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U.S. Department of Education

**An Examination of Pay for Success
Financing and Application to
Career and Technical Education**

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An Examination of Pay for Success Financing and Application to Career and Technical Education

Prepared for the
U.S. Department of Education
Office of Career, Technical, and Adult Education

**NATIONAL CENTER FOR INNOVATION
IN CAREER AND TECHNICAL EDUCATION**

BY

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MDRC

APRIL 2017

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April 2017

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ABBREVIATIONS

CTE	career and technical education
government(s)	a federal, state, or local government
NYC	New York City
PBCs	performance-based contracts
<i>Perkins IV</i>	<i>Carl D. Perkins Career and Technical Education Act of 2006</i>
pre-K	preschool education
SIB	social impact bond



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EXECUTIVE SUMMARY

Social impact bonds (SIBs) are innovative contracts in which federal, state, and/or local governments agree to purchase outcomes, and private investors provide the capital for a program to operate in order to produce those outcomes. Secondary-level career and technical education (CTE) is well positioned to push the evolution of SIBs. Specifically, a SIB in secondary-level CTE can demonstrate the appropriateness of stretching payments out long-term (more than five years) because the vast majority of education’s value may not be realized until after students have stopped attending school and entered the labor market.

Social impact bonds are also referred to as “pay for success financing,” a term highlighting two of SIB’s appealing characteristics:

1. **Pay for success** — *Accountability is increased* by adding “payment conditionality”; the government pays only when desired conditions, or outcomes, are observed; and
2. **“Financing”** — *Repayment is delayed*, which improves the government’s financing by (1) allowing enough time to pass for it to realize cost savings and (2) providing money that can then be used for repayment.

This report looks at the timing of payment and conditionality of payment to evaluate real and hypothetical SIBs. Three of the SIBs in the United States, one of which has been ended, illustrate the variability that exists in the current SIB market. Each arrangement balances its priorities differently. Some prioritize increased accountability by focusing on strong conditionality — carefully spelled-out conditions that must be met before payment is made. Such an approach appears similar to an insurance policy in which the government does not need to pay if the program fails to deliver on its promise. Other SIBs place a higher priority on better financing by focusing on payment delays. Such an approach makes the arrangement appear similar to a loan in which the government pays a premium for money today that it will be able to repay in the future. These and later examples illustrate that there is no fixed template for SIBs.

Hypothetical SIB arrangements also are explored in this report, further illustrating how SIBs can be constructed differently depending on priorities, even within the same program. These hypothetical arrangements are structured around a CTE program, as well as a high school equivalency diploma instructional program, both of which teach academic concepts in the context of careers. The hypothetical SIBs incorporate two existing programs. The first is a career academy that offers academic instruction in the context of a CTE theme, and the

second offers a high school equivalency diploma through the Bridge to Health and Business Program (Bridge) at LaGuardia Community College in New York City.

Moving forward, government participants will need to understand their priorities and attempt to construct deals that align with those priorities. The government should approach SIBs cognizant of their potential benefits. Delayed payments allow borrowing from the future to make critical investments today, and increased accountability permits governments to pay for programs only when success is observed. But governments should also be aware of the limitations and challenges associated with this new approach and the many ways in which such arrangements can be structured.



SOCIAL IMPACT BONDS AND PAY FOR SUCCESS FINANCING

Social impact bonds (SIBs) have received extensive attention in the media and within policy circles as a means of delivering cost-effective, scalable programs that improve social and economic outcomes by attracting private capital for underserved communities (McKinsey & Company 2012).

Under this approach, private-sector “investors” (lenders and philanthropic partners) provide capital to an intermediary (the organization that sets up and manages all the relationships within a deal). The intermediary then hires a service provider (generally a mission-driven nonprofit organization) that operates an intervention in exchange for the promise from a federal, state, or local government to pay for services only when the service produces the desired outcomes. Additionally, the SIB structure can allow enough time to pass for cost savings to be realized and used for repayment (White House Office of Social Innovation and Civic Participation and Nonprofit Finance Fund 2011). SIB arrangements, often referred to as “pay for success financing,” possess two appealing characteristics:

1. **“Pay for success”** — *Accountability is increased* by adding “payment conditionality”; the government pays only when desired conditions, or outcomes, are observed; and
2. **“Financing”** — *Repayment is delayed*, which improves the government’s financing by (a) allowing enough time to pass for it to realize cost savings and (b) providing money that it can then use for repayment.

The market justification for SIBs is often focused on accountability, innovation, and scaling. Improved financing — such as delaying repayment to allow for a higher level of investment today — generally is not listed as a justification for organizing a SIB (possibly because of common aversions to debt) (Steverman 2013; Whitten 2014). However, an analysis of three of the first 10 SIBs suggests that delays in repayment are a key component of SIB arrangements, and understanding the various ways that repayment can be structured within SIBs provides value for stakeholders. SIBs focused on education are positioned to push the evolution of SIBs. Specifically, a SIB in secondary-level career and technical education (CTE) can demonstrate the appropriateness of long-term (more than 5-year) payment horizons because the vast majority of education’s value may not be realized until after students have stopped attending school and entered the labor market.

The presence of a commercial lender within SIBs makes it difficult for deals to accommodate innovative programs and success terms that pass risk away from the government and on to investors. Such features can make deals too risky for commercial lenders.

As SIB deals move forward, it is important to understand how the timing and the conditionality of payment may affect the results of a program, both in real and hypothetical activities. This report shows how entering into a SIB agreement with clarity about SIBs' operating principles can help ensure that government officials enter into contracts that help them achieve their goals. For instance, governments must explore whether a particular deal focuses on increasing the level of investment (delaying payment), increasing accountability (making payment conditional, based on performance), or both. This report, in short, can make governments more intelligent consumers of SIBs.



CONDITIONAL AND DELAYED PAYMENTS WITHIN SOCIAL IMPACT BONDS

Commercial lending within SIBs allows governments to obtain program services in the near term while deferring payment to the future. There are two distinct reasons to push repayment into the future. First, delaying payment allows enough time to implement the program and for third-party evaluators to observe key outcomes or impacts, with the goal of demonstrating success (adding conditionality to the payment often requires delaying the payment). Second, delaying payment allows the government sufficient time to realize and benefit from the economic value of outcomes produced, in turn making a higher level of investment possible. It is important to note that the time it takes for the outcome to be observed may not align with the time needed for the value of the achieved outcome to be realized. For example, CTE students may receive services in high school that enable them to earn marginally more than nonparticipants in CTE, but the increased wage taxes may take years to accrue an amount equal to the initial program cost. These two delays in payment (one to demonstrate programmatic success and the second to realize the value of success) are related, but they present distinct opportunities and challenges for the SIB financing model. The value of both types of delays should be considered and pursued based on their respective merits and the priorities of the parties involved.

Currently, state finance laws do not allow state and local governments to use debt to pay for social programs, which prevents them from aligning the repayment of such investments with their value. Such restrictions are a logical response to the two-sided nature of financing: It can be an incredibly powerful tool for positive transformation when used for investment but similarly powerful in negative ways when used to pay for consumption. Restricting the ability of state and local governments to invest in human capital based on the current population's ability to pay (today's tax base) can lead to substantial underinvestment.¹

¹ For example, imagine a low-income community struggling to pay for services to invest in itself. Now imagine that same community receiving an influx of refugees. These recent arrivals are potentially a major long-term asset for the community, but they will likely require services in order to fully develop their economic and human potential. The constraints of the public financing system force the current community to choose between investing in the refugees and investing in itself. Within the current paradigm, the community simply cannot afford both. While today's tax base does not have the ability to properly invest in everyone, it seems likely that the tax base in the future, in which both groups are sufficiently invested in, would have the ability to pay for these services. At its best, better governmental financing options, like SIBs, offer a path out of poverty by transferring money from the future to the present in order to build a prosperous future that will be dramatically different from the future that will arise without sufficient resources to make critical investments.

