Transportation decisions

The New York Metropolitan Region faces two basic transportation decisions:

1. Shall the commuter service of the New Haven Railroad and other financially failing railroads be maintained? If so, should it be maintained by continuous public subsidy of the present operations, with mounting costs and deteriorating service, or should the public move to cut costs and improve service?

2. Shall the Tri-State Transportation Committee, now beginning a study of the transportation system needed by the Region over the next generation, recommend a system that fits the kind of Region we will consciously choose or the kind of Region we are building without regional planning?

The ride to work

Every one of the eight railroads operating commuter service into Manhattan or to ferries connecting to Manhattan is losing money on it. In fact, no suburban service in the Region is earning its operating expenses even without payments on debt service. The problem is most severe for New Jersey commuter railroads where only 60 per cent of operating expenses were covered by revenue in 1959 and severe losses have continued throughout the 1950's and into the 60's.

Why a crisis now?

When first developed, the suburban service earned enough to defray some overhead of the railroads. Recently, commuter service has been a drain.

Losses occur despite full trains on most rush-hour runs and despite the efficiency of rails for moving large numbers of people because much of the railroads' facilities and personnel are used only a short time each week. The New York Central and Jersey Central, for example, estimate that well over half of the paid time of commuter-train crews is spent unproductively—primarily between the morning and evening peaks.

Since trains and crews are available off-peak, every non-rush-hour rider represents almost pure profit. On the other hand, significant losses in peak-hour riders would be likely to lower costs at least as much as revenue. However, it is the off-peak business that is dropping while peak passenger loads are scarcely diminishing at all. Between 1956 and 1960, for example, the New York Central and New Haven passengers entering Grand Central Station from 8 to 9 a.m. did not decrease, but the number entering the other 23 hours dropped 8,000, 16 per cent. The number entering Pennsylvania Station on the Long Island Rail Road between 8 and 9 a.m. increased by 2,000 (6 per cent), while those entering in the other 23 hours dropped 5,000, nearly 10 per cent. (Because of the opening of the third tube of the Lincoln Tunnel and the demise of the West Shore branch of the New York Central, persons travelling to the central business district of Manhattan by rail from New Jersey (some completing their trip by ferry) dropped between 8 and 9 a.m. as well as off-peak. But the rush-hour drop was less than the off-peak passenger loss.)

This growing financial loss on the commuter runs has been met out of other railroad revenues, a subsidy of the commuter by railroad investors and a serious burden on the ability of railroads to compete with other carriers for different kinds of business. Suburban service has been maintained only because state public service commissions required the railroads to continue it, but the commissions have allowed many suburban runs in this and other metropolitan areas to be abandoned.

The financial crisis has come now not simply because commuter losses are growing but rather because profits from other railroad activities are dropping. In 1959, only one of the railroads operating commuter service in the Region earned any money over-all as freight revenue dropped sharply. Now, the financially weaker railroads, such as the
New Haven and the New Jersey railroads other than the Pennsylvania, are bankrupt or threatened with bankruptcy.

**Why not raise commuter fares?**

Can't commuters to the wealthiest city in the country pay their own way?

To cover both operating and capital charges (for past investment) and to make up for a loss of riders certain to occur when fares are raised, commuter fares would have to be increased by about these percentages to cover suburban line costs:

- **Long Island:** 33%
- **Westchester-Fairfield:** 60%
- **New Jersey:** 195%

(Percentages are based on 1959 data.) Since off-peak riders decrease sharply with fare increases and every extra off-peak rider is profitable, it would not be economical to increase the non-commuter fares except during rush hours.

Many riders could afford these increases, but many others, who chose a home or a job on the basis of today's commuter costs, would be hit hard. Those now using the highways would suffer, too, because many rail riders would be persuaded by the fare rise to switch to their automobiles. In some areas, rail service would be curtailed and even more riders would switch to their cars.

Where rail service is able to continue at much higher fares and with declining service, public service commissions probably would not allow buses to run in competition with them, so those resisting the fare rise would have to drive to work or move.

