Developing a master data sharing agreement: Seeking student-level evidence to support a collaborative community effort in education

Neil E. Carlson
*Calvin University*

Edwin Hernández
*DeVos Family Foundations*

Chaná Edmond-Verley
*DeVos Family Foundations*

Gustavo Rotondaro
*Grand Valley State University*

Follow this and additional works at: [https://digitalcommons.calvin.edu/calvin_facultypubs](https://digitalcommons.calvin.edu/calvin_facultypubs)

Part of the *Databases and Information Systems Commons*

**Recommended Citation**
Carlson, Neil E.; Hernández, Edwin; Chaná Edmond-Verley; and Rotondaro, Gustavo, "Developing a master data sharing agreement: Seeking student-level evidence to support a collaborative community effort in education" (2011). *University Faculty Publications*. 370.
[https://digitalcommons.calvin.edu/calvin_facultypubs/370](https://digitalcommons.calvin.edu/calvin_facultypubs/370)

This Article is brought to you for free and open access by the University Faculty Scholarship at Calvin Digital Commons. It has been accepted for inclusion in University Faculty Publications by an authorized administrator of Calvin Digital Commons. For more information, please contact dbm9@calvin.edu.
Developing a Master Data Sharing Agreement: Seeking Student-Level Evidence to Support a Collaborative Community Effort in Education

Neil E. Carlson  
*Calvin College*

Edwin Hernández  
*DeVos Family Foundations*

Chaná Edmond-Verley  
*DeVos Family Foundations*

Gustavo Rotondaro  
*Grand Valley State University*

Eleibny Feliz-Santana  
*Grand Valley State University*

*See next page for additional authors*

Follow this and additional works at: [https://scholarworks.gvsu.edu/tfr](https://scholarworks.gvsu.edu/tfr)

Part of the Nonprofit Administration and Management Commons, and the Public Affairs, Public Policy and Public Administration Commons

**Recommended Citation**

Developing a Master Data Sharing Agreement: Seeking Student-Level Evidence to Support a Collaborative Community Effort in Education

Authors
Neil E. Carlson, Edwin Hernández, Chaná Edmond-Verley, Gustavo Rotondaro, Eleibny Feliz-Santana, and Susan Heynig
Key Points

· A private foundation, a public school system, and a state university joined forces to address a difficult, long-standing challenge: closing the academic achievement gap between urban and suburban students.

· All parties agreed that sharing of longitudinal, student-level data was required to drive and evaluate multiple efforts to close the gap, but significant technical, regulatory, and political obstacles stood in the way.

· The parties worked through multiple challenges and forged a Master Data Sharing Agreement (MDSA) that will facilitate both daily intelligence for program staff and powerful post-hoc research capacity.

· This MDSA text has been released online for your use under the Creative Commons license (Community Research Institute, 2011a).

· Reaching the agreement required a shared vision, definitive research, genuine trust, true alignment, dogged patience, ample investment, iterative development, selfless collaboration, careful coordination, and fidelity to a common language: data.

Introduction: Strategic Philanthropy, Measurement, and Data Sharing

As the idea and practice of strategic philanthropy continue to revolutionize the way foundations everywhere do their work, the need is clear for robust measurement and evaluation. This in turn requires genuine sharing of sensitive private data among organizations partnering for greater social good. Better measurement allows for deeper understanding of what works and what doesn’t, which in turn drives more focused grantmaking and better results. The saying attributed to Henry Ford, “If you don’t measure it, you don’t improve it,” stands as a fundamental challenge for any organization that seeks to achieve social impact.

Without building quality measurement into its grantmaking, how can a foundation know if its grants are improving the social issue that it is working to change? How can it understand what practices and strategies need to be in place to effect change? How can it ensure that donors know that their investments are supporting effective models and creating impact at both an individual and societal level? Many foundation-sponsored community change efforts include within-program longitudinal data on individuals,communitywide sharing of aggregated data, or both; we are also pursuing carefully crafted, privacy-friendly, research-ready communitywide sharing of longitudinal, student-level data on program enrollment, attendance, academic preparation, and performance.

This article describes the development of data sharing for the Believe 2 Become (B2B) initiative, a communitywide collaboration aimed at increasing the academic achievement of 12,000 children in four urban neighborhoods. Believe 2 Become seeks coordinated, cradle-to-graduation alignment of preschool, in-school, and out-of-school-
time programs and related support systems. The effort employs a variety of strategies to close the urban-suburban achievement gap and thus raises broad research and evaluation questions: When working with a group of nonprofit providers to eliminate the gap, how will collaborators know the unique contribution that each organization made to the learning outcomes of children? Which organization or program was the most effective at improving skills and knowledge and reducing the achievement gap? More important, what is the added learning value that a child receives if he attends multiple programs over time – for example, a summer program, then an afterschool program, and then a summer program the following year, and so on? How will a foundation or a community that cares for its children know how multiple education programs, provided in-school and out-of-school, affect the lives of children as they grow? How can out-of-school program staff, teachers, parents, and students benefit from near-real-time sharing of selected demographic, attendance, and academic performance information provided by the schools? These questions are foundational to creating performance management systems that seek to manage toward achieving outcomes (Morino, 2011). The Master Data Sharing Agreement (MDSA) described here seeks to provide the information necessary to answer such questions, all while honoring federal, state, and local regulations and addressing the concerns of school leadership, policymakers, and the general public.

In turn, the process of creating an MDSA raised specific questions that may be of interest to other foundations interested in collective impact. For example, what are the political and technical obstacles to collaboration, particularly in communities where disagreement and distrust are themselves major causes of the achievement gap? How can a workable relationship be built between a private foundation with an agenda for change and a community and a school district with limited time and resources to respond to the foundation’s agenda? What are the major resources needed and milestones to be reached in such negotiations? What lessons can be learned from the process?