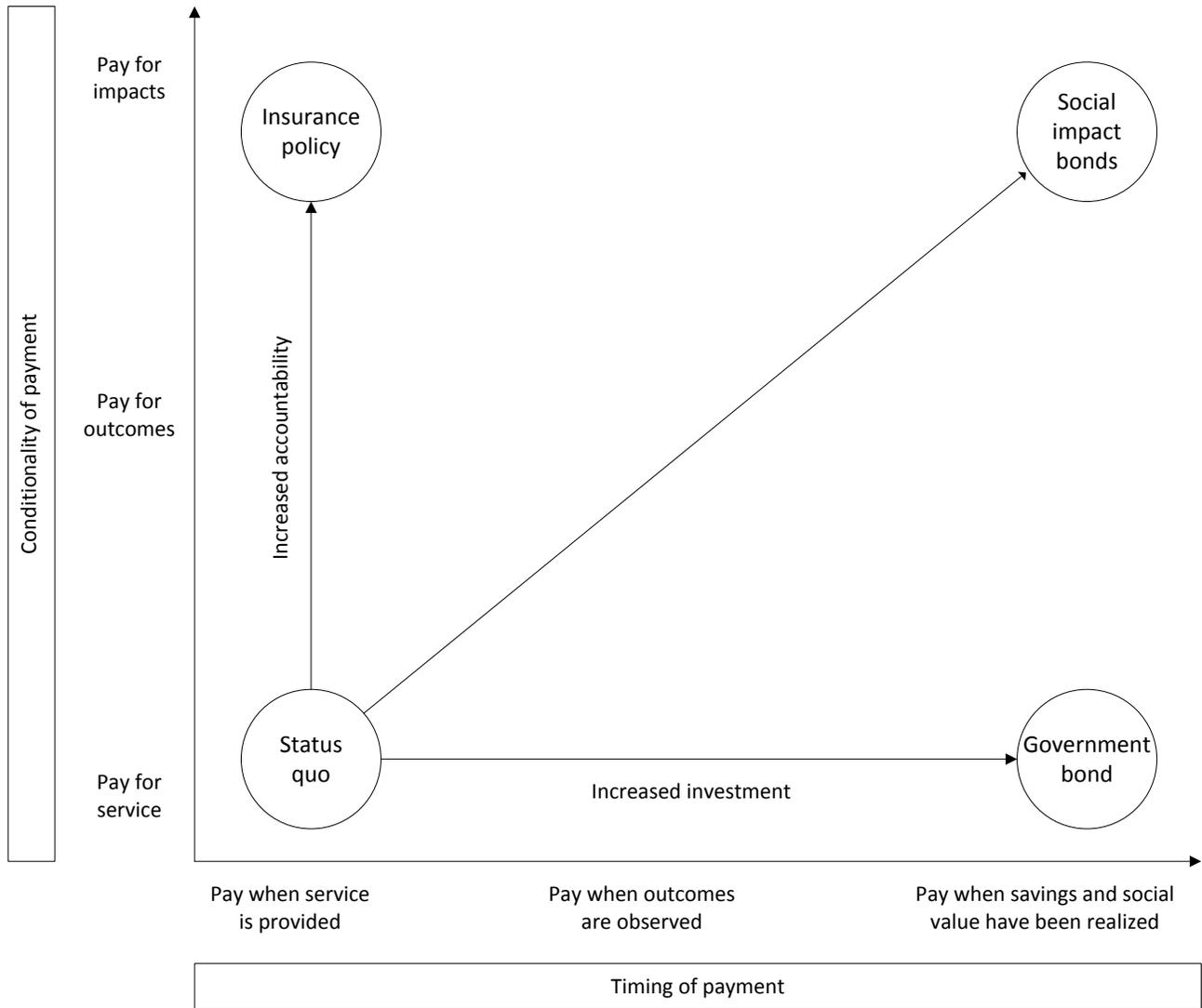


Figure 1 plots the status quo and three illustrative points on the coordinate plane. The x-axis measures the timing of payments in potential social impact bonds. The timing can range anywhere from “pay when the service is provided” (no payment delay) to “pay when savings and social value have been realized.” Movement along the x-axis away from the origin (representing the status quo) to the right should allow the government to increase its investment because it will be able to capture the value created by the program to make payments, which releases the government from the constraints of today’s tax base. A deal that had a long payment delay without performance conditionality would work a lot like a traditional government bond (the main difference being that, legally, a government generally cannot issue bonds to make investments in human capital through social services).

The y-axis measures the conditionality of payments (the burden of proof required to trigger government payment). It ranges from “pay for service” (no conditionality), meaning payment is made when the service is delivered, to “pay for impacts,” meaning payment is made based on the difference between the outcomes of program participants and the outcomes of a comparison group of a similar or equivalent population that did not receive the program. A program that paid only for impacts would end up acting a lot like an insurance policy that protects the government from performance failure. Depending on the outcome that is being measured, there will likely need to be some amount of delay in order to have time to observe performance.² SIBs could be structured differently so they could theoretically fall anywhere on this quadrant with some amount of performance conditionality and some amount of payment delay.

² For instance, it could take four years to observe that someone has graduated from high school. Alternatively, if the government wanted to use the value of those graduates to pay for the program, the repayment would likely need to be spread over at least 10 years.

Figure 1. Designs of social impact bonds, by timing and conditionality of payment, and level of accountability and investment



NOTES:

The x- (horizontal) axis measures the timing of payments in SIBs, which can range anywhere from “pay when service is provided” (no delay) to “pay when savings and social value have been realized.” By pushing payment into the future, the government is able to increase its level of investment today.

The y- (vertical) axis measures the conditionality of payments in SIBs. It can range anywhere from “pay for service” (no conditionality) to “pay for impacts” (impact equals the difference in a particular outcome between a program and comparison group).

The status quo of typical government contracts without a SIB is represented by the point in the figure where the x- and y- axes meet. As deals move away from this point, they become more like insurance policies and government bonds, depending on the structure.

CASE STUDIES OF SOCIAL IMPACT BONDS

This case study analysis describes select characteristics of SIBs in three jurisdictions: New York City (NYC), Salt Lake County (Utah), and Chicago. Information presented is not intended to provide a comprehensive understanding of these arrangements, but rather to illustrate the conditionality of repayment and duration of delay for repayment across the deals. This analysis will show that (1) deals with strong performance conditionality make it difficult to attract investors, while deals without strong performance conditionality make it much easier to attract investors; and (2) the concept of conditional payments forces payment delays and opens the possibility of greater time delays. In particular, the application of conditional payments (delaying payment to observe results) requires that enough time pass to observe outcomes and recoup investments from societal savings or increased revenue. Once repayment is delayed to observe success, it seems more realistic to push repayment even further into the future. The initial delay helps to disarm any aversions to paying for social programs over time (issuing debt), and the value of payment delays become clearer.

