January 24, 2023 1

DAKOTA W. CINTRON

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EDUCATION

University of Connecticut

Ph.D. in Educational Psychology - Research Methods, Measurement, and Evaluation

August 2020

Thesis: Statistical Estimation of Large Ordinal Factor Analysis Models

Committee: Drs. D. Betsy McCoach, Eric Loken, Hariharan Swaminathan, and Haim Bar

Teachers College at Columbia University

Ed.M. in Measurement and Evaluation May 2016
M.S. in Applied Statistics May 2016

Rutgers University

B.S. in Economics & Public Health

May 2014

ACADEMIC APPOINTMENTS

Postdoctoral Associate

Center for Integrative Developmental Science,

September 2022 - Present

Advisor: Dr. Anthony D. Ong

Research: Longitudinal Data Analysis and Causal Inference

Postdoctoral Scholar

Methods Lab at the Evidence for Action National Program Office,

September 2020 - August 2022

a grantmaking program from the Robert Wood Johnson Foundation

Advisor: Dr. M. Maria Glymour

Research: Causal Inference, Health Disparities and Inequalities

AWARDS & HONORS

Chan-Zuckerberg National Council on Measurement in Education Fellowship: (\$3,095)	2020
Educational Testing Service Harold Gulliksen Psychometric Research Fellowship: (\$20,000)	2019 - 2020
Robert Wood Johnson Foundation Health Policy Research Scholar: (\$120,000)	2016 - 2020
Deans Doctoral Scholarship at the University of Connecticut: (Tuition Remission)	2016 - 2020
Gates Millennium Scholars Program: (Tuition Remission)	2009 - 2016
Horatio Alger Scholarship: (\$20,000)	2009-2014

PUBLISHED BOOKS & BOOK CHAPTERS

- 1. Cintron, D. W. (2022). Bayesian networks. International Encyclopedia of Education (4th edition).
- 2. McCoach, D.B. & Cintron, D. W. (2022). Introduction to Modern Modeling Methods. SAGE.
- 3. Carter, R. T., Pieterse, A. L., Muchow, C., Johnson, V.E., Galgay, C.E., & **Cintron, D. W.** (2020). Appendix A: Race-Based Traumatic Stress Symptom Scale Short Form (RBTSSS-SF). In Carter, R. T., & Pieterse, A. L. (Eds.) *Measuring the Effects of Racism* (pp. 233-246). Columbia University Press.

PEER REVIEWED JOURNAL ARTICLES

1. **Cintron, D. W.**, Glymour, M.M., Whitmer, R.A., Mungas, D., Gilsanz, P., Barnes, L.L., Calmasini, C., Eng, C.W., George, K.M., & Peterson, R. (in press). Evaluating interpersonal discrimination and depressive symptoms as partial mediators of the effects of education on cognition: Evidence from the Study of Healthy Aging in African Americans (STAR). *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*.

2. Ong, A.D., Liu, Z. & **Cintron, D. W.** (in press). Five challenges for hope and resilience research. *Current Opinion in Psychology*. https://doi.org/10.1016/j.copsyc.2022.101538

