

References

- Academic Senate of the California State University. (2016). Quantitative reasoning task force final report. <https://www.asccc.org/sites/default/files/V.%20G.%20QRTF%20Final%20Report%2008-01-2016.pdf>
- Achieve. (2020). The algebra II variable: State policies for graduation requirements, assessments, and alignment to postsecondary expectations. <https://www.achieve.org/publications/algebra-ii-variable-state-policies-graduation-requirements-assessments-and-alignment>
- Adiredja, A. P., & Andrews-Larson, C. (2017). Taking the sociopolitical turn in postsecondary mathematics education research. *International Journal of Research in Undergraduate Mathematics Education*, 3(3), 444-465. <https://doi.org/10.1007/s40753-017-0054-5>
- Anhalt, C. (2018). Access to mathematics: Opening doors for students currently excluded. *Critical Issues in Mathematics Education*, Volume 14. Mathematical Sciences Research Institute. <http://library.msri.org/cime/CIME-v14.pdf>
- Apkarian, N., Bowers, J., O'Sullivan, M. E., & Rasmussen, C. (2018). A case study of change in the teaching and learning of precalculus to Calculus 2: What we are doing with what we have. *PRIMUS*, 28(6), 528-549. <https://doi.org/10.1080/10511970.2017.1388319>
- Apkarian, N., Kirin, D., Bressoud, D., Rasmussen, C., Larsen, S., Ellis, J., Ensley, D., & Johnson, E. (2017). Progress through calculus: Census survey technical report. https://www.maa.org/sites/default/files/PtC%20Technical%20Report_Final.pdf
- Appianing, J., & Van Eck, R. N. (2018). Development and Validation of the Value-Expectancy STEM Assessment Scale for students in higher education. *International Journal of STEM Education*, 5(24), 1-16. <https://doi.org/10.1186/s40594-018-0121-8>
- Asim, M., Kurlaender, M., & Reed, S. (2019). 12th grade course-taking and the distribution of opportunity for college readiness in mathematics. Policy Analysis for California Education. <https://edpolicyinca.org/publications/12th-grade-course-taking-and-distribution-opportunity-college-readiness-mathematics>
- Association of American Medical Colleges-Howard Hughes Medical Institute Committee. (2009). Scientific foundations for future physicians. <https://www.aamc.org/system/files?file=2020-02/scientificfoundationsforfuturephysicians.pdf>
- Atkinson, R.C., & Geiser, S. (2009). Reflections on a century of college admissions tests. Center for Studies in Higher Education. <https://cshe.berkeley.edu/publications/reflections-century-college-admissions-tests>
- Bailey, T., Jeong, D. W., & Cho, S. W. (2010). Referral, enrollment, and completion in developmental education sequences in community colleges. *Economics of Education Review*, 29(2), 255-270. <https://doi.org/10.1016/j.econedurev.2009.09.002>
- Baime, D., & Baum, S. (2016). Community colleges: Multiple missions, diverse student bodies, and a range of policy solutions. Urban Institute. <https://files.eric.ed.gov/fulltext/ED570475.pdf>
- Bargagliotti, A. E., Botelho, F., Gleason, J., Haddock, J., & Windsor, A. (2012). The effectiveness of blended instruction in core postsecondary mathematics courses. *International Journal for Technology in Mathematics Education*, 19(3), Article 83. https://digitalcommons.lmu.edu/cgi/viewcontent.cgi?article=1074&context=math_fac
- Barnes, L.H., & Torres, A. (2018). Work to end tracking and offer four years of meaningful math instruction. National Council of Teachers of Mathematics. https://www.nctm.org/uploadedFiles/Standards_and_Positions/San-Francisco-Unified-School-District-Work-to-End-Tracking-and-Offer-Four-Years-of-Meaningful-Math-Instruction.pdf
- Battey, D., & Leyva, L. A. (2016). A framework for understanding whiteness in mathematics education. *Journal of Urban Mathematics Education*, 9(2), 49-80. <https://doi.org/10.21423/jume-v9i2a294>
- Battey, D., Leyva, L. A., Williams, I., Belizario, V., Greco, R., & Shah, R. (2018). Racial (mis)match in middle school mathematics classrooms: Relational interactions as a racialized mechanism. *Harvard Educational Review*, 88(4), 455-482. <https://doi.org/10.17763/1943-5045-88.4.455>
- Beasley, M. A., & Fischer, M. J. (2012). Why they leave: The impact of stereotype threat on the attrition of women and minorities from science, math and engineering majors. *Social Psychology of Education*, 15(4), 427-448. <https://doi.org/10.1007/s11218-012-9185-3>
- Benjamin, R. (2019). *Race after technology: Abolitionist tools for the New Jim Code*. Polity.
- Berry, R. Q., III, Ellis, M., & Hughes, S. (2014). Examining a history of failed reforms and recent stories of success: Mathematics education and Black learners of mathematics in the United States. *Race Ethnicity and Education*, 17(4), 540-568. <https://doi.org/10.1080/13613324.2013.818534>

- Blair, R., Kirkman, E. E., & Maxwell, J. W. (2018). Statistical abstract of undergraduate programs in the mathematical sciences in the United States: Fall 2015 CBMS survey. <https://www.ams.org/profession/data/cbms-survey/cbms2015-Report.pdf>
- Bloodhart, B., Balgopal, M. M., Casper, A.M.A., Sample McMeeking, L. B., & Fischer, E. V. (2020). Outperforming yet undervalued: Undergraduate women in STEM. *PLoS One*, 15(6): e0234685. <https://doi.org/10.1371/journal.pone.0234685>
- Boysen, G. A., Vogel, D. L., Cope, M. A., & Hubbard, A. (2009). Incidents of bias in college classrooms: Instructor and student perceptions. *Journal of Diversity in Higher Education*, 2(4), 219-231. <https://doi.org/10.1037/a0017538>
- Bracco, K. R., Barrat, V. X., Skjoldhorne, S., & Finkelstein, N. (2021). Student progress before and after California State University's Executive Order 1110. WestEd. <https://www.wested.org/resources/student-progress-before-and-after-csu-executive-order-1110/>
- Brathwaite, J., Fay, M., & Moussa, A. (2020, November 2). Improving developmental and college-level mathematics: Prominent reforms and the need to address equity. Community College Research Center. <https://ccrc.tc.columbia.edu/publications/improving-developmental-college-level-mathematics.html>
- Bressoud, D. (2014, November 1). MAA calculus study: Women are different. *MAA Launchings*. <http://launchings.blogspot.com/2014/11/maa-calculus-study-women-are-different.html>
- Bressoud, D. (2015a). The calculus students. In D. Bressoud, V. Mesa, & C. Rasmussen (Eds.), *Insights and recommendations from the MAA national study of college calculus* (pp. 1–16). MAA Press. <https://www.maa.org/sites/default/files/pdf/cspcc/InsightsandRecommendations.pdf>
- Bressoud, D. (2015b). *Insights from the MAA national study of college calculus*. *The Mathematics Teacher*, 109(3), 179–185. <https://doi.org/10.5951/mathteacher.109.3.0178>
- Bressoud, D. (2015, May 1). Calculus at crisis I: The pressures. *MAA Launchings*. <https://launchings.blogspot.com/2015/05/calculus-at-crisis-i-pressures.html>
- Bressoud, D. (2017a). Introduction: Summary report of the workshop on the role of calculus in the transition from high school to college mathematics, Washington, DC, March 17–19, 2016. In D. M. Bressoud (Ed.), *The role of calculus in the transition from high school to college mathematics* (pp. 1–8). The Mathematical Association of America and the National Council of Teachers of Mathematics. https://www.maa.org/sites/default/files/RoleOfCalc_rev.pdf
