

## ONYEDIKACHI “EMMANUEL” CHIKE

Business Analytics Lecturer  
Loyola University New Orleans

Email: [oeemmachike@gmail.com](mailto:oeemmachike@gmail.com), [oechike@loyno.edu](mailto:oechike@loyno.edu) | Phone: 404-916-9116

Website: [www.oemmanuelchike.com](http://www.oemmanuelchike.com)

### EDUCATION

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- **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

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- 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

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- **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

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#### *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

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

## CONFERENCE PRESENTATIONS

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- **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

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### *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

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- 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

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- 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

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

## WORK EXPERIENCE

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### 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**

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***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**

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- *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

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**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.badruddoza@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