Talitha M. Washington

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Education

Ph.D. in Mathematics, University of Connecticut, Storrs, CT (2001)
Dissertation Title: *Mathematical Model of Proteins Acting as On/Off Switches*
Advisor: Dr. Yung-Sze Choi

M.S. in Mathematics, University of Connecticut, Storrs, CT (1998)

B.S. in Mathematics, Spanish Minor, Magna Cum Laude, Spelman College, Atlanta, GA (1996)
Senior Thesis: *Derivation of Black-Scholes Option Pricing Model*
Advisor: Dr. Jeffrey Ehme

Study Abroad, Universidad Autónoma de Guadalajara, Guadalajara, México (Fall 1995)

Study Abroad, Liceo Hernán Vargas Ramírez, Juan Viñas, Costa Rica (February 1992 – July 1992)

Diploma, Bosse High School, Evansville, IN (1992)

Continuing Education

Advanced Leadership Institute, Society for the Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS), Howard Hughes Medical Institute, Chevy Chase, MD (June 2016)

Project Management Certificate, Georgetown University, Washington, DC (December 2015)

Summer Leadership Institute, Society for the Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS), American Association for the Advancement of Science (AAAS), Washington, DC (July 2015)

Employment

Howard University, Washington, DC
Associate Professor, Department of Mathematics (2012 – present)
Visiting Associate Professor, Department of Mathematics (2011 – 2012)
Awarded tenure (2012)

The EDGE Program (Enhancing Diversity in Graduate Education)
Local Coordinator, Howard University, Washington, DC (June 2015)
Instructor, Florida Agricultural and Mechanical University, Tallahassee, FL (June 2011)

University of Evansville, Evansville, IN
Assistant Professor, Department of Mathematics (2005 – 2011)
Awarded tenure and promotion to Associate Professor (2011)

The College of New Rochelle, New Rochelle, NY
Assistant Professor, Department of Mathematics (2003 – 2005)

Ivy Tech Community College, Evansville, IN
Adjunct Faculty in Mathematics (Summer 2007)

Duke University, Durham, NC
VIGRE Research Associate, Department of Mathematics (2001 – 2003)
Advisors: Dr. Michael Reed and Dr. Joseph Blum

University of Connecticut, Storrs, CT
Teaching Assistant, Department of Mathematics (September 1996 – August 2001)
Instructor, Project 3000 by 2000 (Summer 2000)
Research Mentor, UConn Mentor Connection (July 2000)
Instructor, Center for Academic Programs (Summer 1997 and 1998)

Spelman College, Atlanta, GA
Mathematics Tutor (February 1994 – May 1996)

CIGNA, Hartford, CT
Actuarial Intern (Summer 1995)

Bentley University, Waltham, MA
Scholar, Minority Scholars Summer Institute in Accountancy (1994)

Bristol-Meyers Squibb, Inc., Evansville, IN
Pharmaceutical Packaging Intern (Summer 1993)

Awards and Recognition

- Community Service Award, Black Women's Task Force, Evansville, IN (February 2009)
- Recognized as one of the "Six People You Need to Know" in *Evansville City View* magazine (2009)
- Competent Communicator Award, Toastmasters International (Summer 2008)
- Member, Kappa Mu Epsilon, National Mathematics Honor Society (April 2006)
- Project NExT Fellow (New Experiences in Teaching) (2004 – 2005)
- Graduate Scholar, The David and Lucile Packard Foundation (1996 – 2001)
- Minority Fellow, University of Connecticut (1996 – 2001)
- Student Multicultural Award, University of Connecticut (1998)
- Scholars in Mathematics at Spelman (SIMS), Spelman College (1994 – 1996)
- Academic Scholarship, Spelman College (1992 – 1994)
- Pi Mu Epsilon, National Mathematics Honor Society
- Golden Key National Honor Society

Scholarly and Professional Activity

Research Interests.

- Applied mathematics, more specifically, applications of differential equations to model processes in biology, materials engineering, and structural engineering

Publications.

Refereed Publications.

[1] T. Washington. *Mathematical Model of a Protein-Protein Interaction Network*. Nonlinear Studies, Vol. 10, No. 3 (2003), pp. 201-220.

[2] T. M. Washington, J. J. Blum, M. C. Reed, and P. M. Conn. *A Mathematical Model for LH Release in Response to Continuous and Pulsatile Exposure of Gonadotrophs to GnRH*. Theoretical Biology and Medical Modeling, Vol. 1, No. 9 (2004), pp. 1-17.

[3] A. D. Jones, P. Ngnepieba, T. M. Washington, and D. K. Rollins. *Mathematical Modeling of the Chemical Vapor Infiltration Process.* Proceedings of the International Conference on Carbon (2007).

[4] T. M. Washington. *Evansville Honors the First Black Ph.D. in Mathematics and His Family*. The Notices of the American Mathematical Society, Vol. 55, No. 5 (2008), pp. 588-589.

[5] E. H. Goins and T. M. Washington. *A Tasty Combination: Multivariable Calculus and Differential Forms*. The Pentagon, Vol. 69, No. 1 (2009), pp. 11-28.
[6] E. H. Goins and T. M. Washington. *Sphere-of-Influence Graphs*. Wolfram Demonstrations Project (2010).
`http://demonstrations.wolfram.com/SphereOfInfluenceGraphs/`
[7] T. M. Washington. *A Note on Fixed Points of Iterations of Real-Valued Functions*. International Journal of Pure and Applied Mathematics, Vol. 61, No. 3 (2010), pp. 297-300.
[8] M. J. Wolyniak, C. J. Alvarez, V. Chandrasekaran, T. M. Grana, A. Holgado, C. J. Jones, R. W. Morris, A. L. Pereira, J. Stamm, T. M. Washington, and Y. Yang. *Building Better Scientists Through Cross-disciplinary Collaboration in Synthetic Biology: A Meeting Report from the Genome Consortium for Active Teaching Workshop 2010*. CBE-Life Sciences Education, Vol. 9, No. 4 (2010), pp. 399-404.
[9] R. E. Mickens and T. M. Washington. *A Note on an NSFD Scheme for a Mathematical Model of Respiratory Virus Transmission*. Journal of Difference Equations and Applications, Vol. 18, No. 3 (2012), pp. 525-529.
[10] E. H. Goins and T. M. Washington. *The Area of the Surface Generated by Revolving a Graph About any Line*. PRIMUS, Vol. 23, Iss. 2 (2013), pp. 121-132.
[11] R. E. Mickens and T. M. Washington. *A Note on Exact Finite Difference Schemes for the Differential Equations Satisfied by the Jacobi Cosine and Sine Functions*. Journal of Difference Equations and Applications, Vol. 19, Iss. 2 (2013), pp. 1042-1047.
[12] T. M. Washington. *NSFD Representations for Polynomial Terms Appearing in the Potential Functions of 1-Dimensional Conservative Systems*. Computers & Mathematics with Applications, Vol. 66, Iss. 11 (2013), pp. 2251-2258.
[13] R. E. Mickens and T. M. Washington. *NSFD Discretizations of Interacting Population Models Satisfying Conservation Laws*. Computers & Mathematics with Applications, Vol. 66, Iss. 11 (2013), pp. 2307-2316.
[14] E. H. Goins and T. M. Washington. *On the Generalized Climbing Stairs Problem*. Ars Combinatoria, Vol. 117 (2014), pp. 183-190.
[15] R. E. Mickens, J. Munyakazi and T. M. Washington. *A Note on the Exact Discretization for a Cauchy-Euler ODE: Application to the Black-Scholes Equation*. Journal of Difference Equations and Applications, Vol. 21, Iss. 7 (2015), pp. 547-552.
[16] R. E. Mickens and T. M. Washington. *Use of Exact Difference Schemes to Construct NSFD Discretizations of Differential Equations*. Chapter in book "Exact Finite-difference Schemes", Eds. S. Lemeshevsky, P. Matus, and D. Poliakov. Berlin, Boston: De Gruyter. 2016, pp. 144-164.
[17] R. De Veaux, M. Agarwal, M. Averett, B. Baumer, A. Bray, T. Bressoud, L. Bryant, L. Cheng, A. Francis, R. Gould, A. Y. Kim, M. Kretchmar, Q. Lu, A. Moskol, D. Nolan, R. Pelayo, S. Raleigh, R. J. Sethi, M. Sondjaja, N. Tiruviluamala, P. Uhlig, T. Washington, C. Wesley, D. White, P. Ye. *Curriculum Guidelines for Undergraduate Programs in Data Science*, Annual Review of Statistics and Its Application, Vol. 4 (2017), pp. 2.1-2.16.