Furthermore, even if revenues were raised to match today's costs, they would not keep up with rises in costs which are inevitable without large-scale capital investment. Deteriorating equipment and the inevitable increase of wages in an operation that is not geared to increasing productivity make cost rises certain.

In sum, if commuter fares were raised enough to allow suburban railroad service to break even, lives would be disrupted and road traffic disorganized as rail service and patronage slowly declined toward total elimination.

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**Paul Revere Could Only Make It at Midnight**

- Jenney

**Is there no substitute for commuter railroads?**

Between 8 and 9 a.m. of a typical business day in 1960, about 91,000 persons entered the central business district of Manhattan (south of 60th Street) by railroad or by ferry at the end of a railroad trip. This is nearly one person of every nine entering the district during the hour. (The Hudson and Manhattan Tubes, a rail transit system which the Port of New York Authority has agreed to modernize and subsidize, brings in an additional 23,000 between 8 and 9 a.m.) Between 7 and 10 a.m., 143,000 arrived by suburban railroad, about one-eleventh of the total arrivals. In addition, many suburban commuters entered Brooklyn by railroad and continued into Manhattan by subway.

In the peak hour, many more persons arrived in the central business district by railroad than by automobile. (By far the majority of those arriving in the central business district throughout the day come by subway.)

By automobile? If those arriving by commuter railroad were to come by automobile with the
same number of riders as now use each automobile entering the district during the peak hour (1.8), the number of vehicles (cars, trucks, and buses) now arriving in that hour would double—from 50,500 to about 101,000. Even if we assume that all present rail riders will car pool with two others—an unlikely assumption, the number of motor vehicles would increase by 60 per cent. Since there is absolutely no road capacity left approaching the central business district, the road network would have to be doubled or nearly doubled or everyone would be delayed. When more automobiles try to use a highway that is already used to design capacity, the number of cars passing a point in an hour decreases.

By bus? If buses carried the displaced rail riders, with the same load as peak-hour buses now have, we would need 2,000 buses in addition to the 1,100 now arriving during that hour—and in addition, of course, to the automobiles and trucks.

Economically, it would be folly to build new lanes for buses just to replace suburban railroad service, duplicating the investment in costly rights-of-way and rails already in place. The fact that most bus services in the Region are breaking even or making money while the railroads are not does not mean that buses inherently carry passengers at less cost than railroads. It is partially a reflection of their higher off-peak business due (1) to some greater cost flexibility than the railroads have in carrying small loads (which modern rail equipment may equal), (2) much more convenient bus access to Manhattan from New Jersey (most New Jersey rail riders must come by ferry the last leg of the trip but bus riders come directly into the City), and (3) the fact that trains bear the main rush-hour load. If the railroads' peak loads were shifted to buses, they might have the same economic problems as the railroads now do.

Assigning highway lanes exclusively to buses during rush hours might handle the peak-hour riders but at considerable disruption for those who have special reasons to drive their automobiles into the central business district. For example, there are now 3,300 vehicles coming through the Holland and Lincoln Tunnels between 8 and 9 a.m. If all railroad and ferry riders from New Jersey to the central business district (excluding H&M riders) switched to buses at today's average rush-hour busloads, and if the buses were evenly dispersed through the Holland and Lincoln Tunnels, they would use the space needed by 1,200 automobiles, displacing more than one-third of the automobile riders. Similarly, if the Long Island Rail Road passengers were carried on buses and the buses were given priority over automobiles on the Queensborough Bridge and in the Midtown Tunnel, nearly one-third of the automobiles now crossing between 8 and 9 a.m. would be displaced. There is no system to assure that those absolutely needing to come by automobile would get priority.

Furthermore, there is no terminal space for buses arriving downtown from New Jersey or midtown from Queens.

Finally, commuters probably prefer trains to buses for long rides, and commuting distances to Manhattan probably will continue to rise.

Persons Arriving Manhattan’s Central Business District by Suburban R.R. and Subway by all Public Transport

<table>
<thead>
<tr>
<th>Time</th>
<th>Suburban R.R. %</th>
<th>Subway R.R. %</th>
<th>by all Public Transport %</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 to 9 a.m.</td>
<td>11%</td>
<td>82%</td>
<td>90%</td>
</tr>
<tr>
<td>7-8 and 9-10 a.m.</td>
<td>75%</td>
<td>74%</td>
<td>82%</td>
</tr>
<tr>
<td>10-7 a.m.</td>
<td>3</td>
<td>49%</td>
<td>58%</td>
</tr>
</tbody>
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Why not raise rush-hour tolls?

