



ASSESSING IMPACTS OF AMERICAN RESCUE PLAN CHILD CARE FUNDING

Federal funding is an opportunity to learn more about what works

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The American Rescue Plan Act (ARPA) provides \$39 billion to states, territories, and tribal governments to offset the COVID-19 pandemic's impact on the child care market. Policymakers can draw on a body of evidence about the [economic effects of high-quality early childhood development programs](#)^a as they decide how to use these funds. However, ARPA provides an opportunity to gather additional information about the state-level impacts of early care and education investments.

To that end, we discuss below how states could collect data and assess the impact of ARPA-funded programs, and we offer a range of evaluation options. Recording outcomes and developing an assessment strategy to measure the effects of ARPA spending would help policymakers prioritize future child care investments and improve outcomes for children. We conclude by listing ideas for how states could leverage resources and partnerships to pursue these efforts and providing a few examples of specific evaluation strategies.

Determining data needs

DATA SOURCES AND COLLECTION

ARPA-funded programs and pandemic-related policy changes¹ may affect child care providers, child care workers, and families—both young children and parents. To decide what data to collect, states can first consider the expected outputs and outcomes—both in the short and long run—of an intervention.

ARTICLE HIGHLIGHTS

- ARPA funds can address a variety of child care issues
- Careful evaluation is critical for learning what works
- Findings can help prioritize future child care investments

Output refers to something an intervention produces directly, while *outcome* refers to a benefit that an intervention is designed to deliver. For example, consider a program that provides scholarships to early care and education teachers so that they can earn credentials in child development. The number and value of scholarships provided are the outputs, while the number of child development credentials and the quality of teacher-child interactions are the outcomes.

Measuring changes in outcomes requires collecting baseline data (i.e., pre-intervention data) and subsequent outcome data (i.e., data generated during and after the conclusion of a funding stream, project, or policy change). Outcome data should also be collected—over the same time period—for a comparison group of providers, workers, or families that did not receive the evaluated investment.

Potential sources for relevant data include state administrative datasets and also the [National Data System powered by WorkLife Systems \(NDS by WLS\)](#)^{2, b}—a child care data system administered by Child Care Aware® of America.³ This organization also can serve as a connector to other, similar child care data sources used by Child Care Resource and Referral Agencies.

Surveys are a complementary option for gathering information. Even if they are not conducted prior to program implementation (i.e., to provide baseline information), surveys could include retrospective questions about the baseline period. Administrators could also leverage program applications, such as an application for a child care provider grant program, to collect needed information.

TYPES OF DATA TO COLLECT

Decisions about which data to collect depend on the intended effects of the funding or project. For example, if a goal is to increase licensed capacity in a geographic area, a state would focus on licensed child care capacity data for child care centers and family child care providers in that area, both of which can be measured with administrative data. If the goal is to increase early care and education teacher training, a state could focus on the number of teachers who receive coaching or apprenticeship opportunities or earn certificates or degrees. Determining that number may require collecting information through a survey. A next step in assessing outcomes would be evaluating whether a) the quality of teaching improved according to teacher-child observational tools or b) whether child outcomes improved according to developmental assessments.

Administrators can also collect data, whether in applications or surveys, that help address questions about how specific populations are affected by an intervention. Some state administrative databases include these data, including race and ethnicity, immigration status, or urban or rural location.⁴ The table below provides many examples of potential variables and data sources.

ARPA FUNDS OFFER OPPORTUNITY TO AUGMENT PROGRAMS OR ADDRESS SPECIFIC ISSUES

States can choose among strategies that augment existing programs or that invest in projects addressing specific issues in the child care market. The Federal Reserve Early Care and Education Work Group suggests [several considerations](#)^c for use of ARPA funds, including offsetting pandemic-related costs for child care providers, increasing the quality of providers through professional development opportunities, and investing in activities that increase provider supply, particularly in underserved rural and tribal communities, low-income neighborhoods, and communities of color. The Office of Child Care's guidance and parameters for the [Child Care and Development Fund Supplemental Discretionary Funds](#)^d (\$15 billion available through September 30, 2024) and [Child Care Stabilization Funds](#)^e (\$24 billion through September 30, 2023) components provide flexibility for states to address their unique child care market needs through a variety of approaches.

