

# GE Foundation Developing Futures™ in Education

Collaboration in Modernizing  
the IT System in the School  
District of the City of Erie

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GE Foundation



## In a nutshell

The School District of the City of Erie (SDCE) has not had the benefit of a modern information technology (IT) system. Almost 20 years into standards-based reform and more than six years since the enactment of the No Child Left Behind Act of 2001 (NCLB), SDCE has found itself unable to respond to the basic information needs of administrators, teachers, parents, and the community. The need to modernize their IT system was a highlight of the district's first grant application to the GE Foundation Developing Futures™ in Education. Within seven months, the SDCE completed the start-up phase with Board approval for implementation of a new IT system. This document tells the story of what happened, how it happened, and how SDCE plans to use the IT system. It concludes by drawing lessons and implications for the broader national effort of the GE Foundation to promote systems change in its grantee districts.

## What Happened?

The SDCE has planned and begun implementation of a new IT system. In launching the project, SDCE developed a collaborative committee process that involves multiple stakeholders. The vision of SDCE is to "become the first *world-class* urban school district in the United States." This district's leaders have long recognized the value of data to reaching that lofty vision.

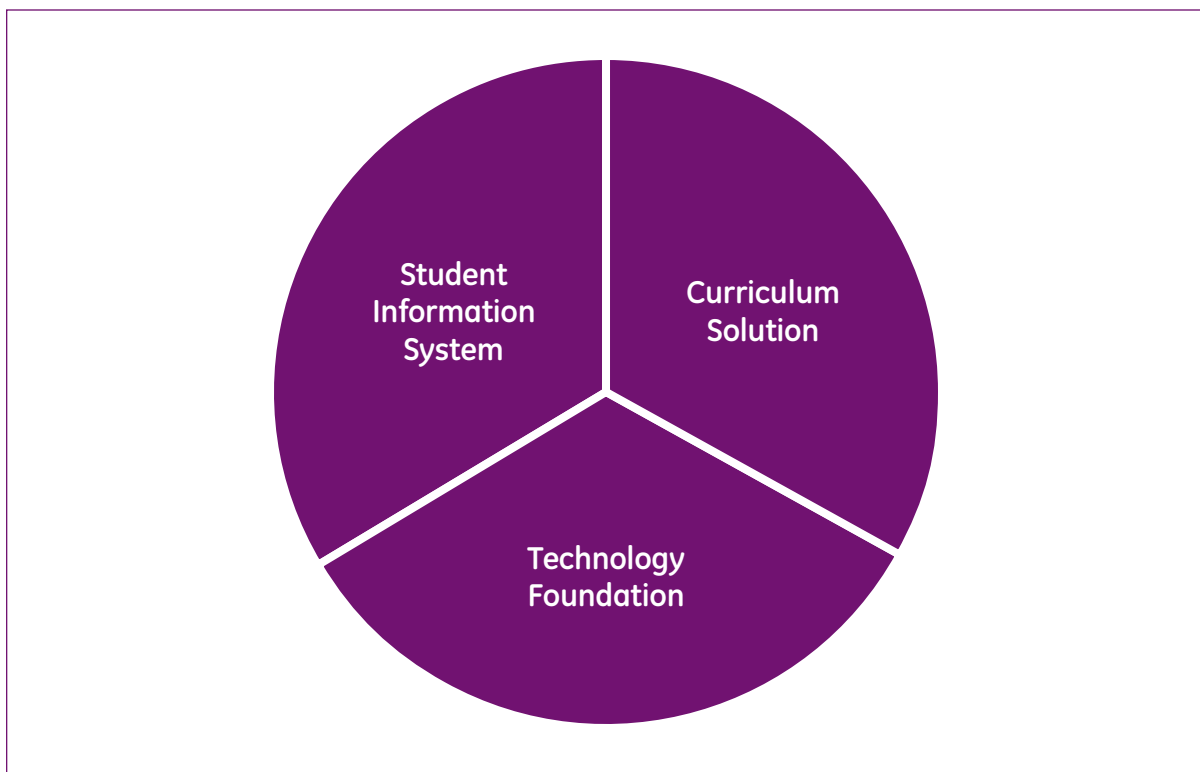
Currently, all requests for data, whether they are for assessment, transcript, enrollment, attendance, or other student data, proceed through the IT department. Teachers and building administrators have no direct online access to data that are generally regarded as essential to leading effective schools and to improving teaching and learning in individual classrooms. Many critical administrative functions that rely on student data, such as student registration, are done by hand in the IT department. Student registration, for example, takes 20 days to complete under the current system.

