Improving Educational and Well-Being Outcomes:

School/DHS Data Sharing in Allegheny County, 2012 Update

PREPARED BY

Jeffery Fraser

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Allegheny County Department of Human Services

The Allegheny County Department of Human Services (DHS) is dedicated to meeting the human services needs of county residents, particularly the county's most vulnerable populations, through an extensive range of prevention, intervention, crisis management and after-care services.

This report was prepared by the Office of Data Analysis, Research and Evaluation (DARE), an office within DHS. DARE supports and publishes research related to the activities of DHS in a number of categories, including: Aging; Basic Needs; Behavioral Health and Disabilities; Child Development and Education; Children, Youth and Families; Crime and Justice; and Innovation, Reform and Policy.

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It seemed reasonable to assume that the Pittsburgh Public Schools (PPS) knew that the circumstances of about half of its students were such that at some point in their lives they'd need some type of help from the formal human services system and that, as a group, they performed well below other children in school. After all, homelessness, behavioral health issues, abuse and neglect, and other circumstances that bring children into the human services system have profound implications for learning. It also seemed reasonable to assume that child welfare caseworkers were able to reliably monitor how the children they placed in foster care and other out-of-home arrangements were doing in school, and whether they attended class regularly or were truant. But until a few years ago, anyone making such assumptions would've been wrong.

Although the city public schools and county human services shared some 12,000 children, the two systems were largely in the dark when it came to many aspects of those children's lives that fell outside their jurisdictions. The problem wasn't neglect on anyone's part; it was the legal barriers to sharing data on those children that were contained in federal and state confidentiality laws.

Those barriers, which remain in place across most of the nation, were addressed in a novel way in Allegheny County in 2010, when PPS and DHS began integrating the data on children in both systems under a Memorandum of Understanding (MOU) signed a few months earlier[1] that enabled them to legally do so.

The first two years under the agreement saw school district and human services data integrated in the DHS Data Warehouse for the first time ever, allowing for a range of analyses to be done on students involved in human services. From one analysis emerged the first comprehensive profile of that population. A troubling gap between the achievement of students involved in

[1] The Memorandum of Understanding was signed by DHS and the Pittsburgh Public Schools on December 22, 2009.

human services and those who are not was revealed. A group of students was identified who do well on standardized proficiency tests but do poorly in school; helping them improve their grades and attendance became the focus of the first research project launched under the agreement. The data also helped inform a new pilot program aimed at improving attendance. And the data are proving essential to DHS's implementation of the Education Screen, designed to stabilize the educational experiences of children in the child welfare system.

Less apparent is how a project to integrate data has helped convene community stakeholders ranging from judges to foundation officials around the issues that beset students with challenging circumstances inside and outside school — and how it has become a catalyst for improving the relationships between DHS and the schools, in general, as well as among others on the front lines, including social workers, guidance counselors, child welfare caseworkers and juvenile justice staff.

Not all aspects of the initiative have progressed at the same pace. The technological challenges of merging data from two large systems and conducting meaningful analyses were overcome in relatively short order. But how best to use the data to improve the outcomes of students and inspire systemic change remains a work in progress.

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One measure of the value of the data sharing arrangement was whether after two years DHS and PPS felt it was worth continuing — a determination they made last year when the original agreement was set to expire. In November of 2012, they signed a new agreement revised to include greater access to human services data than had previously been shared, following legal negotiations that were far less challenging and protracted than those that had led to the original Memorandum of Understanding.

Officials from other school districts saw the value in merging student data with DHS as well. By June of 2013, eight other public school districts in Allegheny County had signed data sharing agreements.

"Bringing the school data into our system is extremely beneficial for the children, more than anything, and having that information helps in planning for those children," said Marc Cherna, DHS Director. "It also changes the climate. The more we share information and people understand what that can do, the more they see it as something positive and are inclined to share information themselves."

BRIDGING THE INFORMATION GAP

Despite having been a topic of discussion for several years, the integration of school district and human services data on children in both systems gained little traction prior to 2009. The concept was straightforward, but overcoming the legal hurdles was anything but. Chief among them were the Family Educational Rights and Privacy Act (FERPA) and the Health Insurance

Portability and Accountability Act (HIPPA). These federal laws protected the confidentiality of personal education and health information, respectively, but created a web of restrictions that made sharing the children's school and human services data a daunting legal challenge.

