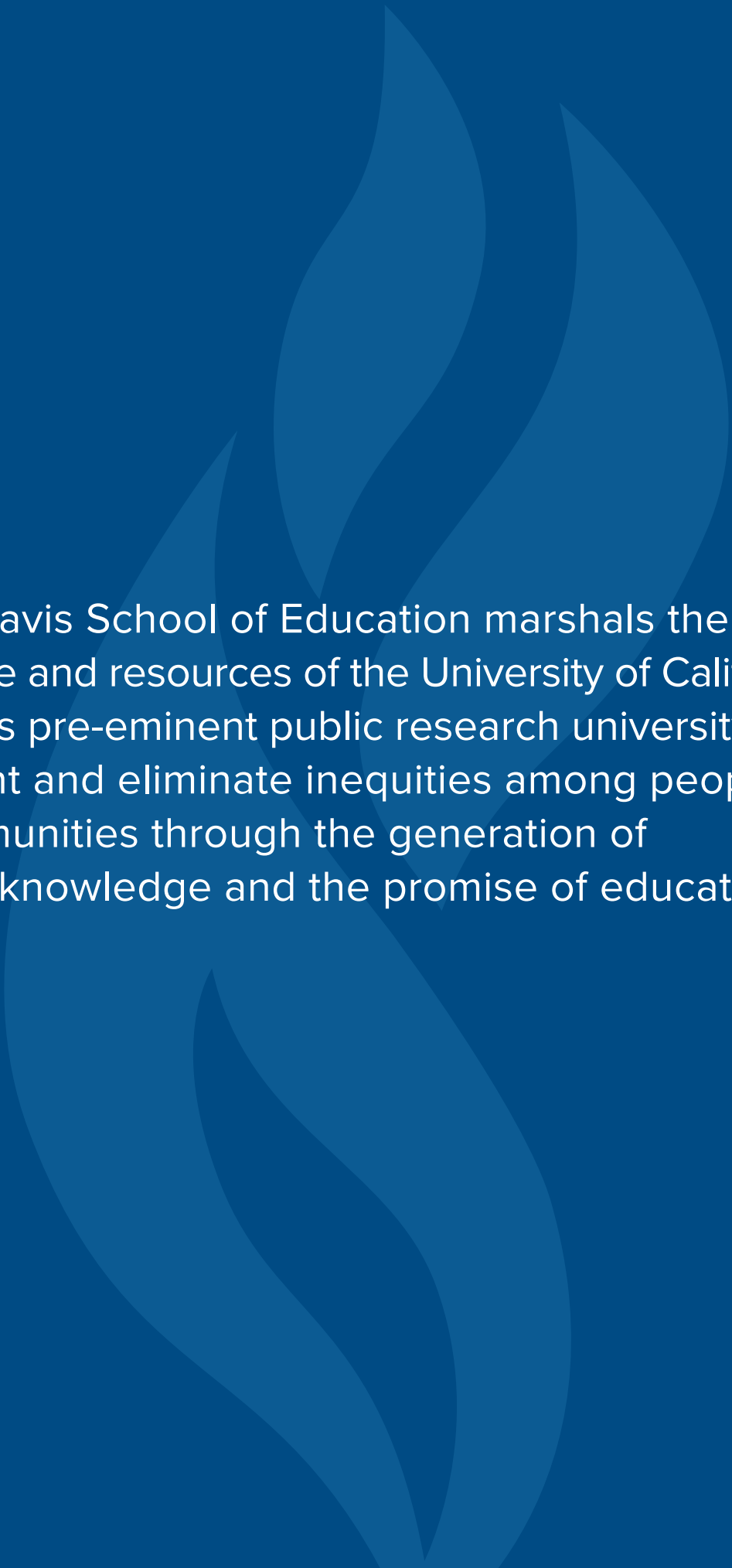




Research and Innovation Centers Impact Report

JULY 1, 2020 – JUNE 30, 2021

A large, stylized graphic of a leaf or flame shape, rendered in a lighter shade of blue than the background, positioned behind the text.