CASE 1: NEW YORK CITY — AUGUST 2012

The first SIB in the United States, the Rikers Island SIB, sponsored by Goldman Sachs, paid for up to four years of cognitive behavioral therapy for adolescents in jail. The presumption was that the treatment would help incarcerated youths make better decisions, thereby reducing recidivism and allowing the government to save money by operating fewer jail beds (Rudd et al. 2013). All payments in the contract were based completely on the program's impact on future days in jail, with impact being based on the difference between the program group outcomes and the control group outcomes. The Rikers Island SIB was, and will likely remain, the strongest example of conditionality required for payment.³ The SIB was structured so that,

³ Although the standard of proof to trigger payment is high in this arrangement, there is still uncertainty regarding long-term program performance. Specifically, the evaluation that triggers payment follows the cohort from the program's first year of operation for up to two years after release. The observed 2-year impact is assumed to be a reasonable estimate of impact for all future cohorts. Additionally, the 2-year impacts are assumed to be sustained for up to six years for any cohort. Neither assumption is necessarily true, which yields a degree of uncertainty for the city.

if the program failed to reduce the treatment group's future time in jail by at least 8.5 percent, when compared to a comparison group, then the government would pay nothing.⁴

Interim payments are critical in a SIB to minimizing the risk to the lender. Therefore, the deal was designed so that, after three years, an early review of results could trigger an interim success payment of \$2.4 million, out of a total \$9.6 million investment. Stakeholders anticipated that definitive results of the program would be known within four years, although failure could be identified after three years. Working with these assumptions, the SIB provided complete repayment after five years (one year more than the time required to determine performance success). The 5-year repayment period was required to give the NYC government enough time to realize the savings associated with youths returning to jail less often.⁵

The Rikers Island SIB had very strong payment conditionality — repayment was based completely (100 percent) on impact, meaning the government would pay nothing if the program failed to reduce the amount of time that an average participant typically spent in jail. By comparison, the timing of the payment had enough delay to observe results, plus one additional year to realize the value of the program. (See figure 2 to determine where the deal fits in the framework presented earlier in figure 1.) The strength of the accountability elements increased investor risk to the extent that Goldman Sachs required a 75 percent financial guarantee.⁶ Specifically, \$7.2 million out of the entire \$9.6 million investment in this program was guaranteed by Bloomberg Philanthropies. Additionally, the costs of the intermediary and the evaluation were paid by philanthropy groups outside the terms of the loan agreement. If the terms of conditionality were not as strong, then the commercial lender would have required a smaller financial guarantee and less philanthropic support. This is the case because investors have an absolute threshold of risk that they are willing to accept. Many factors influence total risk. Adding strong terms of conditionality creates substantial risk. To offset that risk the investors require financial guarantees and philanthropic support. If terms of conditionality are weaker, then there is less risk to offset,

⁴ By comparison, if NYC had agreed to pay a fixed amount per individual who did not return to jail, then there would have been at least partial repayment because some fraction of the youths already did not return to jail. This would have reduced the overall financial risk to the lender because, even if the program did not make a difference, there still would have been at least partial repayment. Such a change would weaken the conditionality of the payment and would cause the Rikers Island SIB to be placed at a lower point on the y-axis of figure 2. If the amount per outcome was set high enough, the investor could eliminate all risk of performance failure.

⁵ It is worth noting that all savings are associated with NYC jail costs only; the cost of New York State prisons is not considered. If these state costs were incorporated into this financial arrangement, the impact required for investor repayment would have been smaller, and the deal would have had less risk. However, to incorporate these costs, additional partners would have needed to be added to the deal, which would have delayed the program start date and further complicated negotiations.

⁶ A financial guarantee, or backstop, would be paid to an investor in the event that no success payments were made by the government.



which means smaller financial guarantees and less philanthropic support to arrive at an acceptable balance.

In the summer of 2015, the program was shut down after the 1-year evaluation determined that cognitive behavioral therapy was not having the required impact on the youths' recidivism. (MDRC 2015). Investors lost their investment. Goldman Sachs lost \$1.2 million on its \$7.2 million investment (as it took possession of the \$6 million financial backstop provided by Bloomberg Philanthropies). Although the program failed to produce the desired impact on recidivism, the SIB financing arrangement worked as intended. With the SIB, New York City was able to provide a promising intervention to more than 4,000 young people during the three years the program operated, using financing from the private sector. Because the program did not meet the impact requirements, the city has not paid for the program — a positive outcome for the city and taxpayers (MDRC 2015). However, the outcome of the Rikers Island SIB highlights the risk to investors and puts additional pressure on future SIBs to design terms that make repayment more likely. If SIBs remain too risky, investors may avoid them.

CASE 2: SALT LAKE COUNTY (UTAH) — AUGUST 2013

The Salt Lake County SIB pays to expand children's access to preschool education (pre-K) services by 450–600 slots per year. In this arrangement, investors pay for students who are most likely to require special education services.⁷ These students are identified based on their scores on a picture vocabulary test, on which those students scoring below a certain threshold are expected to require special education services. Early measures of special education placement are expected to provide a strong indication of the likely value of future payments. Therefore, the deal is structured so that low-scoring students receive the program's pre-K services, and investors in turn receive a payment from Salt Lake County for students who are not placed in special education classes after they complete pre-K. A success payment of \$2,470 is made for each student not placed in special education in kindergarten through grade six. From grade seven through grade 12, a success fee of \$1,040 will be paid each year for each student not in special education.⁸ In this deal, the commercial lender required a 52 percent financial guarantee (\$2.4 out of \$4.6 million — a much smaller financial guarantee than that of the Rikers Island SIB).

⁷ The exact definition of “special education services” is unclear from this deal's publicly available documents. However, the financial calculation allocates \$2,470 for each avoided special education placement, so presumably the definition would correspond to the level of service associated with that amount of money.

⁸ “Success payments” and “success fees” appear to be the same thing, although the documents describing the deal appear to use the terms to distinguish between the \$2,470 payments and the \$1,040 payments.



To date, the specific details of the Salt Lake County SIB are not public, making a complete financial analysis difficult. Based on information available, it appears that some of the youths would not be placed in special education even in the absence of expanded pre-K services because early tests are not perfectly related to future placements. This arrangement clearly employs a narrative of savings, but it is unclear if and to what extent this deal actually shifts risks from the government to investors. Take, for example, this excerpt from the deal's fact sheet: "The potential *savings* associated with the reduction in special education usage are significant, and in each scenario exceed the potential payments to the lenders."⁹ However, the details of the deal that are available seem to minimize the amount of risk investors assume, although a general lack of transparency within the contract makes it difficult to determine the extent of the risk.

A recent article in the *New York Times* raises questions about whether the program achieved the success that was claimed.¹⁰ The article states, "Payments to Goldman ... were based on a faulty assumption that many of the children in the program would have needed special education without the preschool, despite there being little evidence or previous research to indicate that this was the case." This example illustrates that investors will seek to structure deals with language that implies a shift in risk, while the details actually remove the possibility that performance failure will result in investor losses. However, it is worth noting that the narrative around savings allowed for a real expansion of pre-K services and did so in a way that spread repayment over 14 years.¹¹

The Salt Lake County deal delays payments much longer than the NYC deal; the former spreads repayment over 14 years in order to allow special education savings to be realized. However, the Salt Lake County deal imposes lower outcome standards (weaker conditionality) for payment than the NYC deal because a portion of the investment will be repaid even if the program fails to achieve the desired results. (See figure 2 to determine where the deal falls within the framework described in figure 1.) The lack of rigorous evaluation makes it impossible to identify with certainty the degree to which success payments are simply "windfall payments," which are payments associated with students who would not have been placed in special education regardless of the intervention (although the

⁹ Also, remember that savings associated with less special education accrue to the state of Utah, but the state was not a party to this agreement. So, while expanded pre-K services should produce government savings, it is unclear whether there will be any budget savings for Salt Lake County, and it is the county, not the state, that has agreed to pay in the future.

<http://www.goldmansachs.com/what-we-do/investing-and-lending/impact-investing/case-studies/impact-bond-slc-multimedia/fact-sheet-pdf.pdf>.

¹⁰ <http://www.nytimes.com/2015/11/04/business/dealbook/did-goldman-make-the-grade.html>.