There were other obstacles. After years of being inundated with requests for student data from outside researchers, for example, school officials had grown cautious. Their concerns included the confidentiality of personally identifiable student information and whether the district and its students would benefit from releasing it. Merging city public school data on more than 26,000 students with human services data ranging from child welfare to mental health was a major technological challenge requiring considerable technological expertise and the capacity to iron-out compatibility issues and mine large volumes of data to gain meaningful insight into students of mutual interest. Paying for start-up and operating costs was another issue.

The city public schools and DHS, however, had plenty of reasons to believe greater access to data on the children they served would be helpful.

In the schools, the launch of the Pittsburgh Promise in 2007 kindled a wave of reforms aimed at improving academic achievement. The Promise offers up to $40,000 in post-secondary scholarships to graduates who meet its eligibility requirements, which include a 2.5 or higher grade-point average (GPA) and at least 90 percent attendance. Reforms sought to strengthen teaching, counseling, curriculum and other aspects of the learning environment. The district also set a goal of having at least 80 percent of its graduates finish college or a workforce certification program.

It was clear, however, that stronger teachers, principals and curriculum alone weren't going to be enough to reach the goal in a district where, for significant numbers of students, learning can be compromised by circumstances at home and elsewhere serious enough to require DHS support. Yet, school officials had little insight into the students' lives outside of school.

DHS had long tried to integrate data with the school district. In the child welfare system alone, in 2008, 39 percent of the children lived within the boundaries of PPS. Some 36 percent of the children receiving mental health services lived in the school district, as did 44 percent of the youth involved in DHS drug and alcohol services and 182 homeless children.

Years earlier, DHS had begun a series of reforms built on openness to new ideas, integration and multi-system collaboration. Money from a Human Services Integration Fund (HSIF) established by local foundations enabled DHS to create the Data Warehouse to process and analyze millions of client records to improve services, delivery and decision-making. The Data Warehouse — recognized as a best practice in a recent U.S. Government Accountability Office study on data sharing — grew to hold as many as 30 different data systems, including juvenile justice.

But school-related data were the exception. And the absence of such data created a significant gap in the information available to understand children involved in human services.

PATH TO AGREEMENT

The idea of integrating school and human services data gained momentum in 2007, when the Youth Futures Commission was created in Allegheny County as a central clearinghouse and think tank convening leaders in the public and private sectors around strategies for preventing youth violence and enhancing opportunities for young people. It had evolved from the Youth Crime Prevention Council, established 13 years earlier at the urging of Frederick Thieman, then the U.S. Attorney for the Western District of Pennsylvania, to address rising juvenile crime rates.

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In 2008, Thieman, who today is president of the Buhl Foundation, took on the dual role of neutral third-party facilitator and champion of the movement to integrate student data. Over the course of a year, he gained the support of top leadership in both PPS and DHS, which was critical to overcoming the obstacles that stood in the way of reaching a legal agreement.

PPS Solicitor Ira Weiss was consulted, and both he and Thieman agreed that the legal issues involved were significant, but not insurmountable, and that cost and technical issues should be the first to be addressed.

Getting the most comprehensive picture of PPS students involved in human services required integrating huge amounts of data: child welfare information; mental health, homeless, and drug and alcohol services; student names and addresses, and the schools they attend; and grade-point averages, standardized test scores, attendance and involvement in special school-based programs, to name a few. The capacity to manage such a volume of data was one issue. The ability to integrate data from dozens of different information systems was another. Then, there was the analytical capacity to mine the data in ways that would provide greater insight into students of mutual interest, identify service gaps, gauge the effectiveness of interventions, and better inform decisions on how best to help children in both systems.

The school district didn't have the capacity to meet such demands. But DHS did, which resolved the issue of technical feasibility. The DHS Office of Data Analysis, Research and Evaluation (DARE) staff took the lead in integrating school-related information into the agency's Data Warehouse, which already managed more than 15 million records from DHS programs and outside systems, such as the state Department of Public Welfare, juvenile justice and city/county housing authorities. They also had the expertise and tools to extract and analyze the data, and to generate such things as aggregate unduplicated counts, data by geographic location, and client-specific or program-specific reports.

Discussions concerning technical feasibility of sharing data also led to a relatively quick solution of the problem of cost. It was determined that, thanks to the resources at the Data Warehouse, startup and operating costs would not be significant. And Cherna assured the school district that DHS would find the funds, which local foundations agreed to release from HSIF.

SOLVING THE LEGAL PUZZLE

When attorneys began to draft the MOU that would enable PPS and DHS to integrate student data, they did so without the benefit of a template to guide them. As far as could be determined, no agreement similar in scope had ever been drafted anywhere in the United States, which did not surprise Weiss, the district's solicitor. One reason, he said, is that urban districts are often magnets for requests to conduct research on their student populations. "They're a petri dish for all sorts of things, so you often have a cautious reaction."

