TAKING A STAND ON TRANSPORTATION
Joseph Schofer knows transportation systems. A professor of civil and environmental engineering and associate dean of faculty affairs at McCormick, he's more than an award-winning researcher and teacher. As an active member of the Transportation Research Board, he's helping to shape the future of the nation's transportation infrastructure. Frequently cited by the media as a transportation expert, he recently took time to share some ideas and insights in communication, funding, and the future of transportation.

**What Major Transportation Challenges Does the United States Face?**

The United States is really in a stranglehold in terms of public funding to fix infrastructure. It's a struggle that's been going on for years. As a country, we still haven't integrated into our thinking that infrastructure costs money, and we have to pay to use and keep it. What's invisible to people is how we fund these systems now, and that's a problem.

**Is There a Solution for That?**

For starters, I'm interested in improving how we communicate the need for funding. We really haven't articulated our value proposition publicly—the connection between collecting revenue and taxes and creating value by assuring our infrastructure.

If I could, I'd like to personally hand every taxpayer a report that says, "Here's how we used your tax money this year to improve the infrastructure and how that makes your life better." We haven't done a good job of communicating that. Engineers know design and operations. We aren't always the best communicators. We need to communicate in terms of transactions.

People—citizens and their decision makers—tend to think in terms of stories. They like to use anecdotes, explanations that translate data, and analyses of what is important to their daily lives and their constituencies. Politicians learn to do this, although sometimes their stories stray from the facts. The challenge for technical professionals in my field is to learn to translate our studies and measurements to stories that have meaning for citizens.

**Recently, You Analyzed Data on Stoplight Camera Tickets in Chicago That Ultimately Led to a Review of 16,000 Tickets. How Did You End Up in Such a Public Role?**

It started when David Kidwell, a Chicago Tribune reporter, showed me the data. It struck me immediately that the data were strange, that the automated ticketing system was not working as it should. To me, there's an ethical responsibility as a technical professional to do things right, to recognize errors and help address them. I have some knowledge of how these systems work, and when a reporter who is trying to communicate with the public about the issues contacts me, I feel an obligation to share that knowledge.

Of course, if I get quoted saying something that makes people angry, I'll hear from them quickly. You have to be prepared for that. If you want to be isolated and protected from that, don't speak out. But I see my responsibility as bringing truth to the process. I don't write the news stories, but I can offer important insights. I've been more effective with journalists when I have been able to suggest what questions they should ask rather than giving answers to questions.

**It Seems That Most People Have Their Own Ideas Based on Their Experiences About Where We Should Invest Our Transportation Resources. Some Favor High-Speed Rail. Others Say It Will Amount to a Government Subsidy. How Do We Reconcile That?**

I never discuss transportation in social situations. It makes terrible cocktail party conversation because everyone is an authority. High-speed rail is not a panacea for the United States. The answer to "Why can't we build high-speed rail like Europe, Japan, or China?" is that we are not like Europe, Japan, or China. If it's going to work in the United States, it has to make market and economic sense for us. That is still an open question.

We should approach such new transportation ideas as experiments. Instead of throwing small amounts of money at high-speed rail projects in many states, we should pick a promising market, concentrate our resources there, and treat that as a national experiment.

If the project succeeds, the idea will take hold. If not, we can say it was expensive, but we learned something from it. It makes more sense to do that than to spread limited resources over many places, get no meaningful product, and learn nothing to support future decisions. When resources are limited, we need to get smarter.