

# Robert Matthew DeMonbrun

## Curriculum Vitae

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Denton, TX 76208  
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### EDUCATION

- Ph. D. Higher Education, In Progress  
University of Michigan – Ann Arbor  
Dissertation Title: “Will they revolt?": An examination of student response to different types of instruction in the engineering discipline  
Dissertation Committee: Lisa R. Lattuca (co-chair), Cynthia J. Finelli (co-chair), Brian McCall, Matthew Diemer
- M.A. Higher Education Administration  
University of Alabama – Tuscaloosa
- B.S. Aerospace  
Middle Tennessee State University

### PUBLICATIONS

#### Refereed Journal Articles

- Brown, M. & DeMonbrun, M. (forthcoming). Who Gets Helped? The Opportunity Structure of the Physics Classroom, Peer Instruction, and Perceptions of Help-Seeking. *Journal of College Science Teaching*.
- DeMonbrun, M. & Finelli, C. (forthcoming). Influencing Changes in Teaching: Addressing Motivations and Barriers to the Adoption of Evidence-Based Teaching Strategies in Engineering. *Journal of Excellence in College Teaching*.
- Brown, M., DeMonbrun, M., Teasley, S. (2018). Taken together: Conceptualizing students' concurrent course enrollment across the post-secondary curriculum using temporal analytics. *Journal of Learning Analytics*, 5(3), 60-72.
- DeMonbrun, M., Kerst, J., Pfershy, H., Finelli, C. (2018). The Long-Term Impact of a Faculty Development Program on Student Evaluations of Teaching. *International Journal of Engineering Education*, 34(4), 1-10.
- Finelli, C., Nguyen, K., DeMonbrun, M., Borrego, M., Prince, M., Henderson, C., ... Waters, C. (2018). Reducing Student Resistance and Increasing Engagement in Active Learning: Strategies for Instructors. *Journal of College Science Teaching*, 47(5), 80-91.
- Shekhar, P., Prince, M., Finelli, C., DeMonbrun, M., & Waters, C. (2018). Integrating Quantitative and Qualitative Research Methods to Examine Student Resistance to Active Learning. *European Journal of Engineering Education*, 43, 1-12.

- DeMonbrun, M., Finelli, C., Prince, M., Borrego, M., Shekhar, P., Henderson, C., & Waters, C. (2017). Creating an Instrument to Measure Student Response to Instructional Practices. *Journal of Engineering Education*, 106(2), 273-298.
- Nguyen, K., Husman, J., Borrego, M., Shekhar, P., Prince, M., DeMonbrun, M., ... Waters, C. (2017). Students' Expectations, Types of Instruction, and Instructor Strategies Predicting Student Response to Active Learning. *International Journal of Engineering Education*, 33(1), 2-18.
- Shekhar, P., DeMonbrun, M., Borrego, M., Finelli, C., Prince, M., Henderson, C., & Waters, C. (2015). Development of an Observation Protocol to Study Undergraduate Engineering Student Resistance to Active Learning. *International Journal of Engineering Education*, 31(2), 597-609.

