

## **Engaged Partners Improve Lives**

Barbara G. Ludwig, David W. Andrews, Janet K. Ciccone

### **Abstract**

Ohio State is fostering a bold, new model of public/private partnerships that works rapidly to address complex national problems affecting the success of children and youth. Partners gain new insights, informing their future practices and decisions. The public/private partnership model supporting laboratory schools covering infancy through grade twelve is the first of its kind.

### **Introduction: The Vision**

Complex issues of national concern outpace our country's capacity to respond. The Ohio State University launched a partnership of business and industry, public and social service, community, and private donors to find innovative solutions to challenging economic and societal problems. The issues are not addressed in piecemeal fashion, but with a network of innovation that yields results for youth, families, communities, and the country. The unprecedented success of this new partnership in achieving rapid change is due to the commitment of the partners and their chief executives. This is a story of transformation, rather than a report of accomplishments. A university, major corporate partners, and school districts across central Ohio are redesigning teaching, research, and outreach. A web of partnerships has been created that is fundamentally changing the kind of conversations taking place about important educational issues in central Ohio.

The efforts of more than twenty engaged partners are improving our understanding about community-university partnerships while creating new structures and ways of thinking about serving the needs of children, families, schools, and communities. This public/private partnership network catalyzes innovative solutions. Too often, universities are seen as isolated from the concerns of the families and communities in which they are located. The cumulative activities of the partnership network provide the community with a model learning environment, researchers across the university with a laboratory setting to study research to practice, and university students and public school teachers with the opportunity to observe and practice new approaches while making their own contributions to a dynamic and evolving learning environment.

Meier and Wood (2004, 66–78) indicate that attempts to bridge the academic achievement gap must include more complete educational policies, such as equitable school funding, smaller class sizes, teacher education programs, subsidized preschool and after-school programs, as well as social policies such as low-income housing programs, nutrition initiatives, and job creation and training projects. Students' academic performance cannot be viewed as separate from the social and economic contexts that contribute to it. Holistic, integrated approaches that are based upon research but grounded in well-implemented community-based practice are essential in closing opportunity gaps.

Additionally, our country faces a crisis in terms of our future as a global technology leader. In *Before It's Too Late*, the National Commission on Mathematics and Science Teaching for the 21st Century (2000) outlined strategies to advance mathematics and science education. These strategies are fostered by policy change. Hence the creation of the Battelle Center for Mathematics and Science Education Policy at Ohio State allows the partnership to translate advances in research and practice generated at the partnership's preschool through grade twelve laboratory schools into policy that enhances education in the fields of science, technology, engineering, and mathematics.

The interrelated initiatives of the partnership demonstrate the connections needed to change the lives of children and youth by addressing the needs of the *whole* child *and* the family. They will be used as models and exemplars to assist scholars in understanding the processes a community used in joining higher education with business, industry, public and social service, community, and private donors to target issues.

### **Connections and Initiatives 2007**

Creating a premier laboratory school serving cradle to college and its rapid startup leveraged more than \$20 million, plus the investment of time and talent by experts including fifty scientists from international science and technology enterprise Battelle and over one hundred faculty from ten different colleges at the university. One result is a community-centered pipeline to produce trained scientists, technologists, engineers, and mathematicians to help the United States remain competitive in the world's information- and technology-driven economy. A second result is anticipated success for children and youth at all economic levels who might otherwise struggle to prepare for productive careers and fail

to go to college. The partnerships are also creating new knowledge that will spark future research efforts.

The Ohio State University collaborated in the development of the new Metro High School (Metro) with Battelle and the Educational Council of Franklin County, which includes Columbus City Schools and the county's fifteen other school districts. A \$200,000 planning grant provided by the Coalition for Essential Schools via the Gates Foundation facilitated the development of the concept. The Colleges of Education and Human Ecology (EHE),

---

*“Students’ academic performance cannot be viewed as separate from the social and economic contexts that contribute to it.”*

---

Mathematics and Physical Sciences, Biological Sciences, and Engineering collaborated with teachers and Battelle scientists to develop the academic program. Metro, a small public high school, is an incubator for advancing science, math, engineering, and technology education. Less than a year from the articulation of the commitment, the school was up and running. Battelle, Ohio State, COSI—Columbus’s

museum for science and industry—the Columbus Museum of Art, WOSU Public Media, and the Wexner Center for the Arts provide research internships for students.

Less than a year after Metro High School opened, Battelle announced a \$4 million gift to establish the Battelle Center for Mathematics and Science Education Policy at Ohio State’s John Glenn School of Public Affairs. The center brings higher education together with leaders in K-12 education, business, technology, and government to develop policies and practices implementing lessons learned from the lab schools. Carl Kohrt (2007), Battelle CEO, sees this effort as “improving the pipeline of talented scientists, technologists, engineers, and mathematicians for the future competitiveness of the region and the world.”