¹¹ It is unclear if such an arrangement would put pressure on a district to avoid special education placements. Such possibilities should be observed over time to ensure that it in no way threatens students' ability to receive a free appropriate education.

New York Times articles seems to suggest the deal has a high percentage of windfall payments).¹²

CASE 3: CHICAGO — OCTOBER 2014

The Chicago SIB also funds an expansion of pre-K services and has many similarities to the Salt Lake County deal. For example, it involves a local government basing repayment on reduced special education through grade 12, although such funds are paid by the state, which is not a party to the agreement.¹³ It also includes payments for each youth who is deemed kindergarten-ready and for each youth who achieves a threshold score on a grade three test. Each of these three payments reduces overall financial risk by potentially increasing the number of windfall payments. With the Chicago SIB, some portion of the investment will be repaid even if the initiative fails to improve outcomes for the program group compared with the comparison group. This is because some Chicago students would not be placed into special education regardless of whether the arrangement was in place. Multiple payment points also allow for early and regular payments, which are much more attractive to investors than waiting a long time for one large payment.

Because the funded slots are not targeted toward students who are likely to be placed in special education, as was attempted in Salt Lake County, the Chicago SIB has a larger portion of the loan guaranteed to be repaid over time. As a result, the SIB has only a 24 percent backstop; two commercial lenders supply 76 percent of the investment, and a philanthropic partner supplies 24 percent.¹⁴ Additionally, the loan agreement includes the cost of evaluation, intermediary, and legal fees within the financing. During four years, this SIB represents a total investment of nearly \$17 million, with nearly \$1.6 million, or 9 percent, earmarked for an evaluator, intermediaries, and legal fees.

¹² Windfall payments were initially believed to be minimized because the program targeted students with low scores on a predictive test that suggested many would be placed in special education.

However, it seems that many of the low scorers on the test, administered in English, were English-as-a-second-language students with language needs, rather than students with true learning disabilities.

¹³ It is unclear exactly how “reduced special education services” is defined and what that means for government budgets. This illustrates the need for transparency in these early SIB arrangements. To date, contractual details of this kind are often not described publicly, providing a barrier to the growth of similar arrangements.

¹⁴ Complete details for the NYC and Salt Lake County arrangements are not publicly available, but the Chicago SIB terms sheet is

<https://chicago.legistar.com/View.ashx?M=F&ID=3280598&GUID=9F620114-6B06-428B-949D-FE2E429DF933>



The Chicago SIB has the weakest terms of conditionality of payment of the three examples (figure 2) and, as a result, required the smallest philanthropic backstop.¹⁵ Like the Salt Lake County SIB, the Chicago SIB also uses strong language around savings spread over more than a decade, although no savings will accrue to the participants in this SIB (similar to Salt Lake County). However, the structure of payments in Salt Lake front-load the repayment (with larger payments for early years), whereas the structure in Chicago is expected to require essentially the same amount of repayment each year for 14 years. In this case, the contractual details related to payment resulted in the longest payment delays to date, which is a substantial accomplishment and demonstrates the type of innovation that could help communities across the country increase their investments in long-term human capital.

CASE STUDY WRAP-UP

Each of these arrangements uses language that claims to reduce future government spending, but an examination of the details of each arrangement tells a more complicated story. Government decision-makers interested in SIBs would be well served to study these early deals and familiarize themselves with the contract specifics of each one to see how the details compare to the marketing and or the language supplied by deal-makers, for example, in fact sheets. At a minimum, the contract between the government entity and the intermediary could be obtained by an interested party through a *Freedom of Information Act* request. Obtaining details about the actual commercial loan, however, may be more difficult because these contracts only involve the lender(s) and the intermediary and are not subject to the *Freedom of Information Act*.

Figure 2 plots the three case-study SIBs based on the conditionality required for payment and the amount of time delay (how well the repayment schedule aligns with the value produced by the program). The Rikers Island SIB had the strongest terms of conditionality for repayment and therefore provided the most effective insurance policy for the government against program failure (hence, of these three deals, it is located highest on the y-axis of figure 2). Such a deal would be very difficult to replicate, given the high risk to private investors. The NYC deal also had the shortest period of repayment (five years) and is therefore located furthest left on the x-axis. The Chicago SIB had the longest time delay on payments and is therefore located furthest to the right on the x-axis. The Chicago SIB also acts more like a traditional government bond by effectively spreading payment for pre-K services equally over 14 years, in line with expected savings from reductions in special education placement. Chicago has the least risk of performance failure and is therefore

¹⁵ If the government thought it was buying an insurance policy when it agreed to this SIB, then it is likely buying a bad insurance policy that will not cover payout if the program fails to make a positive difference.

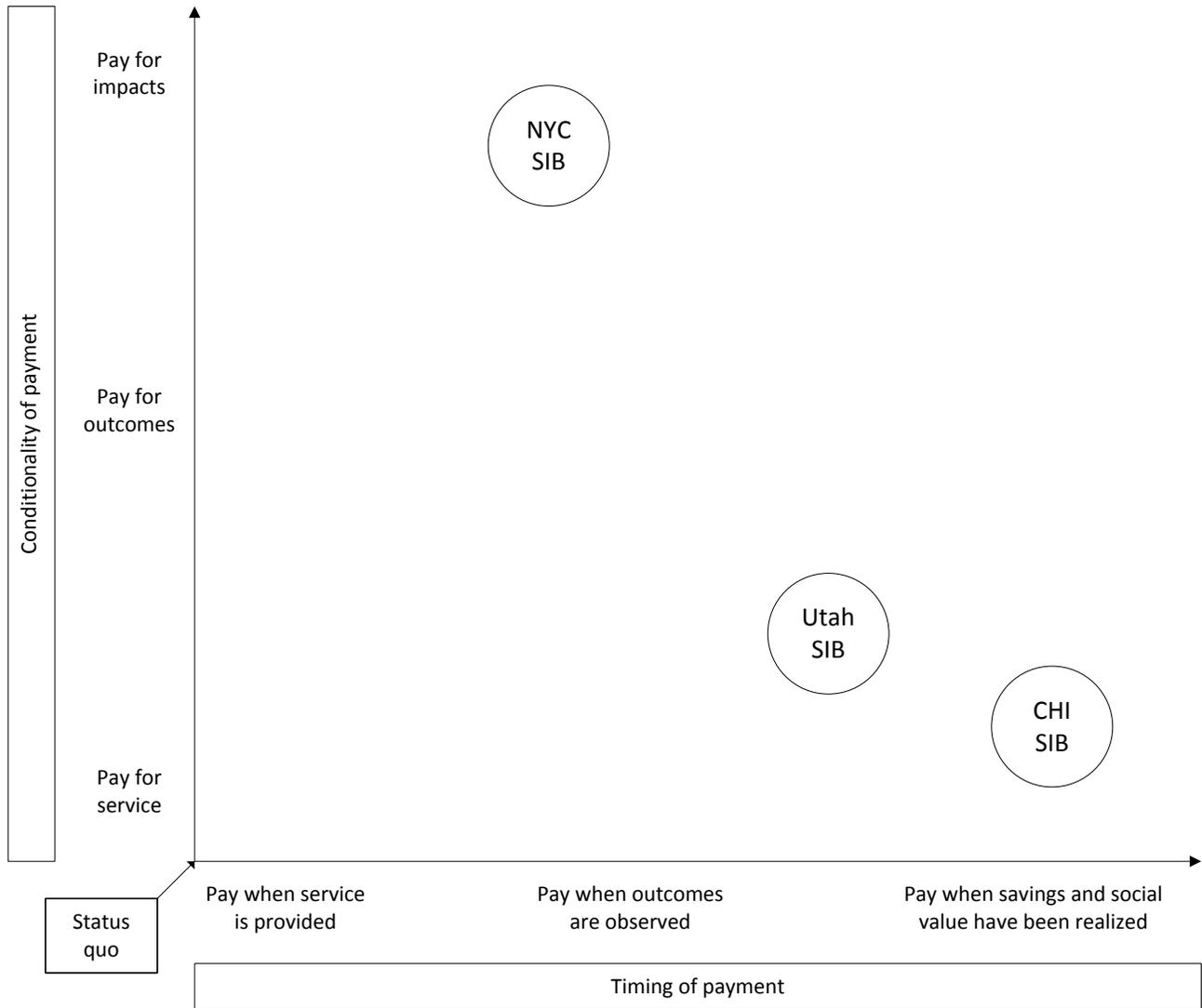
placed lowest on the y-axis. Plotting each deal is not meant to be precise, but it is meant to illustrate how these three deals differ from one another.