Publications in Progress.

[18] T. M. Washington. *A Survey of Nonstandard Finite Difference Schemes in Biology.*
[19] E. H. Goins and T. M. Washington. Ordinary Differential Equations.

Other.

[20] K. Saxe and T. Washington. *AWM Visits to Capitol Hill*, AWM Newsletter, Vol. 46, No. 4 (2016), pp. 8-9.

[21] T. Washington. *Evansville Man Led Inspiring Life as Math Pioneer*. Evansville Courier & Press, April 18 (2006), p. A7.
[22] T. Washington. *Low Dropout Rate Helps Us All*. Evansville Courier & Press, July 17 (2006), p. A9.
[23] T. Washington. *Cyclists Do More Than Spin Wheels*. Evansville Courier & Press, July 29 (2008), p. A6.
[24] T. Washington. *New Definition of 'American' Has Arisen*. Evansville Courier & Press, November 9 (2008), p. A15.
[25] T. Washington. *Police Diversity Report Does Not Include Full Story*. Evansville Courier & Press, March 13 (2011), p. A12.

Grants.

- Co-Principal Investigator, *Chemistry, Mathematics, and Physics Scholarships (CMaPS) at Howard University*, National Science Foundation, $617,497 (August 2014)
- Principal Investigator, *Mathematical Biosciences Institute Research Experience for Undergraduates at Howard University*, Mathematical Biosciences Institute, $10,000 (June 2014)
- Co-Principal Investigator/Project Director, *Building Connections and Learning Communities among Educators and Researchers at HBCUs*, National Science Foundation, $1,849,950 (September 2012; Joined Project September 2013)
- Co-Principal Investigator, *Increasing Teacher Effectiveness Through Focused Professional Development: A Model for Pre-K Teachers*, Office of the State of the State Superintendent of Education (OSSE) Teacher Quality Improvement (TQI) Grant Program, $100,000 (May 2014)
- Principal Investigator, *Harriett G. Jenkins Predoctoral Fellowship* Awarded to Kenyon L. Coleman, National Aeronautics and Space Administration (NASA), $135,000 (September 2013)
- Principal Investigator, *Textbook on "Differential Equations and Your World"*, Howard University (HU) ADVANCE-IT Mini-grant, Howard University ADVANCE-IT: Women of Color Faculty in STEM as Change Agents (HRD-1208880), $16,157 (June 2013)
- Founder and Director, Summer Mathematics and Research Training in Evansville (SMARTE), Memorial Community Development Corporation, Evansville, IN; funded by Toyota U. S. A. Foundation, $3,000 (July 2013)
- Support for *Stepping Up*, Memorial Community Development Corporation, Evansville, IN; funded by Vectren Foundation, Toyota Foundation, Old National Bank (October 2008)
- Support for *The Family Jazz Celebration* featuring the Spelman College Jazz Ensemble, Memorial Community Development Corporation, Evansville, IN; funded by Old National Bank, Alcoa and Fifth Third Bank (March 2008)
- Support for *Stepping Up*, Memorial Community Development Corporation, Evansville, IN; funded by Vectren Foundation (August 2007)

Advisory Boards.

- *Member at Large*, Council, American Mathematical Society (AMS), (February 2017 – January 2020)
- *Representative-at-Large for Minority Interests*, Board of Governors, Mathematical Association of America (MAA), (February 2016 – January 2019)
- *Advisory Board*, Institutional Practices Guide, Mathematical Association of America (MAA), (January 2016 – January 2017)
- *Math Academic Advisory Committee*, College Board (January 2016 – present)
- *Advisory Board*, National Institute for Mathematical and Biological Synthesis (NIMBioS), (July 2014 – present)

- *Steering Committee*, Capital Area Project Kaleidoscope (PKAL) Regional Network (March 2014 – November 2014)
- *At-large Member of the Executive Committee*, Association for Women in Mathematics (February 2013 – present)
  - Chair, Programs Committee (February 2016 – present)
- *Faculty Consultant*, The Digital Humanities Laboratory, University of Evansville (Spring 2011)
- *Diversity Advisory Committee*, Society for Industrial and Applied Mathematics (SIAM) (2011 – 2013)
- *Board of Directors*, National Association of Mathematicians
  - Editor (January 2010 – July 2012, January 2015 – present)
  - Vice-President (January 2015 – present)
- *Board of Directors*, YMCA of Southwestern Indiana, Evansville, IN (2008 – 2011)
- *Board of Directors*, Memorial Community Development Corporation, Evansville, IN (2007 – 2011)
- *Steering Committee*, Southwest Indiana College Access, Evansville, IN (2007 – 2011)
- *Minority Advisory Committee to the School Board*, Evansville-Vanderburgh School Corporation, Evansville, IN (February 2008 – September 2008)

Editorship.

- *Editorial Board Member*, Math Horizons (August 2013 – present)
- *Editor*, National Association of Mathematicians (NAM) Newsletter (January 2010 – July 2012, January 2015 – present)
  - Manage webpage, `http://nam-newsletter.org/`
  - Solicit articles, manage advertisements, and oversee production of the NAM Newsletter
  - Managed a staff of three individuals
    - Dr. Mohammad K. Azarian, Department of Mathematics, University of Evansville (January 2010 – July 2012)
    - Dr. Edray H. Goins, Department of Mathematics, Purdue University (January 2010 – July 2012)
    - Neeley Koester, Student, University of Evansville (January 2010 – May 2010)

Student Research Supervised.

Graduate Student Research Supervised.

- Oluwaseye Adekanye, *The Analysis and Application of Non-Standard Finite Difference Schemes to Best Discretize Differential Equations*, Howard University (2015 – present)
- Kenyon L. Coleman, *Programming Data-Driven Data Query and Presentation*, Howard University (2013 – 2014)

Doctoral Defense Committees Served.

- Mamadou Wade, *Distributed Image Encryption Based on Homomorphic Cryptographic Approach*, Department of Electrical Engineering and Computer Science, Howard University (TBA)
- Moussa Doumbia, *Malaria control and eradication in irrigated and non-irrigated regions of Mali and among pregnant women of Ebonyi state in Nigeria*, Department of Mathematics, Howard University (TBA)
- Martin Arienmughare, *Three-Four-wave HLLC Riemann Solver for Single and Multiphase Flow, and the Classical and Semi-relativistic CGL-MHD*, Department of Mathematics, Howard University (2016)
  - Committee Chairperson

Undergraduate Research Supervised.

- Project Mentor for five undergraduate students, *Modeling the Transmission of the Zika Virus*, Institutional Research Engagement Program at Howard University (IREPHU), Howard University, Washington, DC (January 2017 – present)
- Benjamin Liska, *A Mathematical Approach to Uncovering Regulatory Mechanisms in Calcium Homeostasis*, St. Olaf College; Undergraduate Research Program of the Mathematical Biosciences Institute (2014)
- Jennifer Houser, *Modeling Latency of Thalamocortical Fast-Spiking Interneurons in Schizophrenia*, East Tennessee State University; Undergraduate Research Program of the Mathematical Biosciences Institute (2014)
- Jasmine Hopkins, *Mathematical Model of the Intercellular Biological Processes of the Influenza A Virus*, Howard University (2011 – 2012)
  - Student gave an oral presentation at the College of Arts and Sciences Symposium on Undergraduate Research, Howard University (April 2012)
- Christopher Harrison, *Applied Associative Networks*, University of Evansville (Spring 2011)
- Sarah Schulz, *Intracellular Model of HIV Lifecycle*, University of Evansville (2009 – 2010)
  - Student won a presentation award at the National Association of Mathematicians' Undergraduate MATHFest XIX, University of the District of Columbia (November 2009)
- Brian Fillenwarth, *Modeling the Tacoma Narrows Bridge*, University of Evansville (2006 – 2007)
  - Refereed publication

    Improving the Mathematical Model of the Tacoma Narrows Bridge. Rose-Hulman Undergraduate Math Journal, **8** (2007), no. 2.
- Amanda Hagerty, *Applications of Differential Equations to Biology*, University of Evansville (Fall 2005)
- Veronica Cambra, *Spherical Geometry*, The College of New Rochelle (2004 – 2005)

Talks / Presentations.

