

## Philip J. Barnes, Ph.D.

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### EDUCATION

<b>Doctor of Philosophy, Urban Affairs and Public Policy</b> University of Delaware, <i>Newark, Delaware</i>	2015
<b>Master of Science in Engineering, Civil Engineering</b> University of Michigan, <i>Ann Arbor, Michigan</i>	2003
<b>Bachelor of Science in Engineering, Civil and Environmental Engineering</b> University of Michigan, <i>Ann Arbor, Michigan</i>	2002

### EMPLOYMENT AND AFFILIATIONS

<b>Assistant Professor</b> Biden School, University of Delaware	2016 - present
<b>Policy Scientist</b> Institute for Public Administration, University of Delaware	2019 - present
<b>Faculty Director</b> Stavros Niarchos Foundation Ithaca Initiative, Biden School	2021 - 2022
<b>Associate Policy Scientist</b> Institute for Public Administration, University of Delaware	2016 - 2019
<b>Post-Doctoral Researcher</b> Institute for Public Administration, University of Delaware	2015 - 2016
<b>Research Associate</b> Center for Energy and Environmental Policy, University of Delaware	2011 - 2012
<b>Research Assistant</b> Kumasi Institute of Technology and Environment	2010

### FUNDED RESEARCH

Research support for phase II of the 2021 resilient community partnership. Delaware Coastal Programs, 07/15/21 – 03/31/22, Principal Investigator, \$35,500
Research support for phase I of the 2021 resilient community partnership. Delaware Coastal Programs, 01/01/21 – 06/30/21, Principal Investigator, \$38,800

Information gathering on climate mitigation planning, stakeholders, and research in Delaware. Delaware Sustainable Energy Utility, 09/01/20 – 10/30/20, Principal Investigator, \$9,100

Research on the effectiveness of Delaware's local climate change programming. Delaware Coastal Programs, 02/01/20 – 08/31/20, Principal Investigator, \$43,400

Sea level rise success story symposium. Sustainable Coastal Communities Initiative, 10/01/19 – 05/31/20, Principal Investigator, \$5,500

Center for energy-efficient sociotechnical systems. University of Delaware Energy Institute, 09/01/19 – 08/31/21, Co-Principal Investigator, \$268,000.

Research for federal consistency policy gap analysis. Delaware Coastal Programs, 06/01/19 – 09/30/19, Principal Investigator, \$27,300.

FY2018 – FY2019 On-call planning and policy support for connected-automated vehicles and smart cities. Delaware Department of Transportation, 01/01/18 – 06/30/18, Principal Investigator, \$62,000.

Bicycle justice or just bicycles?: Analyzing equitable access to Baltimore's bike sharing program. Mid-Atlantic Transportation Sustainability University Transportation Center, 06/01/17 – 08/15/18, Co-Principal Investigator, \$96,000.

Research for coastal resiliency needs assessment in Sussex County. Delaware Coastal Programs, 01/01/17 – 05/31/17, Principal Investigator, \$22,700.

Newark transit improvement partnership. DART First State, 01/01/17 – 10/31/17, Principal Investigator, \$9,600.

Research on methods to assess and incorporate climate vulnerability into municipal comprehensive plans. Delaware Department of Natural Resources and Environmental Control, 10/01/16 – 09/30/17, Principal Investigator, \$28,000.

Planning for autonomous vehicle impacts in Delaware. Delaware Department of Transportation, 09/01/15 – 05/05/17, Principal Investigator, \$40,000.

Developing a resource guide for funding community resilience in Delaware. Delaware Coastal Programs, 10/01/15 – 05/31/16, Principal Investigator, \$35,000.

## **RESEARCH REPORTS AND BRIEFS**

Barnes, P., & Reitz, J. (2022). Lewes executive committee on resiliency: A resilient community partnership. Newark, DE: Institute for Public Administration.

