

ONYEDIKACHI “EMMANUEL” CHIKE

Business Analytics Lecturer
Loyola University New Orleans

Email: oemmachike@gmail.com, oechike@loyno.edu | Phone: 404-916-9116
Website: www.oemmanuelchike.com

EDUCATION

- **Doctor of Philosophy (Ph.D.) in Applied Economics** August 2025
Texas Tech University, Lubbock, TX.
Field: Machine Learning, Data Analytics, Applied Econometrics, and Health Economics.
Dissertation: Using Interpretable Machine Learning and Event Study in Analyzing Health Policy and Outcomes.
Advisors: Conrad Lyford, Ph.D., and Syed Badruddoza, Ph.D.
- **Master of Science in Applied Economics** December 2024
Texas Tech University, Lubbock, TX.
- **Master of Arts in Economics** May 2020
Georgia State University, Atlanta, GA.
Thesis: The Impact of Medicaid Expansion on Overweight
Advisor: James Marton, Ph.D.
- **Bachelor of Science (BSc.) in Economics** (1st Class Honors - Summa Cum Laude) October 2016
Gregory University, Abia State, Nigeria.
Project: Effect of Public Sector Expenditure on Economic Growth
Advisor: Chinazaekpere Nwani, MS.

RESEARCH INTERESTS

- Applied Machine Learning (ML) and Artificial Intelligence (AI)
- Data Analytics and Applied Econometrics
- Healthcare Analytics
- Management Decision Science and Strategic Analytics
- Labor Economics and Economics of AI

SKILLS

- **Technical Skills:**
Python, R, SAS, STATA, SQL, SPSS, GTAP, MATLAB, EViews, Tableau, Power BI, MS Office 365.
- **Machine Learning & Quantitative Skills:**
Logistic Regression, GBM, XGBoost, LightGBM, Random Forest, ExtraTree, Decision Trees, Neural Networks, LSTM, NLP, DML, Causal Models, Time Series, etc.
- **AI Tools:**
Julius.ai, Perplexity.ai, Gemini, Claude, ChatGPT, Ideogram.ai, etc.

RESEARCH: PUBLICATIONS

Articles

- **Chike, O. E.** (2025). Double Machine Learning Analysis of Vaping and Smoking as Risk Factors for Arthritis and Its Economic Implications. *PLOS One*, Decision: R&R (about to respond).

- **Chike, O.E.**, Oduniyi, S., Nwaiwu, J.I. (2025). An Interpretable Machine Learning Approach to Predicting Chronic Health Conditions. *Healthcare Analytics* (Elsevier), Decision: R&R (Responded).
- Oduniyi, S., **Chike, O.E.**, Antwi, M. (2025). Machine Learning and Econometric Approaches to Understanding the Welfare Benefits of Cooperative Membership of Farmers in South Africa. *Scientific Africa*, Decision: R&R (Responded).
- **Chike, O.E.**, Lyford, C. (2025). The Impact of Medicaid Expansion on Mortality: A Heterogeneous Treatment Approach. *BMJ Open*. Under Review.
- Adu, D. T.; Denkyirah, E. K.; **Chike, O. E.**; Muhoza, F. (2024). Effect of Economic Freedom on Women's Empowerment: Empirical Evidence from Developing Countries. *The Journal of Private Enterprise*, 39(4): 27-42.
- **Chike, E.**, Wallace, S. (2020). Impact of Artificial Intelligence on Labor Force in Georgia. *Center for State and Local Finance, Andrew Young School of Policy Studies, Georgia State University*: Atlanta.
- Bluestone, P., **Chike, E.** & Wallace, S. (2020). The Future of Industry and Employment: COVID-19 Effects Exacerbate the March of Artificial Intelligence. *Center for State and Local Finance, Andrew Young School of Policy Studies, Georgia State University*, Atlanta.

Book Chapter

- Rajbhandari-Thapa, J., Chike, O.E., Lyford, C. (2024). Economic Aspects of Public Health Nutrition Across the Life Cycle. In K. Thompson, M. M. Barth, and M. D. Gutschall (Eds), *Life Cycle Nutrition for Public Health Professionals*. Springer. DOI:10.1891/9780826186232.0014.

