

Health and Education

More schooling equates to healthier, longer lives

A critical intersection exists between education and health, according to a consensus of researchers and evaluators from the University of Wisconsin–Madison who have been working closely with rural schools, the community-school model and Native American communities in Wisconsin.

“Better educated individuals live longer, healthier lives than those with less education, and their children are more likely to thrive—even when factors like income are taken into account,” says Karen Odegaard, associate researcher at the UW Population Health Institute, which developed the County Health Rankings & Roadmaps to spotlight the relationship between education and health across the nation.

According to this extensive study, college graduates on average live nine years longer than high-school dropouts. “Higher levels of education can lead to a greater sense of control over one’s life, which is then linked to better health, healthier lifestyle decisions and fewer chronic illnesses,” it asserts.

What’s more, findings showed that more schooling is linked to better job opportunities, increased social supports and higher income, with each additional year of schooling yielding 11 percent more income annually.

Well-being challenges in rural schools.

The reverse also is true, as children and youth with unaddressed mental and behavioral health issues encounter more school challenges that lead to short- and long-term life consequences.

At the Rural Education Research and Implementation Center (RERIC), a project at the Wisconsin Center for Education Research, Craig Albers and his team are studying the self-identified needs of Wisconsin’s rural schools.

Inside

Health and Education	1-3
Publications/Findings From WCER	3-4

For an expanded version of this newsletter, visit wcer.wisc.edu/news/newsletter.



New studies from UW-Madison researchers and evaluators show a correlation between more education and longer, healthier lives.

(Continued from page 1)

“The most common, most frequently mentioned issue is mental and behavioral health,” says Albers. “If a child is not strong emotionally or doesn’t have mental-health wellness, then this has trickle-down effects to academics, and disciplinary referrals and issues. It increases the likelihood of disengagement, school drop-out.”

It’s a growing problem for all schools, but districts in more isolated parts of the state show more unmet mental health need, RERIC’s research shows. Reasons include lack of access, fewer school and community resources, and more difficulty hiring, training and retaining mental health professionals.

Surveys done by RERIC show 87-90 percent of Wisconsin principals in rural areas in Wisconsin reported that students in the past 12 months who needed mental health services did not receive them.

These challenges grow, says Albers, as students whose mental health needs are unmet age into adults. National studies reveal they are more likely to develop significant mental health problems in adulthood, be involved in the criminal justice system, and have interpersonal and relationship problems.

How health plays into community schools.

WCER researcher and evaluator Annalee Good and doctoral candidate Marlo Reeves have examined how the community school model works to coordinate health and educational opportunities for students and families.

Community schools offer an expanded array of social services and other programs based around the model’s four main pillars: integrated student supports, expanded and enriched learning time, active family and community engagement, and collaborative leadership and practices.

“One of the things that’s most promising about the community schools model is that it’s a community’s response to a community’s identification of their own needs,” says Good, co-director of WCER’s Wisconsin Evaluation Collaborative. “Often it results in communities being really innovative.”

For instance, four community schools in Madison have responded to a need for health services and family counseling by setting up a mobile community flu clinic through a partnership with Madison Metropolitan School District, Hy-Vee, United Way and Dane County Public Health. “The idea came from parents who lacked access to getting their kids



The work of both Nicole Bowman, left, and Carolee Dodge Francis focuses on health disparities afflicting Wisconsin Native Americans.

vaccinated,” says Aronn Peterson, the district’s community schools manager. “Getting the flu does lead to missed school time and absenteeism for students.”

Other examples of health-related programs in the district included a six-week running and walking club at Lake View Elementary School that nearly all students took part in; and UW Health-sponsored wellness days for staff and students.

Tackling tribal health disparities.

Wisconsin Native Americans face their own unique health and education disparities, according to WCER researcher and evaluator Nicole Bowman, a Mohican/Munsee, and Carolee Dodge Francis, an associate professor at the University of Nevada and member of the Oneida Nation of Wisconsin. Both scholars have extensive experience with culturally responsive approaches to evaluation research with tribal nations.

“Natives in Wisconsin have four times the diagnosis and mortality rate for Type-2 diabetes and on average die at age 63 compared to age 77 for whites,” says Bowman. What’s more, infant mortality rates for Native American children are 69 percent higher than white children and Native children have the highest age-adjusted suicide rate (at 2.5 deaths per 100,000) across all races.

Compounding this health crisis is the fact that fewer Native children in Wisconsin complete high school—86 percent compared to 91 percent for all races—and only 13.8 percent

had a bachelor's degree or more, compared to 28.43 percent for all races, according to the Great Lakes Inter-Tribal Epidemiology Center.

"We have to do our work differently in order to have different outcomes," Bowman says. Keys to working differently with the state's 11 federally recognized tribes include the need for researchers to expand their on-the-ground experiential knowledge and deepen social networks to build trust among members.

"Doing focus groups is very different than having a meal with subjects," Bowman counsels researchers. "It might seem like a simple step, but just get out there, get some

fresh air, get out of your office. We have to experience life with the folks we are serving."

It takes a village.

As Odegaard suggests, it will take the collective effort of communities, educators and researchers, like those at WCER and UW–Madison, to work together to increase educational attainment for children and adults, better preparing the individuals and families of today and tomorrow to live longer, healthier lives.

"The quality of our homes, the safety of our neighborhoods, and our chance for a good education all have a major role to play in how long and how well we live," she says.