The general legal challenge was to find enough flexibility in confidentiality laws to make data sharing feasible. Certain student data could be shared without a parent's consent — school directory information, for example, such as name, age, school attended and grade level. Consent is not required when data are presented in aggregate form without personally identifiable information. And DHS can authorize the release of information if it is the legal guardian of a child, such as when parental rights are terminated.

But creating a robust data sharing arrangement required access to a much broader pool of student information. FERPA and HIPPA required consent to release the educational and health-related information covered by the respective laws. And obtaining the consent of parents and guardians for several thousand students would be a difficult, time-consuming, costly and uncertain proposition.

Rigid restrictions contained in HIPAA and more than two dozen other laws and regulations made it difficult for DHS to integrate data with the school district without explicit consent. It was decided that the more prudent course was to entrust DHS with school district data and build into the agreement protections against unauthorized or illegal disclosure.

Moreover, FERPA had been recently amended, including a more detailed description of the research exception. It stipulated that consent is not required to release personally identifiable student data to organizations for research projects related to enhancing student achievement as long as confidentiality parameters and an MOU were in place.

By positioning the data sharing arrangement as such a research project, attorneys were able to draft a legal agreement that was the first of its kind in the nation.

The Memorandum of Understanding

The Allegheny County Department of Human Services and the Pittsburgh Public Schools signed a landmark memorandum of understanding on sharing student data in late 2009. The first-of-its-kind agreement allows student data from the school district to be integrated with data housed in the DHS Data Warehouse, which includes data from approximately 25 internal and external sources (e.g., the juvenile justice system, Pennsylvania Department of Public Welfare).

In November 2012, the data sharing arrangement was extended with the signing of a new Memorandum of Understanding. By the end of that year, three additional Allegheny County public school districts had signed similar agreements with DHS.

Key provisions of the MOU include the following:

- The integration, analysis and distribution of student data is done in compliance with state and federal regulations, including the federal Family Educational Rights and Privacy Act (FERPA) and the Health Insurance Portability and Accountability Act (HIPAA).
- DHS performs the integration and analysis of student data.
- The school district provides DHS with directory information and educational records of students for whom DHS has legal custody.
- The school district also provides data on all students enrolled in the district, including personal identifiers, such as names and home addresses; achievement data; attendance; and special programming, such as Special Education and Gifted Education.
- DHS provides the school district with identifying information of students for whom DHS serves as legal custodian, including name, home address and contact information of the student's child welfare caseworker.
- DHS also provides the district with identifying information for all students identified as experiencing homelessness.
- DHS agrees to request parental consent for students receiving human services when DHS and the school district determine additional intervention is necessary.
- The agreement authorizes the use of the data for "action research," a problem-solving process in which DHS and the school district collaborate to create, implement and assess strategies to address issues involving students of mutual interest.
- All reports containing personally-identifiable information are considered to be confidential.

The agreement set the legal framework for integrating student data, including confidentiality provisions, each party's responsibilities, and the type of information that can be shared and for what purposes. DHS, for example, is responsible for integrating and analyzing the data. The district provides directory information and educational records of all students. And all student data provided by the school district are considered confidential. This information can be used only at the individual level when workers have the legal authority to do so.

A key provision authorizes the use of the data for conducting an "action research" project, which calls for DHS and the district to conduct research to identify indicators of academic and behavioral successes and deficits, prepare statistical analyses, and work together on developing and implementing strategies and interventions aimed at improving both the delivery of services to students in need and their academic outcomes. DHS and PPS also agreed to engage community stakeholders in the action phase of the research.

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The PPS Board of Directors approved the MOU on the evening of October 21, 2009, making possible a level of collaboration between schools and human services that didn't exist anywhere else in the country and that many doubted was possible. Within a few months, the technical issues of integrating the data were under way, and school district and DHS staff and community stakeholders began to explore the potential of the novel arrangement to improve the outcomes of students with human services involvement.

STATISTICAL PROFILES EMERGE

A key reason PPS was courted as the first partner in the data sharing arrangement was that DHS officials understood that a substantial number of children involved in services lived within the school district. Precisely how many there were and how they compared to other students in terms of grades, attendance and standardized test scores were among a long list of questions that neither DHS nor school officials knew the answers to until 2010, when analysts culled the integrated data and compiled the first comprehensive statistical profile done on city public school students who had been involved in human services at some point in their lives.