[1] Speaker, *Preserving Conservation Laws in the Construction of Nonstandard Finite Difference Schemes*, STEAM-H Seminar, Virginia State University, Petersburg, VA (January 2017)

[2] Speaker, *Nonstandard Finite Difference Schemes: the Mathematics of Ronald Mickens*, Joint Mathematics Meetings, Atlanta, GA (January 2017)

[3] Speaker, *Employing Conservation Laws to Construct Nonstandard Finite Difference Schemes*, Joint Mathematics Meetings, Atlanta, GA (January 2017)

[4] Speaker, *Some Surprising Ways to Use Mathematics to Solve Big Questions*, Mathematics Seminar, Montgomery College, Rockville, MD (December 2016)

[5] Speaker, *Training In-service Teachers to Think Deeply about Modeling in the Common Core Movement*, SIAM Conference on Applied Mathematics Education, Philadelphia, PA (September 2016)

[6] Keynote, *Best Practices in Designing and Implementing Courses which Combing Biology and Matheamtics*, National Academies Special Topics Summer Institute on Lowering the Activation Energy: Making Quantitative Biology More Accessible, North Carolina State University, Raleigh, NC (June 2016)

[7] Keynote, *Demystifying STEM*, African American Girls Expanding Mathematics (AAGEM) 2016, California State University Channel Islands, Camarillo, CA (April 2016)

[8] Speaker, *I Dream A World...of Mathematics*, African-American Women in STEM: The Trek beyond the Ph.D., California State University Channel Islands, Camarillo, CA (April 2016)

[9] Panelist, *Demystifying STEM*, Multicultural Awareness Week, Northern Virginia Community College, Loudoun Campus, Sterling, VA (April 2016)

[10] Keynote, *Blood, Ebola, and Zombies: Using Mathematics to Uncover the Mysteries of Biological Processes*, Central States Mathematics Undergraduate Conference (CeSMUR), Truman State University, Kirksville, MO (April 2016)
[11] Panelist, *New Faculty Issues*, Faculty Retreat, Howard University Faculty Senate, Howard University, Washington, DC (April 2016)
[12] Speaker, *A Lab-Style Proof and Problem Solving Course*, Joint Mathematics Meetings, Seattle, WA (January 2016)
[13] Keynote, *The Ubiquity of Mathematical Biology*, Fall 2015 Meeting of the MD-DC-VA Section of the Mathematical Association of America, St. Mary's College of Maryland, St. Mary's, MD (November 2015)
[14] Speaker, *Workshops, Conferences, and REUs Oh My! My Experiences at MBI*, Modern Math Workshop, Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), Gaylord National Resort & Convention Center, National Harbor, MD (October 2015)
[15] Speaker, *Let Me Get You Hip to the STEM Game*, African-American Heritage Assembly, Parkland Magnet Middle School for Aerospace Technology, Rockville, MD (February 2015)
[16] Panelist, *Careers Using Mathematics*, Nebraska Conference for Undergraduate Women in Mathematics (NCUWM), University of Nebraska–Lincoln, Lincoln, NE (January 2015)
[17] Speaker, *Construction of Nonstandard Finite Difference Schemes*, Departmental Colloquium, United States Naval Academy, Annapolis, MD (November 2014)
[18] Speaker, *Blood, Brains, and Ebola: A Mathematical Exploration of Physiological Processes*, Hood College, Frederick, Maryland (November 2014)
[19] Speaker, *"Tale as old as time/Song as old as rhyme": Mathematics and Biology*, Society for the Advancement of Chicanos and Native Americans in the Sciences National Conference, Los Angeles, CA (October 2014)
[20] Speaker, *My Route to Tenure*, Society for the Advancement of Chicanos and Native Americans in the Sciences National Conference, Los Angeles, CA (October 2014)
[21] Keynote, *Navigating the STEM Jungle: Tips, Tricks, and Techniques Every Woman Needs to Know*, Increasing the Diversity of Women in the Sciences: Advantages of and Pathways to the Ph.D., University of Hawai'i at Manoa (May 2014)
[22] Speaker, *An Introduction to Nonstandard Finite Difference Schemes*, Applied Math and Computation Seminar, Oregon State University (April 2014)
[23] Speaker, *STEM Sheroes*, Oregon State University (April 2014)
[24] Speaker, *STEM Sheroes*, Howard University SIAM (Society for Industrial and Applied Mathematics) Week, Howard University (April 2014)
[25] Speaker, *STEM Sheroes*, Trinity Washington University (April 2014)
[26] Speaker, *Capturing Physiological Processes Via Dynamical Systems Modeling, Advancing Computational Biology @ Howard University Symposium*, Howard University (March 2014)
[27] Speaker, *Careers in Mathematics*, Math Night, Harmony Hills Elementary School, Silver Spring, MD (February 2014)
[28] Speaker, *Nonstandard Finite Difference Discretizations of Population Models Satisfying Conservation Laws*, Joint Mathematics Meetings, Baltimore, MD (January 2014)
[29] Speaker, *Construction of Nonstandard Finite Difference Schemes*, Applied Mathematics Lecture Series, Shippensburg University, Shippensburg, PA (November 2013)
[30] Panelist, *Career*, Undergraduate Research Conference at the Interface of Biology and Mathematics, National Institute for Mathematical and Biological Synthesis (NIMBioS), Knoxville, TN (November 2013)

[31] Invited Speaker, *Understanding Calcium Regulation Via Mathematical Modeling*, Fall Eastern Sectional Meeting of the American Mathematical Society, Temple University, Philadelphia, PA (October 2013)
[32] Speaker, *LaTeX Tutorial*, Mathematics Graduate Student Seminar, Howard University, Washington, DC (September 2013)
[33] Speaker, *A Glimpse of Dynamical Modeling in the Biosciences*, MSRI Undergraduate Program (MSRI-UP), Mathematical Sciences Research Institute, Berkeley, CA (July 2013)
[34] Speaker, *A Glimpse of Mathematical Modeling in the Biosciences*, Summer Program In Research And Learning (SPIRAL), University of Maryland, College Park, MD (June 2013)
[35] Speaker, *Give Your Pi a Break*, Parkland Middle School, Rockville, MD (March 2013)
[36] Speaker, *Modeling with Nonstandard Finite Difference Schemes in Biology*, Women's Research Symposium, Howard University (March 2013)
[37] Speaker, *Queen of the Sciences: Using Mathematics to Understand Phenomena*, Research Forum, College of Arts and Sciences, Howard University (February 2013)
[38] Panelist, *Five Fingers of STEM: Graduate Fellowships and Other Programs Students Should Know About*, Howard University, Washington, DC (October 2012)
[39] Invited Speaker, *Cells and Hormones and Diseases, Oh My! Applications of Mathematical Modeling to the Biosciences*, Department of Biological Sciences Seminar, Clark Atlanta University, Atlanta, GA (October 2012)
[40] Invited Speaker, *Nonstandard Finite Difference Discretizations of Population Models Satisfying Conservation Laws*, Applied Math Colloquium, University of Maryland, Baltimore County, MD (September 2012)
[41] Keynote Speaker, *Graduate Fellowships and Other Programs Students Should Know About*, Undergraduate Research Capstone Conference, Mathematical Biosciences Institute (MBI), The Ohio State University, Columbus, OH (August 2012)
[42] Presenter, *Infusing the Flavor of Mathematical Biology Research into the Undergraduate Experience*, MAA MathFest, Madison, WI (July 2012)
[43] Presenter, *Designing a Research-based Mathematical Biology Course*, The Society for Mathematical Biology Annual Meeting and Conference, Knoxville, TN (July 2012)
[44] Panelist, *Balancing Work and Family*, Preparing Future Faculty Summer Institute, Washington, DC (June 2012)
[45] Presenter, *NSFD Representations for Polynomial Terms Appearing in the Potential Functions of* 1*-Dim Conservative Systems*, Progress on Difference Equations, Viginia Commonwealth University, Richmond, VA (May 2012)
[46] Panel Moderator, *Next Steps: Statistics and Probability Beyond Blackwell's Contributions*, David Blackwell Memorial Conference, Howard University, Washington, DC (April 2012)
[47] Invited Speaker, *The Interplay Between Mathematics and Biology*, Short Course: Applications of mathematics to Biology, Infinite Possibilities Conference, University of Maryland, Baltimore County, Baltimore, MD (March 2012)
[48] Panelist, *What Should I Do After College?*, Infinite Possibilities Conference, University of Maryland, Baltimore County, Baltimore, MD (March 2012)
[49] Panelist, *Applying for Jobs*, Spring Opportunities Workshop, Mathematical Sciences Research Institute (MSRI), Berkeley, CA (March 2012)
[50] Presenter, *Getting to Know Mathematicians of the African Diaspora*, Trinity Washington University, Washington, DC (February 2012)
[51] Presenter, *Taking Instruction with Numerical Computations to the Next Octave*, Joint Mathematics Meetings, Boston, MA (January 2012)
[52] Presenter, *From Cells to Bridges: Modeling with Differential Equations*, Department of Mathematics Colloquium, Howard University, Washington, DC (September 2011)