The GE Foundation awarded SDCE a grant of \$15 million in April 2007. In May, the district established a Technology Committee (TC) of some 30 people, including district leaders, principals, teachers, central office staff, leaders and programmers in the IT department, and IT professionals from GE Transportation, including the chief information officer (CIO). The grant program managers (a principal, a teacher, and a current GE employee) co-lead the committee during its early phase. The superintendent and grant project managers purposely organized the committee to include a range of stakeholder groups representing different perspectives, levels of expertise, and a variety of preconceptions. They charged the committee with developing an IT vision, researching alternative solutions, reaching consensus, and recommending a course of action.

During the spring and summer of 2007, as the TC began its work, it focused on defining the problem and completing some high-visibility, short-term deliverables. The aim was to demonstrate to different stakeholder groups that this effort to improve the district's IT system was different from prior attempts and would in fact succeed. For example, the TC saw to it that the Web site was updated for the current school year, as the district's Web site was out of date and no longer had accurate descriptive information. About 100 teachers were still without computer access in their classrooms. The TC used GE Foundation grant funds to purchase laptops for

each of these teachers. Neither of these changes was, by itself, particularly innovative or unique to urban school systems. Many urban school districts have up-to-date Web sites and computers for every teacher. But in Erie, each step was seen as a concrete change that helped to reset expectations about what could be accomplished. Starting in the late summer and moving into the fall, the TC developed a process for selecting a vendor to provide a modern data system, including reviewing vendor proposals. By early fall, a new IT project manager was appointed to facilitate the work of the TC. The new IT project leader worked directly with the director of Data Services and the GE program managers who remained active participants on the TC.

In the course of their work, the TC collectively realized that the IT issue facing SDCE went beyond simply a new Student Information System (SIS). Instead, the problem was threefold (see Exhibit 1). To meet its charge, the TC discovered that SDCE needed not only a new SIS but also a curriculum solution and substantial improvements to its technology foundation.



**Exhibit 1: SDCE information technology needs**

Improvements to the technology foundation include infrastructure upgrades (e.g., hardware upgrades, improved tracking of user support requests), improved Web site services (e.g., dedicated Web master, renewed vision, proactive planning), professional development and training (e.g., training for all stakeholders, ongoing proactive planning, acceptable use policy), and staffing and support (e.g., identify best practices, career ladders, policy adherence).

Curricula in SDCE have been mapped to state standards but are not accessible electronically. This format makes assessment, analysis, training, and correlation with student data burdensome, labor-intensive, time-consuming, and expensive—generally prohibitively so. The TC identified a vision to move the district’s curricula to a Web-based platform. It formed a subcommittee to research options and recommended the purchase of Performance Pathways. The board approved this purchase in March 2008.

With regard to the SIS, the TC considered four possible solutions to the universally acknowledged problem of improving access to student data. The first option was to modify the existing system. The existing system is mainframe-based, programmed in COBOL, and created in-house over the past 35 years. Although there appears to have been some support from the IT department for a solution that would have created a Web-based front end to the current system, there was no other support for it. While considered seriously, that solution was quickly deemed infeasible. The second option considered was to build a new in-house SIS. This option quickly fell by the wayside, as no one on the TC seemed in favor of it. The third option was to enter into a long-term contract with a provider who would provide a “hosted” solution. This option was rejected out of concern about the long-term cost, reliance on a single provider, and data security. The last option considered was to purchase an off-the-shelf package solution, customized to the needs of SDCE. This option was selected because the consensus was that it would be the fastest and most efficient path to a more robust, modern, SIS.