The initial analysis showed that 14,450 students — about 53 percent of PPS enrollment — had prior involvement with at least one of 17 human services programs, and 36 percent of those students had received services within the last year.

Some 87 percent of students in the district's special education program had received human services in recent years. About 31 percent of students had been involved in child welfare services, and one in five of those had been placed outside of their home. Families of 34 percent of students had circumstances that qualified them for support services, such as food stamps

and Temporary Assistance for Needy Families. About 28 percent of city public school students had some level of involvement in county behavioral health services. And 10 percent of students over the age of 10 had been involved with the juvenile justice system.

School and DHS officials long suspected that students with such histories were more likely to find themselves on the wrong side of an achievement gap in terms of grades, standardized test scores and attendance. The data provided statistical evidence of the gap and revealed just how far students involved in services such as child welfare fall below the achievement of classmates who have never experienced the need for such support. Only 48 percent of students with prior human services involvement were proficient in reading on the Pennsylvania System of School Assessment (PSSA) tests, for example, while 67 percent of their classmates who never received services earned proficient scores. And only 42 percent had GPAs of at least 2.5 compared to 72 percent of students with no human services involvement.

Students who receive certain kinds of services are at an even greater risk of doing poorly in school. One example: Only 38 percent of students who had been in the child welfare system had a GPA of 2.5 or higher, and even fewer students who had experienced out-of-home placement achieved that threshold.

The data also revealed that African American students who had received human services are at greater risk than their white classmates. Not only did they have a much higher rate of human services involvement, but their academic performance on several key measures was significantly lower. Among students with prior human services involvement, only 32 percent of African Americans had at least a 2.5 GPA, compared to 61 percent of white students.

Such a gap is particularly troubling in the Pittsburgh school district. The data suggest that not only are students involved in human services likely to perform more poorly than their classmates, they are also more likely, as a group, to miss the opportunity to earn a Pittsburgh Promise scholarship. The good news is that the integrated data allow educators to learn more about the lives of those students than was ever possible before and to use that knowledge to help them improve their academic outcomes and scholarship eligibility.

"I can't effectively educate a child who spends 16 hours away from school without knowing what is happening in those hours," said Saleem Ghubril, Executive Director of the Pittsburgh Promise. "Data sharing is one of the most important and potentially transformative things we've done in a long time. It's thrilling that we have information about where kids are in their Promise readiness and to think that we can fairly easily identify kids who need additional support. Now that we've learned that, providing supports in ways that are useful, meaningful and effective is the challenge."

DHS and city public school officials confronted such a challenge not long after the data had been integrated. An intriguing cohort of students surfaced during an early analysis — students in sixth through ninth grade who tested well on the PSSA exams, but whose performance in school was tarnished by attendance issues and grades that were mediocre, at best. They became the focus of the first research project under the data sharing agreement.

"PHASE ONE"

Several issues were identified from the integrated data as a possible focus of the first "action research" project. Students on the brink of dropping out of school were one. Another was to focus on certain schools where academic achievement was low and the number of students with DHS involvement was high, and develop building-specific strategies to improve their outcomes.

Of greatest concern, however, was addressing the wide achievement gap between students involved in the human services system and their non-involved peers. The data identified 170 of those middle school students who scored in the proficient or advanced ranges on PSSA math and reading tests, but were underachieving in school. Unless they raised their GPAs above 2.5 and improved their attendance rate to 90 percent or better, these students who had the potential to realize academic success would not be eligible for Pittsburgh Promise scholarships and the opportunity the scholarships offered to earn a post-secondary degree and build a brighter future.

Derek is an example. His life outside of school had been anything but stable by the time he entered eighth grade in 2011. His involvement in the child welfare system dated to 2005, and he had only recently been moved from foster care back home to live with his mother. While his 2.3 GPA wasn't alarming, he had other issues, not the least of which was a two-day suspension the previous year and 14 unexcused absences. Such a record did not reflect his potential, as he scored proficient in reading and advanced in math on PSSA tests.

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Cherna and former PPS Superintendent Mark Roosevelt decided that this "high achievement/low engagement" population of students would be the focus of a research project, known as the Phase One Initiative, that would explore how to bring school performance in line with academic potential. The result was the ACHIEVE after-school pilot program, which evolved from deliberation among staff and stakeholders and from soliciting insights from a series of focus groups that included community engagement experts, former DHS clients and middle school students themselves.

