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Advancing Two-Generation Approaches

INTEGRATING DATA TO SUPPORT FAMILIES

THE ANNIE E. CASEY FOUNDATION

Introduction

In November 2014, the Annie E. Casey Foundation released *Creating Opportunity for Families,* which emphasized the close connection between family stability, overall well-being and a child's success. Recognizing that kids thrive when their families do, Casey called for policies and programs that take the entire family into account — what many describe as a two-generation approach — to equip parents and children with the tools and skills necessary for both to succeed.

Specifically, this involves intentionally coordinating and aligning often-isolated programs for kids and adults in a way that leads to accelerated progress in three key areas: (1) parents with family-supporting jobs and financial stability; (2) children meeting developmental milestones; and (3) families able to fully support and engage in their child's development.[1]

Over the past few years, the Foundation and others in the public, nonprofit and private sectors have invested in efforts to weave together programs and services for children and adults. These efforts have fostered collaboration among state and federal agencies and strengthened community-based organizations that typically focus on either children or adults. Despite this progress, the two-generation initiatives that have emerged continue to face common challenges: Many struggle with developing the funding mechanisms[2] and appropriate infrastructure[3] to coordinate child and adult services and with establishing a system to collect and integrate data on families.

In This Brief

The third in a series that addresses these issues, this brief focuses on the benefits and challenges of building an integrated data system to support two-generation programming — and highlights the strategies several organizations have employed to better track and share information about the children and parents they serve. The Foundation will share lessons gleaned from interviews with a range of two-generation initiatives that have developed, adopted and refined integrated data systems, including the Garrett County Community Action Committee (Garrett County CAC) in Maryland; Educational Alliance in

New York City; the multisite Jeremiah Program; the Dual Generation Partnership in San Antonio; and a partnership between Educare, an early learning center operated by Sheltering Arms Early Education and Family Centers, and the Center for Working Families Inc. in Atlanta. These lessons can help to inform the efforts of other organizations looking to strengthen their data-collection mechanisms and, ultimately, improve their ability to serve parents and children together.

Benefits of an Integrated Data System

Service providers traditionally focus on either children or adults and tend to collect only data about that specific family member. In recent years, however, organizations pursuing a two-generation approach have begun collecting and integrating data about both.

Child data can provide details of developmental milestones, preschool attendance and doctor's visits, while adult data can include information about coaching sessions, income levels and participation in training programs. Merging the two data sets gives organizations within a two-generation initiative more ability to track the progress of children and parents — information that can then be used to redesign programming and coaching plans, enhance crisis interventions, provide more targeted referrals and adjust staffing to better serve families and help them reach their goals. (See graphic on page 3.)

In Maryland, for example, integrated data have helped the Garrett County CAC achieve its strategic goal of having a "no wrong door" intake policy to make it easier for families to access a full range of services that might help them advance — regardless of the particular need that brought them to the agency. Similarly, the Atlanta partnership's data system has increased efficiency by eliminating redundancies in the process. Parents now answer intake questions only once, and their responses are available to both the early childhood partner and the workforce development partner.

Analyzing the many lists of family goals set by parents — related to such things as employment, education and family stability — was a heavy lift for Educational Alliance staff. Integrating data has relieved some of that burden. Now, staff are better able to track and identify trends within those goals. The organization uses that information to provide workshops that reflect the interests of the families, leading to an increase in workshop attendance.

Integrated data systems help generate holistic insights about families and the experiences children and parents are having. For example, having integrated data might help a family coach draw a connection between a child's absence from preschool and a parent's absence from coaching sessions and develop an appropriate action plan to address any underlying challenges. These systems are powerful coaching tools that help to ensure the staff who serve families, including family advocates, teachers and mental health therapists, have a fuller picture of each family's situation.

Key Considerations in Developing a Two-Generation Integrated Data System

Developing an effective integrated data system requires commitment from staff at every level within a two-generation partnership. Organizations must be prepared for the time it will take to plan and implement these new systems, as well as any new technologies, data-security protocols or staffing changes that may be necessary.

Planning and Implementation

Organizations pursuing two-generation strategies must commit considerable effort to plan for data collection, maintenance, sharing and analysis. The planning process includes carefully identifying what data are needed and how they will be used to improve family outcomes, as well as determining the technology and staffing requirements of supporting an integrated data system. Over time, two-generation organizations must have the flexibility to adapt to changes in their data needs.

