

Christopher David Desjardins

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Burlington, VT 05401 cdesjardins@smcvt.edu
USA <https://cddesja.github.io>

EDUCATION **Ph.D. in Quantitative Methods in Education**

University of Minnesota, May 2013

- Dissertation Title: “Evaluating the Performance of Two Competing Models Of School Suspension Under Simulation - The Zero-Inflated Negative Binomial and the Negative Binomial Hurdle”
- Advisors: Michael R. Harwell and Adam J. Rothman

M.S. in Statistics

University of Minnesota, December 2012

- Master’s Title: “Modeling Zero-Inflated and Overdispersed Count Data: An Empirical Study of School Suspensions”
- Advisor: Adam J. Rothman

B.S. in Biology (Summa Cum Laude)

University of Maine, May 2002

RESEARCH INTERESTS Applied statistics
Data visualization
Mixed effects modeling
Structural equation modeling

PROFESSIONAL EXPERIENCE **Assistant Professor of Mathematics and Statistics** 2019 – Present
Saint Michael’s College
Colchester, VT

Visiting Assistant Professor of Mathematics and Statistics 2019 – 2019
Saint Michael’s College
Colchester, VT

Associate Scientist/Statistician 2017 – Present
Oregon Research Institute
Eugene, OR

Research Associate
University of Minnesota, St. Paul, MN
Center for Applied Research and Educational Improvement 2015 - 2017
Research Methodology and Consulting Center 2018 - 2019

Postdoctoral Researcher 2013 – 2015
Science Institute
University of Iceland, Reykjavik, Iceland

Minnesota Interdisciplinary Training in Education Research Fellowship 2008 – 2012
University of Minnesota, Minneapolis, MN

GRANTS

RECEIVED

Predictors of Positive Adaptation in High Risk and Trauma Impacted Youth: The Role of Executive Function and Regulation.

NIH R15 (PI: Theresa LaFavor)

Investigator

2019 - 2022

Formative Assessment System for Teachers (FAST): Scaling up Data-Based Decisions and the Teacher-Scientist Model.

US Department of Education - OSEP (PI: Theodore J. Christ)

Investigator

2018 - 2019

Decision Rule Research Project: Curriculum-Based Measurement in Reading.

IES Goal 5 (PI: Theodore J. Christ)

Investigator

2016 - 2019

Improving and Evaluating Resource Utilisation in Icelandic Waters through Ecosystem Modelling.

Icelandic Research Fund (PI: Gunnar Stefansson)

Co-Principal Investigator

2015

TEACHING

EXPERIENCE

Saint Michael's College

Elementary Statistics (ST 120)

Fall 2019, Spring & Fall 2020, Fall 2021, Spring 2022

Biological Data & Statistics (ST 140)

Spring 2020, Spring 2021

Data Visualization (JS 304)

Fall 2020, Spring & Fall 2021, Spring 2022

Intermediate Statistics (ST 201)

Spring 2022

University of Minnesota

Statistical Analysis Using Structural Equation Methods (EPSY 8266)

Spring 2019

Applied Latent Variable Modeling

Summer 2016

Introductory Statistical Methods (EPSY 5251)

Fall 2012

Reykjavik University

Tests and Measurement in Psychology (E-411 PRMA)

Spring & Fall 2015

University of Iceland

Statistical Consulting

Fall 2015

Item Response Theory

Spring 2014

PROFESSIONAL

EXPERIENCE

Independent Statistical Consultant

2010 – Present

Minneapolis, Minnesota

- Clients include the Improve Group, Minnesota Department of Health, Minneapolis Public Schools, Lutheran Social Services, Bridgeworks, Capella University, University of Texas, and the Icelandic Testing Company.
- Services include:
 - Statistical and design advice,
 - Statistical and psychometric analyses,
 - Instrument development,
 - Writing technical and non-technical reports,

- Supervising,
- Project management and budgeting.