Barnes, P., Hernandez-Limon, H., & Sikora, V. (2021). Electric vehicle policy brief series: Why communities should support electric vehicles; Technology primer; Hosting charging stations; Local policy options; Financial, technical, and informational support. Newark, DE: Institute for Public Administration.

- Barnes, P. (2021). Climate mitigation planning, stakeholders, and research in Delaware. Newark, DE: Institute for Public Administration.
- Barnes, P., O'Hanlon, J., & Matera, M. (2021). Green > grey: Challenges, opportunities, and policy implications of green infrastructure for Delaware green infrastructure landscape. Newark, DE: Institute for Public Administration.
- Barnes, P., & Akiba, K. (2020). Delaware's climate change programming: Evaluating its effectiveness and impact on local resiliency. Newark, DE: Institute for Public Administration.
- Barnes, P., Duran, K., & Akiba, K. (2019). A gap analysis of Delaware's federal consistency policies. Newark, DE: Institute for Public Administration.
- Barnes, P., Swan, B., & Kelly, C. (2018). Connected and automated vehicles policy brief series: Technology primer; Economic and employment impacts; Privacy challenges; Fiscal impacts; Enhanced mobility; Parking and land use impacts. Newark, DE: Institute for Public Administration.
- Chavis, C., Barnes, P., Grasso, S., Bhuyan, I., & Nickkar, A. (2018). Bicycle justice or just bicycles?: Analyzing equity in Baltimore's bike share program. Charlottesville, VA: Mid-Atlantic Transportation Sustainability University Transportation Center.
- Barnes, P. (2017). Climate-conscious comprehensive planning in Delaware: Developing and piloting a planning process in Milford, Delaware. Newark, DE: Institute for Public Administration.
- Barnes, P. (2017). Coastal resiliency needs assessment in Sussex County. Newark, DE: Institute for Public Administration.
- Barnes, P., & Turkel, E. (2017). Autonomous vehicles in Delaware: Analyzing the impact and readiness for the first state. Newark, DE: Institute for Public Administration.
- Scott, M., Li, M., Barnes, P., Stavru, W., Dayan, S., Jones, C., & Cragle, J. (2016). The use of smartgrowth scorecards/assessment tools to advance sustainable land-use practices. Charlottesville, VA: Mid-Atlantic Transportation Sustainability University Transportation Center.

## SCHOLARLY PUBLICATIONS

- Grasso, S., Barnes, P., & Chavis, C. (2020). Bikeshare equity for underrepresented groups: Analyzing barriers to system usage in Baltimore, MD. *Sustainability*, 12(8), 7600.
- Nickkar, A., Banerjee, S., Chavis, C., Bhuyan, I.A., & Barnes, P. (2019). A spatial-temporal gender and land use analysis of bikeshare ridership: The case study of Baltimore City. *City, Culture and Society*. 18, 100291.
- Bhuyan, I.A., Chavis, C., Nickkar, A., & Barnes, P. (2019). GIS-based equity gap analysis: Case study of Baltimore bike share program. *Urban Science*, 3(2), 42.

Barnes, P., & Sarzynski, A. (2019). Mobilizing communities to confront global challenges: A phronetic inquiry. In J. Kendra, S. G. Knowles, & T. Wachtendorf (Eds.), *Disaster research and the second environmental crisis* (pp. 117-135). New York, NY: Springer.

Barnes, P. (2015). The political economy of localization in the transition movement. *Community Development Journal*, 50(2), 312-326.

## ACADEMIC JOURNAL MANUSCRIPT PEER REVIEW

- *Community Development Journal*
- *Review of Policy Research*
- *Urban Science*
- *Environmental Sociology*
- *Journal of Transport and Health*

## CONFERENCE AND SYMPOSIUM PRESENTATIONS

Barnes, P., Reitz, J., Cornwell, J., Becker, T., Vassella, C., & Thornton, K. (October, 2022). *Lessons learned: Public engagement for climate resiliency in Lewes, DE*. Presentation at the American Planning Association Delaware Conference, Virtual Event.

