

**Graduate Research Assistantship**  
**Transportation Planning, Modeling and Policy Analysis**  
**National Center for Smart Growth Research and Education (NCSG)**  
**University of Maryland College Park**

**Position Summary:** The University of Maryland, College Park, Urban and Regional Planning and Design Ph.D. program has graduate research assistant positions available with a focus on transportation planning, modeling and policy analysis. The position is offered through the National Center for Smart Growth Research and Education (NCSG), a multidisciplinary research institution affiliated with four academic schools (Engineering, Architecture, Planning and Preservation, Agriculture and Natural Resources, and Public Policy). The NCSG has an innovative multidisciplinary working environment, with focus areas of land use, transportation, housing, community development, and economics. The research assistant will join the transportation focus group at the NCSG, the Transportation Policy Research Group (TPRG). Further information can be found at <http://www.umdsmartgrowth.org/>

**Purpose of Position:**

The TPRG investigates solutions to complex problems raised by the interactions of transportation, land use and environment. Working with state and local officials, the TPRG develops and applies analytic methods to better understand the ways that land use and transportation affect each other. Issues which the TPRG typically addresses include exploring congestion mitigation strategies, the use of multi-modal alternatives to reduce automobile dependency, and the impact of alternative land use patterns on the transportation system and the environment. With respect to these wide-ranging activities, the TPRG not only engages in analytical modeling and the development of policy alternatives, but also works with public officials and other stakeholders on policy implementation, ensuring that procedures developed in TPRG's academic laboratory move smoothly from analysis to policy development and into practice. The graduate assistant will be assigned to one or more of the TPRG projects that is suitable for the student's interest(s) and the skills. For more information and learn more about the projects, please see <http://www.umdsmartgrowth.org/projects/> or contact Dr. Sevgi Erdogan at [serdogan@umd.edu](mailto:serdogan@umd.edu).

**Primary Responsibility:** Primary responsibilities will include conducting literature review and reporting results as needed, learning new software and models as policy and research questions require, participating in development or improvements to the models and developing project specific scenarios for testing alternative scenarios using the relevant methods and tools as identified. The selected applicant will not only expand travel demand and network modeling skills but also may integrate models and tools from other disciplines as needed. Duties may also include integrating travel demand models with fields such as economics, policy analysis and land use planning. Depending on topic selection, the research work may be used in preparation of the Doctoral Thesis.

**Minimum Qualifications and Experience:** Applicants must be admitted to the Urban and Regional Planning and Design Ph.D. program at the University of Maryland. Applicants that are admitted to other relevant programs such as Engineering, Geography, and Computer Science can be considered as well. In addition to being admitted to the Ph.D. program, applicants must have a background in travel demand modeling and network modeling. Experience may be through academic usage or through work experience. The use of CUBE (or other similar software) in travel modeling is strongly desired. Skills needed/preferred include:

- Familiarity with Java, C++, Python, or similar programming language.
- Knowledge or familiarity with transportation software: e.g. CUBE, TransCAD, DTALite, MATSim
- Experience with e.g. ArcGIS, QGIS, OSM, GTFS
- Knowledge or familiarity with statistical software: R, Stata, SPSS, BioGem
- Ability to implement algorithms described in research papers, formulas, etc.
- Ability to extract information from an existing code base
- Strong writing and communication skills

**Position Benefits:**

- Real-world development and project oversight experience
- Potential for course and/or research credits
- Potential for job placement.
- Our research effort typically is exploratory and could receive significant attention from government, academia, and industry.
- Publishing opportunities.

**Compensation:** Compensation includes a stipend, tuition remission for three graduate level courses per semester and health insurance.

**Application Deadline:** January 15, 2020 for Urban/Regional Planning and Design Program (URPD). Submit applications to the University of Maryland Ph.D. Program at [https://app.applyyourself.com/AYApplicantLogin/fl\\_ApplicantConnectLogin.asp?id=umdgrad](https://app.applyyourself.com/AYApplicantLogin/fl_ApplicantConnectLogin.asp?id=umdgrad).

**Application Material:** The applicants should apply to Urban/Regional Planning and Design Program (URPD) following the instructions and providing all documents required for the PhD program application. In addition, please send following documents as a single PDF file to [serdogan@umd.edu](mailto:serdogan@umd.edu)

- 1) A curriculum vitae,
- 2) A cover letter describing research goals and interests in relation to the graduate research assistantship with the NCSG,
- 3) Name and contact information of three references,
- 4) Transcripts (unofficial versions are accepted) of prior higher education degrees received or ongoing.

**Closing Date:** Applications to the Ph.D. program must be submitted by January 15. International applicants may need additional time for visa processing. For more information, please see <http://apps.gradschool.umd.edu/catalog/programs/cmpl.htm>

**For questions:** Please contact Sevgi Erdogan ([serdogan@umd.edu](mailto:serdogan@umd.edu)) for the position details, Casey J Dawkins ([dawkins1@umd.edu](mailto:dawkins1@umd.edu)) for the Ph.D. in Urban Studies and Planning Program, and Ruth Davis-Rogers ([rdrogers@umd.edu](mailto:rdrogers@umd.edu)) for administrative questions.