A two-generation initiative often relies on partnerships between multiple organizations that offer different services or exclusively serve either children or adults. Along with the programmatic and funding collaborations inherent in these initiatives, organizations must also develop data-sharing partnerships with key stakeholders and a system in which all partners can use aggregated data to guide programming. Successful integration requires careful consideration about the data needed and how information will be shared, accessed and managed.

Sample Integrated Data System

CHILD DATA

- School/child care attendance
- Health and nutrition
- Kindergarten readiness
- School schedules and grades

PARENT DATA

- Financial literacy indicators
- Education/training attendance
- Wages
- Postsecondary schedules and grades
- Homebuyer and housing program information
- Adult career assessments
- Coaching participation

FAMILY DATA

- Household income
- Family interaction
- Housing arrangements

PROGRAM DATA

- Participation in parenting classes and education and job-training classes
- Applications for public benefits
- Participants' goals

PROGRAM IMPROVEMENTS

- Data-driven services and coaching plans for the whole family
- Targeted referrals and better follow-up
- Enhanced crisis interventions
- More efficient staffing arrangements

BETTER OUTCOMES

- Improved school readiness assessments
- Grade promotion
- Reduced parental stress
- Attainment of educational/professional credentials
- Improved credit report ratings
- Job retention

Building an integrated system has proved challenging for every organization Casey interviewed, and each has continued to refine their approaches along the way.

In Atlanta, Educare and the Center for Working Families Inc. engaged a consultant to help the partnership integrate data about families involved in both programs. The agencies obtained a common management information system but as of spring 2018 had not yet been able to effectively link the partners' core data systems. Although funding to complete the process was not available, the partners continue to collaborate to share information.

Organizations that undertake a whole-family approach must agree on some key data definitions. For example, how does a program define family? Programs may instead decide to track a household, even if the household includes people who are not actually related. The Atlanta partnership, for example, defines family as a mother and her children under age 5 at the time she applies to participate. Educational Alliance has defined a family as all people living in the same household, although the organization is revisiting that definition to consider other influential people in a child's life. It can also be challenging to track families or households because their makeup can change.

Another important planning consideration is how to define program enrollment and completion, as participants may not take part regularly and may not achieve certain completion goals. For example, if a child "graduates" to kindergarten — and therefore leaves the program — but a parent is still receiving career coaching, is the family still enrolled in the two-generation program? Or if only one parent in a two-parent family is receiving services, is that family fully enrolled? While there is no one formula for addressing these questions, establishing clear definitions for important terms will help two-generation programs collect consistent data that can be used to shape programming.

As a related consideration, two-generation programs often rely on various funding sources, such as Head Start, the Workforce Innovation and Opportunity Act and the Temporary Assistance for Needy Families program, which impose different data-reporting requirements that can be burdensome. For example, program staff may be required to use data definitions for such terms as "household" that are different than what they might normally use. Funders may also require organizations to report data in different formats or focus on different programmatic elements or outcomes. In some cases, funding agreements stipulate the use of a specific data system — regardless of what systems programs already have in place or the burden caused by adding a new system. Two-generation initiatives must account for these funder-imposed data requirements and plan for data collection in a way that will allow them to meet their various reporting obligations as efficiently as possible.

Technology

Organizations adopting a two-generation approach may need to customize off-the-shelf software and/or hardware to track a family's participation and progress. For example, a data system that tracks a child enrolling in or completing an early education program might not link easily with a second system that tracks a parent's participation in services such as coaching, financial workshops or job training. To be effective, organizations pursuing a two-generation approach need systems that can handle case management functions, provide a database and compile information about family members to provide a full picture of participating families. Ideally, all systems being used would be unified so that frontline staff can see information about parents and their children in real time.

The data-sharing constraints of some software programs might mean organizations will need multiple data systems. Some two-generation partners set up systems with two "front ends" — one for children and one for parents. In New York, frontline staff at Educational Alliance can access and generate reports that draw from both parts of the system, helping them to form a holistic understanding of a family's progress.

Organizational leaders commonly stress the importance of having employees or consultants with data expertise to help make decisions about software, hardware and other technology issues as part of a move toward a two-generation strategy. As technology continues to evolve, many organizations using integrated data systems continue to engage with the system developers on enhancements that can make the data and information more useful.

