

How to rethink urban transit, and pay for it, too

April 20 2016, by David Funkhouser, Earth Institute, Columbia University



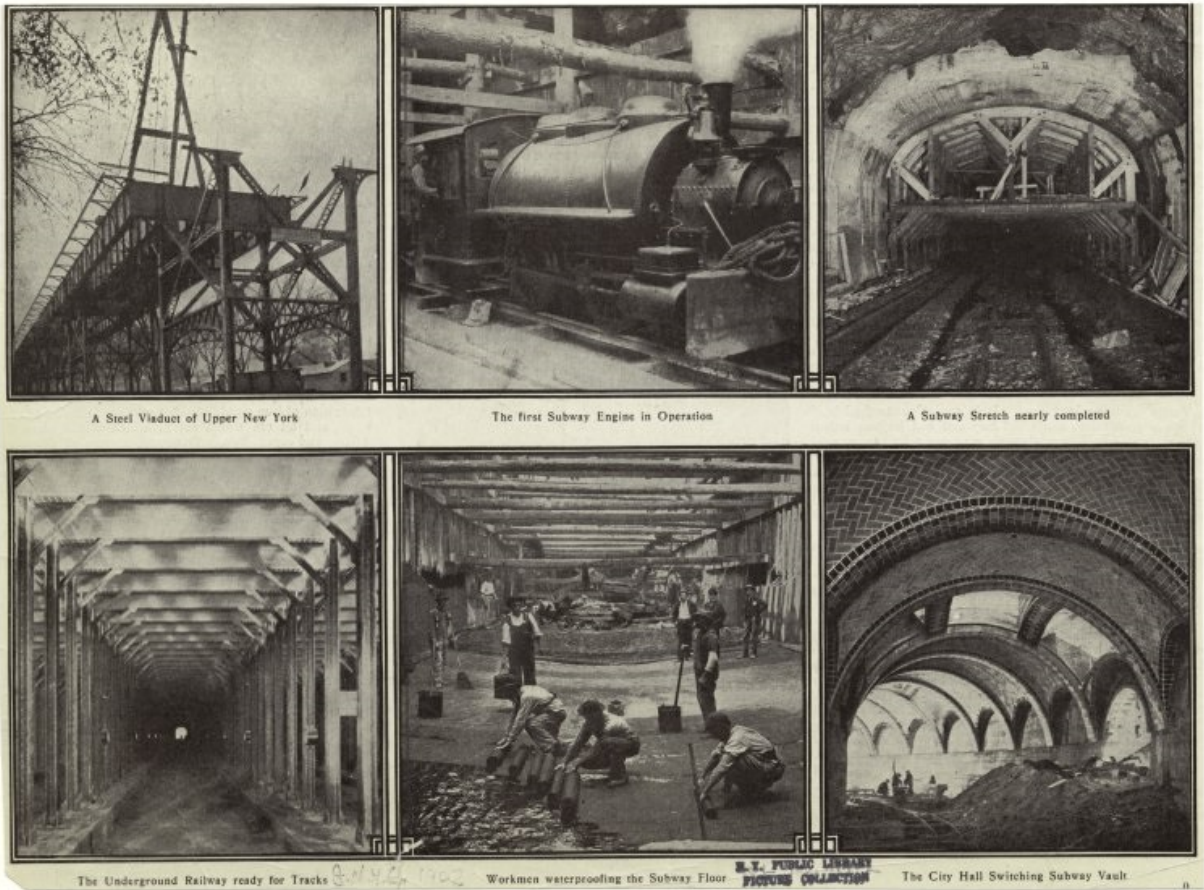
Cities around the world are growing, creating pressure to provide adequate transportation systems to get people to and from their work and

homes. In New York City, the population is growing again after decades of suburban flight, which focused much of public and private transportation spending on accommodating people traveling in cars.

Public transit systems around New York face increasing pressure from both an aging infrastructure and the need to carry more and more people. According to PlaNYC, subway ridership is the highest it's been in over 60 years; 43 percent of New Yorkers travel to work by subway and commuter rail; more than 4,000 public buses carry more than 650 million riders throughout New York City each year.

A key question is how will we pay for these systems—both to fix the deteriorating infrastructure, and to pay for ongoing operations. This is a familiar topic for Elliott Sclar, professor of urban planning at the Columbia School of Architecture, Planning and Preservation, and the director of the Center for Sustainable Urban Development at the Earth Institute.

In a new book, ["Improving Urban Access: New Approaches to Funding Transport Investment."](#) Sclar and other researchers lay out the issues facing cities and offer new ways to think about who pays for public transportation, and how and why this can be changed. The new book continues lines of thinking from an earlier volume, *Urban Access for the 21st Century*.



New York subway construction in the beginning of the 20th century. Aging infrastructure hampers the system’s efficiency. Credit: NY Public Library Digital Collections

The book is out just as the Regional Plan Association is releasing its [fourth regional development plan](#). The document recommends a number of transportation projects, including substantial improvements to the No. 7 subway line—which will be shut down in any event to repair damage from Superstorm Sandy. The line's ridership has grown dramatically, from 40,000 passengers on a good day in 1985 to more than 300,000 today. The plan also considers [a proposal](#) promoted by Mayor Bill de Blasio to build a streetcar line [along the Brooklyn-Queens waterfront](#),

and a light rail line from Bay Ridge in Brooklyn north through Queens and into Co-Op City in the Bronx. Both would serve growing but currently under-served areas of the city.

Sclar also has been closely involved in planning Columbia's role in New York's "Car-Free Day" on Friday, April 22—Earth Day. (You can find out more about that project and Columbia's involvement [here](#) and [here](#).) We spoke to him recently about the issues facing New York City. The interview has been slightly edited and condensed for clarity.