The UC Davis School of Education marshals the knowledge and resources of the University of California, the world's pre-eminent public research university, to confront and eliminate inequities among people and communities through the generation of impactful knowledge and the promise of education.

Introduction

The University of California, Davis School of Education is committed to advancing research that will transform education for all learners, and our nine research centers are at the forefront of those efforts. Our center researchers partner with both decision-makers and educators to improve student outcomes across all levels of our state’s education system – leading the way in addressing timely, relevant issues in education and informing policy that can shape a brighter future for all students. This report highlights our centers’ research activities during fiscal year 2020–2021.

Established by faculty with wide-ranging areas of expertise, the centers represent approximately 58 diverse externally funded projects led by faculty and staff. These projects offer rich research opportunities for graduate and undergraduate students, and for the development of partnerships with organizations such as universities, school districts and community agencies. In keeping with our mission, much of the research conducted examines issues of diversity, equity and inclusion.

These efforts are rooted in the School’s aspirational goals, adopted from the UC Davis Strategic Plan to serve as guideposts for our major activities:



Improving Student Experiences



Leading Innovative Research



Advancing Diversity, Equity and Inclusion



Expanding Visibility and Growing Partnerships



OUR IMPACT

- > Ranked in the **top 14%** of graduate education schools in the U.S.
- > California’s **go-to source** for K–16 policy guidance
- > Houses **nine research and innovation centers** generating new knowledge that supports education policy and practice
- > Offers **one of the largest UC Davis undergraduate minors**, with 250+ students
- > Reaches **11,000 K–12 students** annually through teaching credential candidates

Our Centers

The School of Education's nine research and innovation centers investigate critical issues in the field from pre-K to higher education, exploring how students, teachers and education leaders can best learn and grow, support each other and make lasting change in their schools and communities. Many centers also provide programming, curricula and other resources that have a direct impact on thousands of learners in California and beyond.



Beta Lab

Lee Martin

The Beta Lab investigates the nature of learning that occurs during extended, youth-driven maker projects, and designs learning environments and tools to support learning through making, and to use making as a context for the development of adaptive expertise. The lab has designed and built a mobile maker studio to expand access to underrepresented and underserved student populations.



California Education Lab

Sherrie Reed, Michal Kurlaender

The California Education Lab is a collaborative group of researchers investigating questions of education policy and practice in California, exploring how young adults are prepared for, transition into, and succeed in college, and understanding and improving persistent inequalities in educational attainment for students from different racial/ethnic and socioeconomic backgrounds. The lab's expertise includes K-12 school and teacher quality, college quality, peer effects, educational achievement gaps, school climate, facilities, finance and school choice.



Center for Applied Policy in Education

Christina Murdoch

CAP-Ed connects education leaders and practitioners with nonpartisan, research-supported information and expertise from scholars and policymakers, fostering a thoughtful, well-informed education system in California that encompasses policymakers and those implementing policy in schools and districts. The center conducts education policy research and supports K-12 superintendents and principals in their leadership roles, with an emphasis on learning how to eliminate inequities in schooling.



Center for Community and Citizen Science

Heidi Ballard, Ryan Meyer

Through its research and programming, the Center for Community and Citizen Science helps scientists, communities and citizens collaborate on science to address environmental problems as a part of civic life. The center researches ways to broaden and improve participation in science by diverse communities, use citizen science to effectively improve scientific learning, and develop resources and tools for building successful citizen science programs.



Center for Shakespeare in Diverse Classrooms

Steven Athanases

The Center for Shakespeare in Diverse Classrooms is a unique partnership between the UC Davis School of Education and Globe Education, Shakespeare’s Globe, London. Through our teacher professional development programs and ongoing research, we seek to develop and document engaging and equitable K-12 classroom practices for the study of Shakespeare and other complex texts.



Resourcing Excellence in Education

Carlos McCauley

The Resourcing Excellence in Education (REEd) Center is a university-based intermediary with deep ties to the TK–12 education community across the state. The center is committed to moving research findings into practice and building the capacity of education systems to improve teaching and learning. The center’s goal is to reduce education inequities by testing professional growth systems for building capacity and using research–practice partnerships to spread and deepen this work in districts across the state and beyond.