JOURNAL ARTICLES

PUBLISHED

38. Stice, E., Rohde, P., Butryn, M. L., **Desjardins, C. D.**, & Shaw, H. (2023) Enhancing Efficacy of a Brief Obesity and Eating Disorder Prevention Program: Long-Term Results from an Experimental Therapeutics Trial. *Nutrients*, 15, 1008. <https://doi.org/10.3390/nu15041008>
37. Stice, E., Bohon, C., Shaw, H., & **Desjardins, C. D.** (2023). Efficacy of virtual delivery of a dissonance-based eating disorder prevention program and evaluation of a donation model to support sustained implementation. *Journal of Consulting and Clinical Psychology*. <https://dx.doi.org/10.1037/ccp0000796>
36. Yamamiya, Y., **Desjardins, C. D.**, & Stice, E. (2022). Sequencing of symptom emergence in anorexia nervosa, bulimia nervosa, binge eating disorder, and purging disorder in adolescent girls and relations of prodromal symptoms to future onset of these eating disorders. *Psychological Medicine*, 1 – 9. doi:10.1017/S0033291722001568
35. Stice, E., **Desjardins, C. D.**, & Rohde, P. (2022). Young Women who Develop Anorexia Nervosa Exhibit a Persistently Low Premorbid Body Weight on Average: A Longitudinal Investigation of an Important Etiologic Clue. *Journal of Psychopathology and Clinical Science*, 131(5), 479 – 492. doi:10.1037/abn0000762
34. Klimes-Dougan, B., **Desjardins, C. D.**, Allen, T. A., Gold, P., & Martinez, P. (2022). A longitudinal investigation of intellectual functioning in youth at high risk for bipolar and depressive disorders. *Journal of Affective Disorders Reports*, 8.
33. Kalstabakken, A., W., **Desjardins, C. D.**, Anderson, J. E., Berghuis, K. J., Hillyer, C. K., Seiwert, M. J., Carlson, S. M., Zelazo, P. D., & Masten, A. S. (2021). Executive function measures in early childhood screening: Concurrent and predictive validity. *Early Childhood Research Quarterly*, 57, 144 –155
32. Stice, E., **Desjardins, C.**, Rohde, P., & Shaw, H. (2021). Sequencing of symptom emergence in anorexia nervosa, bulimia nervosa, binge eating disorder, and purging disorder and relations of prodromal symptoms to future onset of these disorders. *Journal of Abnormal Psychology*, 130, 377 – 387.
31. Stice, E., Yokum, S., Rohde, P., Cloud, K., & **Desjardins, C.** (2021). Comparing healthy adolescent females with and without parental history of eating pathology on neural responsivity to food and thin models and other potential risk factors. *Journal of Abnormal Psychology*, 130(6), 608-619. doi:10.1037/abn0000686
30. Nagel E., **Desjardins C. D.**, Earthman C., Ramel S., & Demerath, E. (2020). Weight for length measures may not accurately reflect adiposity in preterm infants born appropriate for gestational age during hospitalization or after discharge from the neonatal intensive care unit. *Pediatric Obesity*, 3. doi:10.1111/ijpo.12744
29. Doyle, C., C., Lasch, C., Teska, E., **Desjardins, C. D.**, Helwig, N. E., Jacob, S., Wolff, J. J., & Elison, J. T. (2020). Phenoscreening: A developmental approach to research domain criteria-motivated sampling. *Journal of Child Psychology and Psychiatry*.
28. Stice, E., Rohde, P., Shaw, H., & **Desjardins, C. D.** (2020). Weight suppression increases odds for future onset of anorexia nervosa, bulimia nervosa, and purging disorder, but not binge eating disorder. *American Journal of Clinical Nutrition*, 112 (4), 941 – 947. doi:10.1093/ajcn/nqaa146
27. Merrick, J. S., Labella, M. H., Narayan, A. J., **Desjardins, C. D.**, Barnes, A. J., & Masten, A. S. (2020). The Child Life Challenges Scale (CLCS): Associations of a Single-Item Rating of Global Child Adversity with Children’s Total Life Stressors and Parent’s Childhood Adversity. *Children*, 7(4), 1 – 4. doi:10.3390/children7040033