### Refereed Conference Proceedings

- Borrego, M., Nguyen, K. A., Crockett, C., DeMonbrun, M., Shekhar, P., Tharayil, S.,...Waters, C. (2018). Systematic Literature Review of Students' Affective Responses to Active Learning: Overview of Results. Paper presented at the 2018 Frontiers in Education conference, San Jose, CA.
- DeMonbrun, M., Brown, M., & Teasley, S. (2018). *The Snowball Effect: Exploring the Influence of Changes in Academic Performance on Student Success in Co-Enrolled Courses*. Paper presented at the 125<sup>th</sup> American Society for Engineering Education conference, Salt Lake City, UT.
- Crockett, C. E., Knguyen, K. A., Shekhar, P., DeMonbrun, M., Tharayil, S., Rosenberg, R.,...Finelli, C., (2018). *How Do Students Respond to Active Learning? A Coding Guide for a Systematic Review of the Literature*. Paper presented at the 125<sup>th</sup> American Society for Engineering Education conference, Salt Lake City, UT.
- DeMonbrun, M., & Finelli, C. (2018). *Impact of Prior Experiences on Future Participation in Active Learning*. Paper presented at the 125<sup>th</sup> American Society for Engineering Education conference, Salt Lake City, UT.
- Brown, M., DeMonbrun, M., & Teasley, S. (2018). *Conceptualizing Co-enrollment: Accounting for student experiences across the curriculum*. Paper presented at the 8th International Conference on Learning Analytics and Knowledge, Sydney, Australia. **[Best Paper Award Winner]**
- DeMonbrun, M. & Brown, M. (2017). *Exploring the Relationship between the Use of Learning Technologies and Student Success in the Engineering Classroom*. Paper presented at the 124th American Society for Engineering Education conference, Columbus, OH.
- DeMonbrun, M., & Brown, M. (2017). *Exploring Academic Difficulties in the First Year of Engineering Students' Coursework*. Paper presented at the 124th American Society for Engineering Education conference, Columbus, OH.
- Nguyen, K., DeMonbrun, M., Borrego, M., Husman, J., Prince, M., Finelli, C., ... Waters., C. (2017). The Tensions Measuring Instructional Practices. Paper presented at the 2017 Research in Engineering Education Symposium, Bogotá, Columbia.
- Nguyen, K., Finelli, C., Husman, J., DeMonbrun, M., Borrego, M., Prince, M., Henderson, C., & Waters, C. (2017). *The Variation of Nontraditional Teaching Methods Across 17 Undergraduate Engineering Classrooms*. Paper presented at the 124th American Society for Engineering Education conference, Columbus, OH.
- Kerst, J., Pfersy, H., DeMonbrun, M., & Finelli, C. (2017). *Long-Term Impact of Faculty Development Program on Student Evaluations of Teaching*. Paper presented at the 124th American Society for Engineering Education conference, Columbus, OH.
- Brown, M., DeMonbrun, M., & Teasley, S. (2017). *Don't Call it a Comeback: Academic recovery and the timing of educational technology adoption*. Paper presented at the 7th International Conference on Learning Analytics and Knowledge, Vancouver, BC. **[Best Paper Nominee]**

- Brown, M., DeMonbrun, M., Lonn, S., Aguilar, S., & Teasley, S. (2016). *What and When: The Role of Course Type and Timing in Students' Academic Performance*. Paper presented at the 6th International Conference on Learning Analytics and Knowledge, Edinburgh, UK.
- Nguyen, K., Borrego, M., Shekhar, P., Henderson, C., Waters, C., Finelli, C., DeMonbrun, M., & Prince, M. (2016). *Measuring Student Response to Instructional Practices (StRIP) in Traditional and Active Classrooms*. Paper presented at the 123rd American Society for Engineering Education conference, New Orleans, LA.
- DeMonbrun, M., Shekhar, P., & Finelli, C. (2015). *Methods for Establishing Validity and Reliability of Observation Protocols*. Paper presented at the 122nd American Society of Engineering Education Annual Conference, Seattle, WA.
- Shekhar, P., Borrego, M., DeMonbrun, M., Finelli, C., Waters, C., Prince, M., & Henderson, C. (2015). *A Mixed Method Study to Understand Student Resistance to Active Learning*. Paper presented at the 2015 Research in Engineering Education Symposium, Dublin, Ireland.
- DeMonbrun, M. & Brown, M. (2014). *Gendered influences on course planning decisions in undergraduate Engineering Education*. Paper presented at the 2014 Frontiers in Education Conference, Madrid, Spain.
- Finelli, C., DeMonbrun, M., Borrego, M., Shekhar, P., Prince, M., Henderson, C., & Waters, C. (2014). *A Classroom Observation Instrument to Assess Student Response to Active Learning*. Paper presented at the 2014 Frontiers in Education Conference, Madrid, Spain.
- Ganago, A., DeMonbrun, M., & Sivaramakrishnan, S. (2014). *Development of student motivation in a required Electrical Engineering (EE) course for non-EE majors*. Paper presented at the 121st American Society of Engineering Education Conference, Indianapolis, IN.