We narrate our experience in developing the MDSA and call out important concepts and observations that emerge from it. Chief among these are early integration of local research and data-systems partners and the patience, tolerance for complexity, and trust-building effort necessary to match rigorous research protocols to the practical concerns of families and school officials. We also provide a brief report on the chief practical fruits of the MDSA so far, which include ongoing development of actionable provider- and funder-level daily school attendance reports, and forthcoming academic impact analyses for B2B school-year and summer programs for 2010-11. A significant challenge on the horizon, which the MDSA’s modular framework anticipates, is adaptation to integrate other interested out-of-school-time networks in Grand Rapids, Mich., other schools and school districts, and ultimately other metropolitan geographies.

Developing the Believe 2 Become Initiative

Grand Rapids, Mich., has a storied history of civic and philanthropic works, as chronicled in the documentary The Gift of All: A Community of Givers (Garcia, 2009). Yet the philanthropic tradition has had limited long-term impact on the city’s least privileged citizens. The city remains challenged by grim inner-city poverty accentuated by stubborn racial segregation.

These challenges are manifested in the public school system and its children. The graduation rate in the Grand Rapids Public Schools (GRPS) has hovered around 50 percent for many years. At the same time, families have been fleeing to private, religious, and charter schools, in general leaving the district with relatively fewer well-prepared students to teach. District leadership has been embattled and frustrated by responsibility and expectations disproportionate to the resources available, especially grassroots parental involvement and community support. The academic achievement gap is huge (Figure 1 compares GRPS to a neighboring suburb’s schools). The proportion of students ready for kindergar-

2 See www.believe2become.org

3 Comprehensive schools graduated 76 percent of entering students in 2009, but alternative schools graduated just 33 percent, for an overall average of 52 percent (Grand Rapids Press, 2009).
ten lags by a factor of five (17 percent versus 97 percent), while graduation rates lag by a factor of nearly two (96.7 percent versus 51.8 percent).

We do not seek to excuse the district’s historical failings or the general maladies of state-supported education in the United States, nor do we deny that the district has enjoyed an outpouring of state and city support, nonprofit efforts, individual volunteerism, and philanthropic attention. These and others have formed coalitions and networks that are still helping students today. But there has been little progress on the measure of academic success for large numbers of students. The Doug and Maria DeVos Foundation is seeking to address this lack of progress comprehensively on multiple fronts, including substantial direct support for school reform and teacher-quality improvement. But the foundation also believes that a major infrastructural piece has been missing from all previous efforts: communitywide coordination around actionable academic attendance and achievement data on GRPS students (and, eventually, all students).

At the foundation, the philosophy of giving is deeply rooted in Doug and Maria DeVos’ Christian faith and mirrors the portfolio approach to giving described by Crutchfield, Kania, and Kramer (2011). Giving is motivated by a desire to fulfill obligations and commitment to the trustees’ community, reinforce personal and professional relationships, and make a difference in the world. The family’s approach to giving is best described as “total strategist” in contrast to “charitable bankers” (Connolly, 2008). In line with their longtime commitment to education in the community, the DeVoses and foundation staff developed a strategy aimed at closing the achievement gap for GRPS students, a strategy which became the B2B initiative.

Believe 2 Become is above all a collaborative partnership of organizations and individuals
whose common goal is to close the achievement gap between urban and suburban kids by the year 2020. The initiative involves efforts to support students throughout their entire education lifetime – from “cradle to career.” The initiative is place-based, focusing entirely on four discrete low-income neighborhoods with about 12,000 schoolchildren. It builds on ideas generated by the Harlem Children’s Zone (Tough, 2008; Dobbie & Fryer, 2011) and the federal government’s work in Promise Neighborhoods (e.g., Flay, Biglan, Komro, Wagnenar, & Promise Neighborhoods Research Consortium, 2011; and Komro, Biglan, Flay, & Promise Neighborhoods Research Consortium, 2011). Believe 2 Become was developed in response to recommendations from a panel of experts who are working to create a research infrastructure to support interventions in high-poverty neighborhoods across the country. These recommendations emphasize the critical nature of ongoing measurement and evaluation to both the short-term and long-term success of interventions, in particular, those involving multiple cross-sector collaborators.⁴

From the beginning, the need for measurement was clear. Spurred by Doug DeVos’ clearly stated desire to know the outcomes of education interventions, the foundation team began developing plans for a data-sharing system that will enable funders and stakeholders to track students over time and assess the impact of community efforts on children’s learning, as well as helping parents, teachers, out-of-school-time program staff, and other mentors and service providers monitor the progress of individual students in near-real-time (generally with daily updates). We consider this to be an “electronic village” of sorts. Using this infrastructure, we seek data that will help us answer five primary questions about B2B and its constituent components:

1. Can B2B’s Baby Scholars program increase the rate of school readiness?
2. Can B2B’s after-school programs (including a partnership with the United Way, as well as other interventions) close the achievement gap between children in low-income neighborhoods versus those who aren’t?
3. Can B2B’s Summer Learning Academy program stop summer learning loss?
4. Will B2B’s Neighborhood Engagement effort empower parents and caregivers for local decision making, action, and governance related to their children’s education?
5. Can a place-based intervention change community awareness, expectations, and participation in education for its children?

Believe 2 Become was developed in response to recommendations from a panel of experts who are working to create a research infrastructure to support interventions in high-poverty neighborhoods across the country. These recommendations emphasize the critical nature of ongoing measurement and evaluation to both the short-term and long-term success of interventions, in particular, those involving multiple cross-sector collaborators.

Our ongoing pursuit of real-time (or near-real-time) data collection and use drives us to Internet and database technology. While information technology is not a substitute for human concern and parental commitment, inner-city parents say they need help,⁵ and the systems that are best

---

⁴ See www.promiseneighborhoods.org

⁵ Parents at a B2B community meeting in Grand Rapids, Mich., described their frustration with feeling ill-equipped to help their own children navigate the education system.
equipped to help them depend on technology to stay focused on what’s important and what’s next. The system under construction will begin with providing yesterday’s school attendance data to today’s out-of-school-time program staff, so they can help catch and stop individual absence and truancy trends early. Later efforts will help classroom teachers recruit parental and out-of-school-time provider help using professional assessment tools.

