



Scholar Profile for the 2016 Fall issue of *e.polis*
Dr. Robert J Schneider- Associate Professor of Urban Planning
and Urban Studies.

Interview conducted and transcribed by Hamideh Moayyed,
UWM Urban Studies PhD Student

Interview edited by Ditimoni Baruah, UWM Urban Studies PhD
Student

This is a scholar profile of Dr. Robert J. Schneider, faculty member at the UWM Urban Studies Program and the School of Architecture & Urban Planning. Professor Schneider's area of interest is with practical and research experience in the sustainable transportation field. He teaches a pedestrian and bicycle planning course and contributes to national and local research projects on data collection, safety, facility evaluation, and demand analysis for active transportation modes. His dissertation explored how people choose between pedestrian, bicycle, transit, and automobile modes for routine travel. Professor Schneider played key roles on two recent National Cooperative Highway Research Program projects that provide guidance on pedestrian and bicycle counting and project prioritization. His current local research analyzes pedestrian and bicycle crashes in Wisconsin and physical health benefits of bicycling in Milwaukee. His research in the sustainable transportation field builds on this practical experience.

Professor Schneider is the Chair of TRB Committee on Pedestrian, Board Member of World Society for Transportation and Land Use Research, Member of TRB Committee on Pedestrians, Member of the Southeastern Wisconsin Regional Planning Commission (SEWRPC) Vision 2050 Pedestrian and Bicycle Task Force, Member of UW-Milwaukee Geographic Information Systems Committee, Attendee of UW-Milwaukee Parking and Transportation Study Advisory Group. He is an affiliated member of American Institute of Certified Planners, Association of Pedestrian and Bicycle Professionals, and the American Planning Association.

Interview Transcript:

Hamideh Moayyed (HM): Can you explain what drew you into the transportation field?

Robert Schneider (RS): A great question! I think back to my childhood, as a kid I was one of the only students in middle school and high school who walked or bicycled to school. I grew up in Verona, Wisconsin and experienced transportation through how I got to school and being in a suburban location. Many of my friends and classmates were driven to school by car or took the school bus and so I had a little bit different perspective than them on transportation. I would also say that more professionally, when I got into my undergraduate program at Augustana College, we focused a lot on how cities impact people's lives. I was a Geography major and in thinking about how cities impact people's lives, one aspect of that is how people travel from place to place and how they access activities. In particular, how far away people are from the activities that they need to get to within the city or within a broader region.

As a geographer, at first I was interested in the spatial layout of cities and it was very clear in our class discussions that spatial layout of the city impacted transportation and how we, at least in most of the communities where I have lived, things are so spread out that the only means of transportation that makes sense was to take a car. When I was a kid, I would walk to school, so how does that fit in and I knew that walking was an option, biking was an option, but that many of our cities were set up in a way that did not support those, at least not as a convenient way. In fact, as I went further into the field of transportation, I realized, not only was it inconvenient, the way we set up many of our cities in the United States from the 1940's until now, it was not only inconvenient for walking and biking, it was also unsafe. Safety for pedestrians and bicyclists was a big issue, too. I got into the safety field first. The understanding was that there was a broader context for how the city was arranged. When I came down to pedestrian and bicycle transportation, my introduction to the professional world was through making conditions safer for people who are walking and biking. And to continue a little bit, that also meant one of my personal passions which is to make sure conditions for people of all means, the richest to the poorest, have the same level of treatment in how we develop our society. So, it was clear to me that people who did not have the means to own a car, or to travel by car, were systematically put at more risk, because they were using modes of transportation that were not given priority in our transportation system. So, it is very important to work for safety of pedestrians and bicyclists because they would provide more social justice in our society. Of course, I also realized that there were significant benefits for the environment in terms of also the use of public space and creating a more vibrant city itself.