Using a structured selection process, the TC identified, reviewed, interviewed, and rated several potential SIS package vendors. The selection process required attention to the data gathered through structured interviews and rubric-based ratings of potential vendors. In this way, the process reinforced the focus on using objective data to make decisions and consequently secure buy-in from the disparate stakeholders that comprised the TC. The TC narrowed the choice of vendors to two and, by the end of November, unanimously selected one to recommend to the Board of School Directors. The Board approved the proposal at a special meeting held on December 13.

## How Did It Happen?

These early, quick accomplishments reflect tremendous progress, given the history of similar prior efforts in SDCE and the prevailing district culture and context. Many efforts have preceded the work currently sponsored by the GE Foundation. What, then, explains how this effort succeeded so quickly whereas others have failed? Several factors have emerged as likely explanations: high readiness/demand for change; external support, facilitation, and resources; active collaboration; and strong leadership.

### ***High Readiness and Demand for Change***

The system was ready for and demanded change. The existing student data system in Erie was designed at and for a time when only a few central office administrators needed data. For those needs and with the available technology, the existing system was a reasonable fit. But such a system no longer meets the needs of SDCE.

Rather than a few central office users needing limited data at a few, certain times each year, more than a thousand users need real-time data at their fingertips every day. This need is in no small measure due to the demands placed on principals and the central office by NCLB as well as the Commonwealth of Pennsylvania's accountability system. The profession of teaching has changed as well. Teachers need and demand better access to more data about their students. Not only were users and would-be users ready for change, but a level of frustration with the existing system built up over the years as needs changed. While the need is difficult to quantify, users clearly have become exasperated over having to wait several days for a list of teachers, for example, or teachers have not known what they will be teaching until the first day of school.<sup>1</sup>

### ***External Support, Facilitation, and Resources***

External support, facilitation of the work, and human and financial resources were essential ingredients in the success of the start-up phase. Past efforts to modernize the district's IT system had been driven entirely from within the district. The current effort, while initiated by the superintendent, was fully owned from the start by the Erie Education Association (EEA) and is facilitated by the GE program managers, one of whom is a full-time employee of GE Transportation. The work was also fully supported (in human and monetary terms) by the GE Foundation. The district's IT department, as well, had recognized for some time the need for modernization to address the data access issues. The district, however, did not have sufficient discretionary resources to devote to the project until the award of the GE Foundation grant.

As noted above, a new IT project manager was hired in the fall of 2007. This hiring was a critical turning point. GE Transportation had supported the work throughout the spring and summer at the highest levels, including the direct involvement of both the chief executive officer (CEO) and CIO. The new IT project manager, a former GE Transportation employee now working as a consultant, brought numerous strengths to the project, not the least of which was mastery of GE facilitation processes and tools. One important tool was the meticulous way in which each meeting was documented in written (e-mail) notes that followed the prepared agenda and noted discussion issues, decisions, and next steps. These notes served multiple purposes. Obviously, they provided a written record of the meetings. More importantly, the committee used them as a way to ensure clear and common understandings of what the TC had discussed and decided. Each committee member was given the opportunity to submit revisions, questions, and comments about the notes. This opportunity to "correct" the record served the vital function of enabling the committee to move forward without repeated discussion of the same issues.