### **Manuscripts in Submission**

- Warshaw, J. B., McNaughtan, J., & DeMonbrun, M. (under review). Does striving for prestige impede socioeconomic diversity? Master's comprehensive institutions and the low-income student. *Higher Education Policy*.
- Brown, M., DeMonbrun, M., & Teasley, S. (under review). Not All at Once: Using Early Warning System data to identify enrollment patterns that increase students' risk of experiencing academic difficulty. *Journal of Applied Research in Higher Education*.
- Nguyen, K. A., Borrego, M., Finelli, C., DeMonbrun, M., Crockett, C., Tharayil, S.,...Rosenberg, R. (under review). Instructor Strategies to Reduce Student Resistance to Active Learning: A Systematic Literature Review. *Journal of Engineering Education*.
- Shekhar, P., Borrego, M., Crockett, C., DeMonbrun, M., Finelli, C., & Nguyen, K. (under review). Negative Student Responses to Active Learning in STEM Classrooms: A Systematic Review of Underlying Reasons. *Journal of College Science Teaching*.

### **Selected Policy Briefs**

- Hallman, S., DeMonbrun, M., Karel, A. (2017). *The Impact of Engaged Learning at the University of Michigan*. Report commissioned by the Office of the Provost at the University of Michigan.
- Michigan Postsecondary Credential Attainment Workgroup. (2015). *Reaching for Opportunity: An Action Plan to Increase Michigan's Postsecondary Credential Attainment*. Retrieved on February 5, 2016 from <http://mitalentgoal2025.org/>
- The University of Alabama Education Policy Center. (2015). *The Economic & Social Impacts of Alabama Public Higher Education*. Retrieved February 5, 2016 from [http://uaedpolicy.ua.edu/uploads/2/1/3/2/21326282/hied\\_return\\_on\\_investment.pdf](http://uaedpolicy.ua.edu/uploads/2/1/3/2/21326282/hied_return_on_investment.pdf)

### ***Papers in Progress***

DeMonbrun, M., Warshaw, J. B., & McNaughan, J. (in progress). Does striving for prestige impede access? Master's comprehensive institutions and the enrollment of underrepresented minorities. *American Educational Research Journal*.

Grim, J., DeMonbrun, M., & Morton, C. (in progress). Racial Differences in Doctoral Socialization and Intent to Pursue the Professoriate. *Review of Higher Education*.

### **GRANTS AND FELLOWSHIPS**

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|------|---|
| 2017 | Rackham Dissertation Finishing Grant<br>University of Michigan, Rackham Graduate School<br>(\$16,800 awarded September 2017)                    |
| 2017 | Rackham Graduate Student Research Grant<br>University of Michigan, Rackham Graduate School<br>(\$3,000 awarded January 2017)                    |
| 2016 | Rackham Summer Award<br>University of Michigan, Rackham Graduate School<br>(\$8,000 awarded May 2016)   |
| 2015 | Rackham Summer Research Grant<br>University of Michigan, Rackham Graduate School<br>(\$9,485 awarded May 2015)                                  |
| 2014 | Innovations in Research and Practice Grant<br>National Collegiate Athletic Association  |
| 2014 | CSHPE Research Grant<br>University of Michigan, School of Education<br>(\$4,000 awarded May 2014)   |
| 2013 | Investigating Student Learning Grant<br>University of Michigan, Center for Research on Teaching and Learning<br>(\$8,000 awarded February 2013) |

### **OTHER HONORS AND AWARDS**

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| 2012-2016 | School of Education Scholar's Award<br>University of Michigan<br>Full Tuition and Benefits Scholarship |
| 2010      | Most Outstanding Graduate Student<br>University of Alabama's Program in Higher Education               |
| 2011      | Most Outstanding Graduate Assistant<br>University of Alabama's Division of Student Affairs             |

### **RESEARCH PRESENTATIONS**

DeMonbrun, M. (2017). *Exploring Trajectories: Using Event History Methods to Predict Students' Performance During Summer Bridge*. Paper presented at the 2017 Association for the Study of Higher Education Conference, Houston, TX.