Government decision-makers must understand that simply because an initiative “pays for success” — pays for the production of outcomes — this does not mean that repayment requires the program to improve outcomes above and beyond what typically happens without the program. At the same time, just because a deal does not transfer performance risk to investors does not preclude it from having value for the government and for improving the status quo. Each of these SIB deals allows government to provide a desired service that aims to produce social value and to pay for the service over a period of five to 15 years. This change seems desirable based on the idea that payment should be aligned with the timing of benefits. However, if delaying repayment to align with value is the primary goal, then it might be possible to pursue such an innovation without the additional costs associated with SIBs (i.e., the intermediary, an evaluation, and the premium charged for performance risk). For example, government might be better served to change laws to allow for more traditional bonding of certain social programs.

Currently, it is generally against state laws to pay for social services provided in one year during the course of multiple years. But there are instances, such as pre-K services, where the government should be able to invest in people using the same financial tools (public bonds) it uses to invest in transportation and water infrastructure.¹⁶ Alternatively, if the primary goal of these arrangements is to reduce the government risk, increase accountability, and promote innovation, then the government should also reevaluate the approach because the need to reduce risk to attract commercial lenders will often undercut such efforts. For example, intermediaries may seek to attract investors by making deals less risky by structuring repayment around outcomes that are already produced (diminishing conditionality). Such changes would guarantee repayment and undercut the concept of paying for success. Similarly, it might make sense to pursue these ends with other means that more efficiently target the goal. For example, it may be easier for the government to pursue increased accountability through performance-based contracts that do not involve a commercial lender. Eventually, government will need to reevaluate early SIB arrangements and verify that the premium paid to include payment based on achieving desired outcomes results in an equal or greater reduction in risk for the government.

¹⁶ The state of Minnesota passed legislation to allow financing of social outcomes. The arrangements are referred to as Human Capital Performance Bonds. They allow the state to sell conventional bonds to create a pool of cash for purchasing social outcomes produced by service providers. As the state begins to reap the financial benefits, it sets these monies aside to pay interest, amortize the principal, and cover administrative costs of the arrangement (Rothschild 2013).

Figure 2. Three social impact bond structures, by timing and conditionality of payments



NOTES:

Figure 2 illustrates three SIBs: (1) NYC SIB, the Rikers Island (NYC) social impact bond, which focused on prisoner recidivism (August 2012); (2) Utah SIB, the Salt Lake County social impact bond, which focuses on pre-K services (August 2013); and (3) CHI SIB, the city of Chicago social impact bond, which focuses on pre-K services (October 2014).

The x- (horizontal) axis measures the timing of payments in social impact bonds, which can range anywhere from “pay when service is provided” (no delay) to “pay when savings and social value have been realized.”

The y- (vertical) axis measures the conditionality of payments in social impact bonds, which can range anywhere from “pay for service” (no conditionality) to “pay for impacts” (impact equals the difference in a particular outcome between a program and comparison group).

The status quo of typical government contracts without a social impact bond is represented by the point on the coordinate plane where the x- and y-axes meet.

SOCIAL IMPACT BONDS AND SECONDARY-LEVEL CAREER AND TECHNICAL EDUCATION

High-quality secondary-level CTE programs are designed to prepare all students for both postsecondary education and career success. Specifically, secondary-level CTE (secondary CTE) offers students an opportunity to strengthen their learning by integrating academic and technical skills learned in an applied setting (Visher and Stern 2015). Secondary CTE provides an opportunity to strategically and efficiently create workplace skills in a way that helps high school students realize their full economic potential, while producing a return on investment for participants, the government, and society as a whole. At the same time, secondary CTE aims to improve career readiness by reinforcing the connections between secondary and postsecondary education and between both levels of education and the workforce. Like other investments in human capital, the value of secondary CTE is spread across multiple years. It is possible that society might be willing to increase its investment in secondary CTE if current-year payments for secondary CTE could be better aligned with the long-term value produced. A SIB that prioritizes delaying payment constructed around a program with secondary CTE elements can be a compelling demonstration that the value of programs that increase earnings over time can have their repayment structured in a similar way. In addition to aligning the payment for secondary CTE services with the period of time when the value of secondary CTE investments are realized, SIBs are an opportunity for policy-makers interested in secondary CTE to add conditionality to repayment. Doing so can (1) build knowledge about the effectiveness of CTE, and (2) attract resources to expand CTE programs that have strong evidence of effectiveness.

POTENTIAL PRIORITIES: TIMING AND CONDITIONALITY OF PAYMENT

Secondary-level CTE is well positioned to push the evolution of finance-focused SIBs. Specifically, an SIB in secondary CTE could potentially set a new precedent for SIBs in education by demonstrating that the vast majority of value produced by education is realized after the recipient is out of school and has entered the labor market. A secondary CTE SIB could push repayment into the future using the savings of various government entities (such as reduced expenditures on social supports like Temporary Assistance for Needy Families

and the Supplemental Nutrition Assistance Program) while pushing SIBs to look beyond reductions in government expenditures to also include increases in government revenues. For example, if secondary CTE increases earnings, then it likely also increases tax payments. Repayment could be aligned with increases in future tax receipts.

However, to the extent that secondary CTE programs lack strong existing evidence, it will be difficult to build SIBs with strong conditionality. If there are not clearly defined interventions backed up with rigorous independent research, then it will be difficult to find programs to provide the confidence necessary for investors to feel assured that results are replicable.

SIBs with conditional payments operate as an extension of performance-based contracts (PBCs).¹⁷ As a result, CTE policymakers should reflect upon the limitations of PBCs because flaws of PBCs will likely extend into SIB arrangements. Some literature suggests that some organizations lack the capacity to properly structure sophisticated contracts like PBCs. For example, organizations that do not consistently define their purpose and are unable to point to specific outcomes that define success at the onset do not realize the full value of PBCs (Smith and Grinker 2004). Similarly, organizations that do not have data systems in place to collect their outcome data, even if they agree on the outcome that defines success and failure, are unlikely to benefit from such a tool, simply because they do not have the capacity. If secondary CTE programs are unable to provide evidence of valid and reliable measuring tools, standardized data structures, and data reporting procedures, then secondary CTE might not be ready to participate in SIBs that focus on shifting risk to investors with performance conditionality. In that case, it may make more sense to invest in secondary CTE data collection infrastructure that provides access and builds connections across existing data sets focused on secondary, postsecondary, and workforce outcomes.

One strategy that may help overcome inadequate public data sets is to partner with organizations that have large repositories of data. For instance, it may be possible to collaborate with credential bodies and associations such as the American Nursing Association — especially if that organization administers a technical skill assessment or awards an industry credential required for entry to the field. Also, it is conceivable to do a conditional payment where the data that triggers payment would come from a corporation. For example, credit scores could be one simple yet compelling measure of success for higher education, postsecondary education, and secondary-level CTE. In the absence of comprehensive public data sets across various levels of government (local, state, and federal), data from organizations like Experian, Equifax, and TransUnion may provide a reliable measure that could help evaluators understand if the education (with a degree or not)

¹⁷ PBCs in this report refer to arrangements where governments agree to pay service providers based on the production of specific inputs, outputs, outcomes, and impacts.



properly prepared students to repay their debt and actively participate in the formal economy.