- Bressoud, D. M. (Ed.). (2017b). *The role of calculus in the transition from high school to college mathematics*. The Mathematical Association of America and the National Council of Teachers of Mathematics. https://www.maa.org/sites/default/files/RoleOfCalc_rev.pdf
- Bressoud, D. (2017, March 1). MAA calculus studies: Use of local data. *MAA Launchings*. http://launchings.blogspot.com/2017_03_01_archive.html
- Bressoud, D. (2017, May 1). Re-imagining the calculus curriculum, I. *MAA Launchings*. <http://launchings.blogspot.com/2017/05/re-imagining-calculus-curriculum-i.html>
- Bressoud, D. (2017, June 1). Re-imagining the calculus curriculum, II. *MAA Launchings*. <http://launchings.blogspot.com/2017/06/re-imagining-calculus-curriculum-ii.html>
- Bressoud, D. (2018, January 31). Why colleges must change how they teach calculus. *The Conversation*. <https://theconversation.com/why-colleges-must-change-how-they-teach-calculus-90679>
- Bressoud, D. (2018, March 1). A false dichotomy: Lecture vs. active learning. *MAA Launchings*. <http://launchings.blogspot.com/2018/03/a-false-dichotomy-lecture-vs-active.html>
- Bressoud, D. (2018, August 1). Calculus as a modeling course at Macalester College. *MAA Launchings*. <http://launchings.blogspot.com/2018/08/calculus-as-modeling-course-at.html>
- Bressoud, D. (2018, August 31). Should students wait until college to take calculus? *MAA Launchings*. <http://launchings.blogspot.com/2018/08/should-students-wait-until-college-to.html>
- Bressoud, D. M. (2019). *Calculus reordered*. Princeton University Press. <https://www.maa.org/press/maa-reviews/calculus-reordered>
- Bressoud, D. (2019, July 1). Calculus reordered: A history of the big ideas. *MAA Math Values*. <https://www.mathvalues.org/masterblog/launchings201906-z45y4>
- Bressoud, D. (2019, August 1). Calculus reform: What is different this time? *MAA Math Values*. <https://www.mathvalues.org/masterblog/launchings201906-z45y4-fhkpj>
- Bressoud, D. (2020, January 1). Changing attitudes toward student-centered approaches for teaching mathematics. *MAA Math Values*. <https://www.mathvalues.org/masterblog/launchings202001>
- Bressoud, D. (2020, March 1). Peak AP Calculus: What comes next, part I. *MAA Math Values*. <https://www.mathvalues.org/masterblog/launchings202003>

- Bressoud, D. (2020, April 1). Peak AP Calculus: What comes next, part II. *MAA Math Values*. <https://www.mathvalues.org/masterblog/launchings202004>
- Bressoud, D. M. (2021). The strange role of calculus in the United States. *ZDM – Mathematics Education*, 53(3), 521–533. <http://doi.org/10.1007/s11858-020-01188-0>
- Bressoud, D. M., Camp, D., Teague, D. (2017). Background to the MAA/NCTM Statement on Calculus. In D. M. Bressoud (Ed.), *The role of calculus in the transition from high school to college mathematics* (pp. 77-81). The Mathematical Association of America and the National Council of Teachers of Mathematics. https://www.maa.org/sites/default/files/RoleOfCalc_rev.pdf
- Bressoud, D. M., Carlson, M. P., Mesa, V., & Rasmussen, C. (2013). The calculus student: Insights from the Mathematical Association of America national study. *International Journal of Mathematical Education in Science and Technology*, 44(5), 685–698. <http://dx.doi.org/10.1080/0020739X.2013.798874>
- Bressoud, D., Mesa, V., & Rasmussen, C. (Eds.). (2015). *Insights and recommendations from the MAA national study of college calculus*. MAA Press. <https://www.maa.org/sites/default/files/pdf/cspcc/InsightsandRecommendations.pdf>
- Bressoud, D. M., & Rasmussen, C. (2015). Seven characteristics of successful calculus programs. *Notices of the American Mathematical Society*, 62(2), 144–146. <http://www.ams.org/notices/201502/rnoti-p144.pdf>
- Brilleslyper, M., Ghirst, M., Holcomb, T., Schaubroeck, B., Warner, B., & Williams, S. (2011). What’s the point? Benefits of grading without points. *Problems, Resources, and Issues in Mathematics Undergraduate Studies*, 22(5), 411-427. <https://doi.org/10.1080/10511970.2011.571346>
- Brugueras, J., Hernández-González, L., & Libgober, A. (n.d.). Statistical analysis of the Emerging Scholars Program at the University of Illinois at Chicago. University of Illinois at Chicago. http://homepages.math.uic.edu/~libgober/export/UIC_ESP%20Study.pdf
- Burdman, P. (2015). Degrees of freedom: Probing placement policies at California colleges and universities. Part 3 of a series. PACE and Learning Works. <https://edpolicyinca.org/sites/default/files/PACE%203.pdf>
- Burdman, P. (2017, February 15). CSU needs more effective way to assess students’ math readiness. *EdSource*. <https://edsources.org/2017/csu-needs-more-effective-way-to-assess-students-math-readiness/576864>
- Burdman, P., Booth, K., Thorn, C., Bahr, P. R., McNaughtan, J., & Jackson, G. (2018). Multiple paths forward: Diversifying mathematics as a strategy for college success. Just Equations & WestEd. <https://justequations.org/wp-content/uploads/Multiple-Paths-Forward-Executive-Summary.pdf>
- Burdman, P., & Purnell, R. (2020). Crossing signals: What college websites tell students about taking mathematics. Just Equations. <https://justequations.org/resource/crossing-signals-report-082020/>
- Burdman, P. (2021, October 25). The psychology behind the psychology behind Calculus. Just Equations. <https://justequations.org/news/pam-october-2021-blog/>
- Burn, H. E., & Mesa, V. (2015). The Calculus I curriculum. In D. Bressoud, V. Mesa, & C. Rasmussen (Eds.), *Insights and recommendations from the MAA national study of college calculus* (pp. 45–57). MAA Press. <https://www.maa.org/sites/default/files/pdf/cspcc/InsightsandRecommendations.pdf>
- Burn, H. E., & Mesa, V. (2017). Not your grandma’s lecture: Interactive lecture in Calculus I in the CSPCC two-year cases. *MathAMATYC Educator*, 8(3), 24–29. https://www.maa.org/sites/default/files/pdf/cspcc/Burn_Mesa_InteractiveLecture_MathAMATYCEducator_2017.pdf
- Burn, H. E., Mesa, V., & White, N. (2015). Calculus I in community colleges: Findings from the national CSPCC study. *MathAMATYC Educator*, 6(3), 34–39. <https://www.maa.org/sites/default/files/pdf/cspcc/BurnMesaWhiteVol6No3.pdf>
- Burn, H., Mesa, V., Wood, J. L., Zamani-Gallaher, E. (2018). National survey of community colleges mathematics chairs technical report and summary. The University of Illinois at Urbana-Champaign: Office of Community College Research and Leadership. <https://eric.ed.gov/?id=ED592079>
- Campbell, R., Clark, D., & OShaughnessy, J. (2020). Introduction to the special issue on implementing mastery grading in the undergraduate mathematics classroom. *PRIMUS*, 30(8-10), 837–848. <https://doi.org/10.1080/10511970.2020.1778824>
- Canning, E. A., Muenks, K., Green, D. J., & Murphy, M. C. (2019). STEM faculty who believe ability is fixed have larger racial achievement gaps and inspire less student motivation in their classes. *Science Advances*, 5(2). <https://doi.org/10.1126/sciadv.aau4734>
- Carnevale, A. (2016, March 25). Panel 1: Expanded workforce demand for quantitative/math skills [Panel presentation]. Georgetown University Center on Education and the Workforce, Washington, DC.