Potential variables and data sources to use for assessment

VARIABLE	SOURCE
REGULATED CHILD CARE PROVIDERS	
Child capacity, enrollment, and attendance by age group	State administrative database, Child Care Aware of America's NDS by WLS, provider survey
Number of providers (centers and family child care providers)	State administrative database, Child Care Aware of America's NDS by WLS
Days and hours of operation	Child Care Aware of America's NDS by WLS
Number of licensed, quality-rated, and high-quality-rated providers	State child care licensing and QRIS (quality rating and improvement system) data
Child enrollment in child care subsidy program or other government-sponsored early care and education funding stream	State administrative database
Pandemic-related variables, such as how many days closed due to COVID-related reasons	Provider survey
CHILD CARE CENTERS	
Days of cash on hand (financial sustainability)	Provider survey
Debt-to-service ratio (financial sustainability)	Provider survey
Monthly or quarterly profit and loss statement	Provider survey
Number of preschool teachers and child care workers ⁵	State labor market information, provider survey
Amount of practice-based professional development opportunities, such as coaching and apprenticeships, and training sessions provided to preschool teachers and child care workers	State administrative database, preschool teacher/child care worker survey
Education degree and credential attainment among preschool teachers and child care workers	State administrative database, preschool teacher/child care worker survey
Center director business skills	Provider survey
Preschool teacher and child care worker wages	State labor market information, provider survey
Preschool teacher and child care worker turnover rates	State labor market information, provider survey
Teacher quality	Teacher observation tool, such as the Classroom Assessment Scoring System®

Potential variables and data sources to use for assessment (continued)

VARIABLE	SOURCE
FAMILY CHILD CARE PROVIDERS	
Amount of practice-based professional development opportunities, such as coaching and apprenticeships, and training sessions provided to providers and child care workers	State administrative database, provider survey
Education degree and credential attainment among providers and child care workers	State administrative database, provider survey
Provider business skills	Provider survey
Net income	Provider survey
Number and wages of child care workers	State labor market information, provider survey
Provider turnover rates	State administrative database, provider survey
Child care worker turnover rates	State labor market information, provider survey
PARENTS OF YOUNG CHILDREN	
Parental labor force participation and employment	State labor market information, parent survey
Parent participation in education programs or workforce training	State administrative database, parent survey
YOUNG CHILDREN	
Child enrollment in licensed, quality-rated, and high-quality-rated child care providers	State administrative database, provider survey
Child school-readiness outcomes	State kindergarten school-readiness assessment
Child developmental screening	State administrative database
Child enrollment in child care subsidy program or other government-sponsored early care and education funding stream	State administrative database

Evaluating program effects

Perhaps the simplest approach to evaluation is to examine changes between the baseline and post-program outcomes, attributing any changes to the evaluated program. However, this approach is often not compelling: other outside factors or pre-existing trends in outcomes can be confused with effects of the program itself. For example, we might be

interested in the effect on teaching quality of an intervention that provides practice-based professional development. While we can measure teaching quality before and after the program, it's possible that teaching quality could have improved even without the coaching intervention, simply due to increased teaching experience or other factors.

A better evaluation would compare outcomes for the *treatment group* (program participants, which in general could include child care providers, preschool teachers and child care workers, or young children and their parents) with a *control group* (a comparable group that did not receive funding or benefit from the project). The control group is intended to capture the experience that the treatment group *would* have had if it had never received the funding or the project wasn't implemented. Differences between the providers, workers, or families in the treatment group and those in the control group can then be interpreted as the impact of the funding or project. In the example above, comparing teachers who received coaching with a similar group that did not receive coaching could establish an association between coaching and teaching quality apart from other possible explanations.

Ideally, the control group would have the same background and characteristics as the treatment group, with the only difference between the two being participation in the funding or project. The clearest way to create appropriate treatment and control groups is through randomization. In some contexts, randomization can be an equitable way to allocate scarce resources in oversubscribed programs. However, in the context of the ARPA funds, there may not be many opportunities to randomly assign funding or other benefits to particular groups.