Barnes, P. (June, 2022). *Land grant impact: Civic engagement at the Biden School*. Presentation at National Academy of Public Administration Social Equity Leadership Conference, Virtual Event.

Barnes, P. (July, 2019). *New methods in crystal ball gazing: Reading a social history of the elevator to anticipate future policy challenges of connected and automated vehicles*. Presentation at American Control Conference, Philadelphia, PA.

Barnes, P. (November, 2018). *Attempting the impossible: Predicting social impacts of connected and automated vehicles*. Presentation at Institute of Electrical and Electronics Engineers International Conference on Intelligent Transportation Systems, Maui, HI.

Barnes, P. (2018, October). *Climate change and public health: Developing and piloting a planning process in Milford, DE*. Presentation at the American Planning Association Regional Conference, Rehoboth Beach, DE.

Barnes, P. (2018, October). *Connected and automated vehicle happenings in Delaware*. Presentation at the American Planning Association Regional Conference, Rehoboth Beach, DE.

Nickkar, A., Chavis, C., Phyll, H., & Barnes, P. (2018, January). *A spatial-temporal analysis of Baltimore bikeshare ridership*. Poster session presented at the Transportation Research Board Annual Conference, Washington, DC.

Barnes, P. (November, 2017). *Smart state research and administration in Delaware*. Presentation at the University of Delaware Smart Cities and Sustainable Energy Symposium, Newark, DE.

Scott, M. & Barnes, P. (October, 2016). *Building local capacity for climate change planning in Delaware: An analysis of practices, lessons learned, and future opportunities*. Presentation at the American Planning Association MD/DE Regional Conference, Towson, MD.

Barnes, P. (March, 2016). *Transition initiatives and confrontational politics: Guidelines, opportunities, and practices*. Paper presented at the Western Political Science Association Annual Conference, San Diego, CA.

Barnes, P. (October, 2015). How green is our valley?: *Exploring the theory-practice disconnect in planned sustainable communities*. Presentation at the Delaware Valley University Precarious Alliance Annual Symposium, Doylestown, PA.

Barnes, P. (August, 2014). *Teaching in the social sciences*. Presented at the University of Delaware Graduate Teaching Assistant Conference, Newark, DE.

Barnes, P. & Bauer, G. (May, 2014). *The academic eportfolio: An asset in the academic job market*. Poster session presented at the Lilly International Teaching Conference on College and University Teaching and Learning, Bethesda, MD.

Barnes, P. (April, 2014). *Material dreams: Or, reevaluating the 'more stuff' storyline*. Paper presented at the New Visions for Public Affairs Annual Symposium, Newark, DE.

Barnes, P. (April, 2014). *Skilling up for powerdown: The technology and energy implications of reskilling in the transition movement*. Paper presented at the Delaware Valley University Precarious Alliance Annual Symposium, Doylestown, PA.

Bauer, G. & Barnes, P. (January, 2014). *Beyond the grad student CV: Academic eportfolios*. Poster session presented at the Temple University Annual Faculty Conference on Teaching Excellence, Philadelphia, PA.

Barnes, P. (November, 2013). *Effecting community change: A political economy of the transition movement*. Paper presented at the Annual Northeast Conference on Public Administration, Newark, DE.

Barnes, P. (August, 2013). *Active learning: Engaging students and making learning fun*. Presentation at the University of Delaware Graduate Teaching Assistant Conference, Newark, DE.

Barnes, P. (June, 2011). *(Mis)adventures in the epistemology of uncertainty: The complexity-energy relationship*. Presentation at the Association for Environmental Studies and Sciences Annual Conference, Burlington, VT .

## INVITED PRESENTATIONS

Barnes, P. (July, 2022). *Developing policies for sea level rise resiliency in Lewes, DE*. Presentation at Delaware Floodplain Conference, Lewes, DE.