Another strategy that could help position secondary CTE to move toward SIB readiness would be to develop and strengthen performance-based funding structures. The skills required for allocating government resources to effective programs are needed to participate within the SIB sphere, yet these programs operate without interference from commercial lenders; therefore, government may be better positioned to respect multiple goals — for example, provision of resources to effective programs, innovation, and knowledge building.

APPLICATION OF SOCIAL IMPACT BONDS TO CAREER ACADEMIES

Career academies are small learning communities organized around themes such as health sciences, law, business and finance, and pre-engineering. They are typically housed within larger high schools designed to prepare students for college and careers. Career academies have existed for nearly 30 years in an estimated 8,000 high schools across the country. In response to interest from the U.S. Department of Education, MDRC conducted a random-assignment evaluation of such programs (Kemple 2008). The evaluation tracked a sample of students for 12 years and found strong and sustained impacts on students' labor market outcomes, most notably on earnings. More than eight years after expected program completion, earnings increased by nearly \$13,000 per program group member during this follow-up period — nearly \$5 of increased earnings per dollar of additional investment. An earlier (not publicly released) analysis estimated the operating cost of high school career academies for four years to be \$2,566 per student (12 percent more per program group member than was typically invested in control group members). As a result, if one-quarter of the earnings increase could be captured, it could repay the initial investment plus provide a financial return. This reinforces the idea that a career academy SIB is feasible. This report expands on that idea and identifies a variety of SIB deals that could be built around this program model.

For instance, if the government were confident about the economic returns from a career academy education model, then it might be reasonable to enter into a SIB that focused on delaying repayment (rather than performance conditionality). Specifically, government could enter into an arrangement where it agreed to make a \$400 payment to the intermediary for each participant every year for the next eight years (see C.A. Option 1 in figure 3). This arrangement would spread repayment over eight years but have weaker terms related to outcomes because the arrangement would not increase confidence that the program was making a meaningful impact. Alternatively, if government were less confident about the

results and did not value aligning payment with the program's realized value, then a SIB might be set up to observe earnings for three years. Then, if the program produced an earnings increase of a certain magnitude, after three years of follow-up, the government would pay for the program plus a rate of return (see C.A. Option 2 in figure 3).

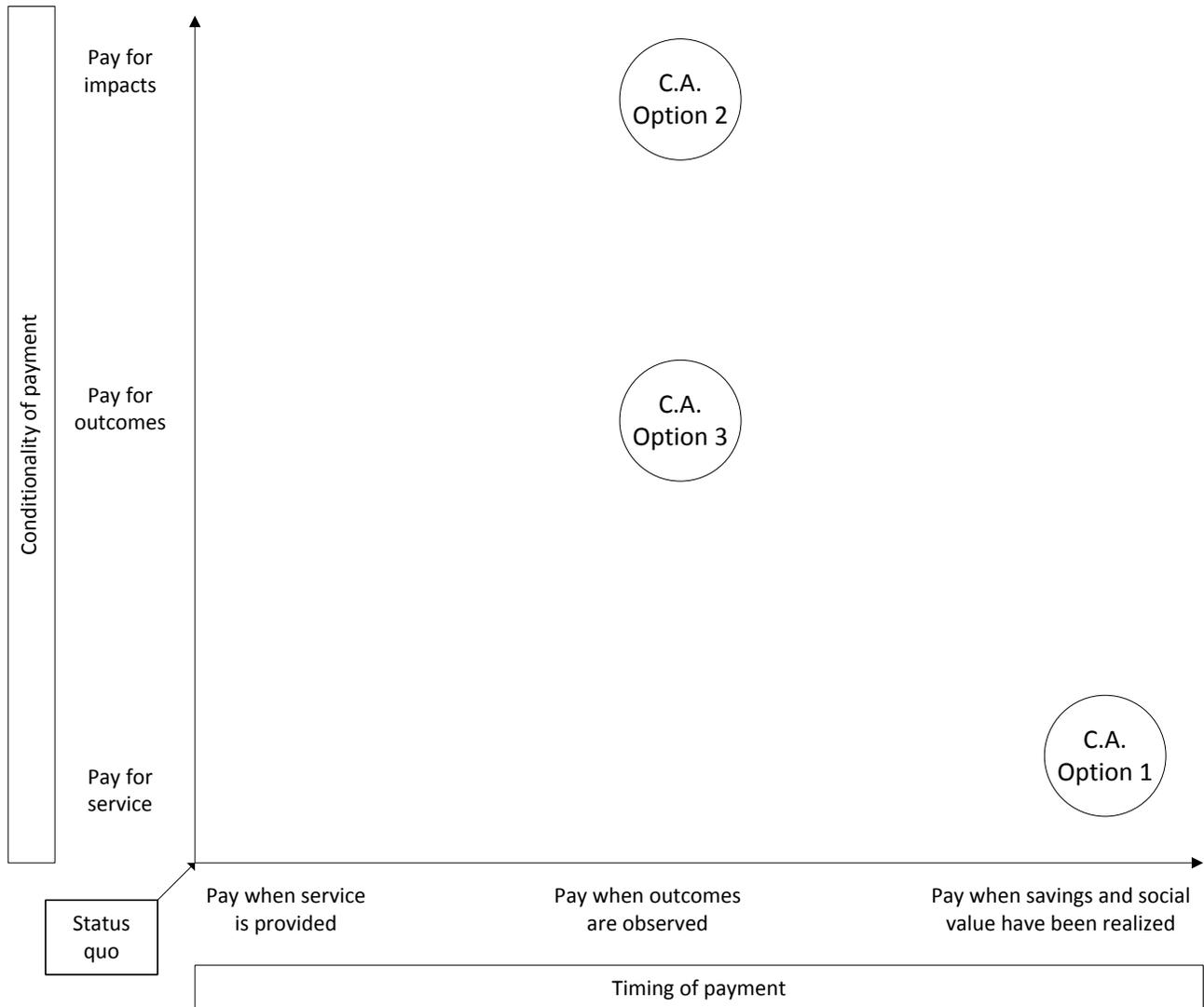
Finally, if the government lacked a clear understanding of an investment's impact on career academies, and if investors were uncomfortable with the existing research, it might then be possible to structure a SIB with earnings observed for three years and a payment made for every dollar the program group earned.¹⁸ This amount could be set so that the investment would be paid in full, plus interest, even if the program failed to improve earnings over the comparison group (see C.A. Option 3 in figure 3).

Figure 3 plots these three options on the coordinate plane that was used earlier in the report with timing of payment on the x-axis and conditionality of payment plotted along the y-axis. This figure shows how a SIB focused on one particular program can be structured in very different ways depending on the priorities of the parties involved. The three examples are illustrative but certainly do not represent an exhaustive list of possible ways to structure a SIB around the career academies concept.

To date, SIBs have focused on their value to and savings for governments. A discussion about SIBs in CTE (such as the career academy option described above), however, can open a broader conversation about uses of SIBs that extend beyond the participants and government. One option would be for CTE SIBs to target the value of job training to corporations that hire people who complete CTE. The examples above involve a government payer, but this role could potentially be played, in part or in full, by a corporate partner. Such a SIB could help better align the goals of CTE programs with corporate needs. Again, the actual design of a deal would depend on the priorities of the payer(s). One company may want the program to result in clear evidence of positive results (with a focus on conditional repayment), while another company may want a program that allows it to pay over a greater period of time (with a focus on delaying repayment). A third company may want to balance both priorities.