We also believe that shared measurement systems should create the conditions for state-of-the-art, social-scientific impact analysis, to be able to test, in the most rigorous way available, whether a given intervention was indeed responsible for gains or losses observed in served population.

Theoretical and Historical Context for MDSA Development

Strategic Philanthropy

Foundations are shifting toward strategic philanthropy (Frumpkin, 2006; Brest & Harvey, 2008; Crutchfield, Kania, & Kramer, 2011; Tierney & Fleishman, 2011), increasing demand for measurement, evaluation, and data sharing. The strategic approach to giving relies on focused research and planning that aligns with the donor’s core values and concerns and seeks to make a measurable impact in solving a social problem. In his article “Catalytic Philanthropy,” Mark Kramer (2009) identified four major practices that characterize philanthropy that seeks social change as its primary goal: take responsibility for achieving results, mobilize a campaign for change, use all available tools, and create actionable knowledge. The practice of taking responsibility for achieving results implies that donors (on a personal and organizational level) become actively involved in leveraging their influence and knowledge to achieve a desired result.

As Kramer suggests, however, donors who seek large-scale change rarely achieve change by acting alone. In a separate influential article, Kania and Kramer (2011) argue that large-scale impact requires that funders move from an “isolationist” to a “collectivist” mindset and practice; there is little evidence that “isolated impact” can actually achieve large-scale solutions (p. 38). Large-scale solutions require broad coalitions that cross sector lines (government, private, business, nonprofit, philanthropy). Kania and Kramer present five conditions essential to the success of “collective impact”: a common agenda, shared measurement systems, continuous communications, mutually reinforcing activities, and backbone support organizations. Of these conditions, perhaps the most difficult to achieve is shared measurement systems. Significant collaboration and technical know-how are required to allow multiple institutions to share information, to drive better decision making, and to measure impact. Given the difficulty, it is common practice to relegate evaluation to a report at the end of the intervention. The evaluation report often gets lost along with opportunities to learn from past performance and errors.

To deepen the role of evaluation in philanthropy, many foundations and community-change coalitions are pursuing “breakthroughs in shared measurement” (Kramer, Parkhurst, & Vaidyanathan, 2009). These authors believe “we must invest in building the capacity, aligning the efforts, and tracking the performance of the nonprofit sector as a whole through shared measurement processes” (p. 3). We agree. We also believe that shared measurement systems should create the conditions for state-of-the-art, social-scientific impact analysis, to be able to test, in the most rigorous way available, whether a given intervention was indeed responsible for gains or losses observed in the served population. In the context of education, philanthropic and nonprofit leaders focused on improving education outcomes should aspire to measure the learning impact of multiple in-school and out-of-school “learning interventions” on the learning outcomes of children over time,
following a child’s learning trajectory longitudinally. However, this goal requires close attention to all the appropriate parental consents and fidelity to privacy regulations such as the Family Educational Rights and Privacy Act (FERPA).

Believe 2 Become’s major indicator of academic progress is provided by GRPS, which since 2009 has employed the Northwest Evaluation Association’s Measures of Academic Progress (MAP) assessment (Northwest Evaluation Association, 2011). MAP is designed to estimate students’ achievement consistently from kindergarten through graduation. The tests are computer-adaptive, altering the difficulty to match the student’s ability in narrowly defined areas of knowledge and providing exact and reliable estimates of students’ level of learning (Cronin, 2005). Additionally, MAP tests are typically administered at least twice per school year, once in the fall and once in the spring, in order to measure students’ growth during the school year.

This primary measure of outcomes was easy to agree on, as it suited the goal of alignment between the district’s in-school efforts and B2B’s out-of-school efforts. B2B has contracted with Basis Policy Research to conduct state-of-the-art statistical analyses of the academic impact of each B2B program and, eventually, of the cumulative impact of B2B on students in the Hope Zone neighborhoods. The impact analysis measures changes in MAP test scores from fall to spring for school-year programs and from spring to fall for summer programs. The analysis strategy matches B2B participants with nonparticipants from the same sex, school, and grade and, where possible, with a similar learning trajectory in testing period prior to intervention (for example, learning from fall to spring for a summer program). The models also take into account the “dosages” of school attendance and of the B2B program. A significant long-term challenge with which the B2B team is wrestling is whether and how well programs align and should align with the MAP test’s reading and math assessments. A pilot impact analysis of the 2010 Summer Learning Academy was conducted under a temporary data-sharing agreement with GRPS; the results were encouraging and showed the feasibility of the impact analysis process but are not appropriate for public release, partly because MAP testing was also in a pilot phase.7

**Ultimately, a philanthropist seeking results on a particular social problem needs to recognize the inevitability of requiring a measurement infrastructure.**

**Achieving believable results requires supporting the mechanism to measure objectively the desired impact.**

Achieving a data-system integration of this nature represents a major milestone for the third sector and holds significant potential for understanding which interventions work best, singly or in combination with others, to move the proverbial needle of academic achievement. Ultimately, a philanthropist seeking results on a particular social problem needs to recognize the inevitability of requiring a measurement infrastructure. Achieving believable results requires supporting the mechanism to measure objectively the desired impact. Data sharing is a tangible expression of collective impact, requiring close collaboration among multiple entities.

---

6 Additional outcome measures include survey data on satisfaction, engagement in vital behaviors, and academic expectations, as well as qualitative observations of students, parents, and program staff.

7 We thank an anonymous reviewer for pointing out that the impact analysis needs to guard against selection bias generated by the parental consent process, which might otherwise threaten the value of the whole data-sharing system. We will address how to diagnose and, if necessary, compensate for selection bias in our ongoing conversations with GRPS. The B2B research team cannot access data from nonconsenting students, but GRPS personnel may be able to run some diagnostics to detect any severe demographic or academic bias between released and unreleased data. In future, it may even be possible to detect more elusive biases by looking at motivational and family systems measures as the district implements surveys from the Tripod Project (2011).
It is very common for school districts to share academic data with research and evaluation teams, but we are aware of only a few locations where data sharing also extends to out-of-school nonprofit providers and combines research potential across multiple service providers and intervention efforts. One valuable example is the Jefferson County Schools in Louisville, Ky., which we visited as a leading deployment of the nFocus TraxSolutions software (American Youth Policy Forum, 2006). In Louisville, individual student data are shared, but providers look to the school system as the hub of the data-sharing system, with city government playing a key supporting role; foundations are involved primarily as recipients of reports from providers and not as major partners in the data-sharing initiative; research and evaluation efforts are largely internal to the school district.