- DeMonbrun, M. & Finelli, C. (2017). *Development of a Survey Instrument to Measure Student Response to Instructional Practices*. Poster presented at the Center for Research on Teaching and Learning-Engineering (CRTLE) Poster Fair, Lurie Engineering Building, University of Michigan, Ann Arbor, MI.
- Grim, J., DeMonbrun, M., & Morton, C. (2016). *Racial Differences in Doctoral Socialization and Intent to Pursue the Professoriate*. Paper presented at the 2016 Association for the Study of Higher Education Conference, Columbus, OH.
- DeMonbrun, M. (2016). *The Role of Intergroup Contact Theory in Interracial Interactions: Reconceptualizing Student's Interactions with Diverse Others*. Paper presented at the 2016 Association for the Study of Higher Education Conference, Columbus, OH.
- DeMonbrun, M. & Finelli, C., (2015). *Development of a Survey Instrument to Measure Student Resistance to Active Learning*. Paper presented at the 2015 Association for the Study of Higher Education Conference, Denver, CO.
- DeMonbrun, M. & Hernandez, E. (2014). *Perceptions of Campus Racial Climate and Minority Student Stop-out*. Paper presented at the 2014 Association for the Study of Higher Education Conference, Washington, D.C.
- King, P. M., Baxter Magolda, M., Barber, J., & DeMonbrun, M. (2014). *Developmental Pathways of African-American Students: A Longitudinal Study of Development in Context*. Paper presented at the 2014 Association for the Study of Higher Education Conference, Washington, D.C.
- King, P. M., Baxter Magolda, M., Joslin, J., & DeMonbrun, M. (2013). *The Journey to Self-Authorship among College Seniors: A Longitudinal, Interactionist Analysis*. Paper presented at the 2013 Association for the Study of Higher Education Conference, St. Louis, MO.

## TEACHING EXPERIENCE

- Summer 2017 Instructor of Record, Statistics for Behavioral and Social Sciences  
Rackham Merit Fellowship Workshop, University of Michigan
- Fall 2016 Instructor of Record, Introduction to Quantitative Methods in Educational Research  
School of Education, University of Michigan
- Summer 2016 Instructor of Record, Statistics for Behavioral and Social Sciences  
Rackham Merit Fellowship Workshop, University of Michigan
- Winter 2016 Instructor of Record, Quantitative Methods for Non-Experimental Research  
School of Education, University of Michigan
- Fall 2015 Instructor of Record, Introduction to Quantitative Methods in Educational Research  
School of Education, University of Michigan
- Winter 2011 Instructor of Record, Field Practicum in a University Setting  
College of Literature, Science, and the Arts, University of Michigan

## RESEARCH EXPERIENCE

**Research Consultant, January 2016 – Present, Center for Education Design, Evaluation, and Research**  
Responsibilities: Recruited by CEDER as quantitative specialist for research on educational practice at multiple levels of schooling (P-20) and in multiple sites both within and outside the School of Education. Write research reports offering expertise on teaching and learning strategies to the broader campus community.

**Graduate Research Assistant, Dec. 2013 – May 2018, Understanding and Reducing Student Resistance as a Barrier to Faculty Change**

*Research Advisor: Dr. Cynthia Finelli*

*Research supported by \$500,000 Widening Implementation & Demonstration of Evidence-Based Reforms (WIDER) grant from the National Science Foundation*

Responsibilities: Recruited to project as primary methodological specialist (quantitative and qualitative analysis and survey design); design quantitative measure of student response in the classroom; design and implement classroom observation protocol to study active learning teaching strategies; design interview protocols for student focus groups and faculty interviews; report on findings; write papers concerning results.