26. **Desjardins, C.D.** & Bulut, O. (2020). profileR: An R package for profile analysis. *Journal of Open Source Software*, 5(47), 1941, doi:10.21105/joss.01941.
25. Distefano, R., Schubert, E. C., Finsaas, M. C., **Desjardins, C. D.**, Lister, M., Carlson, S. M., Zelazo, P. D., & Masten, A. S. (2020). Ready? Set. Go! A school readiness program designed to boost executive function skills in preschoolers experiencing homelessness and high mobility. *European Journal of Developmental Psychology*. doi:10.1080/17405629.2020.1813103
24. Bulut, O., & **Desjardins, C. D.** (2020). Profile analysis of multivariate data: A brief introduction to the *profileR* Package. *PsyArXiv*. doi:10.31234/osf.io/sgy8m.
23. Shaw, H. E., Rohde, P., **Desjardins, C. D.**, & Stice, E. (2020). Sexual orientation correlates with baseline characteristics but shows no moderating effects of dissonance-based eating disorder prevention programs for women. *Body Image*, 32, 94 – 102.
22. DePasquale, C.E., Olsen, A., **Desjardins, C. D.**, Bruce, J., Pears, K.C., Gunnar, M.R., & Fisher, P.A. (2019). Examining the psychometric properties of the parent daily report - toddler version (PDR-T) . *International Journal of Behavioral Development*, 43 (5), 447 – 456. doi:10.1177/0165025419844030.
21. Stice, E., **Desjardins, C. D.**, Shaw, H., & Rohde, P. (2019). Moderators of two dual eating disorder and obesity prevention programs. *Behaviour Research and Therapy*, 118, 77 – 86. doi:10.1016/j.brat.2019.04.002.
20. Perry, N. B., Parenteau, A. M., Donzella, B., **Desjardins, C. D.**, & Gunnar, M. R. (2019). Emotion regulation and cortisol reactivity during a social evaluative stressor: A study of post-institutionalized youth. *Developmental Psychobiology*, 61, 557 – 572.
19. Schleisman, K. B., Guzey, S. S., Lie, R., Michlin, M., **Desjardins, C. D.**, Shackleton, H. S., Schwerdfeger, A. C., Michalowski, M., & Dubinsky, J. (2018). Learning neuroscience with technology: A scaffolded, active learning approach. *Journal of Science Teacher Education*, 27, 566 – 580. doi:10.1007/s10956-018-9748-y.
18. Leneman, K. B., Donzella, B., **Desjardins, C. D.**, Miller, B. S., & Gunnar, M. R. (2018). The slope of cortisol from awakening to 30 min post-wake in post-institutionalized children and early adolescents. *Psychoneuroendocrinology*, 96, 93 – 99. doi:10.1016/j.psyneuen.2018.06.011
17. Sturludottir, E, **Desjardins, C. D.**, Elvarsson, B., Fulton, E. A., Logeman, K. & Stefansson, G. (2018). End-to-end model of Icelandic waters using the Atlantis framework: Exploring system dynamics and model reliability. *Fisheries Research*, 207, 9 – 24. doi:10.1016/j.fishres.2018.05.026
16. Rohde, P., **Desjardins, C. D.**, Arigo, D., Shaw, H., & Stice, E. (2018). Mediators of two selective prevention interventions targeting both obesity and eating disorders. *Behaviour Research and Therapy*, 106, 8 – 17. doi:10.1016/j.brat.2018.04.004.
15. Stice, E. & **Desjardins, C. D.** (2018). Interactions between risk factors in the prediction of onset of eating disorders: Exploratory hypothesis generating analyses. *Behaviour Research and Therapy*, 105, 52 – 62. doi:10.1016/j.brat.2018.03.005
14. Christ, T. J. & **Desjardins, C. D.** (2018). Curriculum-based measurement of reading: An evaluation of frequentist and Bayesian methods to model progress monitoring data. *Journal of Psychoeducational Assessment*, 36(1), 55 – 73. doi:10.1177/0734282917712174
13. Labella, M. H., Narayan, A. J., McCormick, C. M., **Desjardins, C. D.**, & Masten, A. S. (2017). Risk and adversity, parenting quality, and children’s social-emotional adjustment in families experiencing homelessness. *Child Development*. doi:10.1111/cdev.12894
12. Reid, B., Miller, B., Dorn, L., **Desjardins, C. D.**, Donzella, B., & Gunnar, M. R. (2017). Early-growth faltering in post-institutionalized youth and later anthropometric and pubertal development. *Pediatric Research*, 82(2), 278 – 874. doi:10.1038/pr.2017.35
11. Bowe, A., **Desjardins, C. D.**, Covington-Clarkson, L., & Lawrenz, F. (2017). Urban elementary single-sex math classrooms: Mitigating stereotype threat for African American girls. *Urban Education*, 1 – 30. doi:10.1177/0042085915574521