### ***Active Collaboration***

As important as the careful and open documentation of the TC meetings were, the IT project manager also fostered and developed a culture of active collaboration among members. Recall that the TC was intended to represent a variety of stakeholders, interests, and opinions. The committee included central office administrators,

<sup>1</sup> Not knowing teaching assignments until the first day is at least partly a principals' leadership problem. It is clear, however, that the meme in SDCE is that the problem is largely an IT issue. Fairly or not, the IT department is held responsible for the situation. This example illustrates the larger point of frustration and demand for change.

principals, teachers, counselors, GE staff, and other district personnel. As in most districts, such a diverse group of professionals rarely meets to work as equals. The cultural norms of most districts, including Erie, are hierarchical. Thus, such a group would not—indeed, could not—proceed in an open, participative, collegial, collaborative manner. The status norms would suppress open dialog and create tension and frustration among members. Ultimately, the point of having diverse membership would be defeated by the very diversity of membership because only the district administrators, at best, would “own” the ultimate solution. Consequently, the facilitation of the TC was critically important to the outcome. To that end, the IT project manager worked continuously and effectively to create a trusting atmosphere with open communication.

This result was achieved in multiple ways. First, the careful notes of each meeting and the opportunity to revise the notes were introduced, as discussed above. Second, the IT project manager and GE volunteers modeled open, professional dialog for the committee. Committee members saw the project manager and GE experts disagree and debate, often vigorously, various issues, but the others saw them debate in a professional, objective, data-driven way. Third, the IT project manager made a point of actively soliciting the opinions of all TC members. Not only were TC members asked to share their opinions, they were also probed to ask why they held that opinion and what data supported it. An additional challenge was the high level of emotion and personal investment members were accustomed to bring to any committee meeting. More challenging, TC members were more accustomed to venting emotions *outside* the meetings. These feelings and emotions, which ran in every direction, were acknowledged and noted, but were respectfully put aside in such a way and with the aim of creating a culture in which the TC would focus on its charge as objectively and professionally as possible.

The tipping point in the cultural transformation of the TC seems to have occurred when a teacher, emboldened by the norms being modeled, finally spoke up and quite frankly stated an opinion and feelings. In concert with the IT project manager’s actions, this teacher’s voice appears to have paved the way for others to begin to speak more freely and openly. From that time on, the pace of the committee’s work increased.

### ***Strong Leadership***

Finally, as important as the preceding elements were—and each was critical—the Board would not have had a proposal to consider in December and would not have approved the resolution without the active efforts of the EEA president and the superintendent of schools. The EEA and the administration fully supported and participated in the work of the TC from the beginning. The TC was keenly aware of the unified message coming from both leaders about the importance of the work and the need to be successful. The superintendent embraced the underlying strategy of involving all stakeholders and having the TC take an open approach. As with all major policy school district initiatives, success depends upon the relationship between the Board and the superintendent. Success depends on the trust the Board has in the superintendent and the demonstrated capacity of the superintendent to manage and lead the district effectively. With the groundwork done by the TC to build the case for change, the financial support of the GE Foundation, the public, active support of the EEA, and his own proven leadership and persuasiveness, the superintendent worked with the Board to ensure adoption of the IT plan.

## What Next?

The SDCE, with support from GE Transportation and the GE Foundation, has secured Board approval to modernize its IT system, including student data, curricular data, and the technological foundation underpinning the system. The district has laid a firm foundation for moving forward and has modeled a collaborative process that has already begun to be emulated on other projects in Erie. Although this modernization marks a significant milestone, much work lies ahead in 2008 and beyond to ensure the successful and sustained implementation of the new system.

Throughout the spring and summer, the SDCE implementation team and Infinite Campus (the contracted systems vendor), have worked to map every major process that relies or should rely on student data. This required clear specifications for the various component modules. These specifications were derived from single, systemwide understandings of how scheduling, attendance, discipline, and other basic functions work in Erie. Defining and describing these processes—not a simple task by itself—was particularly challenging because most of these processes vary from school to school. SDCE employed the same collaborative process used earlier in the project to define each of the processes.

