

Pay for Success Feasibility Tool Kit

CONSIDERATIONS FOR STATE AND LOCAL LEADERS

October 2017

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Introduction

The U.S. Department of Education's (ED) mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access. ED supports initiatives to help expand opportunities and improve education for students from early childhood to adulthood, particularly approaches that are based on evidence of potential or actual success.

Pay for Success (PFS) can be used to support evidence-based approaches by leveraging private investment to address societal problems and challenges while typically using government funds to pay only when measurable, positive outcomes are attained. This tool kit is an introductory guide for state and local governments and other stakeholders interested in exploring the possibility of a PFS project for education or related societal issues. It provides information to support stakeholders in determining if PFS is a viable financing strategy for them; it lays out steps usually involved in conducting a *feasibility study* and highlights critical questions and important safeguards to consider in using PFS. The Appendix includes tools that may be useful for PFS projects, including definitions of terms used throughout the document.

Purpose of This Tool Kit

This tool kit provides general information on PFS and discusses important elements to consider during the feasibility phase of a PFS project. The tool kit gives a brief introduction to PFS, including the three typical phases of a PFS project. The tool kit also provides information about the main elements of the PFS feasibility phase and includes education-specific considerations within each element.

What Is Pay for Success?

PFS is an innovative financing strategy that tests and advances promising and proven interventions — for example, strategies, practices, or programs — and pays only when the outcomes are successful. Typically, through a PFS project, a government entity enters into an agreement with an *investor*¹ to finance the upfront costs of implementing interventions designed to improve specific, measurable outcomes for a target population. A service provider(s) delivers the intervention. In most cases, PFS outcomes are expected to occur over a specified period of time, and the role of an investor is to pay for the ongoing operating costs of the intervention for the duration of the PFS project. If the project achieves the agreed-upon outcomes, the government makes *outcome payments* to the investor for the cost of the services, as well as a return on their investment.

Who are the usual players in a PFS partnership?

Typically, there are six stakeholders in a PFS project:

- 1. *Investors* may be commercial, community investment, or philanthropic organizations that fund the intervention and potentially receive a return on their investment (a financial reward) if the intervention achieves its intended aims. Additional possible investors could include organizations connected to the community or the issue being addressed for example, a group of local parents, or a coalition of local teachers or businesses.
- 2. The *project manager* coordinates work among or between the partners, raises capital, and identifies the service provider(s) and an *independent evaluator*. Additionally, the project manager manages the flow of funds from the investor to the service provider and from the government to the investor. Although

- many project managers to date have been independently contracted intermediaries, the project manager could work for the government or another entity with sufficient PFS experience.
- 3. The *service provider*(*s*) delivers the intervention (for example, a preschool program, or career and technical education (CTE) classes) to the target population. The service provider can be a public or a private entity such as a school, school system, group of educators, or a commercial provider in partnership with the public or private entity.
- 4. The *target population* is the beneficiary and may include students, parents, and the like, who receive the PFS-funded intervention.
- 5. An *independent evaluator* determines whether *outcome measures* are achieved. The evaluator may be a respected member of one or more of the entities involved, as long as the person can be objective and fair.
- 6. The *outcome payor* (federal, state, local and tribal governments, or other entity) pays the investor with an agreed-upon return if the intervention is successful (if outcome measures are achieved). The outcome payor could also be a combination of the entities.

It is important to note that the stakeholders and their roles described above reflect the usual structure of PFS projects in the United States to date, in addition to the other possible stakeholders also listed above. The specific stakeholders and the steps involved may vary based on the agreement. For example, a private entity, instead of a government entity, could pay the investor with an agreed-upon return at the conclusion of a successful intervention.

Why Use Pay for Success?

PFS models offer many potential *benefits* that may appeal to government entities, private entities, and communities. First, PFS is one way for governments or other entities to test the effectiveness of promising innovations or adaptations to existing service models that research indicates benefit certain contexts or populations ("evidence-based" innovations). Second, PFS provides increased access to resources needed to implement evidence-based interventions. Third, it enables the government or other payor to only pay for successful outcomes. Additional potential benefits include the following:

- Service providers and other interested parties are able to learn about the outcomes of their interventions while receiving funding for the life of the PFS project;
- Investors can contribute to society by supporting efforts to address pressing needs and earn a return if
 positive outcomes are achieved;
- Government, service providers, investors, and other public and private stakeholders build relationships that may result in further cross-sector collaboration; and
- The evaluations required in PFS projects can strengthen the field's knowledge about interventions that are and are not effective, and under what circumstances.

Additional information on PFS is available on ED's Pay for Success webpage at the following internet address: http://www2.ed.gov/about/inits/ed/pay-for-success/index.html.

Stages of a Pay for Success Project

PFS was first used in the United Kingdom in 2010 and in the United States in 2012. The range of approaches to developing a PFS project is evolving; however, the development and implementation of a PFS project typically involves three stages: feasibility, transaction structuring, and implementation. The steps described in the pages that follow reflect the structure of PFS projects to date, but it is important to note that approaches may shift and steps may be modified as the field evolves.



Feasibility: This first stage (and the focus of this tool kit) explores whether PFS is a viable approach to financing particular improvements for a target population.

In the feasibility stage, a study is developed, most often a written report about the suitability of using PFS financing for a specific intervention with the potential to improve outcomes for a target population in a particular community over a particular number of years. A typical feasibility study includes, at a minimum,

- a project design, which describes the needs of the target population as well as the intervention (including any evidence supporting the intervention's success with the target population, the problem or need the intervention would address if implemented, and any statutory or regulatory conditions that would facilitate or present barriers to implementing PFS);
- one or more *clearly specified and measurable outcomes* to assess whether the project was successful and payments should be made;
- a cost-benefit analysis to identify whether cost savings are possible, given expected expenditures for services and outcome payments;
- a draft plan for evaluating whether the outcomes have been achieved; and
- potential sources of funding for outcome payments from a government entity or elsewhere.

During the feasibility stage, stakeholders exploring the project may discover another approach that would better accomplish their goals. For example, a local area without high-quality outcome data on its target population may need to improve data quality before embarking on a project designed to increase services to that population. Focusing first on increasing data quality can support the goals of (1) understanding the needs of the community, and (2) determining the effects of a new or scaled-up intervention.

Transaction Structuring: If the feasibility study demonstrates that a PFS project is viable or promising for the circumstances studied, the project can typically move to the second stage — transaction structuring. This stage typically involves PFS collaboration between or among the partners, and, if needed, raising capital from investors to fund the services provided. The parties involved in the project also must negotiate agreements to implement the project and the evaluation. Using information from the cost-benefit analysis developed during the feasibility stage, the partners develop a final *financial model*, which is the mechanism for determining the costs and benefits, expressed in dollars, and the timing of when those costs and benefits will occur.