- Carnevale, A. P., Smith, N., & Melton, M. (2011). STEM: Science, Technology, Engineering, Mathematics. Georgetown University Center on Education and the Workforce. <https://eric.ed.gov/?id=ED525297>
- Carver-Thomas, D. (2018). Diversifying the teaching profession: How to recruit and retain teachers of color. Learning Policy Institute. https://learningpolicyinstitute.org/sites/default/files/product-files/Diversifying_Teaching_Profession_REPORT_0.pdf
- Chen, X. (2013). STEM attrition: College students' paths into and out of STEM fields, (2014-001). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. <https://nces.ed.gov/pubs2014/2014001rev.pdf>
- Cheryan, S., Master, A., & Meltzoff, A. N. (2015). Cultural stereotypes as gatekeepers: Increasing girls' interest in computer science and engineering by diversifying stereotypes. *Frontiers in Psychology*, 6(49). <https://doi.org/10.3389/fpsyg.2015.00049>
- Cheryan, S., Ziegler, S. A., Montoya, A. K., & Jiang, L. (2017). Why are some STEM fields more gender balanced than others? *Psychological Bulletin*, 143(1), 1–35. <https://doi.org/10.1037/bul0000052>
- Cimpian, J. R., Lubienski, S. T., Timmer, J. D., Makowski, M. B., & Miller, E. K. (2016). Have gender gaps in math closed? Achievement, teacher perceptions, and learning behaviors across two ECLS-K cohorts. *AERA Open*, 2(4). <https://doi.org/10.1177/2332858416673617>
- Cleary, R., & Malone, C. (2021). *A touch of calculus: Shaking up the pre-requisite structure of college mathematics* [Slide show]. Babson College Electronic Seminar in Mathematics Education, Wellesley, Massachusetts, September 15, 2020.
- College Board. (2010–2018). SAT Suite of Assessments Annual Report. <https://research.collegeboard.org/programs/sat/data/archived/2018-sat-suite-annual-report>
- Cvencek, D., Brečić, R., Gačević, D., & Meltzoff, A. N. (2021). Development of math attitudes and math self-concepts: Gender differences, implicit-explicit dissociations, and relations to math achievement. *Child Development*. <https://doi.org/10.1111/cdev.13523>
- Dadgar, M., Buck, D., & Burdman, P. (2021). Solving for equity: Design and implementation of new postsecondary math pathways. Just Equations. <https://justequations.org/resource/solving-for-equity-design-and-implementation-of-new-postsecondary-math-pathways/>
- Daro, P., & Asturias, H. (2019). Branching out: Designing high school math pathways for equity. Just Equations. <https://justequations.org/resource/branching-out-designing-high-school-math-pathways-for-equity/>
- Davis, M., DuPree, D., & Moore, B. (2018). Math pathways report: Math course-taking patterns for successful Washington transfer students. Washington Math Pathways to Completion Project.
- Dunnigan, G., & Halcrow, C. (2021). If you don't build it, they will leave: Reforming an applied calculus course by eliminating large lectures and incorporating active learning. *PRIMUM*, 31(5), 413-433. <https://doi.org/10.1080/10511970.2020.1769234>
- Dwyer, D., Gruenwald, M., Stickles, J., & Axtell, M. (2017). Resequencing calculus. *PRIMUM*, 28(6), 587–599. <https://doi.org/10.1080/10511970.2017.1333179>
- Eagan, K., Hurtado, S., Figueroa, T., & Hughes, B. (2014). Examining STEM pathways among students who begin college at four-year institutions. Commissioned paper: Washington, D.C., National Academy of Sciences. http://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse_088834.pdf
- Ellington, R., Barber, J., Tannouri, A., Syafrida, S., & Nkwanta, A. (2021). The MSU SEMINAL Project: Incorporating principles of culturally responsive teaching in a pre-calculus course. *PRIMUM*, 31(3-5), 296-315. <https://doi.org/10.1080/10511970.2020.1805661>
- Ellis, J., Fosdick, B. K., & Rasmussen, C. (2016). Women 1.5 times more likely to leave STEM pipeline after calculus compared to men: Lack of mathematical confidence a potential culprit. *PLoS ONE*, 11(7), e0157447. <https://doi.org/10.1371/journal.pone.0157447>
- Ellis, J., Hanson, K., Nuñez, G., & Rasmussen, C. (2015). Beyond plug and chug: An analysis of Calculus I homework. *International Journal of Research in Undergraduate Mathematics Education*, 1(2), 268–287. <https://doi.org/10.1007/s40753-015-0012-z>
- Ellis, J., Kelton, M. L., & Rasmussen, C. (2014). Student perceptions of pedagogy and associated persistence in calculus. *ZDM – Mathematics Education*, 46(4), 661-673. <https://doi.org/10.1007/s11858-014-0577-z>
- Esmonde, I., & Langer-Osuna, J. M. (2013). Power in numbers: Student participation in mathematical discussions in heterogeneous spaces. *Journal for Research in Mathematics Education*, 44(1), 288-315. <https://doi.org/10.5951/jresmetheduc.44.1.0288>

- Faulkner, B., Johnson-Glauch, N., San Choi, D., & Herman, G. L. (2020). When am I ever going to use this? An investigation of the calculus content of core engineering courses. *Journal of Engineering Education*, 109(3), 402–423. <https://doi.org/10.1002/jee.20344>
- Ferrini-Mundy, J., & Güçler, B. (2009). Discipline-based efforts to enhance undergraduate STEM education. *New Directions for Teaching and Learning*, 2009(117), 55–67. <https://doi.org/10.1002/tl.344>
- Fink, J., Jenkins, D., Kopko, E., & Ran, F. X. (2018). Using data mining to explore why community college transfer students earn bachelor's degrees with excess credits. Community College Research Center, Teachers College, Columbia University. <https://ccrc.tc.columbia.edu/media/k2/attachments/using-data-mining-explore-why-community-college-transfer-students-earn-bachelors-degrees-excess-credits.pdf>
- Flaherty, C. (2015, April 24). Math wars: 'Instrument of torture' or building block of understanding? UCLA and other universities debate how much math, and what kind, is enough for life sciences majors. *Inside Higher Education*. <https://www.insidehighered.com/news/2015/04/24/just-how-much-math-and-what-kind-enough-life-sciences-majors>
- Fong, K. E., & Melguizo, T. (2016). Utilizing additional measures of high school academic preparation to support students in their math self-assessment. *Community College Journal of Research and Practice*, 41(9), 566–592. <https://doi.org/10.1080/10668926.2016.1179604>
- Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering and mathematics. *Proceedings of the National Academy of Sciences*, 111(23), 8410–8415. <https://doi.org/10.1073/pnas.1319030111>
- Fullilove, R. E., & Treisman, P. U. (1990). Mathematics achievement among African American undergraduates at the University of California, Berkeley: An evaluation of the Mathematics Workshop Program. *The Journal of Negro Education*, 59(3), 463–478. <https://doi.org/10.2307/2295577>
- Ganter, S. L., & Barker, W. (Eds.). (2004). The Curriculum Foundations Project: Voices of the partner disciplines. Mathematical Association of America. <https://www.maa.org/sites/default/files/pdf/CUPM/crafty/curriculum-foundations.pdf>