Another prominent example of shared measurement is the Strive Partnership (2011) in Cincinnati, Ohio, which includes extensive data sharing, including a Learning Partners Dashboard hosted by the Cincinnati Public Schools and developed in collaboration with Microsoft Corporation. The project is far larger and more ambitious than B2B, covering multiple school districts and 300 partner organizations (Kramer, Parkhurst, & Vaidyanathan, 2009). According to an overview video (Cincinnati Public Schools, 2011), the dashboard system allows schools and nonprofits to share data about individual students’ program attendance and involvement.

However, Strive’s narrative around the sharing of individual data focuses almost exclusively on what we describe as “program and site management,” using individual-level data to help improve service to students (see Figure 2). We have not identified a public narrative for Strive around
what we call “research and evaluation,” which uses individual-level data in community-level analyses to identify and understand providers and contexts that achieve the best academic results.

While our effort is considerably more modest in scale, B2B may have a stronger focus on developing capacity for individual- and program-level research and evaluation (a need which then colored the nature of the MDSA we describe below). Believe 2 Become’s data-sharing infrastructure will allow us to:

1. evaluate impact at the individual level,
2. evaluate impact at the service-provider level (which is critical to identifying standout programs),
3. conduct longitudinal analysis of the multiplier effects or diminishing returns from interventions,
4. provide actionable information to sites to address chronic absenteeism, and
5. connect in- and out-of-school curricula through communicating Northwest Evaluation Association assessments and teacher recommendations.

Supporting Concepts From Social Science
Three sets of social-scientific concepts may be helpful in understanding the development of the Master Data Sharing Agreement.

First, the concept of “credible commitments” is an important contribution from political economy. Economist Douglass North (1990) made a critical distinction between organizations and institutions, focusing attention on the role of institutions and the “rules of the game,” where organizations are merely “the players.” In game theory, “talk is cheap”; that is, absent effective institutions, people and organizations can say anything they want and renge later, so promises mean little unless there is some mechanism to make such verbal commitments credible. The more the rules of the game support credible commitments, the lower are the “transaction costs” of negotiation, contract enforcement, and the secure transfer of goods, funds, and ideas. Low transaction costs are critical to economic and political development; high transaction costs cripple a community, directing economic actors’ productive time to dealing with red tape, issuing bribes and “side payments,” and otherwise making more expensive, transitory deals.

Credible commitments by influential parties (such as grantmakers) usually require that they visibly “tie their own hands,” concretely limiting their ability to access valuable resources. In this case, the Doug and Maria DeVos Foundation tied its own hands and placed itself demonstrably at the service of the Grand Rapids Public Schools. Early conversations with the school district focused on a completely open-ended question: “What do you need?” Later actions confirmed a commitment to the entire community’s welfare and to supporting the schools directly and indirectly.

Another key credible commitment and “hand-tying” emerged as the foundation took note of the professional, academic, nonprofit, and community-service reputation of the Community Research Institute (CRI) at Grand Valley State University (GVSU). CRI’s long experience in crafting data-sharing agreements and handling crime data from police departments, housing data from tax assessors, health data from the Kent
County county health department, and similarly sensitive data from other city and county offices – supplemented by a highly visible ideology of openness and sharing data, services, and credit – made it possible for the foundation to step aside and name CRI as the central repository for shared data from GRPS. The foundation’s access to data is thus controlled not only by negotiation with the school district but by GVSU’s academic principles, including the university’s Institutional Review Board, which gets its authority from principles defined by federal legislation.

The data sharing agreement might have been concluded sooner had fewer negotiators participated and had fewer cycles of review taken place, but important observations would have been overlooked and important approvals might not have been granted.

Buchanan and Tullock recognized this type of cost and represented it with a cost curve that increases as the number of people that decision rules require to affirm a decision increases; by this measure alone, dictatorship is cheap and consensus is expensive. But Buchanan and Tullock also recognized another curve, the cost of exclusion from decisionmaking. Those who are excluded from a decisionmaking process run increased risk that the enfranchised decision makers will confiscate their goods or otherwise compromise the excluded party’s interests; there is also a great risk that excluded people will refuse to supply needed information or to comply with the decisions made. By the measure of exclusion costs, consensus is cheap and dictatorship is expensive. Negotiators thus will make collective decisions most efficiently when decision costs and exclusion costs are jointly minimized – that is, the cost curve is generally U-shaped, and careful attention to decision and exclusion costs is necessary for optimal results.

For Believe 2 Become, it was important to include a wide array of voices in the discussion, including different internal constituencies within the public school district, the foundation, the research and evaluation team, and the technical team. Decision costs were minimized by delegating most of the work to a small, weekly working group of two to six people from GRPS, the data managers at CRI, the foundation, and the research team. But exclusion costs were minimized through frequent wider consultations, including conversations with GRPS leadership and other important constituencies. The data sharing agreement might have been concluded sooner had fewer negotiators participated and had fewer cycles of review taken place, but important observations would have been overlooked and important approvals might not have been granted.

Third, interpersonal trust and “social capital” are both important concepts that are strongly interrelated with transaction costs, decision costs, and credible commitments. Robert Putnam’s work on social capital in *Bowling Alone* (2000) is well known and influential even outside of academic circles, but it is still rare to hear managers and
change agents express a clear priority for building social capital among parties who need to cooperate. Social capital consists of productive, industrial-strength social relationships that churn out social goods the way a factory produces manufactured goods. We may have an intuitive sense that strong social relationships matter, but we don’t often think intentionally about fostering “norms of reciprocity” (Putnam, Leonardi, & Nanetti, 1993). There is no social capital without norms of reciprocity and trust. These take intentional and patient work to grow.