[53] Presenter, *The Role of Geometry in Higher Education/Brief History of NAM*, 83rd Annual National Technical Association Conference, Howard University, Washington, DC (September 2011)
[54] Panelist, *Coming Together to Get It Together Minority Technical Organizations*, 83rd Annual National Technical Association Conference, Howard University, Washington, DC (September 2011)
[55] Presenter, *From Cells to Bridges: Modeling with Differential Equations*, Department of Mathematics Colloquium, Morgan State University, Baltimore, MD (September 2011)
[56] Invited Presenter, *From Cells to Bridges: Modeling with Differential Equations*, Summer Program for Women in Mathematics, The George Washington University, Washington, DC (July 2011)
[57] Presenter, *A Discussion on the 'Double Bind: The Price of Being a Minority Woman in Science'*, STEM Women of Color Conclave, Atlanta, GA (June 2011)
[58] Keynote Speaker, *Axioms of Success: A Spelman Woman's Mathematical Journey*, Etta Z. Falconer Mathematics Lecture, Spelman College, Atlanta, GA (April 2011)
[59] Presenter, *Revisiting College Geometry: Making it Relevant for Math, Math Education and Elementary Education Students*, Joint Mathematics Meetings, New Orleans, LA (January 2011)
[60] Invited Presenter, *Galloping Gertie Revisited: Demystifying the Collapse of the Tacoma Narrows Bridge*, Blackwell-Tapia Conference, Mathematical Biosciences Institute, Columbus, OH (November 2010)
[61] Panelist, *Intersections of Diversity: At Home and Abroad*, International Education Week, University of Evansville, Evansville, IN (November 2010)
[62] Presenter, *Connecting First-Year students to Current Trends in Mathematical Biology*, MathFest, Pittsburgh, PA (August 2010)
[63] Presenter, *A Conversation about African-American Mathematicians*, Evansville African American Museum, Evansville, IN (April 2010)
[64] Presenter, *Diversity and the Allegheny Advantage*, Allegheny College, Meadville, PA (April 2010)
[65] Presenter, *Dr. Elbert Frank Cox and Sequences*, College Mentor for Kids, University of Evansville, Evansville, IN (March 2010)
[66] Presenter, *Confluent Graphs: Making Graphs Pretty*, Joint Mathematics Meetings, San Francisco, CA (January 2010)
[67] Panelist, *Research and Professional Careers in the Mathematical Sciences*, National Association of Mathematicians' Undergraduate MATHFest XIX, University of the District of Columbia, Washington, DC (November 2009)
[68] Presenter, *SIGs on Cycles*, Math Coffee Hour, University of Evansville (November 2009)
[69] Presenter, *The FitzHugh-Nagumo Model for Neural Impulses*, Cognitive and Neural Science Research Group, University of Evansville, Evansville, IN (October 2009)
[70] Panelist, *Graduate and Professional School Forum*, Career Services and Cooperative Education, University of Evansville, Evansville, IN (September 2009)
[71] Presenter, *Confluent Graphs*, Visual Analytics and its Applications, Reconnect Conference 2009, Center for Discrete Mathematics and Theoretical Computer Science (DIMACS), Piscataway, NJ (August 2009)
[72] Presenter, *SIGs on Cycles*, Research Experiences for Undergraduate Faculty, American Institute of Mathematics (AIM), Palo Alto, CA (July 2009)
[73] Presenter, *Modeling Intracellular Processes*, Morehouse College, Atlanta, GA (May 2009)
[74] Presenter, *Modeling: Differential Equations & Biology*, Wittenberg University, Springfield, OH (March 2009)

[75] Keynote Speaker, *Women and Diversity*, Media Stereotypes in Hollywood and Corporate America, Women's History Month, Wittenberg University, Springfield, OH (March 2009)
[76] Presenter, *Galloping Gertie*, Kappa Mu Epsilon Annual Initiation, University of Evansville, Evansville, IN (March 2009)
[77] Presenter, *The Great Debaters: A Female's Perspective*, Gender and Women's Studies Brown Bag Series, University of Evansville, Evansville, IN (March 2009)
[78] Presenter, *The Life and Legacy of Dr. Elbert F. Cox: 1st Black Ph.D. in Mathematics*, Black History at Lunchtime Series, Vanderbilt University, Nashville, TN (February 2009)
[79] Guest, *Dr. Elbert Frank Cox*, AM Evansville, WTVW Fox 7 News, Evansville, IN (February 2009)
[80] Presenter, *College 101*, YMCA of Southwestern Indiana College Prep Academy visit, University of Evansville, Evansville, IN (February 2009)
[81] Panelist, *African Americans as Educators*, National Black Student Union Conference, Lincolnshire, IL (November 2008)
[82] Moderator, *Barack Obama: Redefining Race in America?* University of Evansville, Evansville, IN (November 2008)
[83] Poster Presenter, *A Complete Solution to the Climbing Stairs Problem*, Blackwell-Tapia Conference, Statistical and Applied Mathematical Sciences Institute (SAMSI), Research Triangle Park, NC (November 2008)
[84] Speaker, *Disproportionality: Prejudice in our Schools*, Emeriti Faculty Group, University of Evansville, Evansville, IN (November 2008)
[85] Guest Lecturer, *Women and Diversity*, Intro to Women's Studies course, University of Evansville, Evansville, IN (October 2008)
[86] Guest, *Dr. Elbert Frank Cox*, WIKY 104.1 FM, Morning Show, Evansville, IN (August 2008)
[87] *Moderator*, University of Evansville Annual African American Alumni Association Meeting, University of Evansville, Evansville, IN (April 2008)
[88] Presenter, *1925: Dr. Elbert Frank Cox and David Curtiss Stevenson*, Wednesday Mornings at UE, University of Evansville, Evansville, IN (April 2008)
[89] Keynote Speaker, *National Honor Society Induction Ceremony*, Bosse High School, Evansville, IN (March 2008)
[90] Panelist, *Women in Engineering Math and Sciences Panel Discussion*, Society of Women in Engineering, University of Evansville, Evansville, IN (November 2007)
[91] Presenter, *Benefits of Undergraduate Research and Internship Opportunities*, Infinite Possibilities Conference, North Carolina State University, Raleigh, NC (November 2007)
[92] Moderator, *City Council Debates*, WNIN, Public Broadcasting for the Evansville Tri-State, Evansville, IN (October 2007)
[93] Presenter, *College 101*, Bosse High School, Evansville, IN (September 2007)
[94] Presenter, *Modeling: Differential Equations and Biology*, Summer Undergraduate Mathematical Sciences Research Institute, Miami University of Ohio, Oxford, OH (July 2007)
[95] Presenter, *Discrete Logistic Model in Calculus II*, Joint Mathematics Meetings, New Orleans, LA (January 2007)
[96] Presenter, *Stories of African Americans Who Earned PhDs in Mathematics*, The Andiron Lecture Series, University of Evansville, Evansville, IN (October 2006)
[97] Guest, WGBF 1280 AM, Evansville, IN (September 2006)
[98] Presenter, *Modeling the Spread of Gonorrhea*, MathFest, Knoxville, TN (August 2006)
[99] Presenter, *Math Workshop on Sequences and Linear Modeling*, Options for Girls, University of Evansville, Evansville, IN (June 2006)
[100] Keynote Speaker, *Dr. Elbert Frank Cox*, Kappa Mu Epsilon Annual Initiation, University of Evansville, Evansville, IN (April 2006)