During this stage, the evaluator also finalizes the design of the independent evaluation. As described in more detail in the Evaluation Plan section, a more *rigorous evaluation* of the intervention allows PFS partners to have more confidence that any change in outcomes among the target population is due to the PFS project and not to other factors. For example, an evaluation that compares outcomes from the target population to a comparison group (one that did not receive the intervention) would be more rigorous than an evaluation that only assesses changes in the outcomes of the target population.

The transaction structuring phase can also include activities needed to prepare the service provider or other project partners for implementation. The transaction structuring phase typically concludes with the PFS partners signing an agreement, which may be a formal contract.

Implementation: During this third stage, the service provider delivers the intervention to the target population, and the independent evaluator conducts the evaluation. If the independent evaluation confirms that the intervention has achieved the outcomes set forth in the agreement, the government or other payor pays the investors.

Tool #1 in the Appendix includes a basic checklist for typical steps in each phase of a PFS project. Tool #2 provides resources for learning more about PFS.

The following sections of this tool kit discuss the main elements of the PFS feasibility phase and some education-specific considerations within each element. Note that this document does not provide an exhaustive account of the elements of a feasibility study, or of the considerations and steps for these elements.

Project Design

PFS may be appropriate when a community faces a significant social problem or need and there are potential interventions to address those needs. Communities where it is difficult or not possible to secure new or additional government resources may choose to pursue a PFS project as a means to finance the immediate costs of providing services or as a strategy to promote effective investment of public dollars. PFS may also be appropriate to finance and rigorously evaluate alternative models of providing services that develop the evidence base around effective interventions. The following criteria may be used to help identify opportunities to improve educational outcomes by utilizing PFS. See Tool #3 in the Appendix for ED programs that offer opportunities to support PFS.

Identify Target Population With a Problem or Unmet Need

A key element in designing a PFS project is the selection of a target population with a significant unmet need for whom an opportunity exists to improve outcomes by investing in effective or promising interventions. PFS projects often are best suited for at-risk student populations.

Identify Evidence-Based Interventions or Promising Practices

After identifying the target population with an unmet need, the next step is to determine whether there are evidence-based interventions or innovative, promising practices that can be expected to improve outcomes for the target population. When choosing an existing intervention for a PFS project, it is important to conduct a review of the research literature and to pay particular attention to the quality of the evidence (the research methods used to carry out the studies and the number of studies) and the appropriateness of the evidence (for example, whether it applies to the intended target population). The research studies are also a good source for information about outcome measures to use in carrying out a PFS evaluation, and about the size of effects that could potentially occur if the intervention studied was implemented in the PFS project. Local

data may also help identify an intervention already being implemented in the area that a community may want to scale up. For suggestions about identifying evidence-based interventions, see ED's guidance on using evidence to strengthen education investments at https://www2.ed.gov/policy/elsec/leg/essa/guidanceuseseinvestment.pdf.

Analyze Legal and Regulatory Issues

The parameters of relevant laws and regulations may create conditions that are favorable to PFS or that make certain elements of PFS more challenging or unallowable. For example, a law may be favorable for supporting a feasibility study that is focused on innovation and scaling up evidence-based approaches or implementing an intervention during one phase of a PFS project. However, the same law or another one may or may not make it practical or legal to use federal program funds to make outcome payments to investors. It is possible to consider whether a legal barrier may be waived. When considering the use of federal funds for outcome payments, it is also important to take into account when funds are available. Many types of funds can only be used for five years or less; if a PFS project would need more than five years to demonstrate successful outcomes, federal funds may not be the best source for outcome payments. It is also possible to consider whether a preliminary goal phase of the project may be supported with funds that are only available for a limited period of time. A firm understanding of the legal landscape, and specifically the time period when funds are available, is essential.

Outcomes

Once stakeholders have identified an opportunity for a PFS project, the next step in determining its feasibility is to choose the desired outcomes. In identifying potential outcomes for a PFS project, several factors should be considered. First, the potential outcomes should be meaningful for the target population. Second, there should be evidence that the selected intervention is likely to improve the outcomes identified. Third, the outcomes should be clearly defined and measurable. Finally, the project manager and independent evaluator must have access to high-quality data that will accurately measure the outcome; that is, some outcomes may, in theory, be measurable, but the effort required to collect the data may make the outcome infeasible. The availability of high-quality data is essential to PFS independent evaluations.

In evaluating the appropriateness of an outcome, ask the following questions (also available in Tool #4 in the Appendix):

- Is there credible evidence, based on research or local data, that connects the outcome to the intervention?
- Is there evidence that the intervention is likely to improve the outcomes for the target population?
- Is measurement of the outcome possible within the time frame of the PFS project?
- Is the outcome measurement valid (it measures what it is supposed to measure) and reliable (it produces stable and consistent results)?
- Is it possible to track and measure the outcome data over time for the treatment group (which receives the intervention) and a comparison group (which does not receive the intervention)?

When selecting appropriate outcomes, stakeholders must take into account relevant laws and regulations that relate to civil rights protections, and must also guard against unintended incentives and consequences. For example, some PFS projects that are focused on the expansion or implementation of early childhood education programs have considered using as a measure a reduction in the need for special education and

related services. Such projects must be carefully designed to avoid violating the right of children with disabilities to a free, appropriate public education under the *Individuals with Disabilities Education Act (IDEA)*, 20 U.S.C. 1400 et seq. Toward this end, PFS projects must not incentivize the identification of fewer students for special education and related services and must include safeguards to protect statutory rights. These safeguards may include, but are not limited to

- procedures to ensure that the determination of a child's eligibility for special education and related services is completely separated from the independent, external evaluation or the financial structure of the project (for instance, those determining eligibility for special education and related services do not know if a child or student is funded through a PFS project or other funding streams, and external evaluators are not involved in the child find or evaluation process under *IDEA*);
- evaluation methods that eliminate the risk of incentives to exclude children from needed services and support to which they are entitled under *IDEA*;
- involvement of stakeholders who represent children with disabilities and their families in developing and evaluating the project as well as in identifying appropriate outcomes; and
- inclusion of other meaningful, longer-term outcome measures, such as third-grade reading achievement, to ensure that a reduction of special education placement is not a "stand-alone" outcome measure.

To determine what payment to provide for a specific outcome, there must be a way to assess the outcome's value to the government or other outcome payor — that is, how much is the outcome worth, and to whom?

Some outcomes may have small near-term benefits, but be linked to long-term outcomes with greater benefits. In general, for education projects, the benefits associated with long-term outcomes (including increased earnings or reductions in crime) may be larger than the near-term benefits, but be less certain to occur. In linking early outcomes to future benefits, it is important to

- ensure data sets linking near-term outcomes to long-term outcomes and benefits are based on similar population characteristics;
- be explicit about any assumptions used in establishing linkages between near-term and long-term outcomes
 and the valuation of the later benefit (for example, be careful not to double-count benefits if both near-term
 outcomes and long-term outcomes are included as outcomes); and
- conduct a *sensitivity analysis* to understand the degree of uncertainty regarding both the achievement of long-term outcomes and the values established for those outcomes.