In his work, Putnam credits Ross Gittell and Avis Vidal with defining two key variations of social capital: bonding social capital and bridging social capital. Bonding refers to the value created from social networks of typically homogenous groups, which delivers unmistakable benefits to people in those groups but can actually detract from the greater good. Bridging social capital is created from social networks of heterogeneous groups of people, such as the bowling teams that inspired the title of Putnam’s book. Putnam and others believe that unlike bonding social capital, bridging social capital has the capacity to improve society as a whole: through governments, institutions, and communities.

In the work of brokering the MDSA between the public school district and private program providers, the staff of the Doug and Maria DeVos Foundation found it essential to serve as “bridge-building champions.” It was not enough merely to interact on a professional and cerebral level; it was necessary to engage fully as partners in the fight for the children’s future. As foundation staff members have championed the cause of the children within social networks, they have built trust by listening, learning, and embracing shared values and goals. The foundation has also sponsored numerous events including GRPS and other partners, including the coalition-building “field trip” to Louisville, Ky.

In pursuit of reciprocity and trust, the data-sharing team has repeatedly sought to share work and offer each other specific support to promote a general atmosphere of generosity and teamwork. In seeking to build trust through inter-group contact, the foundation has approached the school district’s leadership primarily as an equal partner providing assistance, “coming alongside” rather than acting as a command-and-control operation. The foundation, GRPS, and CRI leadership are each ethnically diverse groups, yet common professional and personal experiences and deeply shared values trump superficial differences in roles and background. Culturally competent and diverse foundation staff also contribute to a greater understanding of how communities of color respond and react to research protocols that can appear to be intrusive and exploitative.

Laying the Groundwork for B2B and the MDSA

Our focus in this article is on the creation of a Master Data Sharing Agreement with the Grand Rapids Public Schools and its potential wider implications as a model for our metropolis and others. But that work can be well understood only in the context of the extended, complex efforts of the foundation since first embarking on this effort in 2006. Major steps and achievements to date include the following:

1. **Building a team.** Drawing on its existing network of philanthropic connections and trusted relationships, the foundation began in 2006 to build an internal leadership team whose qualifications included cultural competence for inner city work and comfort with research methods and data systems.

2. **Shifting to strategic philanthropy.** Working with the new staff, the foundation’s leadership deliberately and cautiously shifted their mental model of philanthropy toward a more strategic, research-driven approach. Extensive conversations occurred with Doug and Maria DeVos and with external experts. An early research effort in 2006-07 inquired into the social-service capacity of local religious congregations (Hernández, Carlson, Medeiros-Ward, Stek, & Verspoor, 2008). The team was particularly aided by recent literature on systems change and catalytic philanthropy reviewed above.
3. **Identifying a goal and a geography.** The foundation team, led by its trustees, identified a single primary goal – educational readiness for life, college, and work for all children at age 18 – and a tightly defined geography in which to pursue that goal. All related grants and intervention efforts were to be judged by how well they contributed to the achievement of this goal in this space. Four “Hope Zones,” built around nine attendance areas of poorly performing public elementary schools, were identified. The 2010 Census for the Hope Zones counted a population of 37,200 people, including about 12,300 under the age of 18; 35.6 percent of the population was Black or African American and 36.1 percent was Hispanic or Latino (Community Research Institute, 2011b).

4. **Identifying vital behaviors.** Together, the foundation staff read the book *Influencer: The Power to Change Anything* (Patterson, Grenny, Maxfield, McMillan, & Switzler, 2007), which maps out a highly intentional, strategic approach to changing human behavior for the better and offers concrete examples, such as the elimination of the guinea worm parasite in Africa and the successful social reintegration of released prisoners in California. Using `Influencer`'s logic and terminology, the foundation identified five “vital behaviors” for students that contribute to educational success: 1) reading at least 20 minutes daily, 2) attending school consistently, 3) doing homework, 4) getting help when needed, and 5) affirming oneself and receiving parental affirmation – thus the name “Believe 2 Become.” The B2B program focuses on encouraging and supporting these five behaviors through multiple, mutually reinforcing channels, particularly the neighborhood engagement strategy. Among other tasks, B2B evaluation data systems are intended to facilitate evaluation of whether specific interventions are increasing self-reported and observed engagement in the vital behaviors.

5. ** Recruiting a national support network.** The foundation consulted with and recruited key national advisors and mentors to help identify tested, successful strategies and to bring their expertise to train local leadership. Key partners include the Institute for Learning (IFL) at the University of Pittsburgh; the National Summer Learning Association (NSLA) in Baltimore, Md.; the National Community Development Institute (NCDI) in Oakland, Calif.; and most recently the Children’s Learning Institute in Houston, Texas.

6. ** Recruiting a local research and evaluation team.** The foundation recruited and equipped a broad local research and evaluation team, with expertise in evaluating philanthropic efforts, building data systems, collecting survey data, and conducting education impact analyses. Partners include the Grand Valley State University Community Research Institute, a unit of the Dorothy A. Johnson Center for Philanthropy, which publishes *The Foundation Review*; the Calvin College Center for Social Research; and Basis Policy Research, a national education statistics consulting firm with a partner resident in Grand Rapids, Mich. CRI plays a key dual role through its research capacity and its longstanding role as a data integrator and broker for government data sources such as police and property taxes.

7. ** Building a service coalition.** Foundation staff have built and sustained relationships with a wide array of community partners, including GRPS, the Heart of West Michigan United Way, the W. K. Kellogg Foundation, the Student Advancement Foundation (which supports GRPS), and dozens of service-provider partners and grantees. This network continues to expand and is beginning to show the potential to take on a life of its own.

8. **Selecting a data-systems provider.** The team investigated alternatives and selected a lead data-systems vendor, nFocus Software. Regular consultations and conference calls have led to a collaborative development process in which the ambitious requirements of the foundation’s agenda are helping to drive
development of new features and applications by nFocus. An important dimension of this collaboration involved negotiating the division of labor between nFocus and CRI, where the former focuses on providing services to end users at service-provider organizations and the latter handles data transfer from within community-data sources to the research and evaluation team.