The first semester began in November 2011 with 30 students in grades 6 through 8 from eight city public schools who enrolled voluntarily. The after-school program was held twice a week, with students given free transportation to the district's Gifted Center, where they played games, mingled and were served dinner before attending classes of their choosing that aren't offered in

their home schools, such as aviation, ceramics, fashion design, animation, crime scene investigation and, Derek's favorite, computer game design. The classes were taught by Gifted Center teachers, whose courses most of the students wouldn't otherwise have had the opportunity to take.

The idea was to engage the students in subjects through real-world applications that they would find to be more fun than tedious, such as immersing them in an animated crime scene investigation that requires some science to solve. The students' responses were encouraging.

Derek, for example, built his first computer game within a few weeks. Having learned the basics, he moved on to create a more sophisticated game with a football theme in which the objective was to get a Steelers running back through a maze without getting smashed by a menacing caricature of Ray Lewis, a linebacker for the Steelers' archrival Baltimore Ravens. Derek described the after-school experience as "fun and different." The assessment was a sign that some progress was being made with the bright but underperforming 13-year-old, who confessed to being "not much interested" in the classes he takes at his home school, which he described as "real boring."

A survey of the students suggested similar engagement. "I like actually having a place to go besides home after school and showing off what I did in my classes," said one student. "I showed my mom, dad and sister my animation videos." Another responded: "I really like both of my classes. I get to be creative, which I don't really get to do at school."

But an evaluation after the first year found the after-school program to be largely benign in terms of the students' performance in their home schools. As a group, enrollment in ACHIEVE produced little, if any, improvement in their grades and attendance.

"It demonstrates that this is difficult work," Cherna said. "If there were easy answers, we wouldn't be struggling with it. But I think it is critical that we have the data to identify issues and problems so we can try to figure out interventions."

"We've learned a lot," said Erin Dalton, DHS deputy director in charge of DARE. "We might have been a bit naïve in thinking we could design an intervention that made sense and it would work. This is a big problem, and it is going to take more than one small after-school program to solve. If this is something that we, as a community, want to focus on, we'll probably have to launch a couple of experiments."

Several changes were made to the ACHIEVE program following its first year. The program was expanded from two days a week to three, a full-time program coordinator was hired, and greater focus was placed on skill building ranging from structuring homework time to life skills. The program began taking a closer look at how the students' human services needs can be better met. A family engagement model was developed to examine such things as whether family service plans are aligned in a way that is working for the family and children.

"I think one of the best things the project did was to take the data, jump in and do something almost immediately," said Lisa Kuzma, senior program officer at the Richard King Mellon Foundation and one of the community stakeholders involved in the data sharing initiative. "Some might say we should've studied it more. But there can be such a paralysis of analysis in the nonprofit sector. I'm pleased that they tried something right away based on the data."

A BROAD REACH

With the addition of school-related data, the DHS data warehouse emerged as a robust tool for providing insight into a vulnerable population of children. Stakeholders ranging from DHS to juvenile court judges soon discovered the value of the data in addressing a wide range of issues.

The capacity to integrate student and human services data was developed in Allegheny County at a time when the child welfare system and juvenile court had begun to focus on not just issues of safety, but also on the educational outcomes of dependent children.

With such data at their fingertips, caseworkers are better able to track how dependent children are doing in school and identify issues earlier.

Pennsylvania, for example, now requires child welfare caseworkers to complete an education screen on each of their clients, including up-to-date information on such things as attendance, and grades, whether they are involved in remedial programs, and disciplinary and truancy concerns — information caseworkers previously did not have ready access to. The integrated data system, however, enables them to access such information online, eliminating the phone calls to the schools, faxes, reams of documentation and the delays of the past. It also enabled DHS to begin completing the screens months ahead of the state's deadline for doing so.

With such data at their fingertips, caseworkers are better able to track how dependent children are doing in school and identify issues earlier. "For human services, connecting the caseworker to the school is a huge deal," said Samantha Murphy, DHS Education Liaison. "Just having that basic information has been very valuable to our workers."

The capacity of the Data Warehouse to mine human services, school, housing, juvenile justice and other child data was a key factor in DHS receiving one of 10 grants that the U.S. Department of Health and Human Services Children's Bureau awarded nationwide in 2011 to develop ways to improve the educational stability and permanency outcomes of children in the child welfare system. DHS received another grant from the Annie E. Casey Foundation to support its educational stability work.

One aspect of that work is to find ways to mitigate the destabilizing consequences that arise when children are moved to foster homes or some other placement arrangement that requires them to change schools, which can be a disrupting influence on their education. As part of the solution, DHS is developing software to help caseworkers consider school stability issues when making placement decisions.