If we have more people walking and biking and if we design the city to accommodate that we can support convenient, safe, and enjoyable walking and biking trips. After my undergraduate in Geography was done, I first had the opportunity to work in the pedestrian and bicycle field for the Wisconsin Department of Transportation as a summer intern in 1999. Then, I worked for the Pedestrian and Bicycle Coordinator of the State. He had been working on pedestrian and bicycle safety research and when I went to do my Master's degree at UNC-Chapel Hill, I got to be a graduate research assistant at the UNC Highway Safety Research Center. They had specialists in pedestrian and bicycle safety and at that time they worked for many research centers or professionals working on pedestrian and bicycle safety issues, who were some of the leaders in our country. After I finished my Master's, I had some expertise in pedestrians and bicycle safety and was able to expand my knowledge of pedestrian and bicycle safety and planning in terms of roadway design and intersection design along with the planning process when I worked as a consultant for six years after graduating from my Master's program. I got the opportunity to continue my field, focusing on pedestrian and bicycle transportation, the company was called Toole Design Group. They are based in the Washington DC area and so that is a long story about how I got interested in transportation. As a whole, I always had walking and biking at the core of what I do, because I experienced it as a young kid and I felt that it is important for everybody in the community to have good options for walking and biking.

HM: How do you think that your work and your research in the Department of Architecture and Urban Planning can contribute to Urban Studies Program?

RS: There are a couple of very specific ways. Our department is specifically the Department of Urban Planning within the School of Architecture and Urban Planning. I taught a pedestrian and bicycle transportation course and so I have had a few Urban Studies students come and pick that course which has been great bringing in a really broad background with them. And so, most of the classes for urban planners get other experts in the class as well. We also have engineers and people from public health sometimes take the class. So, I get to teach about what I know best in terms of pedestrian and bicycle research through that class. Though the class is just oriented towards research, focused on the practice of pedestrian and bicycle planning, design, and engineering, so we cover what people who are in the field do on a daily basis, from analyzing safety to doing pedestrian and bicycle data collection to demand analysis to facility design. We have guest speakers come in, who actually have worked in the field. I think it is very valuable for the students. They also get the opportunity to do hands-on projects that look at pedestrian and bicycle data. We have the BublR system data that BublR has shared with us. Bike sharing is what students are doing for class projects right now by examining the types of trips that are made on the BublR system as well as we have a group that looks at UWM campus travel survey data. They ask about how people travel to campus and also what barriers are there to biking. That is part of the class. Another part is that they get to do a final group project to analyze an intersection in the city of Milwaukee and design it, so it would be better for walking and biking in one specific way. The other way is that I am an advisor to several Urban Studies students on their thesis projects, and those who have a specific interest in pedestrian and bicycle transportation I have been able to give some advice on.

HM: Would you please talk about your current line of research? What aspects of your research are innovative?

RS: I hope it is all innovative. There are about four projects that are going on right now that I need to finish writing papers on. One of them, which is on top of my mind, is a study that I am doing along with the Medical College of Wisconsin. That is actually led by the Medical College and I am one of the partners as well as another professor in the School of Nursing along with the Bicycle Federation of Wisconsin. Essentially, it is about twelve people who participated in bicycle training classes and bicycle promotion last summer to encourage them to bicycle. These are people who are overweight and had not bicycled for a long time, but they said they want to try to pick up bicycling again, as a way to get more physically active and hopefully get help too. So, we have a group of twelve people who did this and participated in weekly ride for ten weeks during the summer and then we have another group of twelve people who are controlled. We studied each of these two groups at the baseline before the intervention was done and at the end, and also ten weeks after completion of the intervention. So the group that did the bicycling intervention and the ride, became a lot more convinced on how they bicycled and how they perceived fewer barriers to biking. When they were first responding to the survey, they said

things like, we are afraid to bike around traffic, we are concerned about crime in the neighborhood, we are very concerned that we won't be helpful enough and we get too tired if we ride a bike, etc. Those three barriers in particular, they had a much greater reduction in those barriers than the control group did, which is one of the things that I am writing about right now.

