# Schools as Community Hubs: Integrating Support Services to Drive Educational Outcomes

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### Executive Summary

Effective approaches to the problems of struggling neighborhoods—from health to school success and poverty—require the focused use of integrated strategies. Consistent with this, community schools and many charter schools now function as hubs, helping to deliver a range of services beyond education in order to prepare their students to learn and to assist families. These include social services, "two-generation" support, and population health services.

There is debate over the potential of schools as hubs and the impact on school achievement. For success, we need to explore how schools can best "integrate backwards." That requires us consider how schools can function in an interdependent manner with providers of, say, mental health care or social services yet maintain the control needed to customize services to a student's needs and achieve academic objectives. Despite their considerable potential, schools face many challenges in operating as hubs:

- Sharing student information with other services sectors is often difficult because of privacy rules and interoperability problems. Fortunately a variety of organizations are taking steps to ameliorate these problems.
- The wider community impact of hub-based services is rarely measured fully or reflected in city or county budgets for the hub. In addition to better measurement of such "externalities," wider use of budget waivers and creative financing would help address this.
- School leaders need specialized training to coordinate services efficiently.
- Intermediaries can help schools coordinate services, but turning to outside organizations can alter the focus of a school and the locus of control.

## Education and Support Services

There is a growing recognition that the most effective strategies to address the problems of struggling neighborhoods—from health to school success and poverty—involve the focused use of integrated strategies. Integrated strategies can address challenges that are complicated and interdependent in nature. For example, a change in health can influence students' academic outcomes, and academic outcomes can influence the economic and social health of a community, often in unpredictable ways. As a result of these interdependencies, organizations are increasingly wrapping their arms around whole, multi-faceted problems to solve a particular problem. To do this,

practitioners are exploring ways to use their institutions as "hubs" to organize and deliver a range of services beyond their traditional core offerings. Examples include hospitals utilizing "population health" strategies,[1] and community schools and public charter schools providing a range of services, including social service support, "two-generation" support to parents, and health services.[2]

As schools seek to tackle the achievement gap, a critical question is how should they organize and act as hubs of services for students and the school community? In turn, as schools transform themselves to achieve

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[1] Managing Population Health: The Role of the Hospital, 2012.

[2] Butler, Grabinsky, and Masi, 2015.

educational results, how should society think about the positive externalities[3] that schools produce indirectly for the broader community?

## Two Views

Over the years, two camps have battled over what is the right way to combat the predictive effects of poverty on student outcomes and close the achievement gap. Some scholars, like Abigail and Stephen Thernstrom[4] argue that school-based interventions are the most promising solution to closing the gap. On the other hand, scholars like Richard Rothstein[5] are skeptical that schools are in fact an efficient platform for fighting the effects of poverty. They believe society could better help low-income students succeed in school by spending more money on programs that target children's health and well-being.

In reality, both sides have merit—and both also fall short. Addressing the root causes of the achievement gap requires embracing the wisdom of both camps. To mitigate poverty's effects on student outcomes, we must restructure schools to be more than just purveyors of academics. Only by "integrating backward" in the business sense[6] to deliver a range of nonacademic supports beyond just core academics can schools bolster children's health and well-being.

The theory of interdependence and modularity[7] developed by Harvard Business School Professor Clayton Christensen, helps to show why proceeding in this way is crucial. As a matter of definition, an *interdependent* service architecture is one where each part is designed in ways that depends on the way other parts are made and delivered. By contrast, in a *modular* architecture, different manufacturers or organizations can make or deliver the different parts, yet the components are designed with standard features such that they fit together in well-understood ways. The theory states that when users are underserved by existing options and, as in our education system, the way the parts within the given system interact are not yet well understood and are therefore unpredictably interdependent, then organizations must integrate to control *every* critical component of the system in order to make *any* part of the system function.

## An Example

To understand and appreciate the significance of this way of thinking by using an example from a completely different field, consider Gustavus Franklin Swift's approach in the nineteenth century to marketing and selling beef. His approach reflected his willingness to integrate beyond the late nineteenth-century's model of raising, butchering, and selling beef on an exclusively local basis. At that time, because there was no technology for transporting meat long distances, the beef industry lacked significant economies of scale. Swift saw an opportunity to integrate backward and forward: he centralized butchering in Kansas City, which meant he could process beef at a very low cost. Then Swift designed the world's first ice-cooled railcars. He even made and sold ice cabinets to retail shops throughout the Midwest and Northeast so that once the beef arrived, it would stay fresh. One key to Swift's ability to market beef in far flung regions was the ability to assure customers that the beef was still safe to consume, given that it had traveled all the way from the stockyards of Chicago to the market. Because a clear understanding of refrigeration and meatpacking processes did not exist at the time, Swift had to control the entire process to ensure that the temperature and storage practices remained sound. In other words, Swift had to expand beyond his so-called core competencies and introduce new, interdependent lines of business in order to revolutionize the beef industry.