Barnes, P. (August, 2021). *The rising tide: Are we prepared?*. Presentation at Ocean Currents Lecture Series, Virtual Event.

- Barnes, P. (January, 2021). *Oh crap!: Climate change, flooding, and sea level rise in New Castle County?* Presentation at the New Castle County Youth Planning Board, Virtual Event.
- Barnes, P. (December, 2020). *Research and analysis of local climate knowledge and policy action in Delaware.* Presentation at the Biden School Seminar Series, Virtual Event.
- Barnes, P. (April, 2020). *Sea level rise in Delaware: What is the challenge and what can we do about it?* Presentation at the Delaware Power Dialog, Virtual Event.
- Barnes, P. (September, 2018). *The connected and automated vehicle gambit: Technological panacea or road to perdition?* Presentation at the Civil Engineering Department Seminar Series, Newark, DE.
- Barnes, P. (February, 2018). *The promises and perils of the autonomous vehicle revolution.* Presentation at the University of Delaware Geography Department Seminar Series, Newark, DE.
- Barnes, P. (January, 2018). *Sea level rise in Delaware, and what it means for Milton.* Presentation at the Town of Milton Sustainable Communities Planning Workshop, Milton, DE.
- Barnes, P. (December, 2017). *Connected-automated vehicle research at the University of Delaware.* Presentation at Governor Carney's Advisory Council on Connected and Automated Vehicles, Dover, DE.
- Barnes, P. (December, 2017). *Planning for autonomous vehicles in Delaware.* Presentation at Wilmington Area Planning Council Public Advisory Commission, Newark, DE.
- Barnes, P. (October, 2017). *Ideology versus reality: The political economy of climate change policy non-decisions.* Presentation at University of Seoul Smart Cities Faculty Exchange, Seoul, South Korea.
- Barnes, P. (October, 2017). *Smart city research and administration in Newark, Delaware.* Presentation at University of Seoul Smart Cities Faculty Exchange, Seoul, South Korea.
- Barnes, P. (September, 2017). *Autonomous vehicles in Delaware.* Presentation at Wilmington Area Planning Council Technical Advisory Committee, Newark, DE.
- Barnes, P. (May, 2017). *Resources to help your community become flood ready.* Presentation at Institute for Public Administration Flood Ready Communities Training, Dover, DE.
- Barnes, P. (April, 2017). *Vulnerability to climate change in Milford, DE: Assessing threats, recommending action.* Presentation at Mason Dixon Task Force, Inc., Newark, DE.
- Barnes, P. (December, 2016). *Can an effective social movement avoid politics?: Analysis and insight from the transition movement.* Presentation at the School of Public Policy and Administration Seminar Series, Newark, DE.
- Barnes, P. (September, 2016). *The politics of climate change.* Presentation at DuPont Interdisciplinary Science Learning Laboratory Fall 2016 Lecture Series, Newark, DE.

Barnes, P. (November, 2014). *The transition movement: Who, what, where, why, when, and how*. Presentation at Delaware Technical College Sustainability Symposium, Stanton, DE.

Barnes, P. (October, 2014). *Qualitative methods in policy research*. Presentation at Delaware Valley University, Doylestown, PA.

## COURSES TAUGHT

- UAPP433/POSC483 – Washington, D.C. Policy Practicum
- UAPP406/GEOG434 – Planning Sustainable Communities & Regions
- UAPP325 – Public Policy Analysis
- UAPP220 – Citizens, Civility, & Change
- UAPP110 – Introduction to Public Policy
- UNIV101 – First Year Seminar
- CEE211 – Statics and Dynamics (at the University of Michigan)

## RELATED TEACHING EXPERIENCE

**Primary School English Teacher** 2005 - 2006  
Primary Schools Aristide Briand, Jean-Cavaillès, and La Citadelle, *Bayonne, France*