Sacramento Area Science Project

Cynthia Passmore

The Sacramento Area Science Project (SASP) conducts science education research and provides professional development in K-12 science instruction. SASP is an education partnership between the UC Davis, and California State University, Sacramento. SASP is a regional site of the California Science Project and provides support to teachers, schools and districts for the Next Generation Science Standards and Common Core State Standards for Science and the Technical Subjects.



Transformative Justice in Education Center

Maisha Winn, Torry Winn

The Transformative Justice in Education Center (TJE) is a community–university collaborative serving practitioners and researchers committed to disrupting racial inequities in education by creating restorative, humanizing, justice-seeking teaching and learning communities. TJE’s focus areas are restorative and transformative justice practices, teacher education and community-centered/humanizing research methods.



Wheelhouse: The Center for Community College Leadership and Research

Susanna Cooper, Michal Kurlaender

The mission of Wheelhouse is to support and resource current and future leaders in the California Community Colleges system, as the strength of their leadership is essential to the success of the California economy and the state’s culture of broad opportunity for a diverse population. The center focuses on providing transformational, tailored leadership development and support for district chancellors and college presidents, and conducting timely and relevant research to inform practice policy development for community college leaders and state and local policymakers.

Achievements 2020–2021

Throughout the School of Education, faculty and staff are engaged in cutting-edge research that includes partnerships with other campus colleagues in areas ranging from engineering to marine sciences and public health. Despite the challenges associated with the COVID-19 pandemic, the School continued to succeed in securing external support for research. As of June 30, 2021, the School’s individual and center researchers have over \$56 million in active awards, including:



> \$46 Million Federal Grants

> \$7.1 Million Private Grants

> \$100,000 State Grants

> \$3 Million Private Contracts



Published more than 30 research briefs and papers by centers and faculty directors, which were disseminated through scholarly publications and directly to stakeholders and policymakers

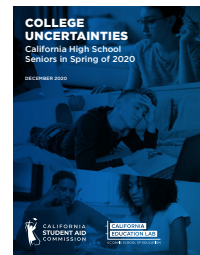
Created podcasts that highlight issues in education and offer a visionary lens for a hopeful future for all students – especially for historically marginalized students of color



Created or continued partnership efforts with over 60 organizations across the region, statewide and nationally



Collected data from the websites of 168 unified school districts, serving 40% of the state’s K–12 students, to better understand early responses to the global pandemic and the closure of school buildings



Surveyed all financial aid applicants in California about the impact of COVID-19 on their college plans and experiences, the largest such survey in the nation



Designed, developed and hosted a series for the youth researching the

Histories for Better Futures program (Youth in Action) that provided high school students with the experience, resources and skills to examine and research local problems in their schools and communities

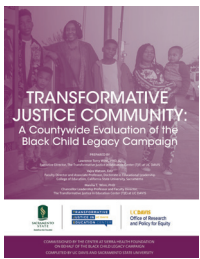
Provided direct college readiness programs to 7,000+ middle- and high-school students at 36 schools in 23 districts across eight counties



Developed and piloted a full year of Earth science integrated high school biology curriculum



Worked with Los Angeles Unified School District coaches and teachers **to integrate essential practices for math and English Learners**



Published the “Transformative Justice Community: Countywide Evaluation of the Black Child Legacy Campaign” as part of the evaluation of the Black Child Legacy Campaign at the Sierra Health Foundation

Positioned high school students from seven Ojai Valley schools as leaders in the Ventura River watershed monitoring project in anticipation of the removal of the Matilija Dam



Convened 21 remote leadership development sessions for 15 community college presidents

Developed 100 at-home maker kits with supplies and 15 instructional videos, so that K-12 students could do hands-on projects during remote learning



LENDING OUR EXPERTISE

Because our research and innovation centers are led by nationally recognized experts in their respective fields, center faculty and staff represent their centers and the School of Education through service on local, state and national boards including:

- Advisory Member, Provost’s Advisory Council on Education Equity, University of California Office of the President
- Advisory Member, Governor Newsom’s Education Recovery with Equity Advisory Group
- Advisor, Inside California Education
- Affiliated Scholar, Mindset Scholars Network
- Board member Results for America Education Advisory Board
- Co-Director, Policy Analysis for California Education
- Committee Member, Research Subcommittee of the Governor’s Cradle-to-Career Data System Workgroup
- Committee Member, Statewide Student Identifier Subcommittee of the Governor’s Cradle-to-Career Data System Workgroup
- Director, James B. McClatchy Foundation
- Member, California Department of Education, College and Career Readiness Indicator Workgroup
- President, Board of Directors of the statewide nonprofit EdSource
- Research Advisory Board, Center for Advocacy and Policy, The College Board
- Special advisor, The Stuart Foundation
- Technical Advisory Group (TAG), California Department of Education, California Assessment of Student Performance and Progress



(Clockwise from left) High school students in REEd’s Upward Bound program visit the Capitol; teachers and graduate students meet during the Center for Shakespeare in Diverse Classroom’s Summer Institute; community college leaders convene for a Wheelhouse Institute.

Challenging Inequities

The School of Education is committed to confronting and eliminating inequities among people and communities through the generation of impactful knowledge and the promise of education. As such, a central theme of the work of the research and innovation centers over the past year has been to engage in equity-oriented, humanizing research, as well as establishing relationships with schools, families and institutions across the Sacramento region.

For example, the Transformative Justice in Education (TJE) Center developed and taught a course at UC Davis’s Aggie Square designed to engage undergraduate students in the community by using out-of-school programs, art and poetry workshops, and community-based learning as the entry point. The course, entitled “Transformative Research, Teaching, and Learning: A Social-Cultural-Community Justice Education,” leveraged the center’s scholarship and existing local partnerships to facilitate opportunities for undergraduates to engage in historiographies of social movements and make the connection with present-day social, political, economic and educational issues such as redlining, gentrification, school suspensions, Black child deaths, police brutality and community trauma.

“Our research centers play a key role in the School’s ability to build new partnerships and expand educational opportunities. Collectively, their work is innovative, timely and integral to achieving the goals of our strategic plan.”

LAUREN E. LINDSTROM, PHD, PROFESSOR AND DEAN

As the research and innovation centers plan for future years, issues of equity continue to surface as a major theme for our work moving forward. Proposed areas of work include:

- > **Developing anti-racism pedagogical practices** to inform student- and teacher-focused programming
- > **Collaborating with the children of migrant farmworkers** who spend time in Northern California and Mexico
- > **Developing meaningful and relevant high school science curriculum** to understand and combat climate change and environmental injustice
- > **Creating a Future Leaders Institute** for aspiring community college CEOs
- > **Offering graduate student training in community and citizen science**
- > **Addressing learning loss during the 2020–21 school year** through distance and remote instruction
- > **Evaluating the impact of COVID-19 on K–12 and college students**
- > **Studying school leadership and equity driven decisions**
- > **Working with incarcerated people to conduct science** that has local, personal meaning, while contributing to broader scientific efforts

The School of Education faculty and staff continue to be a driving force behind policy and practice improvements that respond to the significant needs of the state at every level, from pre-K to post-graduate. Collectively bringing together equity-focused work across a wide range of disciplines, the School’s research and innovation centers continue to build strong networks and forge powerful partnerships with educators and policymakers throughout the state. These efforts contribute substantially to strengthening educational practices and outcomes in California public schools and colleges, while sharpening the efficacy of the leaders across the state and nation – impacting millions of students across California.



It’s been exciting to see the reach and impact of the School of Education research and innovation centers. The growth of the partnerships throughout the pandemic is a testament to the trusting relationships that the centers have established and speaks to the collective commitment to improving the lives of students across education.”