- Gao, N. (2021). Does raising high school graduation requirements improve student outcomes? Public Policy Institute of California. <https://www.ppic.org/wp-content/uploads/does-raising-high-school-graduation-requirements-improve-student-outcomes-february-2021.pdf>
- Gao, N., & Adan, S. (2016). Math placement in California's public schools. Public Policy Institute of California. <https://www.ppic.org/publication/math-placement-in-californias-public-schools/>
- Gates, S. J., Jr., Handelsman, J., Lepage, G. P., & Mirkin, C., PCAST STEM Undergraduate Education Working Group, (Eds.). (2012). Engage to excel: Producing one million additional college graduates with degrees in science, technology, engineering, and mathematics. Executive Office of the President and President's Council of Advisors on Science and Technology, Washington, DC. <https://www.energy.gov/sites/prod/files/Engage%20to%20Excel%20Producing%20One%20Million%20Additional%20College%20Graduates%20With%20Degrees%20in%20STEM%20February%202012.pdf>
- Geiser, S. (2015). The growing correlation between race and SAT scores: New findings from California. Center for Studies in Higher Education. <https://cshe.berkeley.edu/publications/growing-correlation-between-race-and-sat-scores-new-findings-california-saul-geiser>
- Geiser, S. (2017). Norm-referenced tests and race-blind admissions: The case for eliminating the SAT and ACT at the University of California. Center for Studies in Higher Education. <https://cshe.berkeley.edu/publications/norm-referenced-tests-and-race-blind-admissions-case-eliminating-sat-and-act-university>
- Good, C., Rattan, A., & Dweck, C. S. (2012). Why do women opt out? Sense of belonging and women's representation in mathematics. *Journal of Personality and Social Psychology*, 102(4), 700–717. <https://doi.org/10.1037/a0026659>
- Goyer, A., Lynch, A., & Wand, J. (2021). A redesign of precalculus at California State University, Monterey Bay. *PRIMUS*, 31(3-5), 492–503. <https://doi.org/10.1080/10511970.2020.1746451>
- Gruber, S., Rosca, R. I., Chazan, D., Fleming, E., Balady, S., VanNetta, C., & Okoudjou, K. A. (2021). Active learning in an undergraduate precalculus course: Insights from a course redesign. *PRIMUS*, 31(3-5), 358–370. <https://doi.org/10.1080/10511970.2020.1772920>
- Hagman, J. E. (2019). The eighth characteristic for successful calculus programs: Diversity, equity, & inclusion practices. *PRIMUS*, 31(1), 70–90. <https://doi.org/10.1080/10511970.2019.1629555>

- Hancock, E., Franco, L., Bagley, S., & Karakok, G. (2021). A holistic approach to supporting student-centered pedagogy: Navigating co-requisite Calculus I. *PRIMUS*, 31(3-5), 608–626. <https://doi.org/10.1080/10511970.2020.1802794>
- Harper, R. P., Weston, T. J., & Seymour, E. (2019). Students' perceptions of good STEM teaching. In E. Seymour, & A. B. Hunter (Eds.), *Talking about leaving revisited: Persistence, relocation, and loss in undergraduate STEM education* (pp. 245–276). Springer Nature Switzerland AG. <https://doi.org/10.1007/978-3-030-25304-2>
- Hayes, M. L. (2019). 2018 NSSME+: Status of high school mathematics. Horizon Research, Inc. <http://horizon-research.com/NSSME/wp-content/uploads/2019/05/2018-NSSME-Status-of-High-School-Math.pdf>
- Hayward, C. (2021). Maximizing math throughput of students who did not complete Algebra 2 in high school. RP Group. <https://bit.ly/Maximize-Math-Throughput-Alg2>
- Henfield, M. S., & Byrd, J. A. (2014). Recruiting and retaining gifted black students in STEM majors: Implications for college counselors. In J. P. Bakken, F. E. Obiakor, & A. F. Rotatori (Eds.), *Gifted Education: Current Perspectives and Issues, Advances in Special Education, Volume 26* (pp. 211–221). Emerald Group Publishing Limited, Bingley. [https://doi.org/10.1108/S0270-4013\(2014\)0000026010](https://doi.org/10.1108/S0270-4013(2014)0000026010)
- Hill, C., Corbett, C., & St. Rose, A. (2010). Why so few? Women in science, technology, engineering, and mathematics. American Association of University Women. <http://eric.ed.gov/?id=ED509653>
- Hodara, M. (2019). Understanding the developmental mathematics student population: Findings from a nationally representative sample of first-time college entrants. National Academies of Sciences, Engineering, and Medicine. https://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse_191821.pdf
- Holland, D. G. (2019). The struggle to belong and thrive. In E. Seymour, & A. B. Hunter (Eds.), *Talking about leaving revisited: Persistence, relocation, and loss in undergraduate STEM education* (pp. 277–327). Springer Nature Switzerland AG. <https://doi.org/10.1007/978-3-030-25304-2>
- Hsu, E., & Bressoud, D. (2015). Placement and student performance in Calculus I. In D. Bressoud, V. Mesa, & C. Rasmussen (Eds.), *Insights and recommendations from the MAA national study of college calculus* (pp. 59–68). MAA Press. <https://www.maa.org/sites/default/files/pdf/cspcc/InsightsandRecommendations.pdf>
- Hsu, E., Mesa, V., & The Calculus Case Collective. (2015). Synthesizing measures of institutional success. CSPCC-Technical Report No. 1, Washington, DC: Mathematical Association of America. https://www.maa.org/sites/default/files/pdf/cspcc/SynthesizingMeasuresofSuccess_Hsu_Mesa_Technical_Report1_Final.pdf
- Hsu, E., Murphy, T. J., & Treisman, U. (2008). Supporting high achievement in introductory mathematics courses: What we have learned from 30 years of the Emerging Scholars Program. In M. Carlson & C. Rasmussen (Eds.), *Making the Connection: Research and Teaching in Undergraduate Mathematics Education* (pp. 205–220). Mathematical Association of America. <https://doi.org/10.5948/UPO9780883859759.017>
- Huang, G., Taddese, N., & Walter, E. (2000). Entry and persistence of women and minorities in college science and engineering education. *Education Statistics Quarterly*, 2(3), 59–60. https://nces.ed.gov/programs/quarterly/vol_2/2_3/post_women.asp
- Hunter, A. B. (2019). Why undergraduates leave STEM majors: Changes over the last two decades. In E. Seymour, & A. B. Hunter (Eds.), *Talking about leaving revisited: Persistence, relocation, and loss in undergraduate STEM education* (pp. 87–114). Springer Nature Switzerland AG. <https://doi.org/10.1007/978-3-030-25304-2>
- Hyde, J. S., & Mertz, J. E. (2009). Gender, culture, and mathematics performance. *Proceedings of the National Academy of Sciences*, 106(22), 8801–8807. <https://doi.org/10.1073/pnas.0901265106>
- Johnson, E., & Hanson, K. (2015). Academic and social supports. In D. Bressoud, V. Mesa, & C. Rasmussen (Eds.), *Insights and recommendations from the MAA national study of college calculus* (pp. 69–82). MAA Press. <https://www.maa.org/sites/default/files/pdf/cspcc/InsightsandRecommendations.pdf>