"The original vision was to have a map you could pull up and see where a child was being moved from and the available placements in the school catchment area," said DARE Manager Emily Kulick. "The scope has now expanded. It's much broader and supports all of our priorities around placement — not just keeping kids in the same school and community, assuming that's in their best interest, but also siblings being placed together, and the willingness and experience [of placement options] to accept children with certain behavioral and medical needs."

Another issue data sharing has helped to address is truancy, a problem of particular concern among juvenile court judges and others who witness the day-to-day struggles of dependent children.

"In the past, all we dealt with was safety," said Dwayne Woodruff, an Allegheny County Common Pleas Court judge assigned to the Family Division. "We had to stop and ask whether we were doing justice for our kids. The answer then was no. So we started looking at why these kids come in. And the one thing that was overwhelming was the lack of education among these kids and their parents."

The focus on education and data in the child welfare system is critical, said Scott Hollander, Executive Director of KidsVoice, a Pittsburgh child advocacy organization. "We have to give these kids a future. Focusing on what they're going to do when they turn 18 — how they will care for themselves, provide for themselves, become employed and productive — is important. Preparing them to do that depends a lot on how they are doing in school and whether they can see a future."

In 2010, the local Education Stability Truancy Prevention Committee was formed. The group, chaired by Judge Woodruff, involved DHS, Pittsburgh Public Schools, Magisterial District Justices and other public/private agencies involved in the issue of truancy prevention, began to address solutions to poor school attendance by court-involved youth. The integrated data soon played a role in efforts to find a solution to the problem. The data, for example, are being used in an early intervention pilot project at two public K–8 schools in Pittsburgh, where attendance of students is monitored and support for children and families is available when symptoms of truancy are detected.

"We want this information to help with prevention, for one thing," Dalton said. "If we wait until a child is dependent, we can monitor the attendance when they are in care and are court active, but at that point we're pretty far down the line with these families."

"I can't say enough about the data sharing," said Woodruff. "Instead of being on the reactive side all of the time, we are able to be on the proactive side and try to head things off before they get worse — make sure kids are in school and receiving services before they start missing a lot of school. If they are missing school, what issues are going on at home? Now, we can check on that. We can make that phone call: Do you need help? Are you having an issue with housing? We finally have a tool we can use up front and it is extremely helpful for all parties concerned."

The enhanced capabilities of the Data Warehouse are also enabling DHS researchers to examine the relationship between public housing, education and child welfare with a grant from the John D. and Catherine T. MacArthur Foundation. For the first time, they are able to explore in depth such issues as whether living in assisted housing is associated with better initial education outcomes among children, and whether the associations between public housing and educational outcomes are influenced by residential stability, school stability, and neighborhood and school quality.

The data also offer a more complete picture of the issue of homelessness in the city public schools. When DHS data on homeless children were compared with district records, there was very little overlap. The schools were found to have been significantly under-counting the number of students who at some point in the past few years had received DHS homeless services and supports. "We want to make sure they are identified," Kulick said. "Once they are, they are entitled to services in schools."

BEYOND DATA

An unexpected benefit of the initial data sharing agreement has been how it has grown beyond gathering and crunching numbers to become a catalyst for wider discussion and collaboration among DHS, public school officials and a broad group of community stakeholders around the issues of improving the educational outcomes of children receiving human services.

It has provided an opportunity to develop stronger relationships among caseworkers, probation officers, juvenile court judges, school guidance counselors and others who, while they work to improve the well-being of many of the same children, have not always done so in concert.

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"Relationships are everything in all of this work," Cherna said. "You start with something, like the data sharing. People come together, get to know each other and build trust. Then, it's easier to work on the more intransigent issues, the programmatic issues and service delivery. That's what we are starting to see. There is some problem solving. There is a greater willingness to work together. We're much more collaborative than in the past."

A key part of that relationship building has simply been to acquaint those working in DHS, the schools and the courts with one another, what their jobs entail and the resources they bring to the table. "With big systems, just knowing the name of the person you are calling and having a relationship with that person is significant," said Murphy. "I love the data and what we are doing with it, but the connections that are happening between DHS and the districts are really rich."

DHS has conducted training sessions to help child welfare caseworkers better understand the education system, and educators understand human services. The ACHIEVE after-school program led to training for teachers in the city public schools on common mental health

diagnoses, behavior management strategies and other issues. When DHS identified school districts where the use of services for the homeless is the highest, it opened the door to improved relationships and a better understanding of the agency's resources and how to access them.