[101] Presenter, *Math Workshop for Grades 3, 4, and 5*, Joshua Academy, Evansville, IN (April 2006)
[102] Presenter, *Dr. Elbert F. Cox*, Kids on Campus, University of Evansville, Evansville, IN (March 2006)
[103] Presenter, *Mathematicians of the African Diaspora*, University of Evansville, Evansville, IN (February 2006)
[104] Presenter, *African-American Studies Class*, Bosse High School, Evansville, IN (October 2005)
[105] Presenter, *Mathematicians of the African Diaspora*, Faculty Forum, The College of New Rochelle, New Rochelle, NY (March 2005)
[106] Presenter, Faculty Forum, The College of New Rochelle, New Rochelle, NY (November 2003)
[107] Presenter, *A Mathematical Model for LH Release by Gonadotrophs in Response to Medium-Term Exposure to GnRH*, Mathematical Biology Seminar, University of Michigan, Ann Arbor, MI (November 2003)
[108] Presenter, *Math Model of LH Release in Response to GnRH*, Packard Graduate Scholars Meeting, Monterrey, CA (July 2002)
[109] Poster Presenter, *A Mathematical Model of GnRH Stimulated Luteinizing Hormone Release*, The Endocrine Society's 84th Annual Meeting, San Francisco, CA (June 2002)
[110] Presenter, *A Mathematical Model of GnRH Stimulated Luteinizing Hormone Release from the Pituitary Gonadotrope at the Cellular Level*, Graduate/Faculty Seminar, Duke University, Durham, NC (November 2002)
[111] Presenter, *Mathematical Model of Proteins Acting as On/Off Switches*, Graduate/Faculty Seminar, Duke University, Durham, NC (November 2001)
[112] Presenter, *The Fitz Hugh-Nagumo Model for Neural Impulses*, Graduate Student Seminar, University of Connecticut, Storrs, CT (August 2000)
[113] Poster Presenter, *Mathematical Model of Proteins Acting as On/Off Switches*, Gordon Research Conference on Theoretical Biology and Biomathematics, Tilton, NH (June 2000)
[114] Poster Presenter, *Derivation of Black-Scholes Option Pricing Model*, Mathematical Association of America Regional Meeting, University of Alabama in Huntsville, Huntsville, AL (April 1996)

Teacher Training Presentations & Workshops.

[102] Presenter, *Growth Mindset Intervention*, webinar for university faculty, Math Attitudes and Anxiety Faculty Mentoring Network, Quantitative Undergraduate Biology Education and Synthesis (QUBES) (September 2016)
[103] Presenter, *Implementing CS for All*, workshop for teachers of grades 2 through 5, Capstone/OSSE Math Science Summer Institute, Howard University, Washington, DC (August 2016)
[104] Presenter, *Geometry*, workshop for teachers of grades 2 through 5, Capstone/OSSE Math Science Partnership, DC Scholars Stanton Elementary School, Washington, DC (April 2016)
[105] Presenter, *Strategies for Enhancing STEM Instruction in Higher Education Setting*, webinar for university faculty, Capstone Institute, Howard University, Washington, DC (March 2016)
[106] Presenter, *Measurement & Data*, workshop for teachers of grades 2 through 5, Capstone/OSSE Math Science Partnership, Howard University, Washington, DC (March 2016)
[107] Presenter, *Geometry*, Workshop for Teachers of Grades 2 through 5, Capstone/OSSE Math Science Partnership, Aiton Elementary School, Washington, DC (March 2016)
[108] Presenter, *Modeling with Mathematics*, workshop for teachers of grades 2 through 5, Capstone/OSSE Math Science Partnership, Savoy Elementary School, Washington, DC (February 2016)

[109] Presenter, *Mathematical Explorations in Numeracy*, workshop for teachers of grades 2 through 5, Capstone/OSSE Math Science Partnership, Howard University, Washington, DC (August 2015)

[110] Presenter, *Multiply: Whole Numbers and Decimals*, workshop for teachers of grades 2 through 5, Capstone/OSSE Math Science Partnership, Savoy Elementary School, Washington, DC (May 2015)

[111] Speaker, *Extending Math Tools: In the Classroom, Home and Beyond*, workshop for pre-kindergarten teachers, Howard University (April 2015)

[112] Speaker, *The Number Line & Fractions*, Workshop for Teachers of Grades 2 through 5, Capstone/OSSE Math Science Partnership, Howard University (February 2015)

[113] Speaker, *Cultivating the Quantitative Mind Through Understanding, Preparation, and Planning*, workshop for pre-kindergarten Teachers, Van Ness Elementary School, Washington, DC (October 2014)

[114] Speaker, *Developing a Curriculum-Wide STEM Theme*, workshop for high school teachers, Washington Math, Science, and Technology Public Charter School, Washington, DC (September 2014)

[115] Speaker, *Developing a Cross-Disciplinary STEM Based High School Curriculum*, workshop for high school teachers, Washington Math, Science, and Technology Public Charter School, Washington, DC (August 2014)

[116] Speaker, *Don't be Scared: Applying Mathematics to Real Life*, Workshop for Elementary School Teachers, Capstone Institute at Howard University (August 2014)

[117] Speaker, *Building Connections: Research, Technology, and Current Trends in Mathematics*, workshop for university faculty, Capstone Institute's STEM Summer Professional Development Institute, Winston-Salem State University (June 2014)

[118] Speaker, *Building Connections: Research, Technology, and Current Trends in STEM*, workshop for university faculty, Maximizing Engagement in STEM Professional Development Institute, Capstone Institute at Howard University, Washington, DC (June 2013)

[119] Speaker, *Numeracy and Algebra: Math with Middle School Math Teachers*, Workshop for Middle School Teachers, OSSE Professional Development Training, Capstone Institute, Howard University (December 2012)

Conferences, Meetings, Sessions and Workshops Organized.

[1] Co-organizer, with Ronald Mickens, AMS Special Session on NSFD Discretizations: Recent Advances, Applications, and Unresolved Issues

[2] Co-organizer, with Monica Jackson and Colm Mulcahy, AMS-NAM Joint Special Session on The Mathematics of the Atlanta University Center, Joint Mathematics Meetings, Atlanta, GA (January 2017)

[3] Organizer, NAM Granville-Brown-Haynes Session of Presentations by Recent Doctoral Recipients in the Mathematical Sciences, Joint Mathematics Meetings, Atlanta, GA (January 2017)

[4] Co-organizer and Presenter, Solving the Unsolvable Through Scientific Computing: Explorations in the Best Uses of Popular Mathematics Software, Richard Tapia Celebration of Diversity in Computing Conference, Austin, TX (September 2016)

[5] Member, Organizing Committee, *StatFest*, American Statistical Association (ASA), Howard University, Washington, DC (Fall 2016)
- Chair, Local Organizing Committee

[6] Member, Organizing Committee, *Advancing Computational Biology @ Howard University Symposium*, Howard University (April 2016)
- Chair, Abstract Review Committee

[7] Organizer, NAM Granville-Brown-Haynes Session of Presentations by Recent Doctoral Recipients in the Mathematical Sciences, Joint Mathematics Meetings, Seattle, WA (January 2016)

[8] Member, Organizing Committee, *Howard University Math Modeling in Biology & Medicine Workshop Series*, Howard University, Washington, DC
- Workshop on Mathematical Modeling of Neuropathies and Neuropsychiatric Illnesses (April 2017)
- Workshop on Modeling Infectious Diseases (December 2016)
- Workshop on Precision Medicine (April 2016)
- Workshop on the Treatment of Cancer (December 2015)

[9] Member, Organizing Committee, *StatFest*, American Statistical Association (ASA), University of Chicago, Chicago, IL (September 2015)

[10] Co-organizer, with Monica Jackson (American University), *"Notes of a Native Son": The Legacy of Dr. Abdulalim A. Shabazz (1927-2014)*, Mathematical Association of America (MAA) MathFest, Washington, DC (August 2015)