Fortunately, randomization is not the only means of conducting a rigorous evaluation. States can use techniques that take advantage of policy design or other factors that separate two groups into potential treatment and control groups. One option is to use *program eligibility thresholds* as a way to contrast a group that receives the benefits of the program with another group that narrowly failed to meet criteria for selection (and that can be assumed to be roughly similar to the group that did participate in the program). For example, a state might offer funding to providers that serve children who qualify for child care subsidies or to providers that serve at least a certain share of children with subsidies. In either case, a state can compare eligible providers with ineligible providers. Assuming that child care market conditions affect both groups of providers similarly during the study period, states could measure changes for the eligible providers and subtract changes observed for ineligible providers, interpreting that difference as the program's effect.

Another evaluation opportunity is provided by *geographic targeting*. Evaluators can compare providers, workers, or families in the area that received the benefit of ARPA funding with providers, workers, or families in a neighboring (or otherwise similar) area that did not receive the same benefit.

If none of these approaches are feasible, it is sometimes possible to adjust for differing characteristics of participating and nonparticipating providers, workers, or families. For example, a control group could be derived from an unrelated survey that tracks similar outcomes for providers, workers, or families that did not participate in the program. However, this approach will tend to be less reliable, because the control group is usually not fully comparable to the program participants.

As discussed above, there are a number of sources that can provide data to form the treatment and control groups. If the evaluation strategy includes fielding a survey, it is important to receive survey responses from both the treatment and control groups.

Qualitative data

The discussion above is focused on quantitative outcomes. However, there may also be benefits to collecting qualitative information from child care providers, workers, or families about their experiences. While qualitative data alone can't

substantiate program effectiveness, insights from surveys could illustrate how providers, workers, or families respond to an increase in funding or a new resource, which could provide insights into future program design. Qualitative data collection could also focus on how ARPA funds were administered, to identify lessons learned about program implementation, which would in turn inform future program administration.

External resources

State agencies can look to partnerships within and outside state government that would help them assess the impact of ARPA child care funding. First, the department that oversees child care could connect with another state department that has expertise with data collection and evaluation and may be available to assist. Second, the state could work with an external research organization to partner on a research project or work under contract to conduct an assessment of ARPA child care funding.

For examples of evaluation strategies, see the Appendix.

Conclusion

Even with adequate resources, outcome measurement and evaluation can be challenging. When measuring the impact of ARPA funding and related policy changes, it is important that states not make the *perfect* the enemy of the *good*: There is value in learning more about the providers, educators, and families states are serving and the outcomes of funded programs even if a comprehensive impact evaluation is not feasible. In addition, any progress states make in building capacity for data collection and evaluation now will be helpful when opportunities arise to assess the impact of other projects or potential increases in federal or state funding. Finally, the sooner states consider how to build outcome measurement and evaluation into their ARPA plans, the easier it will be to execute. Deciding on what to measure and how to structure an assessment is often easier and more effective at the program-design stage, before a program is up and running.

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Appendix: Examples of evaluation strategies

A few examples of evaluation strategies are briefly mentioned above, including programs to provide teacher training or coaching, or issue bonus payments to providers that serve children who qualify for child care subsidies. Below are two additional examples of evaluation strategies based on issues cited in ARPA or related Office of Child Care guidance.

FINANCIAL STABILIZATION GRANTS FOR CHILD CARE PROVIDERS

Program goal: Child care providers that were financially unstable and at risk for closing are stabilized and serving children.

Output measures: Number and value of grants to child care providers.

Outcome measures:

1. Number of child care providers that stay in business. Indicates whether unstable child care providers remained in business during the grant period.
2. Child care enrollment. Indicates how many children are served by child care providers during the grant period. This measure could also be used to estimate how many working parents are supported by these child care arrangements.
3. Financial condition of child care providers. Indicates financial condition before and after receiving a grant. Centers may be able to provide monthly or quarterly profit-and-loss statements or information about days of cash on hand or the provider's debt-to-service ratio. Many family child care providers don't have the same accounting resources as centers, so instead could respond to survey questions about their relative financial position prior to the pandemic, the time period prior to receiving a grant, and the period after receiving the grant.

Evaluation methods: In an oversubscribed grant program, administrators could randomly select providers to receive grants and compare the treatment group with the control group. However, if randomization is not feasible, administrators could compare providers that meet grant criteria with providers that don't meet the criteria. For example, if the grant criteria focused on providers' financial condition or enrollment relative to capacity, the treatment group could consist of providers that met eligibility thresholds and received grants, and the control group could consist of providers that did not meet the criteria, particularly providers closest to the eligibility threshold.