Complementing these efforts is the early childhood development center and elementary school at Weinland Park, which serves the university as a laboratory school covering infancy through fifth grade. Ohio State built the \$10 million lab school in this economically challenged neighborhood east of campus. Columbus City Schools in 2007 completed a new elementary school adjacent to it, and a new middle school is being considered as the final piece of the cradle-to-college lab school. Lab school teachers, College of Education and Human Ecology faculty, Head Start, and Columbus

City School teachers jointly plan curricula at the Weinland Park facilities. The City of Columbus facilitated land acquisition and is reconfiguring an adjacent park to provide green space and recreation areas. The Colleges of Medicine, Nursing, Optometry, Pharmacy, Public Health, Social Work, and Veterinary Medicine are planning school and community programs. A family advocacy office, on-site health center, and family nutrition teaching annex will serve the community and provide research opportunities for faculty and students. A private donor's primary gift of \$2.5 million to build the lab school, now named the Schoenbaum Family Center, has created the impetus for additional support from alumni and private donors. The P&G Fund, which is the charitable foundation for Procter and Gamble, originally led corporate donors with a \$1 million gift to the lab school.

---

*“At Metro, scientists are learning new communication skills while developing personal relationships and serving as career role models.”*

---

“Playing well with others is not play at all; it is hard work,” reports David Andrews (2006), dean of the College of Education and Human Ecology, who was instrumental in facilitating the partnership. “Solitary play is simple and offers complete control. Unfortunately, it does not offer solutions to complex problems,” the goal of our engaged partners.

### ***The Relationship between the University and Community***

Ohio State, an engaged land-grant institution, serves as a catalyst to build this bold, creative network of partnerships. Key partners express a high level of satisfaction with the groundbreaking collaboration. Those who joined Ohio State's President Karen Holbrook in the initiative include Dr. Gene Harris, superintendent of Columbus City Schools, all the Franklin County school superintendents through the Educational Council, and Battelle CEO Carl Kohrt. Additional partners now provide expertise, financial, and facility resources to the network of innovation. Weinland Park residents express satisfaction with the relationship, saying that because the partners involved them in creating the Schoenbaum Family Center, their voices are heard and their needs addressed. Metro High School students and parents participate in collaborative discussions with school partners to create school policies and improve learning and the learning environment.

## **Impacts on Community Partners and University Partners**

Community partners express pride in the opportunity to collaborate in the initiation of a research-based approach called mastery learning. This approach challenges all Metro students to achieve A averages and experience success. The initial one hundred students enrolled were economically, socially, and ethnically diverse. Only 18 percent had A averages prior to entering Metro. In mastery learning, teachers introduce content at the highest level, and then fill in the knowledge gaps for those who need it. Students progress through personalized learning, including tutoring from thirty enthusiastic Battelle scientists twice a week after school. Metro students learn from each other as well as teachers and mentors.

The students express a high level of satisfaction with the arrangement. By early spring 2007, 75 percent of Metro students had A averages, and the remainder were on their way to A averages. Attendance was 98 percent, reflecting the students' enthusiasm for learning at Metro.

At Metro, scientists are learning new communication skills while developing personal relationships and serving as career role models. As a part of the startup, sixty Ohio State faculty, twenty Battelle scientists, the principal and teachers from Metro, and Educational Council staff spent two hours a week for eleven weeks debating and developing a new curriculum and refining the mastery learning approach.

Metro students, teachers, and partners identified a need for students to gain experience with engineering design software. When a contributor was sought, PTC, the producer of Pro/Engineer software, agreed to join the partnership with a \$1.6 million grant. Licenses for this software, which is widely used in industry, are being provided to Metro students, their teachers, and every high school physics student and teacher in Franklin County school districts for four years. Students and teachers work online in teams with Battelle scientists on Pro/E projects. A group of Metro students were trained during summer 2007 by Battelle engineering designers to use Pro/E to expand the number of capable advisors in the network. Impacts and creative teaching/learning approaches developed in the lab schools are not limited to those directly involved, but are and will continue to be disseminated broadly throughout the county, state, and nation.