**Middle School Mathematics Teacher** 2003 - 2005  
United States Peace Corps, *Kirsi, Burkina Faso*

## UNIVERSITY OF DELAWARE SERVICE

**Faculty Director** 2021 - present  
University of Delaware Semester in D.C. Program

**Faculty Advisor** 2021 - present  
The Lattice Project – University of Delaware Chapter

**Faculty Advisor** 2019 - present  
Climate Reality Project – University of Delaware Chapter

**Faculty Advisor** 2017 - 2021  
buildOn – University of Delaware Chapter

**Faculty Search Committee Member** 2021  
Stavros Niarchos Foundation Chair

**Committee Member** 2016 - 2020  
Sustainability Task Force

**Committee Member** 2018  
Ad-Hoc Committee on Joint and Secondary Appointments

<b>Organizing Committee Member</b> Smart Cities and Sustainable Energy Symposium	2018
<b>Committee Member</b> Green Grants Committee	2012 - 2018
<b>Associate Editor</b> Student Journal <i>New Visions for Public Affairs</i>	2012 - 2015
<b>Ph.D. Student Guidebook Author</b> School of Public Policy and Administration	2013
<b>Committee Member</b> Creating an Undergraduate Honors Program for SPPA	2012

## COMMUNITY SERVICE, OUTREACH, AND ENGAGEMENT

<b>Board Member</b> Claymont Renaissance Development Corporation	2019 - present
<b>Member</b> Governor Carney's Advisory Council on Connected and Autonomous Vehicles – Main Council	2017 - 2018
<b>Member</b> Governor Carney's Advisory Council on Connected and Autonomous Vehicles – Technology, Security, and Privacy Subcommittee	2017 - 2018
<b>Co-Founder and Steering Committee Member</b> Resilient and Sustainable Communities League (RASCL) of Delaware	2015 - 2018
<b>Radio Talk Show Host and Producer for "Beyond Rhetoric"</b> 91.3FM, WVUD - The Voice of the University of Delaware, <i>Newark, Delaware</i>	2013
<b>Volunteer</b> Transition Town Media, <i>Media, Pennsylvania</i>	2012 - Present

## PROFESSIONAL DEVELOPMENT

<b>Participant – Lilly International Teaching Conference</b> International Teaching Learning Cooperative, <i>Bethesda, Maryland</i>	2014
<b>Participant – Faculty Conference on Teaching Excellence</b> Temple University, <i>Philadelphia, Pennsylvania</i>	2014
<b>Fellow – Higher Education Teaching Certification Program</b> University of Delaware, <i>Newark, Delaware</i>	2012 - 2013



**Participant – Grant Writing Workshop** 2012  
University of Delaware, *Newark, Delaware*

**Participant – Responsible Conduct of Research Seminar** 2011  
University of Delaware, *Newark, Delaware*

## PROFESSIONAL EXPERIENCE

**Structural Engineer** 2010  
Walsh Design Group, *Kinsale, Ireland*

**Structural Engineer / Research and Development Assistant** 2006 - 2010  
Fusion Building Systems, *Ringaskiddy, Ireland*

**Soil Mechanics Laboratory Assistant** 2005  
University of Engineering and Rural Development, *Ouagadougou, Burkina Faso*

**Structural Engineer** 2002  
Albert Kahn Associates, *Detroit, Michigan*

## AWARDS AND HONORS

**Public Administration Fellow** 2013, 2014  
Institute for Public Administration, *Newark, Delaware*

**University of Delaware Teaching Assistant Fellow** 2013, 2014  
Center for the Advancement of Teaching and Learning, *Newark, Delaware*

**Director's Citation** 2013  
School of Public Policy and Administration, *Newark, Delaware*

**James B. Angell Scholar** 2001  
University of Michigan, *Ann Arbor, Michigan*

## PROFESSIONAL AFFILIATIONS

- American Planning Association
- Transportation Research Board
- Delaware Association for Public Administration