**Institutional Research Lead, January 2014 – December 2017, Division of Student Life**

Responsibilities: Oversaw the University of Michigan’s participation in the Cooperative Institutional Research Program, including administration of the instrument to over 5,500 first-year students and conducting all research analyses for dissemination to campus leaders and the public at large; constructed first-year school/college and institutional reports detailing demographics for each entering cohort at the University of Michigan; led research efforts on the University of Michigan’s MPortfolio program for the university’s Division of Student Life; managed collection of quantitative data across multiple sites throughout the university.

**Graduate Research Assistant, January 2015 – May 2015, Twenty-First Century Scholars Project**

*Research Advisor: Dr. Steve DesJardins*

Responsibilities: Analyze differences between enrollment and intent to enroll in the Indiana Twenty-First Century Scholars program, including impacts on student retention and graduation; merge datasets from multiple sources using probabilistic matching; work with team members from multiple campuses to conduct analyses; write papers concerning results.

**Graduate Research Assistant, Sept. 2012 – Dec. 2014, Liberal Arts Education: A Study of Practices and Outcomes**

*Research Advisor: Dr. Patricia King*

*Research supported by \$1.2 million grant from the Wabash College National Study of Liberal Arts Education Project*

Responsibilities: Summarize qualitative interviews about students’ collegiate experiences; code interview transcripts for liberal arts outcomes and developmental meaning-making in conjunction with the Wabash National Study of Liberal Arts Education; database management; write papers concerning results; assist with grant writing.

**PROFESSIONAL EXPERIENCE**

2018-Present	Statistician, Enrollment Management Research Group Southern Methodist University, Dallas, TX
2011-2012	Hall Director, University Housing University of Michigan, Ann Arbor, MI
2009-2011	Community Director, Housing and Residential Communities University of Alabama, Tuscaloosa, AL

**PROFESSIONAL SERVICE & AFFILIATIONS**

*National Service:*

Ad-Hoc Reviewer, International Journal of STEM Education  
Ad-Hoc Reviewer, Journal of Engineering Education  
Ad-Hoc Reviewer, Physical Review Physics Education Research  
Ad-Hoc Reviewer, IEEE Transactions on Education  
Reviewer (Division J), American Educational Research Association  
Reviewer (Teaching, Learning, & Assessment, Students, and Faculty Divisions), Association for the Study of Higher Education  
Reviewer, Learning Analytics & Knowledge Conference  
Reviewer (First Year Experience, Educational Research and Methods, and Minorities in Engineering Divisions), American Society for Engineering Education  
Reviewer, ASEE/IEEE Frontiers in Education  
Research Committee Member, Association of College and University Housing Officers – International, 2009-2015

*University Service:*

**University of Michigan (Ann Arbor, MI):**

Office for Student Conflict Resolution Advisory Board, 2014-2016  
School of Education Technology Advisory Committee, 2015-2016  
CSHPE Ph.D. Admissions Student Representative, 2015-2016  
School of Education Graduate Student Conference Committee, 2013-2015 (Member), 2015-2017 (Chair)

**University of Alabama (Tuscaloosa, AL):**

Education Policy Center Research Associate, 2009-Present  
Resident Assistant Training Committee, 2009-2010  
Greek Life Advisory Board, 2008-2009  
Student Affairs First-Year Retention Task Force, 2008-2010

**Professional Affiliations**

Association for Institutional Research, 2016-Present  
American Society for Engineering Education, 2013-Present  
American Educational Research Association, 2013-Present  
Association for the Study of Higher Education, 2009-Present  
American College Personnel Association, 2010-Present  
National Association of Student Personnel Administrators, 2008-Present  
Association of College and University Housing Officers – International, 2010-2013