- Johnson, H., & Sanchez, S. (2018, July 1). More students are earning STEM degrees. Public Policy Institute of California. <https://www.pplic.org/blog/more-students-are-earning-stem-degrees/>
- Joseph, N. M., Haynes, C., & Cobb, F. (Eds.). (2016). *Interrogating whiteness and relinquishing power: White faculty's commitment to racial consciousness in STEM classrooms*. Peter Lang. <https://doi.org/10.3726/978-1-4539-1716-9>
- Klingbeil, N. W., & Bourne, A. (2013, June 23–26). *A national model for engineering mathematics education: Longitudinal impact at Wright State University* [Conference presentation]. 2013 ASEE Annual Conference & Exposition, Atlanta, Georgia. <https://peer.asee.org/a-national-model-for-engineering-mathematics-education-longitudinal-impact-at-wright-state-university>

- Klingbeil, N. W., & Bourne, A. (2015, June 14–17). *The Wright State model for engineering mathematics education: Longitudinal impact on initially underprepared students* [Conference presentation]. 2015 ASEE Annual Conference & Exposition, Seattle, Washington. <https://peer.asee.org/the-wright-state-model-for-engineering-mathematics-education-longitudinal-impact-on-initially-underprepared-students>
- Klingbeil, N. W., Mercer, R. E., Rattan, K. S., Raymer, M. L. & Reynolds, D. B. (2004, June 20–23). *Rethinking engineering mathematics education: A model for increased retention, motivation and success in engineering* [Conference presentation]. 2004 ASEE Annual Conference & Exposition, Salt Lake City, Utah. <https://peer.asee.org/rethinking-engineering-mathematics-education-a-model-for-increased-retention-motivation-and-success-in-engineering>
- Klingbeil, N. W., Rattank, K. S., Raymer, M. L., & Mercer, R. E. (2009). *The Wright State model for engineering mathematics education: A nationwide adoption, assessment, and evaluation*. [Conference presentation]. 2009 ASEE Annual Conference & Exposition, Austin, Texas. <https://corescholar.libraries.wright.edu/knoesis/953/>
- Kokkelenberg, E. C., & Sinha, E. (2010). Who succeeds in STEM studies? An analysis of Binghamton University undergraduate students. *Economics of Education Review*, 29(6), 935–946. <http://doi.org/10.1016/j.econedurev.2010.06.016>
- Kosiewicz, H., & Ngo, F. (2019). Giving community college students choice: The impact of self-placement in math courses. *American Educational Research Journal*, 57(3), 1358–1391. <https://doi.org/10.3102/0002831219872500>
- Krinsky, S. (2021, July 9). *Using outcomes based assessment to facilitate active learning at scale: What to do with hundreds (or thousands) of students...* [Conference presentation]. Community for Mathematics Inquiry in Teaching – California/Nevada Mini Conference. https://docs.google.com/presentation/d/1JcoJZda-bN_KFoRDRH-0XkfMPbq3e9jQz5zUwjvBKrs/edit#slide=id.ge39d73c664_2_45.
- Kurlaender, M., & Cohen, M. (2019). Predicting college success: How do different high school assessments measure up? Policy Analysis for California Education. https://edpolicyinca.org/sites/default/files/R_Kurlaender_Mar-2019.pdf
- Kurlaender, M., Reed, S., Grosz, M., Mathias, J., & Hughes, K. (2021). A foot in the door: Growth in participation and equity in dual enrollment in California. Wheelhouse—The Center for Community College Leadership and Research. https://education.ucdavis.edu/sites/main/files/wheelhouse_research_brief_vol_6_no_7_final.pdf
- Larsen, S., Glover, E., & Melhuish, K. (2015). Beyond good teaching: The benefits and challenges of implementing ambitious teaching. In D. Bressoud, V. Mesa, & C. Rasmussen (Eds.), *Insights and recommendations from the MAA national study of college calculus* (pp. 93–105). MAA Press. <https://www.maa.org/sites/default/files/pdf/cspcc/InsightsandRecommendations.pdf>
- Lewis, D. (2019). Increasing student engagement in math placement and preparation. *arXiv: History and Overview*. <https://arxiv.org/abs/1907.00585v1>
- Leyva, L. A., McNeill, R. T., Marshall, B. L., & Guzmán, O. A. (2021). “It seems like they purposefully try to make as many kids drop”: An analysis of logics and mechanisms of racial-gendered inequality in introductory mathematics instruction. *The Journal of Higher Education*, 92(5), 784–814. <https://doi.org/10.1080/00221546.2021.1879586>
- Leyva, L. A., Quea, R., Weber, K., Battey, D., & López, D. (2021). Detailing racialized and gendered mechanisms of undergraduate precalculus and calculus classroom instruction. *Cognition and Instruction*, 39(1), 1–34. <https://doi.org/10.1080/07370008.2020.1849218>
- Logue, A.W., Douglas, D., & Watanabe-Rose, M. (2019). Corequisite mathematics remediation: Results over time and in different contexts. *Educational Evaluation and Policy Analysis*, 41(3), 294–315. <https://doi.org/10.3102/2F0162373719848777>
- Loveless, T. (2008). The misplaced math student: Lost in eighth-grade algebra. Brookings Institution. https://www.brookings.edu/wp-content/uploads/2016/06/0922_education_loveless.pdf
- Maciejewski, W., Bragelman, J., Campisi, M., Hsu, T., Gottlieb, A., Schettler, J., Bergthold, T., & Cayco, B. (2021). Change comes from without: Lessons learned in a chaotic year. *PRIMUM*, 31(3-5), 504–516. <https://doi.org/10.1080/10511970.2020.1793854>
- Malcolm, S., & Feder, M. (Eds.). (2016). Barriers and opportunities for 2-year and 4-year STEM degrees: Systemic change to support students’ diverse pathways. National Academies Press. http://thescienceexperience.org/Books/Barriers_And_Opportunities_for_2-And_4-year_STEM_Degrees.pdf
- Maloney, E. A., Schaeffer, M. W., & Beilock, S. L. (2013). Mathematics anxiety and stereotype threat: Shared mechanisms, negative consequences and promising interventions. *Research in Mathematics Education*, 15(2), 115–128. <https://doi.org/10.1080/14794802.2013.797744>

- Malzahn, K. A., Trygstad, P. J., Banilower, E. R., Hayes, M. L., & Blessing, M. E. (2020). Are all students getting equal access to high-quality mathematics education? Data from the 2018 NSSME+. Horizon Research, Inc. <http://horizon-research.com/NSSME/wp-content/uploads/2020/02/Math-Equity-Report.pdf>
- McCloud, D. (2016). Racial stereotype threat: A critical race perspective. [Theses and dissertations, Illinois State University]. 525. <http://doi.org/10.30707/ETD2016-McCloud.D>
- McCoy, D. L., Winkle-Wagner, R., & Luedke, C. L. (2015). Colorblind mentoring? Exploring white faculty mentoring of students of color. *Journal of Diversity in Higher Education*, 8(4), 225-242. <https://doi.org/10.1037/a0038676>
- McGee, E. O. (2016). Devalued Black and Latino racial identities: A by-product of STEM college culture? *American Educational Research Journal*, 53(6), 1626–1662. <https://doi.org/10.3102/0002831216676572>
- McGee, E. O. (2021, May 4). Black, Brown, Bruised: How racialized STEM education stifles innovation [Conference presentation]. Designing Mathematics Pathways for Equity: A Virtual Conference.