The following section provides examples of outcomes of education programs that can provide near-term and long-term benefits.

Increase in Kindergarten Readiness

Research demonstrates that participation in high-quality early learning programs can provide both near- and long-term benefits, especially for children from low-income families. For example, research indicates that participating in high-quality preschool programs increases kindergarten readiness. Increases in kindergarten readiness may in turn save educators time in teaching basic numeracy, language, and social and emotional skills to children who enter kindergarten without these skills. In addition, if the school district offers remedial services to prepare children for kindergarten, this can reduce the need to provide more intensive remedial services in kindergarten, which leads to savings from cost avoidance.

Increase in Early Identification of Children with Disabilities

Identifying children with disabilities early, before grade school, can improve their outcomes and minimize the need for extensive special education and related services later on, or reduce the number of years of required services. Some forms of early intervention have been shown to result in children needing fewer special education and other services later in life; being retained in grade less often; and in some cases performing similarly to typically developing classmates years after intervention. As noted earlier, any outcomes regarding early identification of children with disabilities must be carefully designed so as not to violate the rights of infants, toddlers, and children with disabilities who are entitled to early intervention and a free, appropriate public education under *IDEA*. Toward this end, PFS projects must include appropriate safeguards to protect the rights of children under *IDEA* and other applicable requirements including Section 504 of the *Rehabilitation Act of 1973*. Data collected from several studies suggest that delaying intervention can mean that more children later on require services at higher costs, while providing early intervention for the same population can lead to fewer children requiring high-cost services.⁴

Increase in Third-Grade Reading Proficiency

A direct benefit of improvements in third-grade reading proficiency may include a reduction in the need for reading remediation or other associated remedial services for students who are below grade level. In addition, research indicates that third-grade reading proficiency is correlated with future high school graduation. This in turn is correlated with higher adult earnings. Thus students proficient in reading in the third grade are more likely to graduate from high school and, once employed, are more likely to earn higher salaries.

Reduction in Grade Retention

A reduction in grade retention results in a direct cost avoidance equal to the cost of a per-pupil expenditure, which takes into account all of the expenses associated with repeating a grade. In addition to the direct benefit to the student, research also links reductions in grade retention to long-term outcomes, including increased adult earnings and reductions in crime.⁵

Increase in English Language Acquisition

Improving English language proficiency by kindergarten entry can result in avoiding future costs of English language services. Younger children learn English more quickly than older children.^{6,7} Research also indicates that English learners who enter kindergarten with more advanced English proficiency are more likely to be reclassified (as no longer English learners) in their first eight years of school than those entering with basic or intermediate proficiency.⁸

Increase in Academic Achievement

A broad range of measures are used to determine academic achievement, including achievement test scores, demonstration of subject mastery, and grade point average (GPA). Improved academic achievement may result in a reduction in remediation in high school and at the postsecondary level. Improved academic achievement may also lead to decreased rates of course failure and reduced spending on remedial summer school.

Increase in Positive Social, Emotional, and Behavioral Outcomes

Children who are not socially or behaviorally ready for kindergarten are more likely to be retained, require special education services and supports, and be suspended or expelled by third grade. As a result, schools may incur costs that include allocating staff time to address behavioral incidents and educating students for additional years. Additionally, the public may incur the cost of lost wages for working parents, particularly when students are suspended or expelled. There are, potentially, long-term benefits to positive social and emotional development, too: Research shows a correlation between social, emotional, and behavioral skills in the early grades and later achievement. In addition, other studies suggest that social and emotional development is related to crime and delinquency, educational attainment, substance use, behavioral conditions, aggression and violent behavior, employment, and earnings. These findings suggest that a program with an evidence-based social, emotional, and behavioral skill curriculum that produces stronger skills in these areas may result in longer-term benefits.

Increase in High School Graduation

Increases in high school graduation can result in significant increases in adult earnings for the individual and increases in tax revenues for the community. In addition, data indicates that the unemployment rate for high school graduates is lower than for those without a high school diploma. When quantifying the benefits of a high school diploma, states and local jurisdictions should use earnings data specific to their locality. States and local jurisdictions could determine the value of this increase in high school graduation on (1) the basis of the total value of increased earnings, which captures the benefit to the individual students, or (2) just the value of the increased tax revenue, which reflects the benefit to government alone.

It is also important to remember, however, that school districts will incur costs if a student who would have dropped out instead remains in school because of the costs associated with educating students. Conversely, on-time graduation results in savings to school districts for each additional year in high school that the student would have been enrolled.

Increase in Industry Credentialing Including Occupational Certifications and Licenses

An examination of education and labor market data indicates that attaining professional certifications and licenses is correlated with higher employment and earnings, especially if an individual does not have a bachelor's degree. In general, full-time workers with these credentials earned more than full-time workers without credentials. Adults with less than an associate degree earn more if they have a professional certification or license or an educational certificate. Among adults with a bachelor's degree or higher, there were few significant differences in earnings between those with and without any of these credentials.

Increase in Employment, Earnings, and Job Retention

A cost-benefit analysis of career and technical education (CTE) programs in Washington state estimated that secondary-level CTE programs increased future earnings and fringe benefits, increased tax payments, and reduced the use of Supplemental Nutrition Assistance (SNAP) and Medicaid benefits. Increased labor force participation and increased earnings can result in reductions in the need for public welfare expenditures. While increases in earnings directly benefit participants, increases in tax revenue and reductions in public welfare payments benefit the public generally, including other taxpayers.

Furthermore, job retention reduces the cost to employers of training new employees.¹⁹ Other benefits of job retention for employers include reduced hiring and onboarding costs. Data on job turnover costs are available by sector, and these costs can vary significantly.²⁰

Cost-Benefit Analysis

A PFS feasibility study typically includes a cost-benefit analysis (CBA) that compares the likely costs of implementing the intervention to the expected benefits of its outcomes translated into dollars. To the extent possible, CBAs should rely on high-quality data from the specific intervention or program when calculating its costs and benefits. If such data are not available, the CBA should use the next most relevant data available (for example, data from the local school district, neighborhood, city, county, or state) so as to best represent the target population. Tool #5 in the Appendix includes several federal data and evaluation resources that may be helpful when considering PFS.

The cost of an intervention is usually fairly straightforward to calculate as it is often simply the amount of funding required to provide the intervention. More robust cost calculations may factor in additional costs borne by other stakeholders, such as in-kind donations of time to implement the service or contributions that enable participation (for example, time and transportation).

Calculating benefits is often more complex than calculating costs because it requires some information about the likely positive outcomes of an intervention, a consideration of local factors if estimates of benefits were based on data collected elsewhere, and a monetization of the estimated benefits in the local setting.