9. Designing and launching programs. The community team designed, planned, and, in 2010, launched a series of programs to “insulate the educational pipeline from cradle to career” for students in the four Hope Zones, including early childhood programs, summer learning programs, multiple after-school programs, and dropout prevention programs. All of these programs are backed by a sustained neighborhood engagement team and a communications team, to tie the programs together and to build grass-roots involvement, especially among the parents of inner-city students. This collection of programs makes up the Believe 2 Become initiative. A supporting initiative, Gatherings of Hope, recruits and equips religious congregations to participate in B2B and to undertake further education interventions.8

10. Negotiating the MDSA. In spring 2011, GRPS Superintendent Bernard Taylor signed a Master Data Sharing Agreement with the foundation and CRI at Grand Valley State University. The agreement permits data to flow from the district through CRI and nFocus to out-of-school-time providers, with parental consent and in compliance with FERPA. Providers will be able to see recent school attendance alongside attendance in their own program, as well as standardized MAP test scores.

The Master Data Sharing Agreement

The data sharing agreement came to fruition through a long process of collaboration and negotiation. This section describes the process. Components of the agreement itself can be found in Appendix A, and the agreement itself is online (Community Research Institute, 2011a).

The data-sharing negotiations have involved a small working group in consultation with a much larger network of leaders and organizations. The team’s goal was to create a working data system and corresponding governance process to provide GRPS attendance and academic performance data for out-of-school-time (OST) providers to improve service to students and for the research team to use in evaluating the program’s impact. Important components included allowing OST staff to monitor students’ attendance at GRPS and to investigate or intervene immediately when absences appear so as to prevent chronic absenteeism (Chang, 2008), and allowing the research team’s education-assessment expert to analyze pre- and post-B2B program standardized test scores for Hope-Zone-resident GRPS students, including nonparticipants as a control group.

The anticipated linear development process quickly (and predictably, in hindsight) evolved into an iterative process of discovery, design, editing, and testing that stretched into the spring of 2011; the process took more than nine months.

Two organizations were primarily concerned: GRPS and CRI. The Doug and Marie DeVos Foundation appears in the agreement only as a third party receiving data from CRI through the agreement. A fourth party of importance was nFocus Software, whose TraxSolutions system now delivers data to and from OST providers. Research team members from Basis Policy Research and Calvin College are accredited and served through Grand Valley and CRI. Out-of-school-time providers would receive data through nFocus and sign FERPA agreements to handle GRPS data with care for student and family privacy.

---

8 See www.believe2become.org and www.gatheringsofhope.org for sample web communications.
Initial plans called for the quick adaptation of an existing CRI data-sharing agreement template for use with GRPS in the space of three months in the late summer and early fall of 2010. However, the anticipated linear development process quickly (and predictably, in hindsight) evolved into an iterative process of discovery, design, editing, and testing that stretched into the spring of 2011; the process took more than nine months. While design went on, a temporary data-sharing agreement was developed and approved to allow the limited release of some data for research team use from the 2010 pilot of the B2B Summer Learning Academy. The temporary agreement proved extremely valuable in allowing the team to begin testing systems and discovering problems that the agreement needed to address. It also reinforced the credible commitment from GRPS to continue the process in good faith, an important act of reciprocation that set the stage for the success of the MDSA negotiations.

The temporary agreement proved extremely valuable in allowing the team to begin testing systems and discovering problems that the agreement needed to address.

There were several key obstacles and breakthroughs in the negotiation process:

1. **Creating a modular document.** The expansive nature of B2B, combined with the need for a quick, limited scope agreement, led to the radical generalization and modularization of the main document, so that future expansions and developments can take place primarily as minor revisions to the agreement’s attachments and new research proposals through an existing GRPS review process.

2. **Creating a data access matrix for fields.** Early in fall 2010, CRI received a matrix of all available GRPS data fields and created a matrix (now incarnate as Attachment C of the agreement) that showed which fields would be available to which parties to the agreement. This document became an early “credible commitment,” an important source of reassurance for GRPS that the agreement would carefully and explicitly limit or prohibit exposure of certain fields. Not all of the data fields that the research team wanted were agreed upon. Researchers by nature desire to have as much data as possible; in the end, the motto “don’t let the perfect be the enemy of the good” took precedence. Both parties agree to take up remaining issues later.

3. **Defining the scope of data access for records.** Predictably, the research team wanted to maximize the size of the available control group by drawing as many de-identified student records as possible. GRPS leaders were understandably concerned that the scope of evaluation might expand into a general, unaccountable evaluation of the entire district’s students. Control-group expansion would increase FERPA-regulated risks to student data and risked exposing the district’s data to critics seeking political advantage. After discussions and calculations clarified the numbers of students available, we arrived at the compromise that GRPS would share data with B2B only for students resident in the geographically limited Hope Zones, with carefully limited exceptions to provide control groups with sufficient analytical power.

4. **Narrowing the scope of inquiry.** Language was also developed for the MDSA that explicitly prohibits data mining by the research team for any purpose other than within-school comparisons of B2B participants and nonparticipants (item 7d on page 5 of the MDSA) and that gives GRPS a right of first review prior to dissemination of all research results (item 11 on page 5).

5. **Clarifying modes of data access.** The team eventually recognized the need for a thorough and explicit conceptual division between data released narrowly for daily “program
and site management” as opposed to broad, large releases for “research and evaluation.” Program and site management covers the limited exposure, through the nFocus security model, of selected fields of identified student data to out-of-school-time providers and B2B managers on a strictly need-to-know basis. By contrast, research and evaluation covers only the release by CRI’s data managers of more comprehensive but fully de-identified data to the research team. The two types of data are handled differently (see Figure 2, a diagram that has become another important touchstone of conversation and source of credible commitment). Prior to this clarification, discussion was so full of constant misunderstandings and clarifications that it is unlikely we’d have had the patience to continue productively without the small group size (so “decision costs” were low compared to a large body) and the sense of mutual obligation (the “social capital”) developed among the team members.