2

- 3. Chafouleas, S. M., **Cintron, D. W.**, McCoach, D. B., Briesch, A. M., Dineen, J. N., & Koriakin, T. A. (2022). Exploring factors associated with district approaches to identifying and supporting student social, emotional, and behavioral needs. *Leadership and Policy in Schools*, 1-19. https://doi.org/10.1080/15700763.2022.2099904
- 4. **Cintron, D. W.**, Loken, E., & McCoach, D. B. (2022). A cautionary note about having the right mixture model but classifying the wrong people. *Multivariate Behavioral Research*, 1-12. https://doi.org/10.1080/00273171.2022.2082913
- 5. **Cintron, D. W.**, Adler, N. E., Gottlieb, L. M., Hagan, E., Tan, M. L., Vlahov, D., ... & Matthay, E. C. (2022). Heterogeneous treatment effects in social policy studies: An assessment of contemporary articles in the health and social sciences. *Annals of Epidemiology*, 70, 79-88. https://doi.org/10.1016/j.annepidem.2022.04.009
- 6. Hines, E.M., Moore, III, J.L., **Cintron, D. W.**, Singleton, II, P., Golden, M.N., Fletcher Jr., E.C., Henderson, J.A., Slack, T., Moore, W.C., Ouimette, D.T., Reid Jr., M., & Ford, D.Y. (in press). A bridge to over troubled water: Designing and implementing a living and learning community to produce optimal outcomes for Black males. *Journal of College and University Student Housing*.
- 7. **Cintron, D. W.** & Montrosse-Moorhead, B. (2021). Integrating big data into evaluation: R code for topic identification and modeling. *American Journal of Evaluation*. https://doi.org/10.1177/10982140211031640
- 8. **Cintron, D. W.** (2021). *Methods for measuring speededness: Chronology, classification, and ensuing research and development.* Research Report No. RR-21-22. ETS. https://doi.org/10.1002/ets2.12337
- Hines, E.M., Mayes, R.D., Hines, M.R., Henderson, J.A., Golden, M.N., Singleton II, P.S., Cintron, D. W., Wathen, B., Wright, C.G., Vega, D., & Slack, T. (2021). "You are going to school:" Exploring the precollege experiences of first-year black males in higher education *Professional School Counseling*. https://doi.org/10.1177/2156759X211040044
- Dineen, J. N., Chafouleas, S. M., Briesch, A. M., McCoach, D. B., Newton, S. D., & Cintron, D. W. (2021). Exploring social, emotional, and behavioral screening practices in U.S. public school districts. *American Educational Research Journal*. https://doi.org/10.3102/00028312211000043
- 11. **Cintron, D. W.**, Hines, E.M., Singleton II, P., & Golden, M. (2020). Improving the retention and GPAs of Black males at a primarily White institution: A living and learning community approach. *Journal of African American Males in Education*, 11(1), 37-57.
- 12. Briesch, A. M., **Cintron, D. W.**, Dineen, J. N., Chafouleas, S. M., McCoach, D. B., & Auerbach, E. (2020). Comparing stakeholders knowledge and beliefs about supporting students social, emotional, and behavioral health in schools. *School Mental Health*, *12*, 222-238. https://doi.org/10.1007/s12310-019-09355-9
- 13. Hines, E. M., Hines, M. R., Moore III, J. L., Steen, S., Singleton, P., **Cintron, D. W.**, ... & Henderson, J. (2020). Preparing African American males for college: A group counseling approach. *The Journal for Specialists in Group Work*, 45(2), 129-145. https://doi.org/10.1080/01933922.2020.1740846
- 14. Briesch, A. M., Chafouleas, S. M., **Cintron, D. W.**, & McCoach, D. B. (2019). Factorial invariance of the usage rating profile for supporting students behavioral needs (URP-NEEDS). *School Psychology*, *35*(1), 51–60. https://doi.org/10.1037/spq0000309

SELECT MANUSCRIPTS UNDER REVIEW & IN PREPARATION

- 1. Cintron, D. W. & Ong, A.D. (under review) Trajectories of affective well-being and survival in middle-aged and older adults.
- 2. **Cintron, D. W.**, Matthay, E.C., & McCoach, D.B. (under review) Intersectional Measurement Invariance using the Alignment Method: An Example with the Eight Item Patient Health Questionnaire Depression Scale (PHQ-8).
- 3. Cintron, D. W., Tan, M.L., Gottlieb, L.M, Vlahov, D., Hagan, E., Glymour, M.M., & Matthay, E.C. (under review). A quantitative assessment of the frequency and magnitude of heterogeneous treatment effects in studies of the health effects of social policies

4. **Cintron, D. W.** (in preparation) A comparative evaluation of conventional and modern estimation approaches for large ordinal factor analysis models.