By adjusting tolls on entries to the central business district, we would use the price mechanism to assure that those who really need to drive would be able to enter without delay, and we could raise the price of driving during peak hours closer to its actual cost. At the same time, we would encourage drivers to use public transportation without forcing them to. There might be physical problems: establishing toll gates on some entries to Manhattan where space is not readily available and where delays attendant on paying the toll would interfere with traffic flow. And there would be political difficulty because higher tolls could leave some public agencies with tremendous profits. But those difficulties are not insurmountable and the proposal should be studied. Note, however, that it would supplement improved public transportation, not replace it.
Wouldn't staggered working hours solve the problem?

Even small amounts of staggering—starting and ending work 15-30 minutes before or after the usual hour—would greatly assist the commuter railroads by allowing some personnel and equipment to make two rush-hour runs instead of one. The potential for planned shifts in working time are indicated by the recent study of the Downtown-Lower Manhattan Association which showed that nearly half of all those working downtown leave the area in one fifteen-minute period. However, we probably should not expect more than small shifts of working hours because the purpose of jamming people into Manhattan every day is to allow them to work together. In fact, even small shifts in working hours seem difficult to achieve. Several public, business and research organizations have been trying unsuccessfully for years to stagger Manhattan working hours.

The goal is worthwhile and studies are continuing, including major research sponsored by the City of New York and partly financed by the Rockefeller Brothers Fund. But even if limited staggering were achieved, it would neither make suburban railroad profitable nor clear the highways sufficiently to eliminate the need for railroads entirely. In fact, motor vehicles enter the central business district at almost the same rate in secondary rush hours (7-8 a.m. and 9-10 a.m.) as in the peak 8-9 a.m. hour.

Why doesn't the price system apply?

We usually assume that the price mechanism will provide us with a choice of services and accurate price tags for each. We expect public subsidy for a service only in unusual situations. Some people argue that if people choose automobile travel, highways and parking lots should be provided for them. They see the gradual increase in the number of persons travelling to work by car as a vote for more highways and against government assistance to public transportation. Because gasoline and license taxes are high and toll stations seem ubiquitous, they believe that highway users pay fully for automobile facilities.

There are three fallacies in this argument as it applies to the New York Region.

1. The rush-hour automobile rider on urban highways and streets is heavily subsidized, according to studies by Professor William Vickrey of the Columbia University economics department (see, for example, hearings before the Joint Committee on Washington Metropolitan Problems, November 11, 1959, p. 468) and the 1959 National Capital Transportation Study.

They have taken into consideration the economic cost of the land, the lower-than-commercial debt service on highway facilities due to tax-free bonds, the extra cost of the highway to build it to journey-to-work capacity, the portion of the cost of urban expressways which is paid by users of non-urban highways, and the portion not paid by highway-user funds at all (all highway costs are not borne by highway-user fees and tolls in all states).
They find that the subsidy to rush-hour motorists on typical urban expressways and streets is about 10¢ a mile per automobile. The person driving 25 miles to work during rush hours in a metropolitan area is subsidized about $5 a day (or perhaps 50¢ or $1 less if he passes toll gates). The New Haven Railroad commuter of 25 miles each way is subsidized only about 40¢ a day including a subway trip at the end.

If railroad and subway riders received the same subsidy as automobile commuters, the government would have to pay each rider handsomely to step onto the train.

Further, the highway cost figures do not include the non-monetary social costs of highway-building—dislocation when homes and businesses are torn down for rights-of-way, air pollution, noise, the broad destruction of vistas and countryside by expressways. On the other hand, the figures do not take into consideration the by-product advantage that when highway capacity is added for rush hours it also is available for recreational driving, particularly for the two-dozen or so hours a year when highways are even more crowded by pleasure-seekers than they are on weekday mornings and evenings by commuters. But this is a costly by-product.

