk--make up their own Primary Metropolitan Statistical Area. Having a population in excess of 2.6 million, the two counties have a large employment base in excess of 1 million jobs. The Long Island Regional Planning Commission is responsible for developing plans to keep Long Island's economy prosperous, which translates into ensuring that all current major employers remain there. These major employers require the availability of supporting services from smaller industries. The small-area worksite information from the UTPP has been incorporated into the economic series of data that the commission maintains. Besides the number of workers, the economic data include information on industries by type, occupations by category, and worker income levels, all from the UTPP at the tract level. This information has been supplemented with statistics on real property taxes, union contract pay scales, and so forth for use in maintaining existing firms and attracting new ones.

In recent years the major public utility company on Long Island prepared an economic statistical summary by small area. The Long Island Regional Planning Commission has taken over the publication of this annual report. Because the summary is prepared by small area of economic concentration, information from the UTPP is being incorporated into it. The place-of-work data from the 1980 census are being used to update the information, particularly that on office buildings and shopping centers. This statistical summary has been used extensively in the past by decision makers in both the private and public sectors and will continue to be so used. In addition, both county governments anticipate using the statistical summary to pinpoint specific industries that they desire to attract in the future.

Local governments are continually called on to locate a variety of services in proximity to the people requiring those services. This is relatively easy at the residence end, and services to minorities, the disadvantaged, and the infirm can be planned using the regular Summary Tape Files from the census. However, when services are to be delivered to those at work, small-area geographic detail of the worksite is needed. A situation of this type arose in New York City. A city agency had previously acquired tract-level worksites from the council for 1970 and used the information to plan expanded services during normal working hours at major employment concentrations throughout New York City. Such services were in addition to its residentially oriented ones. One of the council's first requests for the 1980 UTPP was from this same agency because it wished to update its plans based on the latest tract-level employment concentrations.

In a similar vein, the private sector also is using the UTPP in the New York area to provide services at the worksite. One of the leading national banking institutions approached the council for selected block- and tract-level worksite information for the Borough of Manhattan. (Manhattan is one of the five boroughs of New York City. A borough is synonymous with a county. In 1980 Manhattan was the residence of 1,428,300 persons and the location of 2,396,500 jobs.) The bank wished to reassess its current branch locations and to study the potential for relocation or expansion to other locations in Manhattan. Following the successful completion of its study, the bank returned to the council and asked for similar worksite information for the remaining four boroughs in New York City and for four suburban New York counties. The small-area detail of worksites is permitting an analysis of economic factors that heretofore were unattainable from a direct source and that had to be deduced from secondary and tertiary sources. The result will be services that are more conveniently located for persons at their places of work, thus minimizing the disutility of travel and making for a more efficient delivery of services.

A further direct use of the UTPP data was for information to develop an emergency evacuation plan for a nuclear power plant. The package was able to provide information on travel time to work and vehicular availability near the facility. In this case, the strength of the UTPP was its availability and ease with which the data could be extracted and provided to the requester.

INPUT TO DECISION MAKERS

The UTPP is currently providing input to decision makers in the public sector. Locally, this input is other than that which goes into the development of the various Transportation Improvement Programs (TIPs), the 5-year capital program of the Metropolitan Transportation Authority, and other transportation capital plans and programs within the metropolitan area. Three organizations are making use of the UTPP in attempting to guide the economic development of the area.

The Long Island Regional Planning Commission has prepared reports containing in-depth analyses of industrial locations, commercial developments, and labor force and jobs. These three reports have been supplemented with an analysis of employment and labor force linkages from the UTPP. Of particular significance is the interaction between the two Long Island suburban counties and New York City. The purpose of the commission's work is to establish capital funding priorities for public officials.

There is a strong economic link between Long Island residents and New York City worksites. Although only one-quarter of Long Island's resident workers commute to New York City jobs, their earnings constitute a disproportionate share of the earnings of Long Island residents. These commuters represent a high proportion of the executives and administrators from Nassau and Suffolk. Thus, the vitality of New York City's economy is of prime concern to Long Island because of the significant amount of income that is returned to the island. In contrast, the reverse commuters--those living in New York City and working on Long Island--have significantly lower incomes because most are operatives, laborers, and service workers.

These statistics from the UTPP have definite policy implications. Although Long Island has become more economically self-sufficient over the last decade, its relationship with New York City remains--and will continue to remain--critical as an important source of income. Long Island's own economy continues to grow; jobs are expanding faster than population is growing. The island could exhaust its resident labor force in certain occupational categories, and its continued economic development will be dependent on attracting a greater number of reverse commuters from New York City. The findings from the UTPP indicate that this has already happened in the manufacturing sector. Thus, political leaders on Long Island are being faced with policy questions regarding the maintenance of economic linkages with New York City, both to retain the domicile of its executives and administrators and to expand its source of workers for its growing number of jobs. The UTPP has been able to quantify these policy implications both economically and geographically at 32 major employment centers on the island.

In a similar way, the Port Authority of New York and New Jersey (PANYNJ) is looking at economic linkages in the metropolitan area using the UTPP. PANYNJ is a bistate agency charged with operating port, aviation, and some local transportation facilities and maintaining the economic prosperity of the metropolitan area. Because Manhattan is the center of many world markets, PANYNJ has been studying Manhattan workers and the difference in their economic characteristics versus those of non-Manhattan workers. In order to have available the most recent statistics, PANYNJ selected portions of the UTPP through NYMTC and had the council process certain tables from the package as well.