Similar to how costs can be borne by various stakeholders, benefits can accrue to multiple parties, including participants, the government, or others in society. For example, if an intervention reduced crime, participants would benefit by staying out of jail, the government would benefit by housing fewer convicted individuals, and society would benefit through a reduction in crime. Lastly, CBAs factor in the timing of costs and benefits, by using a *discount rate* to convert future costs and benefits into *present values*, recognizing that governments, organizations, and individuals typically value future costs and benefits less than current ones (i.e., most individuals view \$1,000 today as more valuable than \$1,000 in a year).

When a government entity and an investor are deciding whether to pursue a PFS project, they should be able to understand how the costs and benefits accrue to various stakeholders, such as the individual and government. In most cases, the partners would not pursue a PFS project if the projected costs outweighed the value of the expected benefits. The partners, particularly the government entity and the investor, must decide how to weigh the fact that costs and benefits are borne by various stakeholders.

Due to these complexities, CBAs require that those performing them work closely with local stakeholders to ensure correct assumptions around valuing the costs and benefits of the intervention. For more information on CBAs, including how to determine an appropriate discount rate, see the resources in Tool #6 in the Appendix.

Evaluation Plan

Developing an evaluation plan that clearly describes how the outcomes will be measured is an important part of the feasibility stage. The evaluation plan should include the methodology for determining whether the intervention group met the agreed-upon near-term and long-term outcomes and plans for ensuring access to and the collection of high-quality data. The evaluation plan should also describe how the PFS project manager will identify an independent evaluator to conduct the evaluation. An independent evaluator is one that is not involved in delivering the intervention services and does not have a stake in whether the intervention is successful.

In a PFS project, the investors and government agree on an evaluation design that will appropriately assess the success of the intervention. Evaluation designs differ in their levels of rigor, which means they differ in how confident PFS partners can be in the evaluation results. Investors and government should choose the evaluation design that best meets their needs.

Even though the agreed upon outcomes (near- or long-term) are typically expressed as what happens to the intervention group (for example, 20 percent more students are reading on grade level in third grade), the best evaluation designs help to distinguish whether those changes are due to the intervention or to other factors. These designs include a comparison group of individuals who do not participate in the intervention but who are similar to the intervention group in as many ways as possible; the non-participants signal what would have happened to the target population if the intervention had not been implemented. How the intervention and nonparticipant group are determined is a key factor in the rigor of the evaluation design. While this tool kit does not provide in-depth information on evaluation designs, Table 1 provides a brief overview of three types, from most- to least-rigorous, and describes examples of how the comparison group could be formed.

Table 1: Three evaluation designs for a Pay for Success project, including type, definition, and example of comparison group

Evaluation Type	Definition	Example of Comparison Group
Experimental study	Compares outcomes of two groups of individuals who are otherwise equivalent, except for their assignment to either the intervention group or the comparison group.	If there are more preschool-aged children than preschool slots available, children could be assigned by a random lottery to a preschool slot (the intervention group) or to the comparison group (and not receive preschool). Because the two groups are determined by chance, rather than family or school staff preferences, the differences in the outcomes of the children in the two groups represent the most reliable and valid indicator of the effects of preschool.
Quasi-experimental study	Approximates an experimental design by identifying a comparison group that is similar to the treatment group in important respects.	Within a school district, high schools could be matched closely (e.g., on the basis of student demographics and the average eighth-grade test scores of students attending the high schools) and half of the high schools could implement a new CTE curriculum. Students enrolled in the new CTE curriculum would constitute the intervention group, and students enrolled in the old CTE curriculum would constitute the comparison group.
Benchmark study	Counts any student who meets an agreed-upon benchmark, regardless of whether the intervention caused the student's success.	No comparison group exists. Any student who participated in a third-grade reading intervention and is proficient on the end-of-year third-grade reading assessment is considered a successful outcome.

When discussing the evaluation plan with an evaluator, it may be helpful to ask the questions provided in the bullets below. The answers will help the investors and government determine which evaluation design is most appropriate. Note that the evaluator who helps the PFS partners design the evaluation plan may, or may not, be the evaluator eventually chosen to conduct the evaluation, should the project move forward

to the transaction structuring and implementation stages. Similarly, the evaluation plan described in the feasibility design may differ from the final evaluation design to which the investors and government agree during the transaction structuring stage.

- Given the evidence from existing research studies of similar interventions, by how much is the outcome expected to change? How large a sample size of individuals would be needed to detect a change of that size?
- What would an experimental design to assess the intervention's outcomes look like? How would the comparison group be formed? To what data would the evaluator need access? How long would such an evaluation take? What is the estimated cost?
- What would a quasi-experimental design to assess the intervention's outcomes look like? How would the comparison group be formed? To what data would the evaluator need access? How long would such an evaluation take? What is the estimated cost?
- What would a benchmark study to assess the intervention's outcomes look like? To what data would the evaluator need access? How long would such an evaluation take? What is the estimated cost?

See "Evaluation Resources" under Tool #5 in the Appendix for more information on designing effective evaluations.

Sources of Funding

For possible sources of federal funding, see Tool# 3 in the Appendix.

Conclusion

PFS holds promise to improve educational and other outcomes for student populations. It can strengthen collaboration among stakeholders (including government and the private, public, and philanthropic sectors in education), build evidence of effectiveness for new approaches, scale up proven approaches, and increase the government's focus on outcomes. PFS can also be a promising strategy to improve the lives of individuals and communities, thereby contributing to the long-term vitality of society. The feasibility phase is the important beginning point when exploring the viability of a PFS financing approach. PFS feasibility studies have the potential to improve data and data systems, strengthen cross-sector collaboration, build public-private partnerships, and improve program evaluation efforts. Whether or not PFS is found to be viable, communities and stakeholders can benefit from the process of engaging in a PFS feasibility study.

Appendix: Tool Box

The following set of tools is intended to assist in and provide resources for exploring PFS.

- Tool #1: Pay for Success Phases Checklist
- Tool #2: Pay for Success Resources
- Tool #3: Support for Education-Focused Pay for Success Projects
- Tool #4: Outcome Measurement Questions Checklist
- Tool #5: Data and Evaluation Resources
- Tool #6: Cost-Benefit Resources

Tool #1: Pay for Success Phases Checklist

A Pay for Success (PFS) project typically includes three phases: feasibility, transaction structuring, and implementation. The following checklist may be useful in pursuing each phase. Note that this list does not necessarily identify all the activities that may be included in each phase, and that different parties working in the nascent PFS field may categorize activities under different phases.

Feasibility

Ч	Identify outcome(s) sought, in particular for the population being served.		
	Assess community needs, assets, and capacity, and identify the target population.		
	Identify a challenge(s) or barrier(s) for serving a particular population or addressing a social issue, and determine the total costs associated with the lack of intervention.		
	Identify evidence-based interventions that can achieve the desired outcome(s).		
	Calculate a projection of the potential public value, including any savings, to be achieved through possible interventions.		
	Complete a cost-benefit analysis.		
	Determine the willingness and capacity of stakeholders to implement a PFS project.		
	Develop rigorous evaluation methodology to determine if outcome measures have been achieved.		
	Analyze relevant laws and regulations to determine whether conditions are challenging or favorable for implementing Pay for Success.		
	Identify sources of funding.		
Transaction Structuring			
	Provide overall PFS coordination and support to the partners.		
	Raise capital and develop capital structure.		