Similar impacts are occurring in the community where the Schoenbaum Family Center opened in the fall of 2007. A laboratory

school of modest dimensions, it is creating a big footprint. From the start, the community joined as a project partner. More than one hundred adults and children participated in focus groups to give input into the design of the building. “Front porch conversations” took place and continue to be used to poll residents on their ideas and opinions about needs of the neighborhood. Residents testified before City Council on zoning issues. Their vocal participation, which included requests for medical services, library services, personal financial advice, a weekly produce market, and parenting classes, led to the creation of committees to increase and organize involvement at many levels. Three committees were formed that include representatives from social service agencies, university, and community: the Health and Wellness Committee, the After-School Programming and Enrichment Committee, and the Outdoor Learning Environment Committee.

---

*“The rapid response necessary to take advantage of windows of opportunity is possible because of the relationships developed across partnering organizations and the commitment to change.”*

---

Residents demonstrate a sense of ownership in the project and an appreciation for how the center will address their needs. While the facilities will provide direct education and services to enhance the well-being of the four hundred children attending the schools and their families, they will at the same time serve as the focal point for a strategic planning and implementation process to mobilize community redevelopment. The impact of knowledge generated will extend well beyond the boundaries of this neighborhood by laying the groundwork for teaching other communities how to better nurture children and families in high-risk neighborhoods.

The Battelle Center for Mathematics and Science Education Policy is generating excitement as the community anticipates a high-level platform to debate and formulate policies to enhance STEM (Science, Technology, Engineering, and Math) education. Dr. Kathy Sullivan, former NASA astronaut and current vice chair of the National Science Board, has been hired to direct the center. Dr. Sullivan’s visibility, combined with the social capital accumulated through the Metro and Weinland Park partnerships, leverages new opportunities for advancing STEM activity in the community. Legislators and school and government leaders gather on campus for discussions about enriching the student learning environment.

Members of the partnership network are considering developing a proposal to expose local teachers to science-based activities utilizing a zero gravity approach. The partnering experience led by Ohio State is changing the views and knowledge of the community and its ability to mobilize around educational issues and opportunities. The rapid response necessary to take advantage of windows of opportunity is possible because of the relationships developed across partnering organizations and the commitment to change.

University partners relish the opportunities they are finding in collaborating with new external partners. They remain involved, drawn by the ability to engage in innovation and a chance to listen, design, and implement rapidly. Those most excited exhibit a willingness to cross disciplinary boundaries and use the experience to enrich their own teaching and research. Since developing Metro's innovative STEM curriculum, faculty members are changing the way they prepare future teachers. Faculty and staff at Ohio State's Olentangy River Wetlands Research Park and Stone Laboratory on Lake Erie created a hands-on project on water management for Metro students that will be duplicated for other students in the future. A math education faculty member with a federal grant to study graphing calculators in high school math classes nationwide used the opportunity to instruct Metro teachers in using the calculators to rethink teaching approaches. A faculty member in counselor education placed graduate student interns at Metro, where they served as the school's guidance personnel, a unique experience beyond the usual for counselor interns in school settings. They conducted student and teacher needs assessments as well as designed a series of guidance lessons to meet the school's needs in academic, career, and personal/social development.

A faculty team involved community and public school partners in the Weinland Park neighborhood in designing an integrated birth through grade five program that capitalizes on the physical link between the early childhood development center and the newly constructed Weinland Park Elementary School. Many of the Ohio State entities listed are partnering with each other for the first time. Others are newly created entities. For instance, as a service-learning project, students in Ohio State's Family Financial Management major serve the Weinland Park community, offering personal finance education on such topics as budgeting and saving to meet financial goals. The students are also partnering with the Office of Economic Access to assist potential college students and parents with completing the necessary financial aid forms.

## **Lessons Learned and Best Practices**

Creative collaboration requires an unequivocal commitment to a shared goal at the highest levels of administration. Ohio State, Battelle, and the Educational Council powered the development of the new Metro High School initiative and the Battelle Policy Center through complete support from their highest administrators. The goal is a better system to support science, technology, engineering, and math education. In this example and in the Weinland Park partnership, partners moved beyond “parallel play” that normally defines a partnership, where people work in the same general area, yet do not share materials or work toward a common goal.

Creative collaboration also requires all partners to bring something meaningful and accountable to the collaboration. In the case of Weinland Park, Ohio State brought a \$10 million early childhood facility; Columbus City Schools brought a \$10 million elementary school; and the City of Columbus provided the land and much-needed green space and recreation areas through a reconfiguration of parkland. The collaborators all clearly have something meaningful to offer this project. Involvement of community residents, social service agency staff, university faculty and students, and private partners enriches the collaboration. Intentional and open communication facilitates accountability, and formative assessment underpins each action.