Conversely, when there are no unpredictable interdependencies in the design of the service's parts, organizations can use a modular architecture. Modular parts fit and work together in well-understood, codified ways and can be developed in independent work groups or by different organizations working at arm's length.

For example, meat producers no longer need to control the transportation and refrigeration required to deliver safe meat anywhere in the world; those elements interact with the butchered meat according to clearly understood, specified, verifiable standards that produce predictable results. Accordingly, different entities can create a variety of transportation and refrigeration offerings at arm's length from the meat producers.

## Application to Education

U.S. schools, however, face a dilemma in taking the necessary measures to integrate backward and offer proprietary, interdependent solutions to close the achievement gap. That's because the conflicting evidence on the drivers of educational outcomes means

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[3] In economics, "externalities" refer to the impacts on third parties arising from the activities of buyers and sellers. Externalities can be positive or negative.

[4] Thernstrom and Thernstrom, 2003.

[5] Rothstein, 2004.

[6] That is, in the business sense of a company or organization expanding its activities into "supply" areas that affect its operations.

[7] Horn and Freeland, 2015.

we don't presently understand the precise solutions that can drive breakthrough academic results for the highest need students. At the same time we have constrained our ability to succeed by structuring the academic and non-academic parts of the school system in a modular, rather than an interdependent, manner. For instance, schools are designed around the expectation that students arrive ready and able to learn. They also operate on a fixed-length school day and year, and typically there is little interaction with outside groups that support high-need students with health, wellness, custodial care and other supports.

Overcoming this constraint is critical. Over the past decade, several educational institutions serving low-income students—including KIPP's charter schools, community schools, Harlem Children's Zone, and the SEED schools[8] have begun integrating beyond schools' traditional academic domain to embrace the sorts of supports—mental health services, pediatric care, and mentoring, to name a few—for which poverty relief advocates have long called for.

The models' varying degrees of success appears to depend at least in part on two things: their end goal and how the wraparound services have been integrated with one another.

In the case of the first issue, the central focus of schools must remain educational achievement rather than a broader social function. If addressing the achievement gap is not the driving force that causes a school to integrate backward, then dramatic changes in academic results for low-income students will remain out of reach.

For the second, merely integrating backward to offer wraparound services with outside providers in a modular fashion is not enough to help low-income students succeed academically. Rather, schools must design and deliver services in an *interdependent* manner that is tightly in sync with the academic side of the house. The architecture must be interdependent so that the school can innovate constantly to control the balance, mix, and type of services offered to each student. In other words, schools can't simply continue to cobble together "best practices" merely by outsourcing a range of non-academic supports to third-party players and hope for the best. It's true that some carefully crafted partnerships—for instance with local mental health and other healthcare institutions—can mean critical professional services are made available to students. But the school needs to *control* the delivery and dosage of supports such that they are able to adjust

these services according to each student's needs at any given time, as the exact way these parts must interact are not yet specifiable, verifiable, and predictable.

That approach, of course, comes at a higher price tag than most school budgets and makes managerial and organizational demands of heads of schools that are beyond what society has asked of them in the past. The theory of interdependence and modularity, however, shows that when it comes to meeting the needs of underserved customers, the costs of *not* integrating are in fact higher to society; they are just hidden from the financial statements of any one organization. In other words, there are negative externalities that policymakers don't see and measure and these practices often result in positive externalities that are not fully recognized. The theory also of course predicts that just as the meat production industry modularized over time, as integrated schools start to succeed in serving low-income students and we stand to gain a clear sense of the causal mechanisms that lead to this success, the education system will modularize, which will in turn create greater efficiencies.

To use another example to illustrate when this will occur, in the world of computing, standards didn't emerge until computers began actually *over-serving* their customers by offering them more functionality than the customers could utilize and for which they were willing to pay. For example, as the reliability of computers improved, many customers at some point weren't willing to pay for more reliability than they actually needed and instead preferred the benefits of customization and affordability that modularity made possible. At that point, modular-computing solutions—led by an array of players like Dell, Intel, and Microsoft—could emerge to dominate the world of computing.

Similarly, standard "interfaces" will emerge in education only when integrated players begin to over-serve students and families. For example, schools that offer a wide range of extracurricular activities may indeed over-serve students and families who may only enjoy one or two of those options and want more emphasis on those, but don't want to subsidize or have limited resources go to a whole host of services in which they are not interested. At that point, the more modular, discrete needs of different students will become evident and student-parent pressure will begin to break apart the holistic package of services that such integrated institutions are delivering. By understanding the implications of over-serving and studying a range of interventions within an interdependent system, we will be able to discover the best interfaces that constitute an

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[8] Horn and Freeland, 2015.

education system set up to serve all students, even those facing grave challenges outside of school.