[11] Member, Organizing Committee, *Association for Women in Mathematics (AWM) Research Symposium*, University of Maryland, College Park, MD (April 2015)
[a] Co-organizer, with Erika Camacho (Arizona State University), *Mathematical Biology*

[12] Co-organizer, with Paula Grajdeanu (Shenandoah University) and Abdul-Aziz Yakubu (Howard University), Special Session on *Dynamical Systems Models of Physiological Processes*, American Mathematical Society (AMS) Spring Eastern Sectional Meeting, Georgetown University, Washington, DC (March 2015)

[13] Co-chair, Organizing Committee, *Science, Technology, Engineering and Mathematics Summer Professional Development Institute (STEM SPDI)*, Capstone Institute at Howard University, Winston-Salem State University, Winston-Salem, NC (June 2014)

[14] Member, Organizing Committee, *Advancing Computational Biology @ Howard University Symposium*, Howard University (March 2014)

[15] Member, Organizing Committee, *Howard University Research Day*, Howard University (April 2014)

[16] Co-organizer, with Edray Goins (Purdue University), *AMS Special Session on The Ubiquity of Dynamical Systems*, Joint Mathematics Meeting, Baltimore, MD (January 2014)

[17] Co-organizer, with Asamoah Nkwanta (Morgan State University), *AMS Special Session on Highlighting Achievements and Contributions of Mathematicians of the African Diaspora*, Joint Mathematics Meetings, Baltimore, MD (January 2014)

[18] Member, Local Organizing Committee, *National Society of Black Physicists (NSBP) / National Radio Astronomy Observatory (NRAO) Workshop*, Howard University (September 2013)

[19] Co-organizer, with Ron Buckmire (Occidental College) and Abba Gumel (University of Manitoba), *AMS Special Session on Nonstandard Finite-Difference Discretizations and Nonlinear Oscillations (in Honor of Ronald Mickens' 70th Birthday)*, Joint Mathematics Meetings, San Diego, CA (January 2013)

[20] Member, Local Organizing Committee, *David Blackwell Memorial Conference*, Howard University (April 2012)

Workshops Attended.

[1] Predictive Policing, Institute for Computational and Experimental Research in Mathematics (ICERM), Providence, RI (August 2016)

[2] The Mathematics of Data, Park City Math Institute, Park City, UT (June-July 2016)

[3] Mathematical Problems in Industry, Duke University, Durham, NC (June 2016)

[4] Institutional Assessment, Center for Excellence in Teaching, Learning, and Assessment, Howard University, Washington, DC (May 2016)
[5] Multivariate Research Methods and Statistics, Howard University, Washington DC (May 2016)
[6] Quantitative Biology Workshop, Spelman College, Atlanta, GA (March 2016)
[7] Common Vision Workshop, American Statistical Association, Alexandria, VA (May 2015)
[8] Lymphoid Cells in Acute Inflammation Workshop, National Institute for Mathematical and Biological Synthesis (NIMBioS), University of Tennessee, Knoxville, TN (January 2015)
[9] COPASI User Workshop: Modelling and Simulation in Systems Biology, Virginia Tech Research Center, Arlington, VA (July 2014)
[10] Teaching Discrete and Algebraic Mathematical Biology to Undergraduates, Mathematical Biosciences Institute (MBI), The Ohio State University, Columbus, OH (July 2013)
[11] Applied Statistics and Machine Learning New Directions Short Course, Institute for Mathematics and Its Applications (IMA), Minnesota, MN (June 2013)
[12] Reconnect Workshop on Water Infrastructure, Contamination and Risk Assessment, Morgan State University, Baltimore, MD (June 2013)
[13] Modeling Dengue Fever, National Institute for Mathematical and Biological Synthesis (NIMBioS), University of Tennessee, Knoxville, TN (July 2012)
[14] MBI BioSciences Problem-Solving Workshop, Mathematical Biosciences Institute (MBI), The Ohio State University, Columbus, OH (July 2012)
[15] PCMI Workshop for Mentors of Undergraduate Mathematics Research by Minority Students, Park City Mathematics Institute – Institute for Advanced Study, Park City, UT (July 2012)
[16] Writing Across the Curriculum (WAC), Center for Excellence in Teaching, Learning, and Assessment, Howard University, Washington, DC (May 2012)
    ◦ Earned WAC certification
[17] Inquiry Based Learning (IBL) Workshop, University of Michigan, Ann Arbor, MI (May 2011)
[18] GCAT Synthetic Biology Workshop 2010, Genome Consortium for Active Teaching (GCAT), Davidson College, Davidson, NC (July 2010)
[19] Visual Analytics and its Applications, Reconnect Conference 2009, Center for Discrete Mathematics and Theoretical Computer Science (DIMACS), Piscataway, NJ (August 2009)
[20] Research Experiences for Undergraduate Faculty, American Institute of Mathematics (AIM), Palo Alto, CA (July 2009)
[21] Classroom Assessment Techniques, Eykamp Center for Teaching Excellence, University of Evansville, Evansville, IN (January 2009)
[22] National Science Foundation Day, Butler University, Indianapolis, IN (October 2007)
[23] Nonlinear Dynamics of Calcium in Living Organisms, Santa Fe, NM (March 2000)
[24] Short Course on Mathematics and Molecular Biology, Program in Mathematics and Molecular Biology (PMMB), University of California, Berkeley, CA (June 1998)

Conferences Invited to Attend.

[1] STEM Women of Color Conclave, Washington, DC (June 2010, June 2011, June 2012, and September 2016)
[2] Frontiers in Climate and Earth System Modeling: Advancing the Science, Geophysical Fluid Dynamics Laboratory (GFDL) Science Symposium, Princeton, NJ (May 2013)

Professional Associations.

- American Mathematical Society (AMS)
- American Statistical Association (ASA)
- Association for Women in Mathematics (AWM)
- Mathematical Association of America (MAA)

- National Alumnae Association of Spelman College (NAASC)
  - Lifetime Member
- National Association of Mathematicians (NAM)
- National Council of Teachers of Mathematics (NCTM)
- Society for the Advancement of Chicanos and Native Americans in the Sciences (SACNAS)
  - Lifetime Member
- Society for Industrial and Applied Mathematics (SIAM)
- Society for Mathematical Biology (SMB)

Teaching Experience

Howard University.
Department of Mathematics, Washington, DC (August 2011 – present)

- *Undergraduate courses taught:* College Algebra I, Fundamental Concepts of Mathematics for Education I, Fundamental Concepts of Mathematics for Education II, (Honors) Precalculus, Proof and Problem Solving I, Calculus I, Calculus II, Calculus III, Differential Equations, Numerical Analysis, and Mathematical Biology
- *Graduate courses taught:* Numerical Analysis (of Differential Equations) I, Mathematical Biology, Real Analysis I, Real Analysis II, and Scientific Computing (with `MATLAB`)
- *Reading courses taught:*
  - Undergraduate/Graduate: Data Science with R, Co-taught with Todd Drumm of the Department of Mathematics (Fall 2016)
  - Undergraduate/Graduate: Data Science with `R`/RStudio (Spring 2016)
  - Undergraduate: Analyzing Data Via `HydroDesktop` and `R`/RStudio (Fall 2013)
  - Undergraduate: An Introduction to `Sage` Math (Spring 2013)
- *Courses created:*
  - Graduate: Scientific Computing (with `MATLAB`) (Spring 2015)
  - Undergraduate: Writing Across Writing Across the Disciplines (for the Brazil Scientific Mobility Program, BSMP) (August 2013 and Fall 2013)
  - Undergraduate/Graduate: Mathematical Biology (Spring 2012)
- Group project advisor for Freshman Seminar (Fall 2011 and 2012)
- Enhanced learning with writing projects, mathematical applications, and computational software
  - Utilized `FreeMat`, `GeoGebra`, LaTeX, `MATLAB`, `Notepad++`, `Octave`, `R`, `RStudio`, `Sage`, and `TI-84`
  - Employed `Google Drive`, `MyMathLab`, and `WebAssign`, for assignments and online homework

The EDGE Program.
Florida Agricultural and Mechanical University, Tallahassee, FL (June 2011)

- Taught an introduction to graduate-level Analysis
- EDGE (Enhancing Diversity in Graduate Education) Program strengthens the ability of women and minority students to successfully complete graduate programs in the mathematical sciences