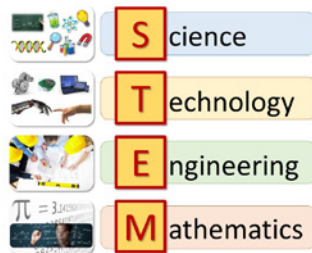
Publications/Findings From WCER Researchers

STEM

"The Consequences of STEM Departure for College Dropout and Degree Completion"

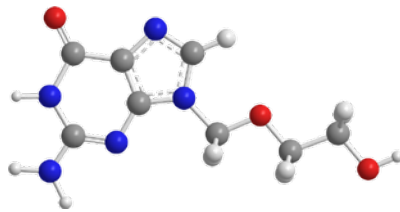
In a recent longitudinal study, You-Geon Lee and Joseph J. Ferrare found that declaring and then

departing from a STEM major was associated with negative consequences for college-dropout and degree-completion rates. Negative outcomes were most severe for students who switched early in their academic trajectory and for those with less educated parents. Published in *The Review of Higher Education*.



"Cognitive Task Analysis for Implicit Knowledge About Visual Representations With Similarity Learning Methods"

Understanding visual representations is crucial for STEM learning. In this study, Martina A. Rau, Blake Mason and Robert Nowak analyzed which visual features students pay attention to without using costly methods, such as eye tracking. They developed a scalable, machine-learning-based method and demonstrated its efficacy in detecting which visual features drive chemistry students' perceptions of molecule representations. Published in *Cognitive Science, A Multidisciplinary Journal*.



STUDENT LOAN DEBT

"Inequality and Opportunity in a Perfect Storm of Graduate Student Debt"

Advanced degrees offer avenues for opportunity and equity. Yet debt burdens may inhibit upward mobility because levels of debt are

so large. Jaymes Pyne and Eric Grodsky found that more graduate students are entering into debt over time, and borrowing larger quantities when they do. Even more troubling is that increases and real dollar amounts are greater among African American, socioeconomically disadvantaged and female students. The researchers suggest these groups might also benefit the most from attaining a degree beyond college. Published in *Sociology of Education*.



COLLABORATION

"Relational Trust and Collaborative Structures at Eight Elementary Schools"

In this working paper, lead author Rosie Miesner, a graduate student in UW–Madison's Educational Policy Studies, contributed to a study on how structures for collaboration and relational trust among staff affect collaboration in eight Wisconsin elementary schools. Findings show teachers who attested to relational trust within their schools collaborated with colleagues, regardless of formal times to do so. But teachers who described an absence of relational trust opted against collaborating with colleagues.



EVALUATION

“The Wisconsin Learning-Centered Teacher Evaluation Study: Informing Policy and Practice”

This working paper by Steve Kimball and colleagues from the Wisconsin Evaluation Collaborative and office of Socially Responsible Evaluation in Education presents findings from a two-year study with Wisconsin school districts engaging in growth-oriented teacher evaluation practices. Researchers visited each district and school several times, talking with teachers, principals, coaches and district leaders about how they implement educator effectiveness. Researchers found that learning-centered evaluation practices across schools help promote sustained instructional focus; provide a common instructional language; contribute to feedback from evaluators; and support collaboration among peers.



MIDDLE SCHOOL

"Reappraising Academic and Social Adversity Improves Middle School Students' Academic Achievement, Behavior, and Well-Being"

Geoffrey Borman and Jaymes Pyne contributed to a randomized field trial across 11 Madison middle schools on how brief, but psychologically precise, intervention supported transitioning sixth graders. Middle-school students learned that adversity is common due to external, temporary causes, rather than personal inadequacies. Students had improved well-being, fewer absences and disciplinary infractions, and better grades. This intervention holds potential for addressing widespread underperformance in middle school. Published in *Proceedings of the National Academy of Sciences*.



News

New Wisconsin-Minnesota Education Partnership Wins \$6.3M Federal Award

A new collaboration of Wisconsin and Minnesota education researchers formed to support education priorities in each state has won a five-year, \$6.3 million grant from the U.S. Department of Education. The overall goal of the project, directed by Steven Kimball and WCER colleague Alisia Moutry, as well as the University of Minnesota's Kim Gibbons and Education Analytics' Ernest Morgan, is to improve the academic achievement of elementary and secondary school students in the two-state region by advancing the use of evidence-based practices. While Minnesota and Wisconsin have historically ranked in the top third of all states for education quality, both states have persistently experienced large achievement gaps, particularly for students of color and those identified for special education services.



Two WCER Conferences Draw International and National Attendees to Discuss Big Data and Internships

In October, the International Conference on Quantitative Ethnography, hosted by David Williamson Shaffer of Epistemic Analytics, brought together 100 scholars from 20 U.S. states and all six inhabited continents to discuss new ways to analyze and interpret large amounts of rich, qualitative data. Also, the Center for Research on College-Workforce Transitions (CCWT) sponsored its second national symposium on internships attended by a wide audience of researchers, career services and student affairs professionals, employers, advocates, college students and legislators. According to CCWT Director Matthew Hora, this one-of-a-kind conference focused on three tracks: strategies for college-employer partnerships; designing effective learning spaces for 21st-century skills; and inequalities in the intern economy defined by geography, major and race/ethnicity.



For more findings, news and events, visit: wcer.wisc.edu/news/newsletter.



**Wisconsin Center for
Education Research**
SCHOOL OF EDUCATION
UNIVERSITY OF WISCONSIN-MADISON

1025 West Johnson Street, Suite 785, Madison, Wisconsin 53706
608.263.4210 | wcer.wisc.edu
Media inquiries: Janet.Kelly@wisc.edu | Contact the editor: armitage2@wisc.edu