But today a modular world is still out of reach in education because, despite plenty of research, we don't yet understand sufficiently the causal factors that drive student success, in part because traditional evaluation methods for measuring causality fall short.[9] That makes it hard to be confident about what interventions are needed to boost achievement. Therefore, schools can't introduce a fully modular school system with predictable, standardized interfaces yet. The world of education for the highest need students may indeed become modular, but not until we can specify exactly how we are serving students in terms of causation, rather than merely correlation.

For now then, the question remains: how do we enable schools to be the hubs that address poverty and promote mobility and a culture of health, and thus help close the achievement gap?

## Challenges and Opportunities

When a school integrates and begins to function as a hub, it organizes services for its own students as well as, in certain cases, the broader school community such as parents and other family members in an effort to improve the chances for students to excel academically. Performing these services also stands to benefit the local community. As a school carries out these functions, it has to consider a number of issues, including privacy laws and information sharing; budgeting and measuring results; leadership capacity; and the role of intermediaries.

## Obstacles to Sharing Information

For a hub to function well in integrating a range of services for individuals or households, the ability to share information is critical. If the case history of a student or patient cannot be easily communicated across institutions, coordinating services is difficult or impossible. But sharing information across boundaries is often a challenge.

One reason can be federal privacy rules. For instance, the Health Insurance Portability and Accountability Act (HIPAA), affecting medical data, and the Family Education Rights and Privacy Act (FERPA), affecting student data, are widely seen as barriers. A nurse employed by a school rather than the local health system, for instance, may not be able to obtain medical information necessary to work with a particular student, and with his family and teachers.

It's true that privacy rules are often not actually as stringent as many school officials may believe and school systems' lawyers may interpret. But uncertainty and the fear of litigation can freeze action. In the health sector, that has led to some hospitals training school staff on how to deal with HIPAA rules. To share medical information with a school, for example, a hospital system may also credential, say, a school nurse to access its records under the same rules as its own nurses.

Another problem is that data is often collected in different ways by different government agencies and non-government institutions and is then managed using different procedures or even software. There can be data challenges even among institutions in the same field. Such interoperability problems can be a serious barrier. In addition, it can be difficult for schools and other organizations to obtain basic community data to enable them to plan initiatives and measure results. Just setting up internal systems to handle data can be a major burden.

A variety of organizations are taking some steps to ameliorate these problems. For instance, the National Neighborhood Indicators Partnership, housed at the Urban Institute, seeks to provide city and community institutions with accurate and useable local data collected in consistent ways.[10] Some schools and other organizations try to solve at least part of the problem by turning to data-savvy partners to handle the process of identifying eligibility and linking their students or clients to other services. Still, as we pointed out earlier, if schools turn to partners who become involved in more than basic services like data collection, there are dangers. Working with third-party solutions and using their systems limits the ability of a school to constantly refine its own approaches and adjust non-academic services to meet the particular needs of its students.

## Budgets and the Externality Problem.

As we noted earlier, the costs to society of not integrating services, and some of the benefits of doing so, are generally hidden. This is not unique to schools functioning as hubs. The direct health effects of hospital-driven population health initiatives may be measured to some degree, but the broader benefits of children ready to learn, or adults rejoining the workforce, is rarely measured fully. And in the case of schools, the problem is compounded because the full effect on academic performance of investments in non-academic services is still a matter of debate.

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[9] See the discussion of this issue with evaluation in Butler, Grabinsky and Masi, 2015.

[10] See http://www.neighborhoodindicators.org/

The current lack of attention to measuring externalities means that even if a school's investment in non-academic services is reflected in the educational value to the school's students, it will not reflect the positive externalities that the broader community enjoys as a result of improved educational results and, for example, sounder health for students and their families. Moreover, for an integrated organization like the Harlem Children's Zone, the likely educational consequences of non-academic supports within a school may not be well distinguished from the educational consequences of the "wrap-around" social services that the organization delivers outside the school. That can lead to disputes about the impact of school-led support services.[11]

The second consequence is that the allocation decisions for the budget of a city, county or state will generally not be organized to reflect the positive externalities that a school generates. Thus a school-led, or perhaps a hospital-led, initiative that reaps benefits for the wider community is inadequately funded even though it produces net additional value to that community.