As an alternative to subsidizing all rush-hour travelers in the metropolis, could we eliminate all subsidies? To do this, we would have to change highway tolls at different times of day and vary them by section of the highway. Technically, we might be able to do this, but it would be some years before it could be developed and prove acceptable to the public. In the meantime, partially balancing subsidies of competing forms of transportation seems the only feasible step toward giving the commuter a rational choice of transportation mode.

2. Even if the precise total cost of each mode of transportation were levied on the rider, it might not be possible to let each rider always choose his preferred mode.

Transportation is not like items at a supermarket—small units which can be substituted flexibly for each other until cost and price and supply and demand come into equilibrium. Let us assume that most people prefer driving automobiles to work even if they have to pay the full highway cost. Fares on public transportation would have to rise steadily as passengers decrease and automobile riders increase. A point is finally reached at which neither the highways nor the railroads would be operable, the highways because of congestion, the railroads because of finances. True, as road congestion became worse, some drivers probably would return to the railroads, or they would move or change jobs, but adjustment would be perpetual, slow and painful.

**STAND UP AND BE COUNTED FOR RAPID TRANSIT EXTENSION**

Let us then assume that new highways are finally built to meet growing highway demand. A new highway inevitably costs much more than the last one not only because of a steady rise in the value of land as the city grows but even more because the cheaper routes have been chosen for earlier roads and only more costly tracts are left. And since the real economic cost of driving on both new and old highways is the same because they are interchangeable resources, the added cost of the new highway would raise tolls all around. Some drivers, then, probably would want to switch back
to public transportation, but by this time much of the rail service may have been discontinued. If public transportation is available and many persons switch to it, the public may be left for some time with costly highway facilities underutilized.

Recognizing this "lumpiness" of transportation costs and of demand and supply and noting the subsidy now provided the rush-hour urban expressway driver, Philadelphia began to subsidize railroad transportation to the center about five years ago as a substitute for building extra lanes of expressway. By cutting fares and increasing service, which was possible because of the city subsidy, the railroad did attract enough riders from the highways to avoid building extra highway lanes. The railroad subsidy experiment has now been extended to new lines into downtown Philadelphia.

3. Even if most commuters chose automobiles and paid the full cost of driving them to work, and even if problems of supply and demand could be overcome, there would be reasons to avoid reliance on the automobile for all purposes in a metropolitan area.

The automobile demands a large amount of space both when it moves and when it is temporarily abandoned. The pattern of city building for efficient use of the automobile, then, is far different from the pattern of a city well served by public transportation. Many economic and social functions may not be possible at the low densities required by efficient use of the automobile. For example, the intricate system of face-to-face relations in Manhattan's central business district probably could not be duplicated in a city like Los Angeles in which two-thirds of the downtown area is reserved for moving or waiting automobiles.

There is no way to introduce land-use considerations into the decision process of the rider. He can only consider a limited price formula relating to his trip alone. But individual decisions to use automobiles may add up to a total pattern of metropolitan development that is disliked by all. The individual may prefer high-density job centers and automobile travel to work, and he is not apt to realize that sooner or later he cannot have both if everyone else wants both, too. If we let the land-use pattern follow our transportation preferences, we may find that the more important of the two decisions—how our city works and looks and generally serves us—is made by default as a result of the less important choice of how we want to travel to work.

In this instance, metropolitan health may be similar to personal health. Many of us would choose whipped cream over skim milk if we did not realize that it might distort our shapes and congest our arteries.

**Modernization of the rail system**

The most potential for meeting the Region's journey-to-work needs for the coming generation with the minimum disruption would result from modernizing the commuter railroads and increasing their service. This can be done with little subsidy because modernization would sharply cut costs and probably increase riders. Compared to the certain disruption of the lives of everyone travelling to work in any direction in the Region—by train, bus or car—and compared with the threat to the economy of the whole metropolitan Region that the gradual ending of commuter rail service would provoke, the subsidy would be minor indeed.

Improved rail service will not solve all of the Region's transportation problems, of course. Most of the trips in the Region will continue to be made by automobile, and travel will be increasing. The way the newly-developing areas of the Region are arranged, more expressways will have to be added to the 834 miles we already have, though we now have more miles of limited-access highways than any other metropolis, including Los Angeles, for a comparable area.