Another project is looking at the overall rate of pedestrian and bicycle safety in metropolitan regions across the country. We are looking at probably the top thirty regions across the country in terms of population. What is the fatality risk to the number of deaths per bicyclist to the number of deaths per pedestrian in these regions? We got data from the Fatality Reporting System that the United States has, and the overall National Travel Household Survey and nobody has ever looked at the detailed numbers for the pedestrian and bicycle trips in the National Household Travel Survey, and compared them with the fatality numbers. Basically, what researchers had done in the past is said that they have this many fatalities per population per overall number of residents in a region. But what that does not control for, is the overall number of walking and biking in the region. Some regions like New York City, have more walking than other regions around the country and if you simply compare by population, you are not accounting for the fact that New York people walk more than other people around the country. So, this way we are getting a much more realistic assessment of risk so we will be able to rank the regions from safest to least safe in terms of fatality risk, and most likely from reviewing it so far is that some of the regions that have the best reputations and have instead most pedestrian and bicycle infrastructure and programs for safety, are seeing lower rates of fatalities as a whole. I have not completed the analysis yet, but that sounds good. Let's give you the third example. I am working with Prof. Ivy Hu on this one and another research assistant, Joe Stefanich, on a model maybe one model or two, to try and estimate the percentage of people within the neighborhood who walk and bike to work. We are using this data from the American Community Survey and that gives you the percentages of walking and biking and people who take transit and people who drive to work. That depends on a number of variables which we are figuring out, putting into our model. Automobile ownership for example, the income of families, the overall population density of the neighborhood. We are trying to use these variables to predict how many people walk or bike to work, but for going another step beyond that and collecting data in a sample of tracks, census tracks at the neighborhood level to say, are there any specific design features that may be associated with walking and biking community that might include, whether or not there are trails within a neighborhood, whether there is local shopping nearby or there is a university nearby etc. Those could be factors that make a difference as well as how busy are the roads, are the roads really wide for the crossings or are the pedestrians crossing too. These sort of things we are looking at. And then planners in the future will be able to use the information to say, well if we change how this neighborhood looks, maybe we can encourage more people to be walking or biking to work. And I should have mentioned that, on the one we are comparing metropolitan regions and the pedestrians and bicycle risks for fatality, which is the one I work with Aida. So Aida is the research assistant at that one. I got to give credit to my research assistants because

they are really valuable, who help with the work, and they are an important part of the research process.

Other one that just getting started is where we have not collected field data yet. It is to see how often drivers yield to pedestrians in crosswalks. The law that says drivers should stop for pedestrians at the crosswalk over there in the middle of Maryland avenue. How often the drivers actually do that, and not just here but in other intersection crossings? Maybe design differently or have a different community around so the people here are associated with the university pretty much crossing the street as we go to a neighborhood on the Southside of Milwaukee or on the Northside of Milwaukee that different people cross the street, so there are differences in how drivers act in those situations. With that information, hopefully, we can figure out how to design crosswalks so they are safer, and that more drivers will yield to pedestrians and also help educate both pedestrians and drivers to know that pedestrians cross the crosswalks and drivers do have the responsibility to stop for them in the crosswalks. There is a long way to go on that though. So, these are something we are working on right now.

HM: You are a member of a number of transportation related organizations. Would you please tell me how these organizations are contributing to the community?

RS: Yes, that is a great question, too! I will give you two examples. One of them is the Transportation Research Board and I am the Chair of the Transportation Research Board Pedestrian Committee. In that role I get to work with committee members who are people who are consultants, advocacy group members, researchers, and staff at public agencies. For the most part, they too are in the committee and these people are leaders and thinkers on pedestrian transportation. So, we get together once a year at an annual meeting, and talk about what research we need to do to improve safety, increase the comfort of walking trips, and make our cities a lot more convenient for walking. We also have a chance through our annual meeting to offer proper presentations, so we review papers submitted for the conference and we select the best ones to be presented and they get presented as posters or podium presentations of regular presentation sessions. So, we try to figure out what is the best program and we have people from the transportation community, not necessarily people who even focus on pedestrians but they come to our sessions to learn about the latest best research. So, that is an important thing that we do through that organization. Another one that I am a part of, is the World Society for Transport and Land Use Research (WSTLUR) and I am helping to organize the conference as a part of the Board for that organization. The conference will be held in Brisbane, Australia in 2017, which brings together people who do research on transportation and land use issues. So, this is my interest in creating cities and urban regions where it is more convenient to walk and bike, and where the streets are actually great places for people to experience on foot or you know if there are little shops and things like that, commercial activities can happen in the streets rather than just being for cars completely. So, I am one of the organizers. It is not the only topic that gets covered but something that I can help to make a research focus within that organization. So those are two of them. The Transportation Research Board, in particular, is a great one for students to

become involved even if they do not have a really strong interest in pedestrian and bicycle issues as the transportation field is huge. There are committees that deal with transportation and emerging technologies like automated vehicles, and how they work for our cities, so Urban Studies students, I think would have an interest in it.

HM: Would you please tell me about the introduction of Bublr bike service on campus?