Assuming the eligibility criteria accurately ranks providers, relative improvement in outcome measures among the treatment group compared with the control group could indicate a positive impact of the grants. To make this comparison, administrators would need to collect baseline and outcome measures for both the treatment and control groups.

BONUS PAYMENTS OR INCREASED COMPENSATION FOR EARLY CARE AND EDUCATION TEACHERS

Program goal: Increase the ability of child care providers to retain and attract quality teachers.

Output measures: Number and value of bonus payments or increased compensation for early care and education teachers.

Outcome measures:

1. Teacher turnover: One teacher-turnover measure is the share of teachers who left child care providers or the child care sector during a certain time period.

Appendix (continued):

2. Teacher quality: Bonuses or increased compensation could help increase the quality of teaching by retaining trained teachers and attracting talented teachers into the field.
3. Child school-readiness outcomes: With potential gains in teacher quality there could also be an impact on child development, as measured by school-readiness outcomes, such as a state kindergarten school-readiness assessment.

Evaluation methods: For evaluation purposes, state administrators would ideally target particular providers, such as those that serve children with child care subsidies or those in a particular geographic region, to create treatment and control groups. In this case, the control group would be providers that don't serve children with child care subsidies, or providers in another geographic region. If funding for bonus payments or increased compensation is widely distributed across the state, administrators would need to rely on assessing teacher turnover or quality, or child school readiness, before and after the availability of bonuses or increased compensation. As discussed above, with a pre- and post-program design it is challenging to isolate the impact of the intervention on teacher and child outcomes. In addition, the immediate pre-period is far from typical due to the pandemic; therefore, administrators might rely on measures from another pre-pandemic period for comparison, such as 2019. Again, the challenge would be accounting for other factors that may influence teacher and child measures both during the treatment and comparison periods.

ENDNOTES

- ¹ During the pandemic, states have been given flexibility to change existing policies or design new policies. For example, many states allowed providers to receive reimbursements for serving children with child care subsidies based on the number of children enrolled instead of child attendance. Since enrollment fluctuates less than attendance, the change led to more consistent funding for providers. In this case, administrative data may show how the flow of funding to providers and the related costs to the state changed before and after the policy change.
- ² Child Care Aware of America's NDS by WLS supports the work of state and regional child care resource and referral organizations in 19 states currently. Email Research@usa.childcareaware.org for information on NDS by WLS or to get connected to other similar data sources.
- ³ *Child Care in 25 States: What we know and don't know*^f by the Bipartisan Policy Center discusses issues in measuring state supply and demand issues.
- ⁴ Equity considerations in collecting early care and education data are discussed in Child Care Aware of America's *Through an Equity Lens: Working with Data to Implement Change in Child Care*.^g
- ⁵ *Preschool Teachers*^h and *Childcare Workers*ⁱ are the relevant occupation titles in the Standard Occupational Classification used by the Bureau of Labor Statistics.

WEBSITE URLS

- ^a www.minneapolisfed.org/article/2003/early-childhood-development-economic-development-with-a-high-public-return
- ^b www.childcareaware.org/child-care-resource-and-referral/data-services/
- ^c www.atlantafed.org/-/media/documents/community-development/publications/special/2021/07/16/considerations-in-deploying-arpa-funds-for-childcare.pdf
- ^d www.acf.hhs.gov/sites/default/files/documents/occ/CCDF-ACF-IM-2021-03.pdf
- ^e www.acf.hhs.gov/sites/default/files/documents/occ/CCDF-ACF-IM-2021-02.pdf
- ^f bipartisanpolicy.org/download/?file=/wp-content/uploads/2020/10/BPC_Working-Family-Solutions_FinalPDFV3.pdf
- ^g info.childcareaware.org/hubfs/Data%20&%20ARP%20Through%20an%20Equity%20Lens.pdf
- ^h www.bls.gov/ooh/education-training-and-library/preschool-teachers.htm#tab-1
- ⁱ www.bls.gov/ooh/personal-care-and-service/childcare-workers.htm#tab-1