Analysts and policymakers are growing more aware of this problem but it is a long way from being solved. There are often technical difficulties in measuring the effect in one sector of activities conducted in another. Economists use several methods to measure externalities: contingent valuation, revealed preference models, and experimental or correlational analyses being among the most popular ones. But these require good access to data and considerable technical skills, which are often outside the budget and capacity of school districts and other local jurisdictions. Even when externalities are calculated using economic methodologies, it is still difficult to internalize these into the accounting structures and management procedures of organizations. Budget walls and bureaucratic resistance in government agencies—as well as stakeholder group opposition—to allowing budgets to fund activities outside the agency's normal purview also add to the challenge. That said, the widespread use of budget waivers, and the openness of some jurisdictions to using creative financing tools such as Social Impact Bonds might allow more school-based initiatives to go forward and be tested.[12]

## Enhancing Leadership and Management Skills

The school-based integration of academic and social supports requires organizational and management skills beyond the normal skillset of a school leader. It is perhaps not a surprise that celebrated cases of schools functioning as community hubs and addressing neighborhood weaknesses that also affect education often involve a charismatic and forceful leader—like a Geoffrey Canada of the Harlem Children's Zone.

A strong visionary can see and achieve change in ways others cannot by their ability to overcome barrier and drive through general inertia. But it is also true that many less forceful school leaders would be better able to help organize and manage the components needed to improve a neighborhood and help their students succeed if they simply had more training and experience in tackling these types of problems. Research by Professor Morgan McCall at the USC Marshall School of Business suggests that the management skills and intuition that enable people to succeed in new assignments are shaped through their experiences during previous assignments in their careers. If they do not have these opportunities to develop certain skillsets, it hard to expect them to be able to succeed in cases where leveraging those skills is critical to success.[13] Thus enabling school leaders to learn about other important fields and institutions early in their careers, from the local health care system to the delivery of social services and housing assistance, would give them a better understanding of how they could integrate these services into the school. Yet school leaders, like hospital administrators and other leaders, rarely have the range of experiences and training in other fields that they need to understand and to be able to run effective hubs with interdependent or modular services.

One partial solution to this problem would be to encourage professional schools to provide "rotations" in other fields. For instance, students in a university's education leadership program would take classes and practicums in, say, the schools of public health and social welfare to gain a fuller understanding of those fields and their programs. Another partial solution, which would also be enhanced by leaders with a range of skills, is the approach used by publicly funded community schools. These schools assemble a school-based team with a variety of professional skills to work with community partners and organize internal support programs.

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[11] Whitehurst, Grover, Croft, 2010.
[12] Shah, Costa, 2013.

[13] McCall, 1998.

## Are Intermediaries a Help or a Hindrance?

From using specialized institutions to provide data or signup services, to the use of partners by community schools, it is common for hubs to turn to intermediaries or partners in some way. But using intermediaries does raise concerns. To create an interdependent architecture that provides the right mix and quality of services for students, a school must have effective control of the services and how they are administered. This is especially true in the early days of a hub when the school is experimenting and the design is evolving and requires constant tweaking. That is another reason why having the right leader can often be crucial, as the leader must be able to convince or ultimately compel people to follow a design process that continually tests, learns, adjusts, and alters procedures and services. This is one reason why the KIPP schools and many other charters have a long day—it means the students spend more time in an environment that the school controls. We see a similar pattern of exercising overall control in some of the more successful hospital-based hubs in poorer communities, such as the Montefiore system in Bronx, New York. [14]

When a school-based hub makes greater use of partners and other forms of intermediaries, the concern is that although the result may lead to less costly and more easily organized services, the school also loses at least some control over its ability to fine-tune and customize interdependent services toward its ultimate goal of boosting academic outcomes. In some cases, a strong intermediary may itself effectively become the hub—for example the Family League of Baltimore[15] or STRIVE[16]—with the school and perhaps a health system and housing association functioning as spokes for that hub. That is not necessarily a bad thing, in that community organizations and other institutions can also be effective hubs, but for the school it does alter the focus and locus of control.

That said, turning to partners or intermediaries for certain basic services may not necessarily lead to a loss of control and can allow the school to concentrate on its comparative advantage. The theory of interdependence and modularity helps us see that a component that is well understood in how it functions and interacts smoothly with the rest of the school—and also does not constrain the ability to optimize the ideal architecture to solve a problem – is something that can be modularized or outsourced. Data collection and sharing can be such an example. As a school hub matures, and other service organizations such as health systems refine their operations to improve ability to cater to the needs of schools, we may see the education system moving more toward a modular system. As that happens, school leaders will have an array of services available that they can plug into the school hub without loss of control, thereby allowing the school to customize supports and know that those services are well designed for their students and the school's goal of boosting their academic achievement.

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[14] See "Advancing Community Health" in *Inspired: A Publication for Montefiore Associates,* 2012.
[15] See http://www.familyleague.org/
[16] See http://striveinternational.org/

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