¹⁸ This example is meant to illustrate the spectrum of possibility. It is not being recommended.

Figure 3. Three hypothetical social impact bond options for career academies, by timing and conditionality of payments



NOTES:

Figure 3 illustrates three possible ways to design a social impact bond for a career academy. Option 1 prioritizes aligning the timing of payment with the realization of savings and social value; it does not increase the conditionality for payment and pays for services similar to the status quo. Option 2 prioritizes conditionality by requiring that impacts be observed in order to trigger payment. Option 3 has some additional conditionality by requiring outcomes to be observed before payment and slightly delays payment by requiring enough time to pass for outcomes to be observed. These examples are illustrative, not exhaustive.

The x- (horizontal) axis measures the timing of payments in social impact bonds, which can range anywhere from “pay when service is provided” (no delay) to “pay when savings and social value have been realized.”

The y- (vertical) axis measures the conditionality of payments in social impact bonds, which can range anywhere from “pay for service” (no conditionality) to “pay for impacts” (impact equals the difference in a particular outcome between a program and comparison group).

The status quo of typical government contracts without a social impact bond is represented by the point on the coordinate plane where the x- and y-axes meet.

APPLICATION OF A SOCIAL IMPACT BOND TO INTEGRATED HIGH SCHOOL EQUIVALENCY DIPLOMA INSTRUCTION

LaGuardia Community College's Bridge to Health and Business (Bridge) Program in New York City offers another example that illustrates the feasibility of a SIB. The Bridge program curriculum teaches academic content in the context of health or business careers to better prepare students to pass the state-recognized high school equivalency exam and continue on to college-level coursework and certification programs. Bridge uses CTE as a strategy to provide instructional intervention for adults. One year after enrolling in the program, Bridge students were far more likely to have completed the coursework, to have passed the state-recognized high school equivalency exam, and to be enrolled in college than students in a more traditional high school equivalency diploma preparation course.

The goal of a program like Bridge is to prepare students not only to attain their state-recognized high school equivalency diploma but also to enroll in college and receive workforce training. To support this goal, a SIB could focus on multiple success measures including state-recognized high school equivalency diploma attainment, projected college credentials earned, and expected annual earnings. Each of these outcomes is observed on a different timeline. State-recognized high school equivalency diploma attainment is a short-term outcome that can be observed in a relatively short follow-up period. College credential attainment and annual earnings represent medium- and long-term outcomes that require extensive follow-up before they can be observed.

As with earlier examples, many SIB approaches can be structured around the LaGuardia Bridge program. For example, the government can identify a price that it is willing to pay for additional state-recognized high school equivalency diplomas earned. Then, after 12 months, it can make a payment based on the number of state-recognized high school equivalency diplomas earned (see figure 4, LaG. Option 1). This option would delay payment only long enough to observe outcomes. But it would have performance conditionality to shift risk from the government to investors (by not delaying repayment long enough to determine how many students received the state-recognized high school equivalency diplomas). However, this option would allow evidence to be built regarding the program's ability to produce impacts. As another example, the government can identify a price that it is willing to pay for additional state-recognized high school equivalency diplomas over a longer period of time (beyond 12 months). Based on high school equivalency diploma attainment after 12 months, the government can agree to make fixed payments each year for the next 10 years based on the number of equivalent diplomas earned (see figure 4, LaG. Option 2). This



could shift some risk to investors depending on price per outcome, and it would delay payment long enough to align repayment with the value associated with the outcomes.

As a third example (see figure 4, LaG. Option 3), the government could structure a deal in which it pays only for increases in state-recognized high school equivalency diploma attainment and college enrollment, but it would delay repayment only long enough to observe impacts. Such an arrangement would allow the government to pay nothing if the program does not result in better outcomes. If the program does produce better outcomes, then the government would make the payment when the outcomes were observed.

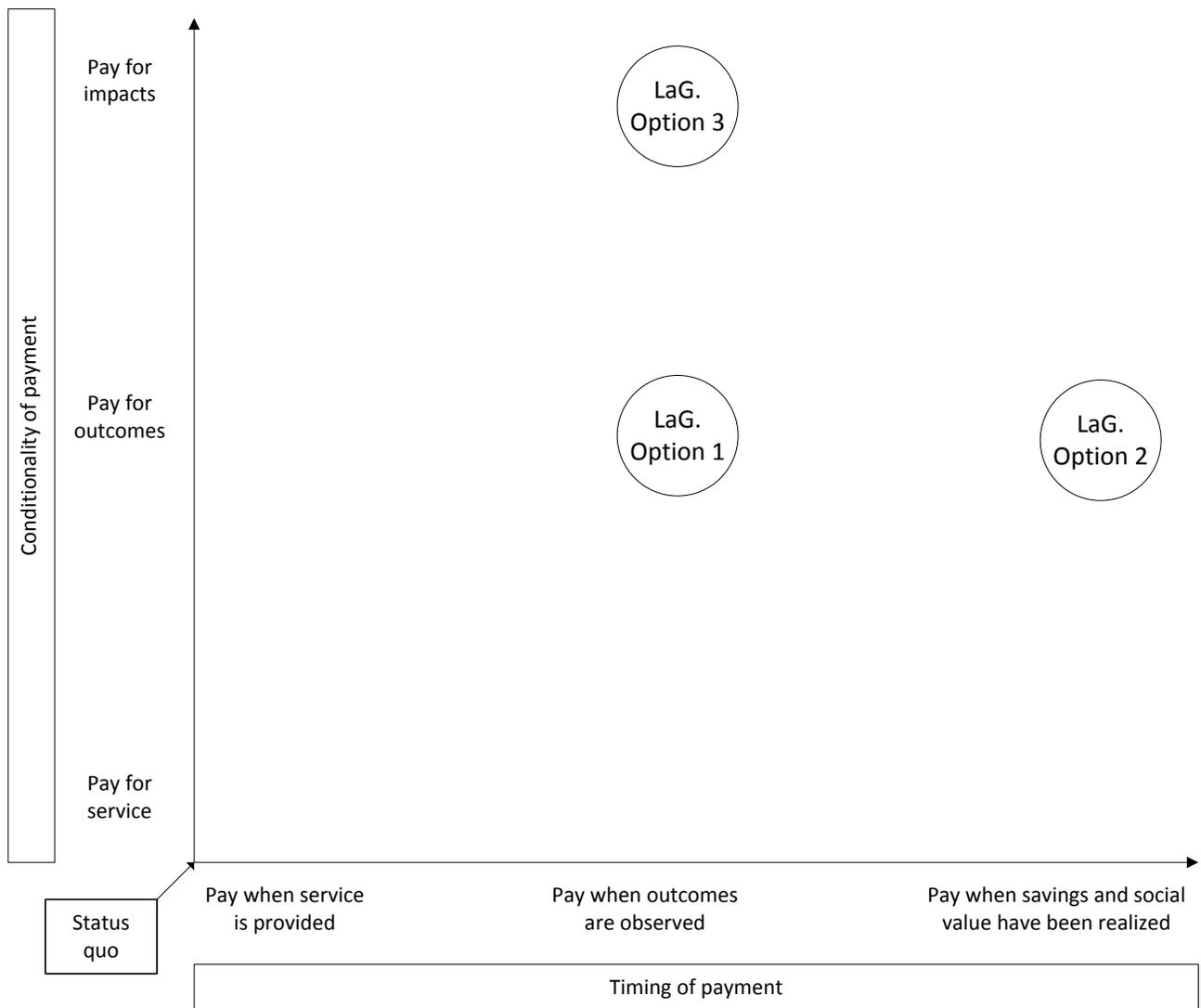
These options and many others can be developed for a SIB around a program like LaGuardia Bridge. Depending on priorities, each deal falls in a different part of the coordinate plane plotting conditionality and timing of payment, as discussed earlier in this report.