RESEARCH: MANUSCRIPTS IN-PROCESS

- Measuring AI Complementarity in Tasks: The Impact on Worker Earnings and Job Mobility. Target Journal: *Journal of Labor Economics*. Currently performing data analysis.
- Cost Barriers, Chronic Conditions, and Labor Market Outcomes: A Structural Health-Investment Model Estimated with Machine Learning. Target journal: *Computational Economics*. Currently collecting data.
- Consolidation in Healthcare Labor Markets: Impacts on Wages, Employment, and Access to Care. Target Journal: *Health Affairs*. Currently performing data analysis.
- Automation in Healthcare: How AI Adoption in Hospitals Affects Nurse Labor Markets and Occupational Task Composition. Target journal: *Health Economics*. Currently collecting data.
- The Role of Credit Access on Labor Market Mobility. Target Journal: *The Review of Economic Studies*. Currently performing data analysis.
- Welfare Analysis of Automation Risk, Skill Investment, and Intergenerational Economic Mobility. Target Journal: *IZA Journal of Labor Economics*. Currently performing data analysis.
- Neighborhood Social Capital, Employment Dynamics and Upward Mobility: Evidence from IPUMS CPS. Target Journal: *Economic Inquiry*. Currently collecting data.
- Estimating Factors Impacting Student Belongingness, Health, and Satisfaction. Collecting Data.

- Leveraging Machine Learning to Explore the Links Between Preventive Care, Risky Behaviors, and Lung Cancer Risk. Currently in data collection.

CONFERENCE PRESENTATIONS

- **Chike, O.E.**, Badruddoza, S., Lyford, C. (2025). Vaping and Smoking as Risk Factors for Arthritis: Evidence from Double Machine Learning. *2025 Southern Economics Association (SEA) Annual Conference, Tampa, FL*.
- **Chike, O.E.**, Badruddoza, S., Lyford, C. (2025). Vaping Vs. Smoking: The Links to Arthritis And Overall Health Using Double Machine Learning. *2025 AAEA & WAEA Joint Conference, Denver, Colorado*.
- Velázquez, Y., **Chike, O.E.**, Guerrero, P., Palmer, E., Lujan, J., Lyford, C. (2024). Estimating Factors Impacting Student Belongingness and Satisfaction. *Hispanic Serving Institution (HIS) 2024 Summit, Lubbock, TX*.
- **Chike, O.E.**, Lyford, C. (2023). The Impact of Medicaid Expansion on Mortality: A Heterogeneous Treatment Approach. *2024 CATO Health Policy Workshop. Washington, DC*.
- **Chike, O.E.**, Wallace, S. (2019). Impact of Artificial Intelligence on Labor Force in Georgia. *Joint Center for Political and Economic Studies. Atlanta, GA*. October 2023.

TEACHING EXPERIENCE

Instructor:

- BA B100 – Artificial Intelligence (A.I.) and the Future of Business (*Loyola University New Orleans*), Fall 2025
- BUAN T294 – Telling Story with Data (*Loyola University New Orleans*), Fall 2025
- BUAN B205 – Business Analytics with AI (*Loyola University New Orleans*), Fall 2025 (Experiment), Spring 2025
- BUAN B493-01 – Programming for Data Analytics (*Loyola University New Orleans*), Fall 2025 (Experiment), Spring 2025
- AAEC 2305 – Principles of Agricultural and Applied Economics (*Texas Tech University, Lubbock*), Fall 2023, Spring 2023

Teaching Assistant:

- ECON 5414 – Econometrics - Ph.D. class (*Texas Tech University, Lubbock*)
- ECON 4305 – Introduction to Econometrics – (*Texas Tech University, Lubbock*)
- ECON 4322 – Labor Economics (*Texas Tech University, Lubbock*)
- ECO 205 – Mathematics for Economics - Calculus 1 (*Gregory University Uturu, Nigeria*)
- ECO 323 – Introduction to Econometrics (*Gregory University Uturu, Nigeria*)

NEW COURSES DESIGNED

- Database Management and Visualization for Business (*Loyola University New Orleans*)
- Applied Machine Learning for Data Analysis (*Loyola University New Orleans*)
- Business Mathematics and Computing (*Loyola University New Orleans*)

HONORS, FELLOWSHIP, AND SCHOLARSHIP

- Erin A. Wheeler-Cook Endowed Scholarship, 2024 (*Texas Tech University*)
- W.B. Rushing Family Endowed Ag. Marketing Scholarship, 2022-2023. (*Texas Tech University*)
- Bayer Crop Science Graduate Endowed Agricultural Scholarship, 2022-2023 (*Texas Tech University*).
- Outstanding Master's Student Award, 2019 (*Georgia State University, Department of Economics*).
- Best Graduating Student Leader, 2016 (*Gregory University-wide*)
- Best Graduating Student, 2016 (*Gregory University, Economics Department*)
- Best Graduating Scholar, 2016 (*Gregory University, Joseph Boakai College*)
- 2015 Chancellor's Merit Summer Exchange Program Scholarship, 2016 (*Gregory University, Uturu*).
- Academic Session Overall Highest CGPA, 2013/2014 (*Gregory University-wide, 2nd Place*).
- Academic Session Overall Highest CGPA, 2012/2013 (*Gregory University-wide - 1st Place*).