EI: What are the central issues in transportation here in New York?

Sclar: There are two problems. New York has one of the oldest subway systems in the world. It first opened in 1904, and the tunnels and equipment need a good deal of updating. If they could improve just the signaling system—it's now mechanical, when a train passes over a certain point it flips a switch, and that goes back to the beginning. If we had modern digital-based control systems, we could increase the capacity of the carrying system by 20 percent.

The second problem is the ongoing cost and making the systems work better. In New York City, we're building buildings up to the skies, but we have the same number of streets we had a couple hundred years ago. At one point we turned it over to cars; now we take [streets] back for other uses [and there are] all these new demands, Uber cars, Fedex, UPS, Fresh Direct, safe lanes for bicycles.

If we had bus rapid transit—we have a little bit now with select buses—in the best cases they can carry almost as much volume as the subway if they've been done right. Each of these things requires some very painful political decisions and interests and financing. The fact that

we're having Car-Free Day is at least beginning to start the conversation that New York could be something else.

EI: New York's transit system is running into problems with capacity. What should the city be doing?

Sciar: [One solution] is new cars. You see it in Paris and Beijing and in the new systems in airports, the glass doors [on the platform] that close. You can have much wider doors and move a lot of people on and off the trains much faster, that can add up to 20 seconds at each subway stop, and you can make an enormous difference in the speed at which you carry people. Commuter trains as they get crowded, they take longer at each station.

Upgrading commuter rail is important. Without investing in upgrading, what Metro North and LIRR and New Jersey transit have to do is they go slower when they get to certain places. And the trips are slower because more people are using it.

We have a lot of ways to fill in a lot of what I call the transit deserts in the city, neighborhoods that are under-served by the subways. That more than anything would make an enormous difference in the ability to have affordable housing in the city.

If we made exclusive bus lines, and hooked it up to subways, that would work. We need to have a more unified payment system. You should be able to go from bus to train to taxi, so you have one transit account. It's all technically feasible, and it all would have large returns for the metropolitan area. You don't have to punish anybody; you give them more alternatives and you'd be lowering greenhouse gases [from cars].

EI: Funding for public transit is a perennial political problem, both in Washington and locally. What are the biggest roadblocks?

Sciar: I think the biggest roadblock is this whole notion of austerity, that the government shouldn't be spending money, government should be lowering taxes. What we're saying is look, you've got zero percent interest rates now, we have a slow growth world economy. What we need is all these projects. Borrowing the money won't cost us anything, and it would create jobs. The benefit to the economy would pay for the work. You create jobs, paychecks, a third of that comes back to the government.

It's a problem of changing the ideological mindset about public policy in Washington. Instead you have this caricature of public policy. Republicans are the worst, but the Democrats have bought into it, too. We need to write the white papers and do the speaking to begin to change the atmospherics so that the politics can change.

It has to happen at the federal level. It's going to take governors who begin to understand these things. The irony is that the people who most seem to get it are the mayors. A lot of the innovation is coming from the cities. The cities see the problems, they're on the ground.

EI: What are some different ways we could think about the financing?

Sciar: There are two pieces to this. One is that we've always thought about transportation financing in terms of time and time saving. The modern field of cost-benefit analysis was born after World War II, when we were doing all these massive public works and transportation projects. Seventy to 80 percent of the benefit is always considered time

saving.

What we've also learned from time travel budgets is they haven't changed in years. People will spend up to about one hour in any direction. You build a highway, they don't save time, they move farther out. The reason people travel is access.

It's time for the transportation model to make access, not mobility, the target. We have conflated mobility with access, but mobility is not the same as access. The best solution to a transportation problem is to not have to travel. The city itself was invented as a solution to a transportation problem. We have cities so we don't have to travel. That's an important message of the book.

We have to move away from the notion that users have to pay for the full cost of the system. That's where the notion of value capture comes in. A good location creates value for a landlord, for example, who benefits, and employers who can more easily recruit a workforce. Users who are beneficiaries should pay.

Cities have to create access for all walks of life. A good system to pay for all the things we're talking about has to be a three-legged stool: Users pay, non-user beneficiaries pay their fair share, and there has to be some general government money to ensure that everybody has access to the system. The cleaning lady who has to take three trains to get to a job working for the bank president in Manhattan, and he walks to work. For Manhattan to work well, you have got to ensure that she has access at a livable wage. You may end up with a situation that no one pays [because] economic growth could absorb some of the cost.

[Take] Hudson yards. Developers are platforming over the yards and going to build a whole new residential-commercial complex there. The key to them doing it was that the city committed to having a subway line

to it [by extending the No. 7 line]. [It's] tax increment financing: [Former Mayor Michael] Bloomberg said we'll borrow \$2.4 billion to pay for this, we'll start paying for this out of the budget, but because of the new subway line the real estate value will go up in that area, and we can take that increase in value and help pay down the debt. This is an example of how value capture can work and you get more development and it doesn't burden future generations.

EI: Are there any other trends that are promising?

Sciar: There are variations on that [Hudson Yards project]. in Hong Kong, where the subway line is also a real estate developer. They get land from the government around the subway stations and sell the land to developers, and they have a shared interest in the development—a rail-plus-property model. We can't take land like they do in China, which is why we do the tax deals.

In London, they're building a new subway line called Crossrail. All the businesses along the route are going to pay higher taxes. They understand the value of it.

Access creates value, and some of the value can be captured to pay for the access. We're changing the paradigm from financing mobility to financing access. Different people have differential access [and] access should be very equitably distributed.

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