6. **Supplying personnel support to GRPS.** Another important milestone was the recognition that all of this data handling takes a lot of time from skilled labor. Who would do it all? Early in the process, the foundation had promised funding to support a new, full-time GRPS employee to aid in meeting the requirements of the data-sharing and community-data-system support process. In addition, CRI demonstrated convincingly to GRPS, from historical projects and technical specifications, that its organization had a strong internal firewall between data-system management personnel and research and evaluation personnel; indeed, the existence of this firewall is a major professional obligation of CRI that supports its primary mission in the community. This further credible commitment resulted in GRPS’ agreement to allow CRI’s database administrator to function as a virtual school-district employee, a sort of “sovereign neutral territory” between GRPS, nFocus, and the research team. She was screened, trained, and admitted on a limited basis to handle GRPS-identified data, so that de-identification and preparation of data for the research team does not fall on the shoulders of the school district’s IT team.

7. **Paying special attention to consent.** The design of consent forms and conducting FERPA training for providers are critical elements in building trust and managing risk. Unfortunately, separate consent forms are required for release of student data to providers and to GVSU for research. Efforts to consolidate these two forms ran into FERPA and GVSU Institutional Review Board concerns. Keep forms simple: Our first versions were bulletproof in wording but difficult to interpret and implement for parents and for us. For example, if a parent signs but fails to initial one item or crosses out a sentence, does that imply lack of consent? Revised consent forms – recently approved and implemented – simplify the task for parents, providers, and the evaluation team. At training events held prior to each major B2B intervention, CRI staff give providers emphatic instructions about standards for student confidentiality and collect signed FERPA forms from provider staff (attachment I of the MDSA).

8. **Iterating patiently with legal advice.** CRI staff repeatedly expanded, revised, and resubmitted the document until it met everyone’s specifications, including legal counsel at GRPS, GVSU, the DeVos Foundation, and the Human Research Review Committee at GVSU. Foundation staff were similarly tireless in reminding us of the ultimate value of the foundation’s work for kids, keeping the data-sharing issue on the agenda, and engaging in shuttle diplomacy at every level when issues arose.

In summary, the negotiation process reflected a series of milestones, each of which benefited from parties making credible commitments to build a low-transaction-cost system, in an efficient “calculus of consent” balance between decision and exclusion costs, and drawing on carefully fostered stores of social capital.
The complex nonlinearity of the MDSA development process is summarized and illustrated in Figure 3.

Present and Future Fruits of the MDSA
The MDSA is beginning to yield results. On the program and site management side, school attendance data began flowing daily to CRI and nFocus in summer 2011, and nFocus developed and deployed an early prototype of an actionable side-by-side school and OST attendance report that was available in limited fashion to out-of-school-time providers during the 2011 Summer Learning Academy. Work is ongoing to improve data quality and the actionability of the report, including bird’s eye multisite views for B2B managers. On the research and evaluation side, GRPS has released de-identified demographic data for an impact analysis of B2B-sponsored sites in the United Way’s Schools of Hope after-school reading and literacy program for 2010-2011, including NWEA MAP scores for fall 2010 and spring 2011 for Schools of Hope participants and a comparable control group. MAP results for fall 2011 are due in a few weeks, at which time data will become available for the 2011 Summer Learning Academy.

The future potential fruits of the MDSA also pose significant but surmountable challenges. The MDSA and research and evaluation infrastructure is attractive to other networks of OST providers in Grand Rapids; negotiations will involve adapting the agreement’s modular structure to extend it to additional networks and geographies while maintaining appropriate firewalls for student data and sensitive evaluation results. We are also eager to “connect the dots” (Culhane et al., 2010) by integrating data from government, health systems and other sources to enrich the quality and effectiveness of our service to children.

Practical Implications for Foundations
We are obviously very enthusiastic about the achievement of the MDSA, though we must control our enthusiasm until we can show conclusive-
ly that the resulting capacity supports rigorous program evaluation and effective redesign and results. Based on wide-ranging conversations, we believe it positions Grand Rapids to leapfrog from a trailing position to a leading position in administrative and research capacity, with growing ability to track student progress longitudinally from “cradle to career” while carefully respecting families’ rights and communicating a teamwork-based approach to data analysis.

Along the way, we have gleaned some key observations that may serve other foundations with similar ambitions:

1. **Plan big enough.** The job is big; plan accordingly, especially when the tide of inter-organizational trust is at low ebb. Budget for complexity and generosity, and be patient. B2B’s three-year budget for data systems support is roughly $1 million, covering central services and 60 provider site licenses from nFocus Software, a full-time support staff member at GRPS, and substantial data-systems and technical personnel at CRI. The scope of the foundation’s commitment is itself a major component in building partners’ confidence that the project is here to stay and worthy of the investment of time, energy, and ingenuity.

2. **Think about when to tie your own hands.** Think carefully about how you may increase your power and effectiveness by ostentatiously and sincerely tying your hands by limiting your influence and direct access to data. This advice may be comfortable for foundations used to sponsoring activities at arms’ length; if it’s not at least a little uncomfortable for you, it may be important to find out which of your foundation’s grantees, contractors, or other proxies it would make uncomfortable and hand it on to them as firm advice.

3. **Be a champion of collaboration,** or find one in the community. Establishing a data-sharing infrastructure significantly benefits from the role of a champion who has the respect, relationships, knowledge, and vision for the benefits of such a project. In our context, a foundation staff member played the role of champion, making connections, trouble shooting, negotiating with the data-system provider, scheduling meetings, building bridges between organizations, holding one-on-one meetings – and generally ensuring that the process continued moving forward.

4. **Find a strong data-system partner or partners.** Any community interested in pushing data out to on-site service providers or in conducting longitudinal impact analysis will have to address the selection or development of a data system. Our selection of nFocus Software’s TraxSolutions platform has been of significant value to our work. There are challenges, largely due to the unique nature of our research team’s standards, the need for community-wide sharing of individual-level data, and the coordinated and mutually reinforcing nature of our grantmaking approach.