The data sharing agreement also led to the first regular meetings ever held between DHS staff and city public schools counselors and social workers. "Our counselors and social workers are beginning to know who [DHS staff] are so they can go to them," said Janis Ripper, who was the chief of Student Support Services for PPS before retiring in January 2013. "They are open. They listen. We are really starting to build relationships."

As part of the agreement, DHS and the schools agreed to engage community stakeholders in finding ways to use the integrated student information to improve outcomes. From the onset, their regular meetings were more than information sessions. The stakeholders, who range from children's advocates and educators to foundation and court officials, have rallied around efforts to address issues facing students with challenging circumstances, contributing experience, expertise and ideas to the ongoing efforts to use the data to inform ways of supporting them.

"It's started to permeate people's thinking that we can use this data to help us plan supports to education," said Laurie Mulvey, Director of the University of Pittsburgh Office of Child Development's Division of Service Demonstrations. "It is a necessary link to understanding and making good decisions about where to put resources."

SYSTEM CHANGE: A WORK IN PROGRESS

The technical aspects of merging student data with human services, juvenile justice and other information systems were accomplished with relative ease compared to using the data to inform changes in practice, particularly within the city public schools.

"I don't think everyone realized that, if you don't have the social and emotional support kids need, you're not going to have academic achievement."

"Bringing together valuable information on children and having school personnel and human services staff talking together is a major accomplishment — something that hadn't happened in the past," said Margaret Petruska, Senior Director of The Heinz Endowments' Children, Youth & Families Program. "The good news is that sharing data has broken down barriers. The not-so-good news is that there are still entrenched ways of doing business in these large public agencies that make change difficult. I think it will require a lot of work and more time."

PPS has been besieged with very public challenges that pre-date the data sharing arrangement with DHS, including declining enrollment, pressure to raise student achievement and budget concerns, which recently led the district to pare its teaching staff. And the recent transition to a new information system within the district didn't make the job any easier.

"I think we also didn't realize how valuable the data could be at the time," Ripper said. "I don't think everyone realized that, if you don't have the social and emotional support kids need, you're not going to have academic achievement. We need to pay attention to supporting families so their children can come to school and focus on the academic piece. I think that we are finally getting there as a district — that we realize maybe that's why we have some of the issues we have."

Ripper is confident that the schools will increasingly find value in the data and ways to use it to improve student performance. Front-line school personnel, such as guidance counselors, are developing relationships with DHS staff that they never had before. The support services staff is regularly meeting with DHS staff to look at student and human services data. "Getting the two systems to talk, getting the right people in place, and finding the time and resources to work on it was a challenge," Ripper said. "But I think we have the rhythm now."

Few are surprised that systemic change inspired by the data sharing agreement is developing at a slower pace. "It was always a hope and one of the biggest hopes," Thieman said. "And, to some extent, there has been systemic change in the sense that people are slowly, but surely, seeing the potential in working with other partners. But real systemic change is not only an openness to seeing other entities as partners, but also making use of those partners to change and improve the way you do business. I would not expect to see that occur in a two-year period."

By the end of that two-year period, an opportunity to see how a similar data sharing arrangement would affect practices in other districts emerged when three additional Allegheny County school districts signed agreements with DHS.

EXPANSION

PPS, which holds the largest number of students with a history of receiving DHS services in the county, was a natural first partner to integrate student and human services data. Not long after the agreement was signed, other districts with substantial numbers of such students were identified as potential partners. By the end of 2012, the Clairton, Woodland Hills and Elizabeth Forward school districts had signed MOUs with DHS to add their student records to the growing DHS database.

Clairton was the first of the new districts to sign. "We may be smaller than the Pittsburgh Public Schools, but we face a lot of the same concerns," said Cassidy Yeager, a social worker in the district of about 800 students who live in the industrial city along the Monongahela River.

A preliminary analysis of the integrated human services and Clairton student data supports that observation. Like PPS, a high percentage of Clairton students receive or have in recent years received at least one of 17 DHS services. The data revealed, for example, that 39 percent of Clairton students had prior involvement in the child welfare system and that half were from

families that had received support services such as housing assistance, food stamps and Temporary Assistance for Needy Families. As a group, students with a human services history tended to have lower PSSA scores and attendance rates than other students.

While Clairton officials were certainly aware that a large portion of their students had circumstances that required support, the analysis helped quantify that population and their school performance. It also led to at least one revelation: The number of students DHS data reported as receiving drug and alcohol treatment struck Clairton officials as low. "It showed us that our students are under-represented in drug and alcohol treatment and that we need to do a better job of linking them with services," Yeager said.