- McGee, E. O., & Martin, D. B. (2011). “You would not believe what I have to go through to prove my intellectual value!” Stereotype management among academically successful Black mathematics and engineering students. *American Educational Research Journal*, 48(6), 1347–1389. <https://doi.org/10.3102/0002831211423972>
- McNeill, R. T., Marshall, B. L., & Leyva, L. A. (in press). “I wish I could say ‘You should not be here’”: An analysis of instructors’ and students’ contrasting perceptions of a racialized and gendered gatekeeping practice in calculus. Feature article for *Mathematical Association of America Notes*.
- Melguizo, T., Bos, J., Prather, G., Kosiewicz, H., Fong, K., & Ngo, F. (2015). Assessment and placement policies and practices in developmental math: Evidence from experimentation in a large urban community college district in California. <https://pullias.usc.edu/wp-content/uploads/2016/01/luccd-final.pdf>
- Mejia, M.C., Rodriguez, O., & Johnson, H. (2020). A new era of student success at California’s community colleges. Public Policy Institute of California. <https://www.ppic.org/wp-content/uploads/a-new-era-of-student-access-at-californias-community-colleges-november-2020.pdf>
- Mesa, V., Burn, H., & White, N. (2015). Good teaching of Calculus I. In D. Bressoud, V. Mesa, & C. Rasmussen (Eds.), *Insights and recommendations from the MAA national study of college calculus* (pp. 83–91). MAA Press. <https://www.maa.org/sites/default/files/pdf/cspcc/InsightsandRecommendations.pdf>
- Miller-Cotto, D., & Lewis, N. A., Jr. (2020, August 6). Am I a “math person”? How classroom cultures shape math identity among Black and Latinx students. <https://doi.org/10.31219/osf.io/hcqst>
- National Council of Teachers of Mathematics (2018). *Catalyzing change in high school mathematics: Initiating critical conversations*. <https://www.nctm.org/Standards-and-Positions/Catalyzing-Change/Catalyzing-Change-in-High-School-Mathematics/>
- Oakes, J., Ormseth, T., Bell, R., & Camp, P. (1990). Multiplying inequalities: The effects of race, social class, and tracking on opportunities to learn mathematics and science. RAND. <https://www.rand.org/pubs/reports/R3928.html>
- O’Leary, S. E., Sayson, H. W., Shapiro, C., Garfinkel, A., Conley, W., Levis-Fitzgerald, M., Eagan, M.K., & Van Valkenburgh, B. (2021). Reimagining the introductory math curriculum for life science students. *CBE-Life Sciences Education* 20(4). <https://www.lifescied.org/doi/10.1187/cbe.20-11-0252>
- Oliver, J., & Olkin, J. (2021). A community of practice model for infusing active learning in the classroom. *PRIMUS*, 31(3-5), 252–268. <https://doi.org/10.1080/10511970.2020.1746452>
- O’Sullivan, M., Smith, W. M., & Tubbs, R. (2021). Leadership. In W. M. Smith, M. Voigt, A. Ström, D. C. Webb, & W. G. Martin (Eds.), *Transformational change efforts: Student engagement in mathematics through an institutional network for active learning* (pp. 187–204). American Mathematical Society.
- Pedraza, L. D. (2019). Examining STEM undergraduate persistence and the differential relationships across sex, race, and ethnicity through two-factor theory. [Dissertations and theses, Seton Hall University]. <https://scholarship.shu.edu/cgi/viewcontent.cgi?article=3732&context=dissertations>
- Pilgrim, M. E., & Gehrtz, J. (2018). Sustaining change in Calculus I. *PRIMUS*, 28(6), 562–573. <https://doi.org/10.1080/10511970.2017.1289574>
- Price, J. (2010). The effect of instructor race and gender on student persistence in STEM fields. *Economics of Education Review*, 29(6), 901–910. <https://doi.org/10.1016/j.econedurev.2010.07.009>

- Priniski, S. J., & Thoman, D. B. (2020, August 6). Fostering an inclusively relevant mathematics environment: The case for combining social-justice and utility-value approaches. <https://doi.org/10.31219/osf.io/ws9d>
- Purnell, R., & Burdman, P. (2020). Go Figure: Exploring Equity in Students' Postsecondary Math Pathway Choices. *Just Equations*. <https://justequations.org/resource/go-figure-report/>
- Quarles, C. L., & Davis, M. (2017). Is learning in developmental math associated with community college outcomes? *Community College Review*, 45(1), 33–51. <https://journals.sagepub.com/doi/full/10.1177/0091552116673711>
- Ran, F. X., & Lin, Y. (2019). The effects of corequisite remediation: Evidence from a statewide reform in Tennessee. Community College Research Center. <https://ccrc.tc.columbia.edu/publications/effects-corequisite-remediation-tennessee.html>
- Rasmussen, C., Apkarian, N., Donsig, A., Martinez, A., Tubbs, R., & Williams, M. (2021). Designing and implementing course coordination. In W. M. Smith, M. Voigt, A. Ström, D. C. Webb, & W. G. Martin (Eds.), *Transformational change efforts: Student engagement in mathematics through an institutional network for active learning* (pp. 205–219). American Mathematical Society.