SMALL GRANTS AND AWARD MONEY

- CATO Institute, 2024 (\$3,000)
- Helen DeVitt Jones Foundation, 2021-2024 (\$24,000)

WORK EXPERIENCE

Business Analytics Lecturer **August 2025 – Present**

College of Business, Loyola University New Orleans, LA.

- Teach courses in analytics, AI-driven decision-making, and ethical AI use, and equip students with the skills to apply data insights to business strategy.

Instructor **August 2023 – July 2025**

Texas Tech University, Lubbock, TX.

- Taught undergraduate economics courses, integrating real-world applications and data-driven methods to enhance student learning, engagement, and understanding of core economic principles.

Economist – Intern **May 2024 – August 2024**

GM Financial, Fort Worth, TX.

- Developed and deployed an automated financial model predicting residual vehicle values with \$8M exposure identified; evaluated risk models for competitive insights; and built a dynamic database processing 1M+ records, streamlining data workflows and boosting efficiency.

Research Assistant **October 2022 – July 2025**

Texas Tech University, Lubbock, TX.

- Leverages big data, econometrics, and machine learning to build predictive models and analyze 500K+ observations, generating insights that inform labor and health policy, assess economic impacts, and guide strategic decision-making.

Statistical Consultant **May 2022 – October 2022**

Graduate School, Texas Tech University, Lubbock, TX.

- Delivered advanced statistical consulting to 50+ researchers, applying econometrics, predictive modeling, and data transformation to improve research accuracy, financial modeling, and market analysis.

Teaching Assistant **August 2020 – July 2022**

Texas Tech University, Lubbock, TX.

- Assisted in teaching undergraduate and PhD economics courses by leading discussions, grading assignments, and providing academic support to enhance student learning and engagement.

Research Assistant**August 2018 – May 2020***Andrew Young School of Policy Studies, Georgia State University, Atlanta, GA.*

- Researched AI and job automation, applying statistical modeling to analyze labor trends and inform policy, driving an increase in workforce development programs.

Program Analyst**May 2019 – July 2019***Mandela Washington Fellowship for Young African Leaders Initiative.*

- Developed evaluation models and conducted impact analyses to improve program effectiveness while providing data-driven insights on business, leadership, and policy.

Instructor / Graduate Assistant**November 2016 – July 2018***Gregory University, Abia State, Nigeria.*

- Taught undergraduate classes and conducted economic and financial research on macroeconomic trends, developing econometric models that improved forecasting accuracy.

Research Assistant**November 2016 – October 2017***Federal University, Wukari, Nigeria.*

- Led economic policy research on regulatory and financial compliance, applying quantitative analysis to evaluate impacts and supporting funding acquisition through high-quality and credible insights.

PROFESSIONAL SERVICE***Session Chair: Southern Economic Association (SEA):***

- Smoking, Vaping, and Dust, Session Chair, 95th Annual Meeting Southern Economic Association (SEA), November 22 – 24, 2025.

AI Research Affiliate: Mercor AI Research Group:

- Model External Research Collaborator

Reviewer: Journals:

- Computational Economics: Ad Hoc Reviewer (3 Manuscripts)
- Healthcare Analytics: Ad Hoc Reviewer (2 Manuscripts)
- Discover Sustainability: Ad Hoc Reviewer (1 Manuscript)
- Journal of Agribusiness in Developing and Emerging Economies: Ad Hoc Reviewer (1 Manuscript)
- Discover Agriculture: Ad Hoc Reviewer (4 Manuscripts)

PROFESSIONAL AFFILIATIONS

- *Member*, Association for the Advancement of Artificial Intelligence (AAAI), 2024 – Present.
- *Member*, International Society for Data Science and Analytics (ISDA), 2024 – Present.
- *Member*, American Economic Association (AEA), 2024 – Present.
- *Member*, Southern Economic Association (SEA), 2024 – Present.
- *Member*, American Public Health Association (APHA), 2024 – Present.

REFERENCES

Conrad Lyford, Ph.D.

Professor,
Department of Agricultural and Applied Economics
Texas Tech University, Lubbock, TX.
Phone: 806-834-6881
Email: conrad.lyford@ttu.edu

Samuel Oduniyi, Ph.D.

Assistant Professor
College of Business
Eastern Oregon University.
Phone: 806-730-1555
Email: soduniyi@eou.edu

Syed Badruddoza, Ph.D.

Assistant Professor
Department of Agricultural & Applied Economics
Texas Tech University, Lubbock, TX.
Phone: 806-834-1921
Email: syed.badrudoza@ttu.edu

Benaissa Chidmi, Ph.D.

Associate Professor
Department of Agricultural & Applied Economics
Texas Tech University, Lubbock, TX.
Phone: 806-834-7986
Email: benaissa.chidmi@ttu.edu