ADDITIONAL DESIGN OPTIONS

A SIB with multiple outcomes can spread the cost to run a program across each of the outcomes. Likewise, the overall financial return on investment can be conditioned across all the outcomes. Additionally, the repayment of principle and return on investment can be strategically assigned to different outcomes to minimize financial uncertainty for commercial lenders while protecting a commitment to rigorous evidence building. For example, the repayment of principle (or the direct cost of the program) can be made dependent on a short-term outcome (e.g., state-recognized high school equivalency diploma attainment), while payments for return on investment can depend on medium- and long-term outcomes (such as college credentials earned or an increase in annual earnings). Such designs may be needed to attract commercial lenders and government payers to SIBs.

Multiple success measures also allow for the opportunity to include multiple payers for success. For example, rather than having a government body responsible for repayment of the entire loan, multiple success measures can bring different parties to the table. In the example provided above, one can imagine a state or local government being interested in the high school equivalency diploma short-term outcome, while employers may be interested in the medium-term outcome of credential attainment. A local corporation could be interested in specific credentials that have direct application and benefit to its workforce, and such corporations could be brought into these deals as payers if successful credential earners were incentivized to work for these local corporations for a designated period of time. Lastly, government may also be interested in long-term outcomes, such as expected annual earnings, because these outcomes could have direct effects on a government body's future revenue and expenditures. So it is possible that the government may agree to be a payer at different points in time.

Figure 4. Three hypothetical social impact bond options for LaGuardia Community College’s Bridge to Health and Business Program, by timing and conditionality of payment



NOTES:

In figure 4, Option 1 has additional conditionality by requiring outcomes to be observed before payment; the option slightly delays payment by requiring enough time to pass for outcomes to be observed. Option 2 prioritizes aligning the timing of payment with the realization of savings and social value; it also requires that outcomes be observed in order to trigger payment. Option 3 prioritizes conditionality by requiring that impacts be observed in order to trigger payment. These examples are illustrative, not exhaustive.

The x- (horizontal) axis measures the timing of payments in social impact bonds, which can range anywhere from “pay when service is provided” (no delay) to “pay when savings and social value have been realized.”

The y- (vertical) axis measures the conditionality of payments in hypothetical social impact bonds, which can range anywhere from “pay for service” (no conditionality) to “pay for impacts” (impact equals the difference in a particular outcome between a program and comparison group).

The status quo of typical government contracts without a social impact bond is represented by the point on the coordinate plane where the x- and y-axes meet.

NEXT STEPS FOR DEVELOPMENT OF SOCIAL IMPACT BONDS

Three features of SIBs are typically referenced when explaining the rationale for the concept. First, SIBs attract private capital that allows for an increased level of investment. Second, SIBs fund innovative ideas (either new programs or established programs at a new scale). Third, SIBs pay only when success is demonstrated, which increases accountability. Each of these characteristics is enticing, but it is important for all SIB stakeholders to understand that these concepts can compete with each other. For example, it can be a challenge to attract private investment when a program is innovative, the outcome(s) is unknown, and repayment depends on demonstrating future results. Investors want certainty and will relentlessly pursue arrangements that minimize overall risk. This means investors will first seek out proven concepts and, in the absence of preexisting evidence, will construct terms where repayment is virtually guaranteed while preserving surface language that suggests repayment is conditioned upon “success” (however that is defined). As a first step in considering a SIB arrangement, it would be wise for interested participants to identify the threshold level of risk, for each of these benefits cited, at which the rationale for participating within a SIB no longer justifies the effort required to participate.

Another key consideration is that more work remains to be done to build the capacity of the government to participate in future SIB contracts. The government should approach such arrangements cognizant of the potential benefits (better financing: paying as the value of outcomes is realized, and increased accountability: paying for observed success). But the government should also be aware of the limitations and challenges associated with this new approach to financing and the many ways in which such arrangements can be structured. A healthy spirit of “caveat emptor” will help ensure the contractual requirements of SIBs match their marketing and the descriptions that deal makers provide.

If the primary appeal of SIBs is delaying repayment to allow for increased investment today, then the federal government could actively coordinate and plan to engage, support, and regulate the SIB concept strategically across agencies to make it look more like traditional municipal bonds. In the same way that federal policies and law have encouraged the establishment of 30-year fixed-rate mortgages for homeowners, the federal government could take action to establish 30-year loans for municipalities to pay for investments in human capital. After all, many of these human capital investments will produce value beyond



30 years. As part of this effort, the government should attempt to establish clear standards about the rigor or evidence that will be required for a program to be widely accepted to represent a good investment eligible for such long-term public financing. So far, SIBs have focused on their ability to reduce the need for future government expenditures. Part of a strategic plan to grow the SIB concept should be to construct arrangements that align repayment with the value of increases in future government revenue. Ideally, financing strategic investments in human capital will increase long-term capacity that will limit the need for public services (reduce expenditures) while simultaneously increasing government's ability to raise revenue (increase tax payments).

Alternatively, if the primary appeal is to increase accountability by adding conditionality to the payment process, then it may be easier for government to pursue increased accountability through performance-based contracts that do not involve a commercial lender. If SIBs focus on accountability, the government's demand to pay only when there is evidence that a program has made a difference will compete with investors' demand (especially lenders with a fiduciary responsibility) that principal repayment be guaranteed regardless of program impact. As lenders become more experienced with SIBs, there is a chance that these transactions may fall short of their initial promise as investors adjust contractual terms in ways that minimize financial risk. Specifically, investors may outmaneuver government by removing all risk from a deal while continuing to describe these arrangements as innovations that increase accountability — which is what the government wants to hear.

Building deals that prioritize both increased accountability (conditional payments) and better financing (payment delays) may be a challenge because the reservoir of evidence-based, proven programs is incredibly shallow. If there aren't enough programs with a record of success, then investors will not participate if a financial risk is associated with performance. Alternatively, if deals attempt to attract investors by avoiding terms that shift performance risk from the government to investors while employing language that implies a risk transfer, then the concept will eventually fade into meaninglessness because it will overpromise and underdeliver. Near-term deals will require honesty, transparency, clarity surrounding limitations, and a vision for how the world can be improved by such arrangements.

CONCLUSION

Social impact bonds (SIBs) hold appeal for financing government contracts — and for secondary-level career and technical education — for two major reasons:

1. SIBs can *increase accountability* by adding payment conditionality (making payments contingent upon achieving certain outcomes); and
2. SIBs can *delay payment* for governments, which can improve their financing by (1) allowing enough time to pass for cost savings to be realized and (2) providing money for use in repayment.

A careful inspection of SIBs indicates that there is no fixed template for designing them. After examining the timing of payment and conditionality of payment in real and hypothetical SIBs, it is clear that substantial variation exists across SIBs, reflecting stakeholder priorities in each arrangement. Some SIBs prioritize increased accountability by focusing on strong conditionality (similar to an insurance policy). Others prioritize better financing by focusing on payment delays (similar to a loan). Often, both priorities are involved, although stakeholders will balance them differently. Hypothetical SIB arrangements provided in this report further illustrate that different stakeholder priorities will produce different SIB structures.

Moving forward, the government officials negotiating and creating SIBs need to understand their priorities and attempt to construct deals that align with those priorities. Federal, state, and local governments should approach SIBs cognizant of the potential benefits: Borrowing from the future may allow critical investments today, and paying for programs when success is observed may increase accountability. Finally, SIBs agreements must be approached with an awareness of their limitations and challenges, and the many ways in which SIBs can be structured.

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