- Rasmussen, C., Apkarian, N., Hagman, J. E., Johnson, E., Larsen, S., Bressoud, D., & Progress through Calculus Team. (2019). Characteristics of precalculus through Calculus 2 programs: Insights from a national census survey. *Journal for Research in Mathematics Education*, 50(1), 98–112. <https://doi.org/10.5951/jresmetheduc.50.1.0098>
- Rasmussen, C., & Ellis, J. (2013). Students who switch out of calculus and the reasons they leave. In M. Martinez, & A. Castro Superfine (Eds.), *Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 457–464). University of Illinois at Chicago. <https://files.eric.ed.gov/fulltext/ED584594.pdf>
- Riegle-Crumb, C., King, B., & Irizarry, Y. (2019). Does STEM stand out? Examining racial/ethnic gaps in persistence across postsecondary fields. *Educational Researcher*, 48(3), 133–144. <https://doi.org/10.3102/0013189X19831006>
- Roberts, M. T. (2019). Racism in remediation: How Black students navigate stereotypes to achieve success in developmental mathematics. *Community College Journal of Research and Practice*, 44(10-12), 701–721. <https://doi.org/10.1080/10668926.2019.1640143>
- Rodriguez, O., Mejia, M. C., & Johnson, H. (2018). Remedial education reforms at California's community colleges: Early evidence on placement and curricular reforms. Public Policy Institute of California. <https://www.ppic.org/wp-content/uploads/remedial-education-reforms-at-californias-community-colleges-august-2018.pdf>
- Romash, Z. M. (2019). Leaving STEM: An examination of the STEM to non-STEM major change and how the STEM curriculum relates to academic achievement in non-STEM fields. [Dissertations and theses, Seton Hall University, volume 81-04, section A, p. 129]. <https://ui.adsabs.harvard.edu/abs/2019PhDT.....58R>
- Rosner, J. (2011). The SAT: Quantifying the unfairness behind the bubbles. In J. A. Soares (Ed.), *SAT wars: The case for test-optional college admissions*. Teachers College Press. https://www.researchgate.net/publication/265814570_SAT_Wars_The_Case_for_Test-Optional_College_Admissions_ed_by_Joseph_A_Soares_review
- Sadler, P. M., & Sonnet, G. Factors influencing success in introductory college calculus. In D. M. Bressoud (Ed.), *The role of calculus in the transition from high school to college mathematics* (pp. 53–65). The Mathematical Association of America and the National Council of Teachers of Mathematics. https://www.maa.org/sites/default/files/RoleOfCalc_rev.pdf
- Scott-Clayton, J., Crosta, P. M., & Belfield, C. R. (2014). Improving the targeting of treatment: Evidence from college remediation. *Educational Evaluation and Policy Analysis*, 36(3), 371-393. <https://doi.org/10.3102/0162373713517935>
- Selinski, N. E., & Milbourne, H. (2015). The institutional context. In D. Bressoud, V. Mesa, & C. Rasmussen (Eds.), *Insights and recommendations from the MAA national study of college calculus* (pp. 31–44). MAA Press. <https://www.maa.org/sites/default/files/pdf/cspcc/InsightsandRecommendations.pdf>
- Seymour, E., Hunter, A. B., & Weston, T. J. (2019). Why are we still talking about leaving? In E. Seymour, & A. B. Hunter (Eds.), *Talking about leaving revisited: Persistence, relocation, and loss in undergraduate STEM education* (pp. 1–53). Springer Nature Switzerland AG. <https://doi.org/10.1007/978-3-030-25304-2>
- Shaw, E. J., & Barbuti, S. (2010). Patterns of persistence in intended college major with a focus on STEM majors. *NACADA Journal*, 30(2), 19–34. <https://www.doi.org/10.12930/0271-9517-30.2.19>
- Silver, D., Hensley, E., Hong, Y., Siegel, P., & Bradby, D. (2017). University eligibility study for the public high school class of 2015. RTI International. https://opr.ca.gov/docs/20190823-RTI_Eligibility_Report_071417_FINALtoOPR.pdf

- Smith, W. M., Rasmussen, C., & Tubbs, R. (2021). Introduction to the special issue: Insights and lessons learned from mathematics departments in the process of change. *PRIMUS*, 31(3-5), 239–251. <https://doi.org/10.1080/10511970.2021.1886207>
- Smith, W. M., Voigt, M., Ström, A. Webb, D. C., & Martin, W. G. (Eds.). (2021). *Transformational change efforts: Student engagement in mathematics through an institutional network for active learning*. American Mathematical Society. <https://www.aplu.org/projects-and-initiatives/stem-education/seminal/>
- Sonnert, G., & Sadler, P. M. (2014). The impact of taking a college pre-calculus course on students' college calculus performance. *International Journal of Mathematical Education in Science and Technology*, 45(8), 1188–1207. <https://www.tandfonline.com/doi/abs/10.1080/0020739X.2014.920532>
- Sonnert, G., & Sadler, P. (2015). The impact of instructor and institutional factors on students' attitudes. In D. Bressoud, V. Mesa, & C. Rasmussen (Eds.), *Insights and recommendations from the MAA national study of college calculus* (pp. 17–30). MAA Press. <https://www.maa.org/sites/default/files/pdf/cspcc/InsightsandRecommendations.pdf>
- Soto, R. C., & Marzocchi, A. S. (2021). Learning about active learning while actively learning: Insights from faculty professional development. *PRIMUS*, 31(3-5), 269–280. <https://doi.org/10.1080/10511970.2020.1746449>
- Stinebrickner, T. R., & Stinebrickner, R. (2011). Math or science? Using longitudinal expectations data to examine the process of choosing a college major. National Bureau of Economic Research. [NBER Working Paper No. 16869]. <http://www.nber.org/papers/w16869>
- Ström, A., Webb, D. C., Voigt, M., & Funk, R. (2021). Active learning mathematics. In W. M. Smith, M. Voigt, A. Ström, D. C. Webb, & W. G. Martin (Eds.), *Transformational change efforts: Student engagement in mathematics through an institutional network for active learning* (pp. 145–185). American Mathematical Society.