CARLAS MCCAULEY, EdD
DIRECTOR OF RESEARCH AND PARTNERSHIPS AND EXECUTIVE DIRECTOR OF REEd



(Left to right) Superintendents exchange ideas at a CAP-Ed leadership forum; an audience member asks a question during a Transformative Justice in Education Center speaker series presentation.

Partnerships

Collaboration is a key element of the School of Education’s strategic plan and foundational to the work of our centers, expanding the reach and impact of our research and programming. Our center partners include other public and private universities, K-12 and community college districts, and nonprofit agencies.

REGIONAL

Alice Waters Edible Schoolyard Project
Anderson Union School District
Center for Environmental Policy and Behavior
Center for Regional Change (CAES)
Coastal and Marine Sciences Institute
Elk Grove Unified School District
Enterprise Elementary School District
Fairfield-Suisun Unified School District
Folsom-Cordova Unified School District
Gateway Unified School District
Glenn County Office of Education
Green Schools Coalition
Hamilton Unified School District
Insight Garden Program
Lake Tahoe Community College
Ohlone College
Orland Joint Unified School District
Pierce Joint Unified School District
Red Bluff Union Elementary
Redding Elementary School District
Sacramento City Unified School District
San Juan Unified School District
Shasta Union High School District
Scott Valley Unified School District
Twin Rivers Unified School District
UC Davis Center for Environmental Policy and Behavior
UC Davis Center for Poverty Research
UC Davis Department of Evolution and Ecology
UC Davis Department of Pharmacology
UC Davis Development and Alumni Relations (DEVAR)
UC Davis Diversity, Equity and Inclusion Office
UC Davis Feminist Research Institute
UC Davis Imagining America
UC Davis Men’s Basketball Team and Coaches
UC Davis MIND Institute
UC Davis Office of Public Scholarship and Engagement
UC Davis Student Farm
UC Davis Watershed Sciences Center
UC Davis Women’s Basketball Team and Coaches
Vallejo Unified School District
Yreka Union High School District
Washington Unified School District
Williams Unified School District
Willows Unified School District
Winters Joint Unified School District
Woodland Joint Unified School District

STATE OF CALIFORNIA

California Academy of Sciences
California Community Colleges Chancellor’s Office
California Department of Education
California Department of Fish and Wildlife
California Naturalist Program
California Student Aid Commission
California State University, Bakersfield
California State University, Sacramento
California Ocean Protection Council
Los Angeles Unified School District
Policy Analysis for California Education (PACE)
Public Policy Institute of California
Sierra Streams Institute
Southern California Professional Development Federation
University of California, Berkeley California School Leadership Academy Center
University of California, Los Angeles
University of California, San Diego Department of Education Studies
University of California, San Francisco
University of California Office of the President
University of San Francisco
Ventura County Office of Education

NATIONAL AND INTERNATIONAL

Boston Public Schools
BSCS Science Learning
Citizen Science Association
Cornell Lab of Ornithology
District Leadership Design Lab, University of Washington
Federal University of Bahia, Salvador, Brazil
FieldScope
London Natural History Museum
Los Angeles County Museum of Natural History
Max Planck Institute of Animal Behavior, Germany
MERITO Foundation
National Geographic
New Pedagogies for Deep Learning, Ontario, Canada
North American Association for Environmental Education
North Carolina State University
Northwestern University
Oxford University
SciStarter
University College London
University of Michigan
University of Vienna
University of Washington
Zooniverse




I believe that the School of Education's research centers provide one of the School's most important functions: The outreach of the School to the education community in a very real and practical way. The support they provide in their various areas of expertise is invaluable to the application of research to practice.”

DAVIS CAMPBELL

CHAIR, DEAN'S BOARD OF ADVISORS AND EXECUTIVE DIRECTOR (RET.),
CALIFORNIA SCHOOL BOARDS ASSOCIATION



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Davis, California 95616-8609

 For more information about our centers, contact Carlas McCauley, EdD, Director of Research and Partnerships/Executive Director of REEd, at clmccauley@ucdavis.edu or go to education.ucdavis.edu/centers.

All photo subjects in this report were following official University masking and distancing guidelines in effect at the time the photos were taken.