Ш	Mediate and facilitate agreements on the terms and conditions among the parties to the project.
	Align the project and the evaluation design.
	Track the impact of achieving the outcome measures on government funding streams in terms of cost savings and cost avoidance.
	Finalize the PFS project, and allow for the transition of critical information to those implementing the third phase.
	Support activities to prepare for implementation.
Implei	mentation
	Deliver the intervention.
	Conduct an independent evaluation to determine whether outcome measures have been achieved and payment should be triggered.
	Make payments to the investors if outcome measures are achieved; do not make payments to the investors if outcome measures are not achieved.
	Prepare a final report on the lessons learned, whether or not the project is successful.

Tool #2: Pay for Success Resources

The following resources may be helpful in learning more about PFS and exploring and evaluating specific opportunities for PFS.

U.S. Department of Education, Pay for Success Web page: http://www2.ed.gov/about/inits/ed/pay-for-success/index.html

U.S. Department of Education, *The Potential Role of Social Innovation Financing in Career and Technical Education*:

http://s3.amazonaws.com/NCICTE/pdf/NCICTE_Social_Innovation_Finance_in_CTE_Overholser_Final508.pdf

Urban Institute, *PFS* + *ECE*: Pay for Success Early Childhood Education Toolkit: http://pfs.urban.org/library/ece-Toolkit

Nonprofit Finance Fund, Pay for Success Is an Innovative Approach to Addressing Persistent Social Problems: www.payforsuccess.org

Nonprofit Finance Fund, Pay for Success: The First Generation: http://www.payforsuccess.org/pay-success-first-generation

Tool #3: Support for Education-Focused Pay for Success Projects

Federal programs may support the development and implementation of Pay for Success (PFS) projects at the state and local levels. For example, the *Elementary and Secondary Education Act of 1965 (ESEA*), as amended by the *Every Student Succeeds Act (ESSA*) authorizes the use of funds for PFS in certain cases.

The ESEA includes PFS provisions in two sections of the law. Specifically, PFS is an allowable use of funds under

- *Title I*, Part D, for prevention and intervention programs for children and youth who are neglected, delinquent, or at-risk; and
- *Title IV*, Part A, for initiatives aligned with the purposes of the safe and healthy students content area under this program.

The law also includes a definition of "pay for success initiative" in Section 8101(40) of the *ESEA*, as amended by the *ESSA*, ²¹ which establishes parameters for such activities. The following sections provide additional details on the PFS provisions in each of these areas of the law.

Title I Part D of the ESEA: Prevention and Intervention Programs for Children and Youth Who Are Neglected, Delinquent, or At-Risk

The *Title I* Neglected or Delinquent (N and D) program provides financial assistance to State Education Agencies (SEAs) to provide education services to neglected or delinquent children and youth. The funds aim to (1) enable children and youth to have the opportunity to meet the same challenging state academic standards that all children in the state are expected to meet; (2) provide such children and youth with the services needed to make a successful transition from institutionalization to further schooling or employment; and (3) prevent at-risk youth from dropping out of school; and (4) provide dropouts, children, and youth returning from correctional facilities or institutions for neglected or delinquent children and youth with a support system to ensure their continued education and the involvement of their families and communities.

The N and D program consists of two subparts. Under Subpart 1, the SEA makes subgrants to a state agency (for example, a department of corrections, or a department of youth services) that is responsible for providing free public education for children and youth in institutions for N and D children and youth, attending community day programs for N and D children, or in adult correctional institutions. Under Subpart 2, the SEA makes subgrants to Local Education Agencies (LEAs) with high numbers or percentages of children and youth residing in locally operated correctional facilities for children and youth. PFS initiatives are allowable under both subparts.

Title IV, Part A of the ESEA: Student Support and Academic Enrichment Grants

Title IV, Part A of the ESEA authorizes formula grants to states, which states then subgrant by formula or competitively to LEAs. An LEA that receives \$30,000 or more in grant funds under Title IV, Part A, is required to spend at least 20 percent of its funds on activities to support safe and healthy students. (ESEA Section 4108). PFS initiatives that are aligned with the purposes of the safe and healthy students content area of Title IV, Part A are an allowable use of funds. (ESEA Section 4108(I)). Consistent with other related statutory requirements, LEAs may enter into consortia with other LEAs to leverage funds and implement programs, and must prioritize funding to schools with the greatest needs.²²

Additional Resources at the U.S. Department of Education

PFS projects depend on interventions that produce improved outcomes for the target populations, rigorous evaluations, and availability of data. Federal programs can be considered as possible sources of support for PFS if they are designed to support innovative programs, rigorous evaluations, and increased data capacity. Many programs support model demonstration projects. State and local governments and providers should consider these funding opportunities if they wish to build evidence for an intervention prior to embarking on a PFS project.

Tool #4: Outcome Measurement Questions Checklist

Do you currently have data available on the outcome measure?
Is the measurement valid and reliable?
Do you have the capacity to track and measure the outcome over time for the treatment and comparison groups? Or is there a capacity to create a counterfactual using administrative data?
Is it possible to measure the outcome within the time frame of the PFS project?
Is there credible evidence, based on local data or historical research, that connects the outcome to the intervention?
Is there credible theoretical evidence that the intervention is likely to improve the outcome measures for the target population?

Tool #5: Data and Evaluation Resources

High-quality data must be available to explore and implement a PFS project, both for understanding baseline outcomes for target populations and for evaluating project outcomes. The following federal data resources may be helpful when considering implementing a PFS project. All the data resources listed came from the U.S. Department of Education unless otherwise indicated. It is important to emphasize that, where available, local- and state-level data are typically most relevant to any specific PFS project where the local and/or state governments are the outcomes payors. Many of the data sources below provide state- and local-level data.

Education and Aggregate Student Data

National Center for Postsecondary Research (NCPR):

http://ies.ed.gov/ncer/RandD/details.asp?ID=124

NCPR focuses on measuring the effectiveness of programs designed to help students make the transition to college and master the basic skills needed to earn a degree. NCPR is currently pursuing research in dual enrollment; postsecondary remediation, including learning communities; and financial aid. Articles, briefs, technical reports, and working papers are available.

National Center for Education Statistics:

(NCES): https://nces.ed.gov

NCES collects, analyzes, and reports full and complete statistics on the condition of American education. Data tools for State Education Agencies (SEAs) and schools are available at: http://nces.ed.gov/datatools/

Statewide Longitudinal Data Systems (SLDS): http://nces.ed.gov/Programs/SLDS/

These data systems are intended to enhance the ability of states to efficiently and accurately manage, analyze, and use education data, including individual student records.