Data Security and Integrity

A core challenge of integrating data and maintaining data-sharing agreements is protecting the privacy of participants

Developing Program Metrics

The Ascend Initiative, housed at the Aspen Institute, developed a tool that many sites found useful in identifying outcome metrics for their programs. In its 2016 report *Making Tomorrow Better Together,*[4] Ascend identified several common outcomes for families in four broad categories: educational success; workforce development and economic assets; social capital; and health and well-being. Ascend has also created the 2Gen Outcomes Bank,[5] a crowdsourced effort to compile outcomes, indicators and other information useful to organizations involved in two-generation strategies.

and maintaining the security and confidentiality of data used by multiple program partners. Data collected for two-generation initiatives include sensitive information about participants, such as income, job history and family relationships, and organizations within the partnership must work together to establish security protocols. These protocols must take into account privacy laws related to such areas as health care or students' educational records. Confidentiality procedures should be built in to govern which data are available to various program staff and stakeholders, balancing the need to know with protecting participant privacy. Some two-generation sites, for example, have taken steps to ensure that only certain staff have access to information about participants' mental health treatment. It is also critical that organizations inform clients how data about them will be shared and used and obtain their permission.

To safeguard the integrity of data — which can come from a range of sources and are sometimes manually entered by program staff — organizations should adopt protocols to regularly assess data for completeness and accuracy. This could include monthly spot checks to see if data are being entered accurately and regular meetings to make sure that all staff members and partners are using the same data standards and definitions. Staff who can access the data need initial and ongoing training on keeping data secure and confidential. Best practices to address these data issues in the two-generation field are continually evolving.

Organizational Operations

Organizations developing an integrated data system must have the appropriate staff structure, expertise and buy-in so that employees at all levels understand how the data are being used to improve services and benefit families. Several sites suggested designating a single person with a background in data to oversee the system, rather than adding a new responsibility to program staff. It is crucial to provide training and retraining so that all staff, including frontline personnel who deal directly with participants, understand the integrated data system and know how to use it effectively — that is, to gain information about entire families, not just the parents or children with whom they work directly. Site staff also stressed the importance of securing leadership support from all partner organizations and of reinforcing data-sharing agreements when a key leader departs.

Stories From the Field

While the development and implementation of an integrated data system remains a work in progress for many two-generation initiatives, interviews with program leaders reveal that these efforts are worthwhile and provide vital benefits to the families they serve.

Garrett County Community Action Committee: Investing in New Systems

The Garrett County Community Action Committee in western Maryland works with several partners to improve the quality of life for residents and help low-income individuals achieve greater self-sufficiency.

In 2008, the organization engaged in a strategic planning process to increase its focus on family self-sufficiency, which

Garrett County CAC knew would require connecting and integrating various agencies and improving service delivery. To support this new strategic focus, Garrett County CAC decided to invest in a new data and document management system to replace more than 30 different software programs. (For example, Head Start classrooms were using a case management system for child data along with spreadsheets to track assessment results and attendance, while the homebuyer program was using a Microsoft Access database).

After vetting new software options, the agency chose an all-purpose management information system built on an older technology because it met Garrett County CAC's requirements for funder reporting and could track the necessary data for integrated service delivery. Garrett County CAC implemented the system in 2011 and adapted it over the next three years as it built its understanding of the data and the functionality needed to support a two-generation approach. The agency slowly migrated new data to the system, added new reports and upgraded functionality to allow for data to be shared between the central system and other systems.

After the coding for this original system became outdated, the organization upgraded to a newer system and more modern technology in 2014. This shift provided Garrett County CAC with a centralized database that tracks and integrates data from almost all the agency's programs and services. This database has enabled the implementation of core two-generation strategies such as its Family Pathway Planning process, which guides families through goal setting, and a universal intake process, which allows families to cross-enroll in services regardless of which department conducts their intake. The data system produces reports that have supported the organization's shift to focusing on family outcomes rather than counting units of service delivery and has empowered staff with the information they need to serve the whole family.

For example, when Garrett County CAC staff looked at results for kindergarten readiness, they noticed a discrepancy between the scores of children from different areas of the county, with those from the northern part scoring higher (more ready for kindergarten) than those from the southern part. After taking a closer look, staff members noticed two distinct trends: Families living in the northern part of the county consistently scored higher on self-assessments about their economic security (as shown in adult data), and children with Head Start experience in the southern part of the county were more likely to live in a higher level of poverty or in single-parent households (as shown in child data). These findings signaled a relationship between school readiness and income, two-parent family structure and perceived economic security. Garrett County CAC also found that the program offered less-intensive service coordination and classroom support and had higher caseloads in the southern part of the county. Equipped with this information, the organization took steps to improve readiness outcomes in the southern part of the county, including providing staff with training on working with families in poverty, reducing caseloads and increasing classroom support.