10. Nyamweya, C. S., **Desjardins, C. D.**, Sigurdsson, S., Tomasson, T, Taabu-Munyaho, & Stefansson, G. (2016). Simulation of Lake Victoria circulation patterns using regional ocean modeling system (ROMS). *PLoS ONE*, 11(3), e0151272. doi: 10.1371/journal.pone.0151272
9. **Desjardins, C. D.** (2016). Modeling zero-inflated and overdispersed count data: An empirical study of school suspensions. *Journal of Experimental Education*, 84 (3), 449 – 472. doi: 10.1080/00220973.2015.1054334.
8. Kimmons, R., Miller, B., Amador, J., **Desjardins, C. D.**, and Hall, C. (2015). Technology integration coursework and finding meaning in pre-service teachers' reflective practice. *Educational Technology & Development*, 63(6), 809 – 829. doi:10.1007/s11423-015-9394-5
7. **Desjardins, C. D.** (2013). Evaluating the performance of two competing models of school suspension under simulation - the zero-inflated negative binomial and the negative binomial hurdle. Dissertation paper.
6. Klimes-Dougan, B., **Desjardins, C. D.**, James, M. G., Narayan, A., Long, J., Cullen, K. R., Gold, P. W. & Martinez, P. P. (2013). The development of thought problems: A family risk study of offspring of bipolar parents. *Development and Psychopathology*, 25(4), 1079 – 1091. doi: 10.1017/S0954579413000382
5. Cutuli, J. J., **Desjardins C. D.**, Herbers, J. E., Long, J. D., Heistad, D., Chan, C.-K., Hinz, E., & Masten, A. S. (2013). Academic Achievement Trajectories of Homeless and Highly Mobile Students: Resilience in the Context of Chronic and Acute Risk. *Child Development*, 84(3), 841 – 857. doi:10.1111/cdev.12013
4. Masten, A. S., Herbers, J. E., **Desjardins, C. D.**, Cutuli, J. J., McCormick, C. M., Sapienza, J. K., Long, J. D., & Zelazo, P. D. (2012). Executive function skills and school success in young children experiencing homelessness. *Educational Researcher*, 41(9), 375 – 384. doi:10.3102/0013189X12459
3. Liou, P., **Desjardins, C. D.**, & Lawrenz, F. (2010). Influence of scholarships on STEM teachers: Cluster analysis and characteristics. *School Science and Mathematics*, 110(3), 128 – 143. doi:10.1111/j.1949-8594.2010.00016.x
2. Masten, A., **Desjardins, C. D.**, McCormick, C., Kuo, S., & Long, J. D. (2010). The significance of childhood competence and problems for adult success in work: A developmental cascade analysis. *Development and Psychopathology*, 22(3), 679 – 694. doi:10.1017/S0954579410000362
1. Masten, A., Long, J. D., Kuo, S., McCormick, C., & **Desjardins, C. D.** (2009). Developmental models of strategic intervention. *European Journal of Developmental Science*, 3(3), 282 – 291.

BOOKS

Desjardins, C. D., Laura, L., & Brearley, A. (In-Progress). Biostatistics. Available at <https://cddesja.github.io/biostat-book/>.

Desjardins, C. D., & Bulut, O. (2018). Handbook of Educational Measurement and Psychometrics Using R. CRC Press.