The successes of these partnerships are predicated on the motivation of those involved to advance new ideas and create new models. A mix of hardheadedness and a willingness to on occasion say, after reflection, “this isn’t working,” is evident. The shared vision and unified movement toward a common goal rather than initiating a particular plan or approach have made a difference. There is also a willingness to share both credit and risk. When this occurs, history has taught us that more people will typically want to become involved.

Partners have also learned to change themselves, if necessary, to achieve goals valued by the many. Battelle is deploying its fiscal and human resources in new ways to help create a pipeline of future engineers and technology specialists. The involved school district boards voted to invest in Metro School, which is a specialized public school, not a charter school, by in most cases allowing district per-pupil funding to follow students who enroll at Metro. At the early childhood center, multiple programs collaborate to provide the teachers, including Head Start, Columbus City Schools, and the university, resulting in a highly unusual staffing pattern



for a university program. Flexibility and a willingness to change are at the heart of these partnerships, which become transformative. Rapid advances are more achievable when partners are willing to change in order to achieve change.

The National Coalition of Essential Schools provided the initial \$200,000 planning grant to conceptualize what became Metro High School. It now will use Metro as one of its model schools from which other educators will learn. The Gates Foundation, through its Ohio partnership with KnowledgeWorks, later committed \$500,000 to establish Metro as an early college high school and Ohio as a leader in STEM education.

The Ohio Department of Education is using Metro to pilot Ohio's new core curriculum. New partners continue to be added. In the winter of 2007, JPMorgan Chase offered the Weinland Park project \$1 million and is asking all its current funding applicants to include in their applications ways they can partner with the early childhood development center. This pattern of expanding part-

---

*“The shared vision and unified movement toward a common goal rather than initiating a particular plan or approach have made a difference.”*

---

nership opportunities contributes to sustainability. The addition of a middle school will complete the continuum of educational learning environments from infancy through high school. The community will have a full range of model learning environments accompanied by a STEM policy-generating arm to enhance the applicability of the lessons generated from these models. The Ohio State University is hiring faculty across five different colleges who are attracted by, and have the capacity to contribute to,

the activities of the partnership. The partnership and its resulting model programs form a valuable recruitment tool for such faculty, as well as for high-quality students eager to become engaged in the new learning environments; in return, those who join further strengthen this community-based learning initiative.

In identifying application, transferability, and sustainability, it becomes clear that creating a system to address holistically the needs of children, youth, and families within the context of their community, regardless of the challenges offered by that community, requires bold action by partners with substantial resources. The resources required are not only financial, but also intellectual and political. Caring and committed people from all sectors are vital to the success of engaged, transformative partnerships. Success

attracts new partners who bring resources and sharpens the vision and focus of the partnership.

### **University Engagement Partnerships**

As a land-grant university, a research intensive university, and a major urban university, Ohio State has a broad mission to fulfill. The Office of University Outreach and Engagement (*OSU 2007*) has defined its outreach and engagement initiative “as meaningful and mutually beneficial collaborations with partners outside the academic community. This may include partners such as those in education, business, and public and social service. Outreach and engagement is

- That aspect of teaching that enables learning beyond the campus walls
- That aspect of research that makes what we discover useful beyond the academic community
- That aspect of service that directly benefits the public.”

Creating the nation’s first public/private partnership in support of a network of innovation serving infancy through grade twelve in the context of community-based learning is a concrete example of putting these definitions to work to improve the lives of young children and families.

### **References**

- Andrews, D. 2006. Responding to urban crisis: Creative collaboration. Guest lecture at the Penny Karlsberger Memorial Lecture for the College of Education and Human Ecology, The Ohio State University, Columbus, OH, October 4.
- Kohrt, C. 2007. A conversation with Dr. Carl Kohrt. A forum presentation of the Chase Excellence in Leadership Series, Columbus Metropolitan Club, Columbus, OH, June 13.
- Meier, D., and G. Wood. 2004. *Many children left behind: How the No Child Left Behind Act is damaging our children and our schools*. Boston, MA: Beacon Press.
- National Commission on Mathematics and Science Teaching for the 21st Century. 2000. *Before it’s too late: A report to the nation*. <http://www.ed.gov/inits/Math/glenn/report.pdf> (accessed September 2007).
- Ohio State University (OSU). 2007. Office of University Outreach and Engagement. <http://outreach.osu.edu/> (accessed September 2007).

## **About the Authors**

- Barbara Ludwig is a professor and associate dean for outreach and engagement in the College of Education and Human Ecology at The Ohio State University.
- David Andrews is a professor of human development and family science, and served as Dean of the College of Education and Human Ecology at The Ohio State University.
- Janet Ciccone is the director of strategic communications and marketing and a team member of the Office of External Relations in the College of Education and Human Ecology at The Ohio State University.