U.S. Department of Education Longitudinal Surveys from NCES

All of the following surveys track the employment experiences of students, both during their school years and after they have completed their education. These can be useful in determining baseline outcomes for specific populations and outcomes.

Studies that began with elementary or secondary students (or younger)

- Early Childhood Longitudinal Program (three cohorts: kindergartners starting in 1998, children born in 2001, and kindergartners starting in 2010)
- High School Longitudinal Study of 2009 (began with ninth-graders, with a first follow-up in 2012 and a second follow-up in 2016)
- Education Longitudinal Study of 2002 (began with 10th-graders, with follow-ups in 2004, 2006, and 2012)

Studies that began with postsecondary students

- Baccalaureate and Beyond Longitudinal Study (three cohorts of graduating seniors, beginning in 1993; the most recent cohort began with 2008)
- Beginning Postsecondary Students (three cohorts of newly enrolled postsecondary students, beginning in 1989, 1995 and 2003; the cohorts each begin at the end of the first postsecondary year, with follow-ups about three and six years later)

EDFacts: http://www2.ed.gov/about/inits/ed/edfacts/index.html

The EDFacts data system collects and provides high-quality, prekindergarten through grade 12 performance data for use in education planning, policymaking, and management and budget decision making to improve outcomes for students. EDFacts centralizes data provided by SEAs, Local Education Agencies (LEAs), and schools, and it allows users to easily analyze and report on submitted data.

Special Education Program Data

IDEA Section 618 Data Products: http://www2.ed.gov/programs/osepidea/618-data/index.html

Section 618 of the *Individuals with Disabilities Education Act (IDEA)* requires that each state submit data about the infants and toddlers, birth through age 2, who receive early intervention services under Part C of *IDEA* and children with disabilities, ages 3 through 21, who receive special education and related services under Part B of *IDEA*. This website provides state-level data files, static data tables, and useful data links.

OSEP GRADS360 Site: https://osep.grads360.org

As required by *IDEA*, each state must have a State Performance Plan/Annual Performance Report (SPP/APR) that evaluates the state's efforts to implement the requirements and purposes of Parts B and C of *IDEA*, and report annually to the secretary on its performance under Parts B and C of *IDEA*. Specifically, the state must report, in its SPP/APR, on its progress in meeting the measurable and rigorous targets it established. State profiles can be accessed through this site.

IDEA Part B State profiles: https://osep.grads360.org/#report/apr/publicView

IDEA Part C State profiles: https://osep.grads360.org/#report/apr/publicView

The Integration of Early Childhood Data: State Profiles and a Report from the U.S. Department of Health and Human Services and the U.S. Department of Education:

http://www2.ed.gov/about/inits/ed/earlylearning/files/integration-of-early-childhood-data.pdf
This report is designed to help states refine their capacity to use existing administrative data from early childhood programs to improve services for young children and families. The report covers key considerations for states when integrating data, and it highlights progress in eight states that are actively developing and using early childhood integrated data systems (ECIDS). The report discusses technical assistance and other resources available to states as they develop their ECIDS.

Evidence for Interventions

Social Innovation Fund Evidence Exchange:

http://www.nationalservice.gov/impact-our-nation/evidence-exchange

The Evidence Exchange provides studies on the programs and interventions implemented by Corporation for National and Community Service (CNCS) grantees.

What Works Clearinghouse (WWC):

https://ies.ed.gov/ncee/wwc

The U.S. Department of Education's WWC reviews existing research on different programs, products, practices, and policies in education.

Evaluation Resources

$\textbf{U.S. Department of Education,} \ \textit{Using Evidence to Strengthen Education Investments}:$

https://www2.ed.gov/policy/elsec/leg/essa/guidanceuseseinvestment.pdf

This non-regulatory guidance is designed to help education stakeholders successfully choose and implement interventions that improve outcomes for students. Part I describes five steps for making effective, evidence-based decisions, including planning for rigorous research (identify local needs; select relevant, evidence-based interventions; plan for implementation; implement; examine, and reflect). Part II provides guidance on the definition of "evidence-based" under the *Every Student Succeeds Act*.

What Works Clearinghouse Procedures and Standards Handbook and resources:

https://ies.ed.gov/ncee/wwc/Handbooks

The What Works Clearinghouse standards provide an established framework for determining the credibility of evidence from a study. In addition, the Clearinghouse provides resources to help researchers design strong studies likely to meet the standards.

The Urban Institute, *Practical Considerations for Pay for Success Evaluations*: http://pfs.urban.org/library/content/practical-considerations-pay-success-evaluations

This report introduces practical considerations for evaluators when integrating established, rigorous evaluation methods within the structure of a Pay for Success project.

RCT-YES: https://www.rct-yes.com/

This free software tool allows users to easily analyze data and report results on the effectiveness of programs in their own context when performing a randomized controlled trial.

Census Data and Linked Federal Data

Census Data Linkage Infrastructure: www.census.gov/datalinkage

The Census Bureau links federal, state, and third-party administrative records to census and survey data, enabling researchers to answer important questions across a wide range of disciplines. The data inventory includes data from the Census Bureau, as well as other federal, state, local, and third-party data. Research areas include people and households; employment; wages and earnings; education; public assistance; disability; food security; health care; housing; public services and utilities; and business.

Juvenile Justice Data

U.S. Department of Justice, National Center for Juvenile Justice. Easy Access to Juvenile Populations: 1990-2016: https://www.ojjdp.gov/OJSTATBB/ezapop/ This website provides access to national-, state-, and county-level population data detailed by age, sex, race, and ethnicity. Users can create detailed population profiles for a single jurisdiction or create state comparison or county comparison tables.

Workforce Data

- **U.S. Department of Education, Rehabilitation Services Administration Case Service Report (RSA-911)**: https://rsa.ed.gov/ad-hoc-query.cfm?mode=set-query-options&tbl=vw_911_by_dataset The RSA-911 provides detailed information on participants who have exited from the vocational rehabilitation (VR) state grants program. This information includes referral source, demographic information, services provided by the VR agency, employment outcome, occupation, and wages.
- **U.S. Department of Labor, Employment and Training Administration,** Office of Workforce Investment. *Guide to State and Local Workforce Data*: https://lmi.workforcegps.org/resources/2015/04/03/15/48/Guide_to_State_and_Local_Workforce_Data This guide provides links to state and local employment and economic data from government and private sector sources.
- **U.S. Department of Labor, Workforce Data Quality Initiatives (Grants):** https://www.doleta.gov/performance/workforcedatagrant09.cfm These state longitudinal databases include, at a minimum, information on programs that provide training and employment services. The databases should be linked longitudinally at the individual worker/student level to allow for analysis leading to enhanced opportunity for program evaluation and better information for customers and stakeholders of the workforce system.
- **U.S. Bureau of Labor Statistics (BLS):** http://www.bls.gov BLS is the principal federal agency responsible for measuring labor market activity, working conditions, and price changes in the economy. It collects, analyzes, and disseminates essential economic information to support public and private decision-making.