Beyond mapping processes, over the spring and summer, the work included pilot data conversion, training of the core team and coaches, loading student schedules, refining policy and procedures, training principals, assistant principals, counselors, and teachers, final conversion of the current data and scheduling of "wizard" (expert user) training. The system went live, on schedule, in August, in time for the start of the 2008–09 school year.

During the 2008–09 school year, roll out and training will be the key to successful implementation. The technological readiness of school professionals in Erie varies considerably. Many will no doubt embrace the new technology readily and eagerly. Many, however, rarely use everyday workplace technologies such as e-mail. The TC has emphasized simple uses, such as e-mail, across the district. Both the EEA and central administration have done other small things, like send out e-mails and asked recipients to respond by e-mail. A subcommittee, called "Expanding Technology Today," has been formed to begin infusing technology into the schools in advance of implementing the new system. This work has paved the way for more substantial training during the upcoming school year.

## Lessons Learned and Implications

The SDCE has taken a significant step toward its goal of modernizing its IT system. The work to date lays the groundwork for the building a modern IT system. This work has been largely preparatory, but several important lessons and implications are clear.

**Readiness and demand for change must be assessed.** SDCE, as a system, was ready for change to its IT system. Perhaps more importantly, the demand for change was palpable. The current system no longer works for the majority of education professionals in Erie. These professionals need better access to data, and that need and

perception have driven change. The details described here are specific to Erie, but a larger lesson lies in the potential of leveraging similar levels of readiness and demand for change in other districts around other issues. It is equally important to know where demand is high *and* low and to craft tactics accordingly, either to leverage high demand or to counter the apathy or resistance that comes with low demand.

Although the demand in Erie was for improving access to data, the IT work served as an important means to building collaborative systems. Districts less ready for collaboration may be more challenging environments.

**Active collaboration needs support.** The process followed in Erie appears simple, but school professionals did not collaborate in Erie because they were told to do so. They were eager to solve a common problem, but they have been eager for a long time. They learned to collaborate. The work was complex and fraught with risk points. District leadership (the superintendent and EEA president) created a working committee of members from a variety of stakeholder groups and known to have diverse opinions. This diversity of opinion and technical expertise in itself presented another risk point. They sought external agents who would be and were perceived to be both neutral third parties as well as expert authorities on the content of the work. These brokers were able to model collaboration, use data, and build not just consensus but ownership of the process and the solution. In this way, a neutral third party helped to overcome the cultural norms that previously might have resisted active collaboration.

**School districts remain political systems.** For more than a century, reformers have tried to insulate urban school systems from politics. Instead of insulating the systems, we have created isolated political systems. This result is neither good nor bad. However, school districts are political systems as much as educational systems, and they operate as such. Technocratic solutions can go only so far. While the GE Foundation seeks to assist districts in building systems as resistant as possible to political shifts, careful consideration must continue to be given to how local politics play into the grant program. In part, this consideration requires recognition of political courage and appropriate support for those taking political risks.

Initiatives such as this require full buy-in from local leadership. Superintendents, in particular, but also the leadership of professional teacher organizations and the school board, understand the political exigencies of their communities. Each—superintendent, teacher organization leader, and Board member—can facilitate progress in his or her own way. The interrelationships between and among groups in each district are vital both to short-term success and to long-term sustainability.

**External assistance can catalyze change.** GE and the GE Foundation provided critical elements contributing to the progress made toward a new IT system in Erie. As discussed above, GE Transportation human capital was essential to starting the process of building a culture of active collaboration in SDCE. Equally critical have been the financial resources of the GE Foundation. Were it not for the GE Foundation grant and the knowledge that the Foundation would support the IT project, the district could not have pursued it. The district's IT department

has long known of the need for better data access but simply has not had the resources until now to do anything about the need. Finally, the vision of the GE Foundation, and its active management of the grant, helped to persuade everyone of the power of the systems change and collaboration model that is the cornerstone on which this work stands.