University of Evansville.
Department of Mathematics, Evansville, IN (August 2005 – May 2011)

- *Courses taught:* Mathematical Ideas, College Algebra, Survey of Calculus, Mathematics for Elementary Teachers, Calculus I with Precalculus Review, Calculus II, Calculus III, Differential Equations, Foundations of Geometry, Numerical Methods, and Senior Seminar: Mathematical Modeling
- Developed and taught topics courses:

  - Mathematical Modeling in Synthetic Biology (Fall 2010)
    - Co-taught with Dr. Joyce Stamm, Department of Biology, University of Evansville
  - Mathematical Modeling in Biology: SIR Models (Spring 2009)
  - Modeling the Tacoma Narrows Bridge (Fall 2006)
- Developed and taught discussion course entitled *African American Experience: Law and Society* (Spring 2008)
- Led a module on Geometry and a module on sequences and series in a Problem Solving Seminar to help high school and college students prepare for the American High School Math Exam (October 2009, January 2010, November 2010)
- Enhanced learning with writing projects, mathematical applications and technology including `TI`-84, `Derive`, `Excel` and `MATLAB`
- Teacher Preparation
  - Worked with interns as they completed the mathematics department's internship requirements, reviewed videotapes with students, conducted on-site observations of their teaching, and provided student with a written evaluation
    - Supervised Internship/Student Teachers at Bosse High School (Spring 2008, Fall 2009, Fall 2010)
    - Supervised Student at Glenwood Middle School, Transition to Teaching Program (Fall 2006)

Ivy Tech Community College.
Math Program, Evansville, IN (Summer 2007)

- *Course taught:* Intermediate Algebra

The College of New Rochelle.
Department of Mathematics, New Rochelle, NY (September 2003 – August 2005)

- *Courses taught:* Intermediate Algebra, Quantitative Reasoning, College Mathematics, Elementary Statistics, Precalculus/Elementary Functions, Calculus I, Calculus II, Differential Equations, Geometry, Discrete Mathematics, and Numerical Analysis
- Enhanced learning with `TI`-83 and `MATLAB`
- Restructured the math major, minor and basic education curricula; coordinated the math instructors and courses; modified math placement standards and created placement exam; participated in developing and supervising the math tutoring program; and assisted in creating a new math computer lab

Duke University.
Department of Mathematics, Durham, NC (September 2001 – August 2003)

- *Courses taught:* Laboratory Calculus I and Differential Equations.
- *Program Co-Coordinator*, Summer Program in Mathematical Biology (Summer 2002)
  - Taught introductory programming in `MATLAB` and LaTeX, advised program participants, and invited and coordinated speakers to give presentations of mathematical applications to biology

University of Connecticut.
Department of Mathematics, Storrs, CT (September 1996 – August 2001)

- *Teaching Assistant* (September 1996 – August 2001)
  - *Courses taught:* Algebra and Trigonometry, Elementary Discrete Math, Math for Business & Economics, Calculus for Business & Economics, Introductory Calculus I, and Calculus I
- *Instructor*, Project 3000 by 2000 (Summer 2000)

- Designed and taught an extensive pre-collegiate math course with biological applications with `Maple` for minority students in the health professions
- *Research Mentor*, UConn Mentor Connection (July 2000)
  - Independently prepared a research project for high school student that included the utilization of `MATLAB` to numerically solve systems of differential equations as well as giving a `PowerPoint` presentation of completed work
- *Instructor*, Center for Academic Programs (Summer 1997 and 1998)
  - Taught College Math and Problem Solving as part of a TRIO program (TRIO is a federally and state funded initiative which is designed to help students overcome class, social, and cultural barriers to higher education.)

Service

Service to the Department and the University.

- Presented, along with Marcus Alfred from the Department of Physics and John Harkless from the Department of Chemistry, *How to Win in Chemistry, Mathematics and Physics*, Bison Week New Student Orientation (August 2016)
- Member, HU STEM Team, Howard University (Spring 2015)
  - Lead the development of a set of recommendations for the President with the goal of enhancing the STEM student learning experience
- Member, Teacher Education Advisory Council (TEAC), School of Education, Howard University (Fall 2014 – present)
- Member, Internal Advisory Committee, Howard University Research Centers in Minority Institutions (HU RCMI), Howard University (Fall 2014 – present)
- Session Moderator, Howard University Research Day, Howard University (April 2014)
- Member, Hiring Committee for the Dean of the College of Arts and Sciences, Howard University (Spring 2014 – Spring 2015)
- Member, Teaching, Learning & Technology (TLT) Committee, Center for Excellence in Teaching, Learning, and Assessment (CETLA), Howard University (Spring 2014 – present)
- Member, Non-Medical Institutional Review Board (IRB), Howard University (January 2014 – January 2015)
- Advisor, SIAM (Society for Industrial and Applied Mathematics) Student Chapter at Howard University (Fall 2013 – present)
- Member, Budget Advisory Committee (BAC), Howard University (Fall 2013 – Spring 2014)
- Member, HU-Teach Subcommittee, Center for Excellence in Teaching, Learning, and Assessment (CETLA), Howard University (Fall 2013 – present)
- Member, HU ADVANCE-IT Experience Study Committee, Howard University (Fall 2013 – Spring 2015)
- At-large Council Member, Faculty Senate, Howard University (Fall 2013 – Spring 2016)
  - Academic and Health Affairs Committee (Fall 2013 – Spring 2015)
  - Budget and Planning Committee (Fall 2013 – Spring 2015)
- Member, Committee to Develop and Administer the Senior Comprehensive Exam in Mathematics, Department of Matheamtics, Howard University (Fall 2013 – present)
- Member, Interdisciplinary Studies Committee, College of Arts and Sciences, Howard University (Fall 2012 – present)
- Member, Hiring Committee, Department of Mathematics, Howard University (Fall 2012 – Spring 2013)
- Member, Curriculum Committee, Department of Mathematics, Howard University (Fall 2012 – February 2014)

- Member, Advisory Committee for the *The Howard University Critical Mass Project: Increasing the Numbers of African Americans Receiving Doctoral Degrees in Nuclear Physics*, Howard University (Fall 2012 – present)
- Affiliated Faculty, Cybersecurity Research Center, Howard University (February 2012 – present)
- Institute Partner Representative for Department of Mathematics, Howard University, MBI Partner Meeting, Mathematical Biosciences Institute (MBI) (February 2012 and February 2014)
- Co-organizer, Holiday Celebration, Department of Mathematics, Howard University (December 2011)
- Member, Graduate Faculty Committee, Department of Mathematics, Howard University (Fall 2011 – present)
  - Member, Faculty Performance Review Committee (Spring 2013 and Spring 2014)
- Member, Connections Working Group, University Strategic Plan, University of Evansville (Fall 2010 – Spring 2011)
- Member, General Education Subcommittee, University of Evansville (Fall 2010 – Spring 2011)
- Member, Human Relations Committee, University of Evansville (Fall 2009 – Spring 2011)
- Coordinator of a university-wide colloquium *African American Presence in Science* by Dr. Ronald Mickens of Clark Atlanta University; sponsored by the Institute for Global Enterprise Multicultural Colleagues Invitational Lecture Series, University of Evansville (March 2009)
- High School Mathematics Recognition Banquet Committee, University of Evansville
  - Chair (Spring 2007, 2008, and 2009)
  - Member (Spring 2007 – Spring 2011)
- Webmaster, Kappa Mu Epsilon, University of Evansville (Fall 2008 – Spring 2011)
- Member, Honor Council, University of Evansville (Fall 2008 – Spring 2011)
- Member, Hiring Committee, Department of Mechanical and Civil Engineering, University of Evansville (Fall 2008 – Spring 2009)
- Member, Elementary Education Committee, Department of Mathematics, University of Evansville (Fall 2007 – Spring 2011)
- Member, Freshman Retention Committee, Department of Mathematics, University of Evansville (Fall 2007 – Spring 2008)
- Member, Hiring Committee, Department of Psychology, University of Evansville (Fall 2007 – Spring 2008)
- Coordinator of a university-wide colloquium *Beyond Stereotypes: Culture, Politics and the Hip-Hop Generation* by Dr. Jeffrey Ogbar of the University of Connecticut; sponsored by the Institute for Global Enterprise Multicultural Colleagues Invitational Lecture Series, University of Evansville (February 2007)
- Advisor, Black Student Union, University of Evansville (Fall 2006 – Summer 2009)
- Timer, Bike Race, University of Evansville (Spring 2006, 2007, 2008, 2009)
- Member, Institutional Diversity Committee, University of Evansville (Fall 2006)
- Member, Retention Committee, University of Evansville (Fall 2006 – Fall 2007)
- Admission to Teacher Education Interviews, University of Evansville (March 2006 – Spring 2011)
- Member, Hiring Committee, Department of Mechanical and Civil Engineering, University of Evansville (Fall 2006 – Spring 2007)
- Member, Project Kaleidoscope (PKAL) Committee, University of Evansville (Fall 2005 – Spring 2006)
- Member, Faculty Development Committee, The College of New Rochelle (2004 – 2005)
- Advisor, Students in Science and Math, The College of New Rochelle (2003 – 2004)
- Organizer, Math/Bio Lunch Talks, Duke University (Fall 2002)

- President, Black Graduate Student Association, University of Connecticut (1997 – 1998)
- Senator, Graduate Student Senate, University of Connecticut (1997 – 1998)

Service to the Discipline.