U.S. Bureau of Labor Statistics Longitudinal Surveys

- Labor force status flows from the Current Population Survey indicate the number of people employed, unemployed, or not in the labor force.
- National Longitudinal Surveys (NLS) homepage (comprised of seven separate surveys). See also the NLS bibliography and NLS Annotated Bibliography
- Business Employment Dynamics tracks job gains and gross job losses statistics at the business establishment level.

Tool #6: Cost-Benefit Resources

Aos, S., Lieb, R., Mayfield, J., Miller, M., and Pennucci, A. (2004). Benefits and Costs of Prevention and Early Intervention Programs for Youth: Technical Appendix. Olympia: Washington State Institute for Public Policy.

Bania, N. and Nafziger, M. (2015). *Workforce Development Programs: A Review of the Evidence and Benefit-Cost Analysis* (Document Number 15-12-3101). Olympia: Washington State Institute for Public Policy.

Belfield, C., Bowden, B., Klapp, A., Levin, H., Shand, R., and Zander, S. (2015). *The Economic Value of Social and Emotional Learning.* New York: Center for Benefit-Cost Studies in Education, Teachers College, Columbia University.

Jones, D. E., Karoly, L., Crowley, D. M., and Greenberg, M. T. (2015). "Considering Valuation of Noncognitive Skills in Benefit-Cost Analysis of Programs for Children," *Journal of Benefit-Cost Analysis*, 6(3): 471–507.

Hollenbeck, K. (2011). *Conducting Return on Investment Analyses for Secondary and Postsecondary CTE: A Framework*. Louisville: National Research Center for Career and Technical Education, University of Louisville.

Karoly, L. A. (2012). "Toward Standardization of Benefit-Cost Analysis of Early Childhood Interventions," *Journal of Benefit-Cost Analysis*, 3(1): 1–43.

Karoly, L. A. (2008). *Valuing Benefits in Benefit-Cost Studies of Social Programs*. Santa Monica: RAND Corporation.

Kay, N. and Pennucci, A. (2014). *Early Childhood Education for Low-Income Students: A Review of the Evidence and Benefit-Cost Analysis* (Doc. No. 14-01-2201). Olympia: Washington State Institute for Public Policy.

Kotamraju, P. and Mettille, J. L., III. (2012). *Using Return On Investment and Other Related Tools: Guidelines for Measuring Career and Technical Education (CTE) Internal Efficiency and External Effectiveness*. Atlanta: National Research Center for Career and Technical Education.

National Academies of Sciences, Engineering and Medicine. (2016) *Advancing the Power of Economic Evidence to Inform Investments in Children, Youth, and Families*. Washington, D.C.: The National Academies Press.

Office of Management and Budget. (1992). Circular No. A-94 Revised. Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs.

Washington State Institute for Public Policy. (2017). Benefit-Cost Technical Documentation. Olympia: Author.

Definitions

For the purposes of this Pay for Success (PFS) tool kit, we have established the following definitions.

Benefits: Fiscal and other value to the public and society as a result of achieving the outcome measures through the implementation of the intervention for the target population. Benefits may include cost savings, cost avoidance, *cost-effectiveness*, and positive societal benefits.

Cost Avoidance: Resources one does not have to dedicate in the future (i.e. future savings) as a result of improved outcomes.

Cost-Benefit Analysis: An analysis that compares the costs of an intervention with the benefits that will result from achieving the outcome measures, including a method and description of the process used for estimating benefits that would result from implementation of the intervention. For example, a cost-benefit analysis of a preschool program may include the costs of implementing the initial program, and costs and benefits associated with later education, earnings, criminal behavior, tax payments, participation in public welfare, and health outcomes.

Cost-Effectiveness: A measure of the value of a particular outcome. Increased cost-effectiveness means higher value, which could reflect the same outcome for a lower cost, a greater outcome for the same cost, or a greater outcome for a lower cost.

Cost Savings: Cost savings are reductions in current costs that the government has already planned on incurring.

Discount Rate: The interest rate used to determine the present value of future cash flows.

Feasibility Study: A written report assessing the suitability of PFS to help improve outcomes for particular target population in a particular community over a particular set of years. A feasibility study includes, at a minimum,

- (a) a description of the intervention or program model to be implemented through PFS;
- (b) one or more clearly specified and measurable outcome measures;
- (c) a cost-benefit analysis;
- (d) identification of any statutory or regulatory barriers to implementing PFS; and
- (e) potential sources of outcomes payments from a government entity or other sources.

Financial Model: A quantitative model that shows public sector value (or value to other non-governmental outcomes payors), including increased tax revenue, cost savings, cost avoidance, cost-effectiveness, and societal benefit and links the costs of implementing the services that are covered, in whole or in part, by the investors to the amount and timing of outcomes payments that are made by a government entity.

Independent Evaluator: An entity with research and evaluation experience that conducts an evaluation to determine whether the intervention achieved the outcome(s) sought. It is important that the evaluator be independent to ensure that the results of the evaluation are accurate and unbiased.

Investor: An individual, entity, or group that provides upfront capital to cover the operating costs and other associated costs, in part or whole, of the intervention delivered by the service provider.

Outcome Measure: An assessment of what a program seeks to effect using data calculated on both target and comparison groups. Outcomes are measured using relevant program data with defined units of measurement.

Outcomes Payments: Payments, as agreed to in PFS legal agreements, to cover repayment of the principal investment and a return in the case that (a) an investor has covered part or all of the costs of service delivery and other associated costs, and (b) outcome measures have been achieved according to an independent evaluator.

Outcome Payor: An entity that makes outcome payments for specified outcomes.

Present Value: The current worth of a future sum of money or stream of cash flows (i.e., the cost today of increased earnings in 10 years associated with graduating from high school) given a specified rate of return.

Project Manager: An entity that may serve as the project facilitator between or among the parties in a PFS project. Responsibilities may include but are not limited to coordinating the development and execution of legal agreements, building a financial model to guide the terms of the legal agreements, and raising capital from investors.

Rigorous Evaluation: An evaluation that will, if well-implemented, produce evidence about the project's effectiveness that discerns the outcomes that were produced as a direct result of an intervention and not other factors.

Sensitivity Analysis: An analysis that examines the risk inherent in projecting outcomes and benefits by varying the assumptions included in the cost-benefit analysis to determine costs and benefits. The sensitivity analysis shows the change in the cost-benefit ratio as a result of varying these assumptions.

Endnotes

1 Key terms are italicized the first time they appear and their definitions are provided in the appendix to this document.

2 Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M., Espinosa, L., Gormley, W., et al. (2013). *Investing in Our Future: The Evidence Base for Preschool Education*. Washington, D.C.: Society for Research in Child Development.

3 Ibid.

4 Wood, M. E. (1981). "Costs of Intervention Programs." In C. Garland, et al. (Eds.), *Early Intervention for Children with Special Needs and Their Families: Findings and Recommendations*. Seattle: University of Washington.