- Tallman, M. A., Carlson, M. P., Bressoud, D. M., & Pearson, M. (2016). A characterization of calculus I final exams in US colleges and universities. *International Journal of Research in Undergraduate Mathematics Education*, 2(1), 105–133. <https://doi.org/10.1007/s40753-015-0023-9>
- Teague, D. (2017). The song remains the same, but the singers have changed. In D. M. Bressoud (Ed.), *The role of calculus in the transition from high school to college mathematics* (pp. 41–45). The Mathematical Association of America and the National Council of Teachers of Mathematics. https://www.maa.org/sites/default/files/RoleOfCalc_rev.pdf
- Thiry, H. (2019a). Issues with high school preparation. In E. Seymour, & A. B. Hunter (Eds.), *Talking about leaving revisited: Persistence, relocation, and loss in undergraduate STEM education* (pp. 137–147). Springer Nature Switzerland AG. <https://doi.org/10.1007/978-3-030-25304-2>
- Thiry, H. (2019b). What enables persistence? In E. Seymour, & A. B. Hunter (Eds.), *Talking about leaving revisited: Persistence, relocation, and loss in undergraduate STEM education* (pp. 399–436). Springer Nature Switzerland AG. <https://doi.org/10.1007/978-3-030-25304-2>
- Thompson, P. W. (2013). In the absence of meaning... . In K. R. Leatham (Ed.), *Vital directions for research in mathematics education* (pp. 57–93). Springer Science+Business Media. https://doi.org/10.1007/978-1-4614-6977-3_4
- Thompson, P. W., Ashbrook, M., & Milner, F. (2019). *Calculus: Newton, Leibniz, and Robinson meet technology*. Project DIRACC. <http://patthompson.net/ThompsonCalc/>
- Thompson, P. W., Castillo-Chávez, C., Culbertson, R. J., Flores, A., Greeley, R., Haag, S., Lawon, A. E.; Rose, S. D., & Rutowski, R. L. (2007). *Failing the future: Problems of persistence and retention in science, technology, engineering, and mathematics (STEM) majors at Arizona State University*. Office of the Provost, Arizona State University. https://www.researchgate.net/publication/221711747_Failing_the_Future_Problems_of_persistence_and_retention_in_science_technology_engineering_and_mathematics_STEM_majors_at_Arizona_State_University
- Thompson, P. W., & Harel, G. (2021). Ideas foundational to calculus learning and their links to students' difficulties. *ZDM – Mathematics Education*, 53, 507–519. <https://doi.org/10.1007/s11858-021-01270-1>
- Tough, P. (2021). *The inequality machine: How college divides us*. Mariner Books.
- Treisman, U. (1992). Studying students studying calculus: A look at the lives of minority mathematics students in college. *The College Mathematics Journal*, 23(5), 362–372. <https://doi.org/10.2307/2686410>
- Uhing, K., Hass, M., Voigt, M., Ström, A., & Calleros, E. (2021). Students' experiences with active learning mathematics. In W. M. Smith, M. Voigt, A. Ström, D. C. Webb, & W. G. Martin (Eds.), *Transformational change efforts: Student engagement in mathematics through an institutional network for active learning* (pp. 221–241). American Mathematical Society.
- Uhing, K. Webb, C., Wakefield, A., Donsig, A., & Rasmussen, C. (2021). Professional development. In W. M. Smith, M. Voigt, A. Ström, D. C. Webb, & W. G. Martin (Eds.), *Transformational change efforts: Student engagement in mathematics through an institutional network for active learning* (pp. 243–260). American Mathematical Society.

- U.S. Department of Education, Office for Civil Rights. (2016). A first look: Key data highlights on equity and opportunity gaps in our nation's public schools. 2013–2014 civil rights data collection. <https://www2.ed.gov/about/offices/list/ocr/docs/2013-14-first-look.pdf>
- Vestal, S. S., Brandenburger, T., & Furth, A. (2015). Improving student success in Calculus I using a co-requisite Calculus I lab. *PRIMUS*, 25(4), 381–387. <https://doi.org/10.1080/10511970.2014.992561>
- Voigt, M., Apkarian, N., & Rasmussen, C. (2017). Diverging from the standard fare: Variations in the calculus curriculum. *MAA FOCUS*, February/March, 32–34. <http://digitaleditions.walworthprintgroup.com/publication/?m=7656&i=392392&p=34&ver=html5>
- Voigt, M., Apkarian, N., Rasmussen, C., & Progress through Calculus Team. (2020). Undergraduate course variations in precalculus through Calculus 2. *International Journal of Mathematical Education in Science and Technology*, 51(6), 858–875. <https://doi.org/10.1080/0020739x.2019.1636148>
- Voigt, M., Gehrtz, J., Hagman, J. E., & Digregorio, G. (in press). Rethinking student support programs: Attending to student identities and systemic structures in introductory mathematics. In M. Voigt, J. E. Hagman, J. Gehrtz, B. Ratliff, N. Alexander, & R. Levy, R. (Eds.), *Justice through the lens of calculus: Framing new possibilities for diversity, equity, and inclusion*. Mathematical Association of America.
- Voigt, M., Hagman, J. E., Gehrtz, J., Ratliff, B., Alexander, N., & Levy, R. (Eds.) (in press). *Justice through the lens of calculus: Framing new possibilities for diversity, equity, and inclusion*. Mathematical Association of America.
- Voigt, M., Smith, W. M., Kress, N., Grant, D., & Ström, A. (2021). Culture and equity. In W. M. Smith, M. Voigt, A. Ström, D. C. Webb, & W. G. Martin (Eds.), *Transformational change efforts: Student engagement in mathematics through an institutional network for active learning* (pp. 277–298). American Mathematical Society.
- Voyer, D., & Voyer, S. D. (2014). Gender differences in scholastic achievement: A meta-analysis. *Psychological Bulletin*, 140(4), 1174–1204. <http://dx.doi.org/10.1037/a0036620>
- Washington State Board for Community and Technical Colleges. (2016). Growing enrollment in calculus and precalculus courses.
- Watkins, J., & Mazur, E. (2013). Retaining students in science, technology, engineering, and mathematics (STEM) majors. *Journal of College Science Teaching*, 42(5), 36–41. <https://www.jstor.org/stable/43631580>
- Webb, D. C., Funk, R., Uhing, K., & Bowers, J. (2021). Resources for active learning. In W. M. Smith, M. Voigt, A. Ström, D. C. Webb, & W. G. Martin (Eds.), *Transformational change efforts: Student engagement in mathematics through an institutional network for active learning* (pp. 261–275). American Mathematical Society.
- Weston, T. J., Seymour, E., Kock, A. K., & Drake, B. M. (2019). Weed-out classes and their consequences. In E. Seymour, & A. B. Hunter (Eds.), *Talking about leaving revisited: Persistence, relocation, and loss in undergraduate STEM education* (pp. 197–243). Springer Nature Switzerland AG. <https://doi.org/10.1007/978-3-030-25304-2>
- Whalen, D. F., & Shelley, M. C. (2010). Academic success for STEM and non-STEM majors. *Journal of STEM Education*, 11(1/2), 45–60. https://lib.dr.iastate.edu/pols_pubs/16
- Wu, X. (2018). Persistence and characteristics of Calculus I students in STEM disciplines. [Graduate theses, dissertations, and problem reports, West Virginia University]. <https://researchrepository.wvu.edu/cgi/viewcontent.cgi?article=8322&context=etd>
- Xie, Y., Fang, M., & Shauman, K. (2015). STEM education. *Annual Review of Sociology*, 41(1), 331–357. <https://doi.org/10.1146/annurev-soc-071312-145659>
- Zazkis, D., & Nuñez, G. (2015). How departments use local data to inform and refine program improvements. In D. Bressoud, V. Mesa, & C. Rasmussen (Eds.), *Insights and recommendations from the MAA national study of college calculus* (pp. 123–132). MAA Press. <https://www.maa.org/sites/default/files/pdf/cspcc/InsightsandRecommendations.pdf>