- Participant, AWM Hill Visits, Met with various legislators (April 2015, May 2016, December 2016)
- Advisory Board Member, NSF INCLUDES: WATCH US (Women Achieving Through Community Hubs) in the United States (October 2016 – present)
- Referee, Mathematical Biosciences (2016)
- Member, Mathematical Sciences Academic Advisory Committee, College Board (December 2015 – present)
- Member, College Board-MAA Joint Committee on Mutual Concerns, Council on Outreach Programs, Mathematical Association of America (January 2015 – January 2018)
- Proposal Reviewer, 2015 National Council of Teachers of Mathematics Research Conference (September 2014)
- Member, SAT Mathematics Subject Test Development Committee, College Board/Educational Testing Service (ETS), Princeton, NJ (July 2014 – present)
- Science Panel Reviewer, Ford Foundation Fellowship Program (2014, 2015, 2016)
- Reviewer, EDGE (Enhancing Diversity in Graduate Education) (2014)
- Referee, Journal of Difference Equations and Applications (2013)
- Referee, Mathematics and Computers in Simulation (2012)
- Referee, Computers and Mathematics with Applications (December 2012)
- Co-organizer, Applied Mathematics Seminar, Department of Mathematics, Howard University (Fall 2011 – Spring 2013)
- Member, Differential Equations Study Group for the *CUPM 2015 Curriculum Guide*, Committee on the Undergraduate Program in Mathematics (CUPM), Mathematical Association of American (MAA) (January 2012 – January 2014)
- Editorial Board Member, *JP Journal of Fixed Point Theory and Applications* (June 2011 – 2014)
- Review Panelist, National Science Foundation (2010 – 2017)
  - Division of Graduate Education
  - Division of Undergraduate Education
  - Division of Human Resource Development
  - Division of Mathematical Sciences
- Manuscript Reviewer, Taylor and Francis Group (2011)
- Judge, Undergraduate Student Poster Session, Mathematical Association of America (January 2010)
- Member, Visioning Committee, Infinite Possibilities Conference 2010 (March 2009)
- Reviewer for Scholarships, Richard Tapia Celebration of Diversity in Computing 2009 Conference (Fall 2008 – Spring 2009)
- Visiting Lecturer, Mathematical Biosciences Institute (Fall 2009 – present)
  - `http://www.mbi.osu.edu/about/vlp_lecturers/washington.html`
- Undergraduate Mentor, National Alliance for Doctoral Studies in Mathematics (Fall 2009 – present)
  - `http://www.mathalliance.org/Profiles.asp?sort=FAC-WashiTalith`
- Coordinator, Cox Dedication Ceremony, Liberty Baptist Church, Evansville, IN (November 2006)

Service to the Local Community.

- Mentor, *Think It Up Live*, Cardozo Education Campus, Washington, DC (November 2016)
- Presenter, *Work Hard, Play Hard*, Career Day at The Washington Mathematics Science Technology Public Charter High School, Washington, DC (December 2014)
- Organizer, The visit of the 5^{th} grade class from Harmony Hills Elementary School to Howard University, Silver Spring, MD (April 2013, April 2014, May 2015, and April 2016)
  - In 2013, along with Dr. Vernon R. Morris from the Department of Chemistry, Howard University, we gave a presentation entitled *Mathematics Awareness Month at Howard University: Mathematics of Sustainability*
  - In 2014, I gave a presentation on *STEM Mysteries*
  - In 2015, along with Drs. Marcus Alfred from the Department of Physics and John Harkless from the Department of Chemistry, Howard University, we gave a presentation entitled *I am a Mathematician. I am a Chemist. I am a Physicist. What Do We Do?*
  - In 2016, along with Dr. John Harkless from the Department of Chemistry, we gave a presentation entitled *The Future of Prediction*
- Invited Speaker, *Overcoming the Odds* (February 2011)
  - Benjamin Bosse High School, Evansville, IN
  - Academy for Innovative Studies, Evansville, IN
- Coordinator, *Family Jazz Celebration* featuring the Spelman College Jazz Ensemble in collaboration with the Memorial Community Development Corporation, Evansville, IN (March 2008)
  - This event raised funds that benefited the Memorial Child Care Center, Carver Community Day Care Center and Joshua Academy Charter School.
- Presenter for Black History Month Celebration, Memorial Baptist Church, Evansville, IN
  - *He Saw The Best In Me* (February 2011)
  - *Never Would Have Made It* (February 2010)
  - *"O" is for Opportunity* (February 2009)
  - *What Will Your Legacy Be?* (February 2008)
- Chair and Founder, *Stepping Up*, Youth College Preparation Program, Evansville, IN (August 2007 and 2008)
  - *Stepping Up* promotes positive youth development by preparing students in grades 5-12 for postsecondary education, career exploration and personal development. Through workshops and sessions tailored to students' education levels, minority youth in the Evansville area gain a sense of excitement and confidence to pursue advanced degrees.
- Assisted with organizing the Infinite Scholar Annual College/Scholarship Fair, Evansville, IN (October 2007, 2008, 2009, and 2010)
  - Fair targets African and Latin Americans, and provides the financial means and guidance to further educational pursuits
- Helped initiate and judge at Joshua Academy Science Fair, Evansville, IN (May 2006)
- Member, NAACP Fundraising Banquet Committee, Evansville, IN (Fall 2006 and 2007)
  - Emcee for NAACP Fundraising Banquet, Evansville, IN (October 2006)
- Read books to entire second grade class, Harper Elementary School, Evansville, IN (October 2006)
- Vice-President, Parent Teacher Association, Harper Elementary School, Evansville, IN (Fall 2006 – Spring 2008)
- Public Law 221 Committee at Harper Elementary School (Fall 2005 – present)
- Started and helped supervise after school Hip Hop Club at Harper Elementary School; class was taught by a student from the University of Evansville (Fall 2005 – Spring 2006)

- Started after school Theatre Club at Harper Elementary School that is run by students from the University of Evansville (Fall 2005)

Additional Information

- Born in January of 1974 in Frankfort, Indiana, United States of America
- Basketball Coach, Eighth, Ninth, and Tenth Grade Girls Team, City of Rockville Department of Recreation & Parks, Rockville, MD (Winter 2013 & 2014)
- Soccer Coach, Fourth and Fifth Grade Co-Ed Team, City of Rockville Department of Recreation & Parks, Rockville, MD (Fa11 2011 and Fall 2012)
- Basketball Coach, Third and Fourth Grade Girls Team, Montgomery County Department of Recreation, MD (Winter 2012 – 2013)
- Sunday School Teacher, First and Second Grades, Memorial Baptist Church, Evansville, IN (Fall 2010 – Summer 2011)
- Candidate for School Board, Evansville-Vanderburgh School Corporation (Fall 2006)
- Familiar with `Derive, Excel, GeoGebra, HyperText Markup Language (HTML)`, LaTeX, `Maple, MATLAB, Octave, R, RStudio, Sage`, and `TI-84`
- Enjoys running, group exercise, camping, dancing, and public speaking
- Fluent in Spanish