5 Bartik, T.J., Belford, J.J., Gormley, W.T., & Anderson, S. (2016). *A Benefit-Cost Analysis for the Tulsa Universal Pre-K Program*. Upjohn Institute Working Paper 16-261. Kalamazoo: Upjohn Institute for Employment Research.

6 Conger, D. (2009). "Does Age of School Entry Affect How Quickly Students Can Learn English?" Social Science Research, 38, 383-396.

7 Kieffer, M. & Parker, C. (2016). Patterns of English Learner Student Reclassification in New York City Public Schools. Washington, D.C.: U.S. Department of Education, Regional Educational Laboratory Northeast & Islands.

8 Motamedi, J., Singh, M., Thompson, K. (2016). English Learner Student Characteristics and Time to Reclassification: An Example From Washington State. Washington, D.C.: U. S. Department of Education, Regional Educational Lab at Education Northwest.

9 Chen, X. (2016). Remedial Coursetaking at U.S. Public 2- and 4-Year Institutions: Scope, Experiences, and Outcomes (NCES 2016-405). Washington, D.C.: U.S. Department of Education, National Center for Education Statistics.

10 Bettencourt, A., Gross, D., & Ho, G. (2016). The Costly Consequences of Not Being Socially and Behaviorally Ready by Kindergarten: Associations with Grade Retention, Receipt of Academic Support Services, and Suspensions/Expulsions. Baltimore: Baltimore Education Research Consortium.

11 Ibid.

12 National Research Council. (2012). Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century. Committee on Defining Deeper Learning and 21st Century Skills. James W. Pellegrino and Margaret L. Hilton, Editors. Board on Testing and Assessment and Board on Science Education, Division of Behavioral and Social Sciences and Education. Washington, D.C.: The National Academies Press.

13 Jones, D. E., Karoly, L. A., Crowley, D. M., & Greenberg, M. T. (2015). "Considering Valuation of Noncognitive Skills in Benefit-Cost Analysis of Programs for Children," *Journal of Benefit-Cost Analysis*, 6, 471–507.

14 Bureau of Labor Statistics. (2017). *Unemployment rates and earnings by education attainment, 2016.* U.S. Bureau of Labor Statistics, Current Population Survey.

15 Ibid.

16 Ewert, S. & Kominski, R. (2014). *Measuring Alternative Education Credentials: 2012. Household Economic Studies*. U.S. Department of Commerce. Economics and Statistics Administration. U.S. Census Bureau. Washington, D.C.: Authors.

17 Hanushek, E. A., Schwerdt, G., Wiederhold, S., & Woessmann, L. (2015). "Returns to Skills Around the World: Evidence from PIAAC," European Economic Review, 73(C), 103–130.

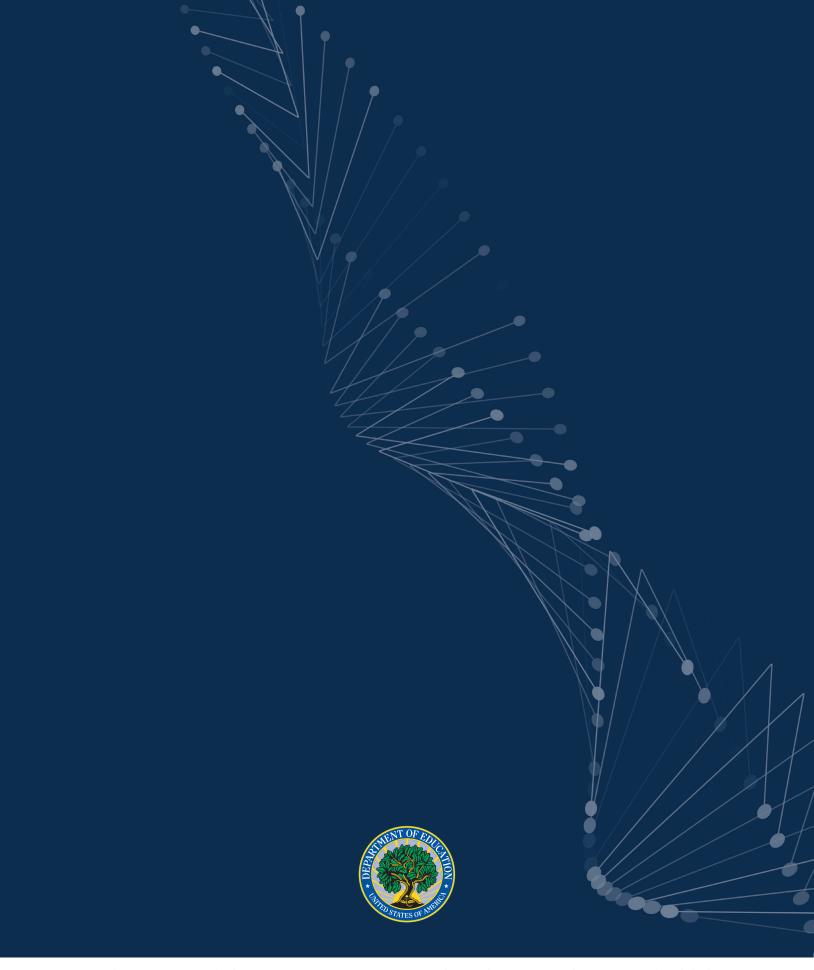
18 Hollenbeck, K. (2011). Conducting Return on Investment Analyses for Secondary and Postsecondary CTE: A Framework. W.E. Upjohn Institute for Employment Research. National Research Center for Career and Technical Education.

19 Carnevale, A. P., Strohl, J., & Gulish, A. (2015). *College is Just the Beginning: Employers' Role in the \$1.1 Trillion Postsecondary Education and Training System.* Washington D.C.: Georgetown University Center on Education and the Workforce.

20 Additionally, there may be other postsecondary issues, including involving institutions of higher education and their students, that may be suitable for PFS projects.

21 In Section 8101(40) of the ESEA, as amended by the ESSA, "pay for success initiative" is defined as a performance-based grant, contract, or cooperative agreement awarded by a public entity in which a commitment is made to pay for improved outcomes that results in social benefit and direct cost savings or cost avoidance to the public sector. Such an initiative shall include (a) a feasibility study on the initiative describing how the proposed intervention is based on evidence of effectiveness; (b) a rigorous, third-party evaluation that uses experimental or quasi-experimental design or other research methodologies that allow for the strongest possible causal inferences to determine whether the initiative has met its proposed outcomes; (c) an annual, publicly available report on the progress of the initiative; and (d) a requirement that payments are made to the recipient of a grant, contract, or cooperative agreement only when agreed upon outcomes are achieved, except that the entity may make payments to the third party conducting the evaluation described in subparagraph (b).

22 For more information about how LEAs may use *Title IV*, Part A funds please see the non-regulatory guidance: http://www2.ed.gov/policy/elsec/leg/essa/essassaegrantguid10212016.pdf.



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