But to get people to and from work, we need good rail service, too. Although they have far lower densities and particularly lower job densities at the center than the New York Region, Washington, San Francisco, Atlanta and Los Angeles are considering completely new rail rapid transit networks. Philadelphia has just decided to extend a rail line eleven miles into the suburbs and Chicago recently opened new rail transit service in the median strip of an expressway. Meanwhile, this
Region has not taken the steps that will assure continued use of already-existing and tremendously costly rail facilities.

Heavy investment for modernization would not pay for the private railroad corporations; there is little hope of profit. But since suburban rail service must be maintained by the public, the investment would bring a good return to taxpayers in cost savings.

Present operating losses on suburban rail service are about $30 million in the New York Metropolitan Region and they are certain to go up if no changes are made. Capital investment of about $800 million over a ten-year period could bring the modernization and coordination needed to cut the losses.

Modernization of the commuter rail system is essential not only to cut costs but also to attract passengers. Winning riders from one mode of transportation to another is a psychological rather than an economic problem. The automobile commuter in this Region already pays about $6.50 a day to drive in from Norwalk, Connecticut, compared to $2.30 a day for riding the railroad; the Garden City, Long Island, automobile commuter pays about $3.20 compared to a fare of about $1.85 for railroad commuting (typical costs for travel at both ends of the train trip included). But the automobile driver overlooks many of his costs and seldom realizes the extra price he is paying to drive, not to mention the public subsidy paid for him.

In Philadelphia, where improvements in transit service and cuts in fares were instituted with appropriate publicity, many drivers tried public transportation and stayed with it. So improvement of service (both more frequent and faster runs and more convenient transfer points and stops) and modernization of equipment are important.

Who should finance?

The refurbished rail system may require some continuing subsidies which might logically come from state and county governments and major cities through which the commuter service operates. All citizens in a state benefit from the resulting savings in highway investment and the strengthening of the state’s economy. All residents along the rail route benefit further from the standby service of the railroad. For example, for some days after a bad snow storm, the Long Island Rail Road carried 200,000 commuters each day instead of its usual 85,000. Land values all along the line are raised by good public transportation. Most of all, the person living and working in the suburbs who can get to work only by automobile will gain by keeping the highways clear of those who go to work in the centers of the Region and can travel by train. He will also gain by the improved use of land which public transportation permits.

The federal government, too, stands to gain from savings in highway investment. About $3 billion in federal money alone is projected for highways in the Region over this decade. Recognizing also that the efficiency of metropolitan regions will affect our ability to compete in world markets as well as the quality of urban environment, the Administration has proposed and Congress is considering federal aid of $500 million for a three-year period for
capital investment in metropolitan public transportation.

Regional Plan proposal

For three years, the Association has urged New Jersey, New York and Connecticut to establish a public corporation representative of the states and local units of government in the New York Metropolitan Region which would invest in modern rail equipment and guide the operations of the commuter lines in a coordinated way at high standards of service, making up to the private carriers the difference between the return from the optimum fare and actual cost. Such an agency probably would qualify for federal aid if the bill before Congress passes.

Why a metropolitan-wide agency?

Many economies of coordination and scale are probable if the Region's suburban railroad services are planned as a whole. Purchase of standardized equipment in wholesale lots and joint maintenance are among the possibilities. Routing of trains and crews from one line to another for more efficient use of their rush-hour time is another possible source of saving. It may be true that no passenger will ride from Connecticut to Monmouth County, New Jersey—and even this may happen eventually as related economic activities scatter throughout the Region—but a Stamford to Asbury Park run nevertheless may be most efficient. Few people ride the subway from Brooklyn through Manhattan to Queens, but trains and crews make such runs.

The long-range study

Whatever the future pattern of the Region's growth, there is no question that we will need good rail service on most of our present lines. A tri-state commuter rail agency therefore can begin operating now without restudying that question.