5. **Cintron, D. W.**, Tan, M.L., Adler, N., Gottlieb, L.M, Vlahov, D., Matthay, E.C., Glymour, M.M., Montrosse-Moorhead, B.M., Salsman, J., Hagan, E., & Solano-Flores, G. (in preparation) Diversity, equity, and inclusion in test design: Using the matrix of evidence for validity argumentation in the design of instruments.

CONFERENCE PRESENTATIONS

* Cancelled due to COVID-19

- 1. **Cintron, D. W.** & Ong, A.D. (2022, November). Advancing the study of intersectionality and flourishing through natural language use. *Global Scientific Conference on Human Flourishing*, Virtual.
- 2. **Cintron, D. W.**, Matthay, E.C., Glymour, M.M., Gottlieb, L.M., Adler, N., Vlahov, D., Hagan, E. & Tan, M.L. (2022, June). Heterogeneous treatment effects in social policy studies: A quantitative review. *Society for Epidemiological Research*, Chicago, IL.
- 3. **Cintron, D. W.**, Glymour, M.M., Whitmer, R.A., Mungas, D., Gilsanz, P., Barnes, L.L., Calmasini, C., Eng, C.W., George, K.M., & Peterson, R. (2021, July). Does discrimination mediate the association between education and later-life cognitive outcomes in a cohort of Black Americans? An example of parametric gestimation with latent variables in the STAR study. *Alzheimer's Association International Conference*, Denver, CO.
- 4. **Cintron, D. W.**, Matthay, E.C., Glymour, M.M., Gottlieb, L.M., Adler, N., Vlahov, D., Hagan, E. & Tan, M.L. (2021, June). Does research on social policies typically evaluate heterogeneous treatment effects? A quantitative assessment of a contemporary sample of articles in epidemiology, medicine, and economics. *Society for Epidemiological Research*, Virtual.
- 5. **Cintron, D. W.** & Deng, N. (2021, June). Student growth percentiles and latent change scores with two time point data. *National Council on Measurement in Education*, Virtual.
- 6. **Cintron, D. W.** (2020, June). Nonparametric estimation of latent class models within a Hilbert space. *International Meeting of the Psychometric Society*, Virtual.
- 7. **Cintron, D. W.** (2020, June). An Evaluation of Statistical Estimation Procedures for Ordinal Factor Analysis Models. *Modern Modeling Methods*, Storrs, CT.*
- 8. **Cintron, D. W.**, Xiang, L., & He, Q. (2020, April). A Latent Dirichlet Allocation Model of Action Patterns. *National Council on Measurement in Education*, San Francisco, CA.*
- 9. Chafouleas, S. M., **Cintron, D. W.**, Mccoach, D., Briesch, A., Dineen, J. & Volk, D. (2020, April). A Mediational Model of Social, Emotional, and Behavioral Approaches and Outcomes in U.S. Public Schools. *American Educational Research Association Conference*, San Francisco, CA.*
- 10. Reinka, M. A., **Cintron, D. W.**, & Quinn, M. A. (2020, February). Weight stigma online: A sentiment analysis approach. Talk to be given as part of a symposium entitled: Capturing Stigma: Novel Approaches. *21st Annual Convention for the Society for Personality and Social Psychology*, New Orleans, LA.
- 11. **Cintron, D. W.** (2019, October). On the Comparative Performance of Iterative, Variational and Stochastic Estimation Methods in Latent Class Analysis. *Northeastern Educational Research Association Conference*, Trumbull, CT.
- 12. **Cintron, D. W.** & McCoach, D.B. (2019, May). Data Science as Computational Social Science. *New England Statistical Society*, Hartford, CT.
- 13. McCoach, D.B. & Kearns, D. & Cintron, D. W. (2019, May). Big Social Science Data. *New England Statistical Society*, Hartford, CT.
- 14. **Cintron, D. W.** & McCoach, D.B. (2019, April). Right Model, Wrong People: Correct Class Assignment in Latent Class Assignment. *American Educational Research Association Conference*, Toronto, Canada.
- 15. **Cintron, D. W.**, Hines, E.M., & Singleton II, P. (2019, April). Improving Retention and Grade Point Averages of Black Males: A Living and Learning Community Approach. *American Educational Research Association Conference*, Toronto, Canada.