BOOK CHAPTERS

Amador, J., Kimmons, R., Miller, B., **Desjardins, C. D.**, & Hall, C. (2015). Preparing preservice teachers to become self-reflective of their own technology integration practices. In M. Niess & H. Gillow-Wiles (Eds.) Handbook of Research on Teacher Education in the Digital Age. Hershey, PA: IGI Global.

Lawrenz, F., & **Desjardins, C. D.** (2011). Trends in government-funded multi-site K-12 Science program evaluation. In B. Fraser, K. Tobin, & C. McRobbie (Eds.), Second international handbook of science education. Springer.

PRESENTATIONS

Beckman, M., **Desjardins, C. D.**, & Lendway, L. (2021, June). Reimagining the Role of EDA in Science and the Classroom. Session presented at the 2021 USCOTS, Virtually.

Desjardins, C. D., & Bulut, O. (2019, April). Exploring, Visualizing, and Modeling Big Data with R. Workshop presented at the 2019 National Council on Measurement in Education, Toronto, CA.

Reid, B., Miller, B., Dorn, L., **Desjardins, C. D.**, Donzella, B., & Gunner, M. (2017, April). Early-growth faltering in post-institutionalized youth and later anthropometric and pubertal development. Paper presented at the 99th Annual Meeting of the Endocrine Society, Orlando, FL.

Reid, B., Miller, B., Dorn, L., **Desjardins, C. D.**, & Gunner, M. (2017, April). Does early stress and growth stunting predict obesity, internalizing symptoms and early puberty in youth adopted from orphanages. Paper presented at the 2017 Society for Research in Child Development, Austin, TX.

Thibodeau, E., Labella, M., **Desjardins, C. D.**, Masten, A., & Barnes, A. (2017, April). Environmental sensitivity to socio-demographic risk: Identifying gene expression-by-environment interactions. Paper presented at the 2017 Society for Research in Child Development, Austin, TX.

Sturludottir, E., **Desjardins, C. D.**, Logemann, K., Marteinsdottir, G., & Stefansson, G. (2016, September). Integrated ecosystem model of Icelandic waters. Paper presented at the 2016 ICES conference, Vienna, Austria.

Desjardins, C. D. (2015, June). Implementing a whole of system ecosystem model for the Icelandic waters. Paper presented at the 2015 Nordic-Baltic Biometric Conference, Reykjavik, Iceland.

Chang, Y.-F., **Desjardins, C. D.**, Davison, M. L., & Chan, C.-K. (2012, April). A multilevel approach to identifying criterion-related profile patterns. Paper presented at the 2012 meeting of the American Educational Researcher Association, Vancouver, Canada.

Desjardins, C. D., Long, J.D., Chan, C.K., Hinz, E., Heistad, D., & Masten, A. S. (2011, April). Suspensions in homeless and highly mobile students: A multilevel longitudinal study. Paper presented at the 2011 meeting of the American Educational Researcher Association, New Orleans, LA.

Davenport, E., Chan, C.-K., & **Desjardins, C. D.** (2010, May). Profile analysis. Workshop presented at the 2010 Quantitative Methods in Education Summer Institute, Minneapolis, MN.

Masten, A. S., **Desjardins, C. D.**, McCormick, C. M., Kuo, S. I.-C., & Long, J. D. (2010, March). The significance of childhood competence for adult success in work: A developmental cascade analysis. Paper presented at the 2010 meeting of the Society for Research on Adolescence, Philadelphia, PA.

Cutuli, J. J., Obradovic, J., Herbers, J. E., **Desjardins, C. D.**, & Masten, A. S. (2009, April). Risk and protective factors for academic success in homeless/highly mobile children. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Denver, CO.

POSTERS

Merrick, J.S., Labella, M., **Desjardins, C. D.**, Barnes, A., & Masten, A.S. (2017). Child Life Challenges Scale: Evidence of validity as a lifetime adversity measure. Poster presented at the 2017 Biennial Meeting of the Society for Research on Child Development, Austin, TX.

Desjardins, C. D., & Bulut, O. (2016, June). Profile analysis of multivariate data using the profileR package. Poster presented at the 2016 userR conference, Palo Alto, CA.