But there are many decisions to be made about transportation where the data are not sufficient for immediate action: location of new highways, possible rail extensions, airport locations and the ground transportation to serve them, public transportation by water, and the many freight facility improvements that might be needed. The Tri-State Transportation Committee is studying these.

The transportation network for the future must relate to the way we expect the Region to grow and how we want to use the land—how big we want our back yards, the extent of urban renewal to retain population and jobs in the older cities, the areas we want to keep open and natural, the amount of multi-family housing we need, the concentration or dispersal of industry and commerce. A transportation plan must be based on answers to these questions.

Researchers can assume that present unguided trends and policies will continue or they can assume that the Region will plan its future rationally.

Over the past eighteen months, Regional Plan has been sketching the kind of Region we will have over the next generation if present trends and policies continue. The Association has presented these research results—capsulated in the phrase the 100-mile spread-city—in speeches to a wide variety of groups and in several publications (e.g., Regional Plan News, February, 1962). Uniformly the reaction has been: "We don't like the prospect. What can we do to change this pattern?" It would be mistaken, then, to base a transportation study on the kind of Region we are likely to reject when all of the analysis and discussion of projections and alternatives for the future have been completed. The Tri-State Transportation Committee study prospectus acknowledges this and indicates its intention to provide data and correlations to help regional leaders reach any pattern of growth without prejudging the kind of Region we want.

It is doubly important that transportation plans fit closely with our goals for regional development because they not only serve but help to produce the shape the Region will have. Transportation probably is the most potent lever to tip the Region's growth toward a desired plan.

If we feel that desirable development of the Region is more important than the machinery for getting us back and forth among its parts, then over-all development planning is logically the master of transportation planning, not its faithful follower.
Mastery of the Metropolis by Webb S. Fiser, (Prentice-Hall, 1962) 168 pp. $3.95.

Professor Fiser, a political scientist, planner and member of the Syracuse Citizens Council on Urban Renewal, clearly sketches the complex local and national forces that must be understood to solve metropolitan problems and suggests a "strategy of progress" based on informed citizen action and enlightened political leadership.

Metropolitan Reform in St. Louis: A Case Study by Henry J. Schmandt, Paul G. Steinbicker and George D. Wendel (Holt, Rinehart and Winston, 1961) 73 pp. $1.00.

Why was a costly and careful plan for improved government for metropolitan St. Louis overwhelmingly defeated at the polls? Despite some conditions peculiar to St. Louis that worked against reform, most of the reasons for failure probably apply to other metropolitan areas: "... If broader reform is to be accomplished it will require far greater interest among the general citizenry than now exists, the support of key political leaders in both city and county, a genuine rather than token commitment on the part of the economic and civic elite, and assistance from some of the mass-based interest groups."


Martin Meyerson, Director of the Harvard-MIT Joint Center for Urban Studies, describes this final volume of the ACTION Series in Housing and Community Development as a "search for ways to improve the housing market and community development within the framework of a mixed economy with its mingling of private and public decisions." The investor, the producer, the consumer, the government, and the community—who determine the effectiveness of housing and community services—must understand the conflicts in their own demands in order to contribute to a better market system. Businessmen and specialists advised the authors.


This is the first community-wide study completed for a sizeable city analyzing residential, commercial and industrial renewal.

The Setting for Regional Planning in New Jersey by the New Jersey Department of Conservation and Economic Development, 1961. 98 pp. $4.00.

The state planning division has defined the regions of the state and compiled valuable data on them.


The author criticizes as technically crude and often misleading the numerous studies made in the past thirty years on whether zoning, municipal annexation or urban renewal are "profitable" to local governments—i.e., whether they generate smaller increases in costs than in property tax revenues—and suggests improvements.

The Metropolitan Problem and American Ideas by Luther Halsey Gulick (Alfred A. Knopf, 1962) 167 pp. $3.95.

Asserting that the "amorphous urban complexes" we are building "will be no fit place for a proud and prosperous people to live and work in," Dr. Gulick, Chairman of the Board of the Institute of Public Administration and a Regional Plan Vice President, urges more federal and state participation in solving "the metropolitan problem." Metropolitan areas, he states, need most: better public services, goals emerging from democratic processes, and better machinery for cooperation of all governments concerned.