The importance of suburbanites to the New York City economy is widely recognized. The prominence of the city as the world's financial center could not have taken place without the availability of the suburban labor force, both the eastern (Long Island, Westchester County, and Connecticut) and the western (New Jersey) components. Conversely, without Manhattan the affluent suburbs could not have developed as they have because there is an insufficient number of managerial, administrative, and professional jobs outside of Manhattan. PANYNJ is most interested in further understanding this phenomenon because its trans-Hudson River facilities have reached capacity. As a result of the economic recovery that began in Manhattan in 1977, commuters into the city are getting a larger-than-average share of the new jobs. Thus, the suburbs are participating more fully in the economic recovery of the city than expected. The impact of this inequality in prosperity has yet to be fully experienced. PANYNJ is developing proposals and plans for retraining city residents so that they may share more fully in the changing economy. These proposals and plans will be advanced on several levels: the city, the state, and the private sector.

The New York City Department of Planning is developing economic profiles for small areas throughout the city. These areas are combinations of census tracts and subdivide the city into 16 units of major and minor economic activity. Part III of the UTPP is being used to determine the levels of nonresidential concentration (measured in terms of trips to worksites) and modes of accessibility. The profiles will assist the city in several ways: in plans for rezoning, in attracting new workers to economic areas that have the capacity for growth, and in providing various city services at the worksite.

The states of New Jersey and New York have authorized the establishment of a bank for economic development. The plan is to direct surplus revenues from PANYNJ into a fund for maintaining, improving, and revitalizing the infrastructure of the metropolitan area. Information from the UTPP will become an ingredient in establishing a worksite data base to ensure the solvency of this venture.

In a similar concern for economic development, free trade zones have been established in the New York and New Jersey portions of the metropolitan area. The concept is to bring goods into the zones, add value to the goods, and then send them out without the imposition of a duty. Although two zones are in existence, there is as yet little economic activity in them. However, information from the UTPP is available at PANYNJ for use by entrepreneurs in acquiring the necessary skilled labor and services.

CONCLUSION

The preceding discussion gives only a sample of the nontransportation uses to which the UTPP is being applied. The UTPP is a readily available data source and as such is often preferred over other sources. For example, the New York State Legislative Task Force approached the council for a source of information regarding employment in, and commutation patterns to, the city of Yonkers, home to 195,400 residents. The state legislature was voting on a fiscal plan for Yonkers the next day and asked its task force for information. The council was able to provide the necessary statistics. Although Summary Tape File 4 could have provided residence information, worksite information is nearly nonexistent for Yonkers. The UTPP data are far superior to the limited worksite information in STF 4.

Public agencies that have used UTPP information from the council are as follows (as of November 15, 1984):

- Federal Reserve Bank of New York
- Long Island Regional Planning Commission
- New York City Department of Environmental Protection
- New York City Office of Economic Development
- New York City Office of Management and Budget
- New York State Department of Commerce
- New York State Department of Labor
- New York State Housing Finance Agency
- New York State Legislative Task Force
- New York State Tax Office
- New York State Urban Development Corporation
- U.S. Bureau of Labor Statistics

The private sector has used the UTPP to an even greater extent. (This is the subject of the following paper in this report). A list of those private-sector firms that have been served by the council (as of November 15, 1984) is as follows:

Anheuser-Busch, Inc.
 Baruch College
 Bergen Record
 Blue Cross-Blue Shield of Greater New York
 Brooklyn Union Gas Company
 CBS Television
 Center for Community Development and Preservation
 Chemical Bank
 CITIBANK
 Greater New York Hospital Association
 Liberty Mutual Insurance
 Long Island Lighting Company
 Manufacturers Hanover Trust Company
 Marine Midland Bank
 Market Statistics, Incorporated
 Massachusetts Institute of Technology
 National Resources Defense Council
 New York Telephone Company
 New York University
 Newsday
 NYNEX Mobile Communications Company
 Regional Plan Association
 RELOCOM
 Rensselaer Polytechnic Institute
 Stevens Institute of Technology
 Syracuse University
 J. Walter Thompson Advertising Company
 University of Bridgeport
 Westchester Federal Savings
 Winston Network (library for advertising industry)
 WNBC Radio

It should be noted that none of the preceding companies is involved in transportation planning. Consulting firms, many, but not all, of which obtained the information for projects related to transportation planning, that have acquired UTPP statistics as of November 15, 1984, are as follows:

Barton Aschman Associates
 Boone Young Associates
 Charles River Associates
 Claritas Corporation
 Fred Clark Associates
 Dillon-Reid (law firm)
 DMJM Architects and Engineers
 Edwards and Kelcey, Inc.
 Financial Marketing Group
 KLD Associates
 Marketing International
 Miller-Kafes Associates
 National Economic Research Associates
 Parson, Brinckerhoff, Quade and Douglas
 RBA Group
 Scott, Fitton Associates
 Storch Associates
 Systems Design Concepts, Inc.
 Urbitran Associates
 URS Madigan Praeger
 Vollmer Associates