RS: That is a really great thing for our campus to have. I wish I had a real statistics to give, but we are one of the first campuses in the entire country, maybe even the world that has invested student's money in bringing a bike share system to the campus. So that is something UWM should be proud of and we have about three stations in the campus. It really would not be happening without the students' support. One of my former students, Peter, was on the student government when they actually voted to use segregated fees for supporting Bublr. That coupled with the efforts of the Office of Sustainability, Kate Nelson, and John Gardner. They helped to bring Bublr to the campus, and it was officially opened last October. The Chancellor was there with the Mayor of Milwaukee, and the County Executive came to announce Bublr starting. Students can use it, and I do not have the specific numbers. You have to check with Bublr people for sure, but I know that once the UWM station opened Bublr ridershare increased significantly. Prior to that, I think there were 13 stations and most of them are in the Downtown Milwaukee area, but, with the addition of the UWM stations, Bublr ridershare really increased a lot. I think what is also important to know about that can be related to my research, is that there are specific actions that we can take that change the traveler behavior just by adding Bublr stations, and in making students more aware that Bublr is an option and then making bikes available to them have increased that activity. Who knows what will happen, if we add more bike lanes or more separated places for bikes to ride away from automobile traffic between UWM lanes and the Dorms and between UWM and Downtown. The few bike lanes right now is a start, but a lot more can be done to make bicyclists, who are riding, safer and feel more comfortable riding and so I think that can increase Bublr use even more.

HM: In general, how do you think transportation planners can contribute to the community?

RS: I will give one more example on that one, too. Especially, here in the Department of Urban Planning, we have a focus on our work and our student activities to bring expertise to the community itself. I would not say that the students necessarily have expertise to begin with, but they have a passion for one thing to work in the community and so we make that a part of our planning courses at least as many as we can. We do have some basic theory-oriented courses, but in many of our courses the students do practical projects on actual clients, around here or other suburban communities, in non-profit organizations that have a mission to do good work in and around the city. That is something that I think is valuable to these community organizations and agencies, but it is also great for the students because they get real hands-on experience in planning-related activities, so they get to do data analysis, they get to talk with members of organizations that they are working with. Sometimes they even get to talk with regular residents,

the general public, and find out what they think about the certain issue. The best example that I have so far from my work here in the department, is doing the Bus Rapid Transit Workshop last fall (Fall 2015). Prof. Ivy Hu and I led that workshop course. We had about 21 students in the class, and there were some graduate and undergraduate students from Planning Department and Architecture Department for the most part. We also had one Urban Studies student who was a really important contributor to the effort. The students produced a vision for what Bus Rapid Transit could look like in the Milwaukee region. They drew and did renderings of what stations would look like. They showed what roadway cross-sections could look like with dedicated bus lanes. They also developed a system map in what roadways could Bus Rapid Transit be implemented on, and what communities could be served, which neighborhoods, where would the greatest means in terms of rapid public transportation and where are the activities where people want to go. And then we also had a group that really tried to quantify some of the economic benefits, and the potential for development near stations of doing a system like this. And what is valuable about that to the overall community, is that people in the region, for the most part the general public as well as people who work even in the transportation field around here, have never really seen what a Bus Rapid Transit System looks like. We have not done it yet in this region, and there are a few other communities around the country like Cleveland, Boston, and Pittsburgh that developed Bus Rapid Transit System. But most people around here haven't visited these systems, so the students, through their projects, had a chance to show people what it could look like, and they presented their final results in a public workshop at the end of the semester as well as posting their final product on a webpage which is been viewed hundreds of times by people across the region, just to see what Wisconsin Avenue, in particular, could look like if it was developed by a Bus Rapid Transit System. So, actually there is the Milwaukee County itself that is currently pursuing Bus Rapid Transit and doing an initial study on where can it go in the Wisconsin Avenue or between Downtown Milwaukee and Milwaukee Regional Medical Center. I think that our students, what they did, has been helpful for moving that project along because now people understand a little of what Bus Transit System could look like.

HM: Thanks, is there anything specific you want to add?

RS: I would just say from my own perspective, it is very important for us to think about how where we live, and how we design our cities, how that impacts everything on a person in the region where we live. And so, it is not just about giving people opportunities for walking and biking, but it is developed by making the city a great place for everybody to live and I think that walking and biking are a part of what makes a great city.