Wenzel, A. J., Sapienza, J. K., Carlson, S. M., **Desjardins, C. D.**, Rothbart, M. K., & Masten, A. S. (2013, April). Developing a parent report scale of executive function in early childhood. Poster presented at the 2013 meeting of the Society for Research in Child Development, Seattle, WA.

Desjardins, C. D., Cutuli, J. J., Herbers, J. E., Chan, C.-K., Hinz, E., Heistad, D., Long, J. D., & Masten, A. S. (2011, September). Suspensions in homeless and highly mobile students: A multilevel longitudinal study. Poster presented at the 2011 fall meeting of the Society for Research on Educational Effectiveness, Washington, DC.

Klimes-Dougan, B., **Desjardins, C. D.**, Long, J. D., Narayan, A. J., Lee, C.-Y. S., Gold, P. W., & Martinez, P.E. (2011, April) Thought problems across development: A family risk study of descendants of a bipolar parent. Poster presented at the 2011 meeting of the Society for Research in Child Development, Montreal, Quebec.

McCormick, C. M., **Desjardins, C. D.**, Kuo, S. I., Long, J. D., & Masten, A. S. (2010, July). Competence in romantic relationships: A developmental cascades analysis spanning 20 years. Poster presented at the International Society for the Study of Behavioural Development in Lusaka, Zambia.

Desjardins, C. D., Long, J. D., & Chan, C. K. (2010, June). Exploring delinquency in high risk students using longitudinal zero-inflated Poisson Bayesian multilevel models. Poster presented at the 2010 meeting of the Institute of Education Sciences Research Conference, Washington, DC.

Desjardins, C. D., Long, J. D., Heistad, D., Cutuli, J. J., Herbers, J. E., Chan, C. K., Hinz, E., McCormick, C. M., & Masten, A. S. (2009, June). Strategies for comparative growth modeling of achievement in homeless/highly mobile students. Poster presented at the 2009 meeting of the Institute of Education Sciences Research Conference, Washington, DC.

McCormick, C. M., Kuo, S. I., **Desjardins, C. D.**, Long, J. D., & Masten, A. S. (2009, April). Meditational role of social competence on the significance of parenting quality in childhood for work competence in early adulthood. Poster presented at the 2009 meeting of the Society for Research in Child Development, Denver, CO.

Kuo, S. I., McCormick, C. M., **Desjardins, C. D.**, Long, J.D., & Masten, A.S. (2009, April). Differential pathways to work success in early adulthood. Poster presented at the 2009 meeting of the Society for Research in Child Development, Denver, CO.

JOURNAL
REVIEWER

- Psychological Methods
- Development and Psychopathology
- Child Development
- PLOS One
- Journal of Abnormal Child Psychology
- Developmental Psychology
- Learning and Individual Differences
- Proceedings of the National Academy of Sciences
- Frontiers in Education
- Journal of Statistics and Data Science Education
- AStA Advances in Statistical Analysis
- Educational and Psychological Measurement
- Technology Innovations in Statistics Education
- Journal of Open Source Software

PANEL
REVIEWER

- Institute of Education Sciences (2018 – Present)

R PACKAGES

- hemp. A companion package for the *Handbook of Educational Measurement and Psychometrics Using R*
<https://github.com/cddesja/hemp>.
- profileR. Profile analysis of multivariate data
<https://cran.r-project.org/web/packages/profileR/index.html>.
- R4Atlantis. Functions to prepare Atlantis models
<https://github.com/cddesja/R4Atlantis>.

VISUALIZATIONS USING R

- Decision rule research project dashboard
https://carei.shinyapps.io/drrp_bayesian_model/
- Minnesota Student Survey dashboard
https://carei.shinyapps.io/msst_2013-2016/
- Visualizing Atlantis toolbox
<https://github.com/mareframe/vat>.

SOFTWARE SKILLS

- Proficient with R; Tableau; Linux, Mac OS X, and Windows; SPSS; MPlus; and MS Office.
- Experience with Python, SQL, C, HTML/CSS, and Javascript.