5. **Have a research team in place at the beginning of the process.** Since evaluation research was a major reason for developing the Master Data Sharing Agreement, it was extremely valuable to have the lead researcher that would be conducting the impact evaluation to specify the data requirements. In addition, the researchers helped to outline the analytical strategy as well as the requirements for the control groups. Having them participate in the data sharing dialogue and in the MDSA negotiations helped to bring credibility to the process. It may be tempting to situate evaluation in the school district. However, while larger school districts may have greater capacity to conduct rigorous research than GRPS currently does, few school district research

---

9 This budget does not include the evaluation team and related costs; CRI maintains an internal firewall between processes providing data systems and staff conducting research.
offices will have the flexibility and motivation to conduct the communitywide, comprehensive research required for an expansive community-change initiative. The research infrastructure should be placed at the service of the entire community, not just the school district; the honest-broker role of the research institution may be critical to facilitating this level of sharing.

6. **Find, recruit, or develop a data custodian** similar to CRI, which has a local physical presence and evidence of commitment to the community you seek to serve. While it may be desirable to import national or regional expertise, we believe the local presence and relationships of an academic, technically competent partner is vital to the credibility and sustainability of the long-term project of evidence-driven philanthropy.

7. **Build trust and retain key personnel to protect social capital.** Data-sharing efforts require a high level of trust to be built as a continual process. Trust is the glue for sustaining any data-sharing efforts and agreements. Have relationships and trust been built with the key organizational leaders who will have the final say in approving any agreement? What trust-building strategies have been put in place to enhance the likelihood of a successful negotiation?

8. **Learn from your growing network.** CRI and the foundation are convening occasional Communities of Practice meetings around Believe 2 Become subjects; these are important opportunities to recruit and include a wide array of players and to look at our work from a bird’s eye perspective.

9. **Plan to manage risk.** There are still significant risks to programs’ sustainability involved in this degree of data sharing. Be prepared (or ensure your data custodian is prepared) to monitor the system for potential abuses and to handle crises quickly. The B2B team includes both an experienced and vigilant data custodian at CRI and a communications team with experience in crisis management. CRI’s historical reputation for handling data sharing and its relationships with city and county offices have allowed the foundation to move quickly through some of these risk-management concerns. To date, the school district’s confidence in the MDSA has been enhanced by CRI’s rapid and transparent response to minor infractions of data-security standards. Think carefully about cultivating advance relationships with policymakers to inform them about the value of the work and develop a crisis response plan for when problems do occur.

**Conclusion**

Recently, Mario Morino (2011) has eloquently and forcefully argued for the need of nonprofits and philanthropic community to embrace a management to outcomes framework (see www.leapofreason.org). Such a framework is predicated on data management systems that provide near-real-time monitoring capabilities and the capacity to conduct impact analysis to ascertain whether people’s lives are measurably better as a result of our collective efforts. A Master Data Sharing Agreement (MDSA) can be a foundational resource for any organizational or philanthropic effort that seeks to manage to outcomes. In our limited but growing experience, it is exhilarating when our partners in the B2B initiative need not assume but can actually see how our individual and collective efforts are making a real measurable difference. We look forward to learning more
from our peers and to doing more to integrate our discoveries with those of other philanthropic efforts.

Appendix A: Master Data-Sharing Agreement (MSDA) document details

The MDSA (Community Research Institute, 2011a) has the following components. These sections emerged as responses to specific legal, procedural, or technical concerns in the course of the negotiations.

- **Main document.** The main body of the agreement defines terms, roles, and responsibilities; names key contacts; defines permissible use of the data using the key distinction between “program and site management” and “research and evaluation”; specifies the school district’s right of review and other warranties and indemnifications; and extensively references attachments and other documents.

- **Attachment A** defines “role-based access controls” to clarify who may see what at the organizational level.

- **Attachment B** is an agreement not to disclose confidential data, and is signed by all data recipients (further defined and discussed in Attachment E).

- **Attachment C** is the matrix of data field sources and destinations; this framework was an important early milestone for negotiations.

- **Attachment D** is a flexible, frequently updated attachment that names all current Believe 2 Become service providers and research partners.

- **Attachment E** describes “standard protocols and procedures for the use, management, and custodial responsibilities for identifiable and linked primary data sets and other data sources eligible for linkage,” defining important legal and technical terms, roles (including “data steward,” “database administrator,” “program/contract administrator,” “teacher,” and “site coordinator”), safeguards, regulatory compliance practices, and handling of any alleged violations.

- **Attachment F** is a seasonally updated GRPS consent form for parents to sign to release data for program and site-management purposes.

- **Attachment G** is the research request form that the research team and CRI must submit to GRPS for each new release of de-identified data.

- **Attachment H** is a FERPA confidentiality-protection agreement signed by B2B intermediaries who administer grants to out-of-school-time providers (currently including the Foundation and the Heart of West Michigan United Way) prior to B2B program initiation.

- **Attachment I** is the same FERPA agreement for the OST providers’ staff.

- **Attachment J** is a parental consent form for GVSU that allows CRI to release de-identified student data to the research team.

References


assessment to achieve success. *Grantmakers in the Arts Reader, 19*(2).


**Strive Partnership.** (2011). *Strive together: Every child, every step of the way, cradle to career.* Retrieved from...
from http://www.strivetogether.org/.


Neil E. Carlson, Ph.D., is Director of the Center for Social Research at Calvin College. Correspondence concerning this article should be addressed to Neil Carlson, Calvin College, Center for Social Research, 3201 Burton Street SE, Grand Rapids, MI 49546 (email: neil.carlson@calvin.edu).

Edwin Hernández, Ph.D., is Senior Program Officer, Research, Education, and Congregational Initiatives for the DeVos Family Foundations.

Chaná Edmond-Verley, M.S., is Senior Program Officer, Community Initiatives for the DeVos Family Foundations.

Gustavo Rotondaro, M.U.P.D.D., is Interim Director of the Community Research Institute at Grand Valley State University.

Eleibny Feliz-Santana, M.Sc., is Database and System Security Administrator at the Community Research Institute at Grand Valley State University.

Susan Heynig, B.A., is Director of Student Information Systems at Grand Rapids Public Schools.