16. **Cintron, D. W.** & Montrosse-Moorhead, B.. (2018, October). How do we know big data techniques are suitable to use in evaluation?: An empirical exploration. *American Evaluation Association*, Cleveland, OH.

- 17. **Cintron, D. W.** & Lee, Y.S. (2018, April). Diagnostic Models of Science Attribute Mastery: An International Multi-Group Study. *American Educational Research Association Conference*, New York, NY.
- 18. **Cintron, D. W.**, Montrosse-Moorhead, B. & Finch, W.H. (2018, April). Proof of Concept: Topic Modeling as a Method for Focusing an Evaluation Design. *American Educational Research Association Conference*, New York, NY.
- 19. **Cintron, D. W.** (2017, October). The Academic Advisor Effectiveness Instrument. *Northeastern Educational Research Association Conference*, Trumbull, CT.
- 20. Hines, E.M., Cintron, D. W., & Singleton II, P. (2017, October). ScHOLA2RS House: Improving Retention and Graduation Rates of Black Males through a Living and Learning Community. 6th Annual International Colloquium on Black Males in Education, Toronto, Canada
- 21. **Cintron, D. W.** & Steven Barnett, W. (2014, April). Does Iron Supplementation Improve Early Childhood Cognitive Development? A Meta-Analysis. *Aresty Undergraduate Research Symposium*, New Brunswick, NJ.
- 22. **Cintron, D. W.**, Cabrera, J., Sedjro, J., Cosgrove, N. M., & Kostis, J.B (2013, April). Are Hospital Health Performance Reports Associated with Clinical Outcomes After Discharge in a Statewide Study of 72 Hospitals? *Aresty Undergraduate Research Symposium*, New Brunswick, NJ.
- 23. Miller, J.E., **Cintron, D. W.**, Nugent, C. & Russell, L.B. (2012, June). Do Medical Homes Reduce Time Burden on Families of Children with Special Health Care Needs? *AcademyHealth Annual Research Meeting*, Orlando, Florida.
- 24. Miller, J.E., **Cintron, D. W.**, Nugent, C. & Russell, L.B. (2012, April). Do Medical Homes Reduce Time Burden on Families of Children with Special Health Care Needs? *New England Science Symposium*, Cambridge, Massachusetts.

INVITED TALKS

- 1. **Cintron, D. W.** (2022, September). Advancing fairness and equity in measurement: An intersectional approach to measurement invariance testing. Seminar for the *Quantitative Brown Bag Series* at the *Ohio State University*, Columbus, Ohio.
- 2. **Cintron, D. W.** (2022, March). A latent Dirichlet allocation model of action patterns. Seminar for the computational psychometrics group at the *Institute of Computer Science of the Czech Academy of Sciences* and *Center for Educational Measurement and Psychometrics*, Prague, Czech Republic.
- 3. **Cintron, D. W.** (2021, October). G-estimation with measurement error correction. Workshop presenter at the *From Data to Causes Workshop*, Berlin, Germany.
- 4. **Cintron, D. W.** (2020, March). On the relation of latent variable models and network psychometrics. Participant in the *Max Planck Institute for Mathematics in the Sciences Spring School on Mathematical Statistics*. Leipzig Germany.*
- 5. **Cintron, D. W.** (2019, May). Data Science: Computational Social Science? Chair of invited session at the *New England Statistical Society Annual Conference*, Hartford, CT.