Several other Allegheny County public school districts have also expressed interest in signing with DHS to integrate data. "Nobody wanted to be first, but once it's working it tends to build on itself," Cherna said. "Other school districts see what it's done and they want to be part of it."

A NEW MOU

The original MOU created a framework within which the flow of data was primarily a one-way street from PPS to the DHS Data Warehouse for processing and analysis. The reason was that, unlike FERPA, the federal law that protects the confidentiality of education-related information, HIPPA and other laws that govern the release of most of the DHS data related to children in human services offered no alternative but to obtain the consent of a child's guardian before disseminating child-specific information.

Getting consent was seen as critical for improving the usefulness of the data to those in the field, whether they deal with children in school, in the child welfare system or in the courts. The issue of consent became a key addition to the second version of the MOU between PPS and DHS, which was completed and signed in November 2012.

"One of the hallmarks of this system is that we take into account the input of others to see if there is a way to make it work for everyone."

School and DHS officials were relatively comfortable with the idea of crafting a consent form and presenting it to the guardians of children in the human services system. For one thing, child welfare caseworkers now need access to individualized student data for the new Education Screens that Pennsylvania requires them to complete for each child.

Others were less at ease with the idea, including advocates for children and parents in the child welfare system. Parent advocates, for example, were concerned that the data could be used by DHS in a child custody case against their clients. Whether all parents would understand their rights under the law and the implications of giving consent was another concern.

"The concerns came up because of the shift from what many of us thought was just looking at global data to looking at the individual," said Hollander, the KidsVoice Executive Director. "While

we see a lot of good in that, there is a lot of confidentiality in the system, where parents and children may not want their DHS status shared or their mental health records shared, or they may not want their caseworkers to know some of the issues they are having in school."

When Hollander and others met with DHS to discuss their concerns, Dalton asked Hollander, who is an attorney, to manage the dissent and work with the group to draft an agreed-upon consent form. The job was completed in a few months. And provisions spelling out when and how child-specific data can be released were written into the new MOU.

"DHS didn't have to do that," Hollander said. "They could have just said, 'This is the form we are using.' One of the hallmarks of this system is that we take into account the input of others to see if there is a way to make it work for everyone. In the end, if the attorneys think it is fair, they will be more likely to encourage parents to sign it, and you'll get more information about more children who can be helped."

Extending the MOU between DHS and PPS encountered no resistance. And none of the negotiators doubted that integrating student and human services data was a worthwhile endeavor. "That was never a question," Thieman said. "The first MOU took about 18 months of work to put together, with a gradual thawing of historic misunderstandings that were pretty well frozen in people's minds. This one was a piece of cake. If MOU One was getting acquainted and cautious negotiations, MOU Two was a group of committed individuals sitting in a room asking, 'How can we make this better?'"

Key Challenges

Reaching and implementing the data sharing agreement between the Pittsburgh Public Schools and the Allegheny County Department of Human Services was not without challenges. The key challenges included:

- **Attitudes toward data disclosure.** For years, Pittsburgh Public Schools officials had been inundated with requests for student data from outside researchers and, as a result, had grown cautious about granting access to records. Key concerns included the confidentiality of personally-identifiable information and whether the release of data would benefit the district and its students. Among the factors most influential in addressing those concerns was having a respected community leader assume the dual roles of champion of data sharing and third-party negotiator.

- **Legal.** Several confidentiality laws, including the federal Family Educational Rights and Privacy Act (FERPA) and the Health Insurance Portability and Accountability Act (HIPAA), create a web of restrictions for sharing school and human services data without explicit consent. This was resolved, in part, by positioning the agreement as an "action research" project to enhance student achievement, which, under FERPA, allows school districts to release personally-identifiable education data without consent, as long as certain conditions are met. To comply with HIPAA and other laws, DHS agreed to seek parental consent to release human services data for children other than those for whom they are legal custodians.

- **Technical.** Integrating huge amounts of data raised issues of technical capacity and the ability to mine and analyze the data in ways that would provide greater insight into students. The DHS Data Warehouse offered such capacity, having already integrated data on its clients with data from a number of other systems, including the juvenile justice system and the Department of Public Welfare. The DHS Office of Data Analysis, Research and Evaluation staff provided the expertise and experience to process and analyze such volumes of data.

- **Cost.** Financial issues included the start-up costs of integrating, processing and analyzing the data and ongoing operational costs; fortunately, due to the existing resources of the DHS Data Warehouse, these costs were not significant. Several local foundations, which had previously established a Human Services Integration Fund, approved the release of monies to cover the costs of the data sharing project.