INFORMAL WRITING

- 1. Chernitskiy, S & Cintron, D. W. (2022, July). What We've Learned About Approaches to Community Engaged Research *Evidence for Action*
- 2. **Cintron, D. W.** (2022, June). Measuring the Quantity and Quality of Community Engagement: Learnings from an Interview with Dr. Melody Goodman *Evidence for Action*
- 3. **Cintron, D. W.** (2022, May). Community-Based Participatory Research: Learnings from an Interview with Ms. Harriet Yepa-Waquie and Dr. Nina Wallerstein *Evidence for Action*

4. **Cintron, D. W.** & Chernitskiy, S. (2022, April). Community Partnered Participatory Research: Learnings from an Interview with Ms. Andrea Jones and Dr. Kenneth Wells. *Evidence for Action*

- 5. **Cintron, D. W.** (2022, March). Building High-Quality Evidence Through Community-Engaged Research. *Evidence for Action*.
- 6. **Cintron, D. W.**, Glymour, M.M., & Matthay, E.C. (2021, November). Unveiling causal mechanisms through mediation analysis. *Evidence for Action*.
- 7. **Cintron, D. W.**, Glymour, M.M., & Matthay, E.C. (2021, October). Preregistration: Improving the transparency, reproducibility, and impact of research findings. *Evidence for Action*.
- 8. **Cintron, D. W.**, Matthay, E.C., & Glymour, M.M. (2021, July). An introduction to a roadmap for causal inference. *Evidence for Action*.
- 9. **Cintron, D. W.** & Hagan, E. (2021, April). Checking our bias in "unbiased" research instruments: applying a diversity, equity and inclusion lens to instrument design. *Evidence for Action*.
- 10. **Cintron, D. W.**, Glymour, M.M., & Matthay, E.C. (2021, February). A brief discussion on time-varying confounding in the evaluation of programs, practices, or policies. *Evidence for Action*.
- 11. **Cintron, D. W.** (2020, November). Connecting with study participants during COVID: An interview with Nadia Diamond-Smith on Facebook recruitment. *Evidence for Action*.
- 12. **Cintron, D. W.** (2020, October). Highlighting the unequal burden of COVID-19: Informing possible pathways for intervention. *Evidence for Action*.

TEACHING APPOINTMENTS

Teaching Assistant, University of Connecticut

January 2019 - May 2019

Course: Methods and Techniques of Educational Research

Teaching Assistant, University of Connecticut

September 2018 - December 2018

Course: Doctoral Seminar in Data Science

PROFESSIONAL MEMBERSHIPS

- 1. American Educational Research Association (2016 Present)
 - Division D Equity and Inclusion Committee Member (2021 Present)
- 2. National Council on Measurement in Education (2016 Present)
 - Graduate Student Issues Committee Member (2017-2019)
- 3. Psychometric Society (2016 Present)
- 4. Society for Epidemiological Research (2020 Present)

PROFESSIONAL AND RESEARCH APPOINTMENTS

Intern, Kaplan Test Prep	June 2020 - July 2020
Graduate Assistant, University of Connecticut	September 2016 - May 2019
Intern, Educational Testing Service	June 2018 - July 2018
Research Assistant, Teachers College	September 2015 - May 2016
Resident Researcher, New Visions for Public Schools	September 2014 - September 2015
Intern, Caribbean Exploratory Research Center	June 2014 - August 2014
Research Assistant, National Institute for Early Education Research	May 2013 - June 2014
Research Assistant, Cardiovascular Institute of New Jersey	September 2012 - May 2013
Intern, Institute for Health, Health Care Policy and Aging Research	June 2011 - July 2012

REFERENCES

D. Betsy McCoach, Ph.D

Professor

Department of Educational Psychology University of Connecticut betsy.mccoach@uconn.edu

Maria Glymour, Ph.D

Professor

Department of Epidemiology & Biostatistics University of California San Francisco maria.glymour@ucsf.edu

Eric Loken, Ph.D

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Anthony Ong, Ph.D

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Department of Psychology Cornell University ado4@cornell.edu