Garrett County CAC is now negotiating with key partners to allow family data to be shared and is helping to create a centralized data storage location with public access, which will enable the organization to share important data with public agencies. Over time, Garrett County CAC hopes its data-informed interventions will generate an increase in school readiness.

Educational Alliance: Bringing Data Experts on Board

For more than 125 years, Educational Alliance has served as a community center for individuals and families in lower Manhattan, with myriad programs for children and adults. The primary vehicle for the organization's two-generation strategy is its College Access and Success Program (CASP), which engages a group of low-income parents — whose children are enrolled in Early Head Start and Head Start — in adult education classes that help open doors to higher education opportunities and, ultimately, greater financial stability.

Before 2012, Educational Alliance collected data using a management information system, a web-based early childhood assessment program and a variety of spreadsheets. Staff had access only to particular systems, so they could not see all the data in one place. They also had to download different reports from different systems to look at data on a family — an inefficient and slow setup that made it difficult to integrate and use child and adult data together. To address these issues, Educational Alliance hired a data manager who spent six months researching integrated data system options.

The organization chose a highly customizable Early Head Start/Head Start case management system for its main data repository. The platform had recently added a parent portal that connected easily with the child-centered Head Start database, which allowed Educational Alliance to collect both child and adult data in a single system. The organization spent two months planning and implementing the data migration from the old system and spreadsheets, and another several months removing duplicate records and correcting spellings, before rolling out the new system to staff. While the organization still uses a separate web-based childhood assessment program and maintains paper files required by Head Start regulations, staff can share case notes and see all the services that families are receiving in one place. They also are in the process of building a tool for tracking families' progress within the all-purpose management information system.

Educational Alliance made it a priority to prepare staff to work with the new system. Most of the staff in the organization's Head Start had been with the agency for years, were uncomfortable with technology and were nervous about changes being made to the way they worked. To address this, the organization invested heavily in professional development and support, including monthly sessions on the new system to help the frontline staff learn how to use it. It took a full year of training before staff members were consistently entering reliable data into the system. Once they realized the utility of the system for their own work, staff began to embrace it.

As the system is being further customized and integrated into CASP operations, Educational Alliance boosted its internal capacity by hiring a director of research and evaluation to analyze outcomes with its research partner, New York University. Together, they are creating back-end data management systems that make it easier to evaluate programs and generate insights about the effectiveness of interventions. Once this programming is in place, Educational Alliance staff will be better able to track program participation through its main system, use the back-end features to analyze this information and, ultimately, determine the type and combination of support different families require.

Jeremiah Program: Digitizing and Integrating Data

The multisite Jeremiah Program equips single mothers from low-income communities with skills to excel in the workforce and prepares their children to succeed in school, aiming to reduce intergenerational dependence on public assistance. The program's two-generation approach begins with establishing a supportive community for mothers who are enrolled in postsecondary or accredited training programs. By providing and/or weaving together high-quality early childhood education, a safe and affordable place to live and life-skills training, Jeremiah Program helps families become stable and forge a path out of poverty. The organization has four operating residential campuses (Minneapolis and St. Paul, Minnesota; Austin, Texas; and Fargo, North Dakota), two commuter-style operations (Boston and Brooklyn) and another residential campus in development (Rochester, Minnesota).

Prior to 2014, Jeremiah Program was using an all-purpose management information system for some data collection. This system captured parent applications and progress, basic child and family demographics and case notes. Program staff used paper records to chart child development and learning assessment results, child program attendance, U.S. Department of Agriculture Child Care Food Program records and child care subsidy compliance. While Jeremiah Program had always viewed itself as a two-generation initiative, its reporting historically focused on mothers. In recent years, Jeremiah Program has begun exploring, collecting and integrating data about the children of enrolled mothers. By integrating data about the entire family, the program can create reports showing information about both mother and child. Reports about families' progress flag growth opportunities and possible interventions, such as mental health interventions for mothers and social and emotional resources for the child.

Jeremiah Program opted to stick with its existing system with the vendor's assurance of upgrades and customization that would allow the organization to maintain access to historical data. The vendor facilitated a two-day session with staff to develop the functional requirements for the integrated system and determine what data they needed to migrate over. During the five-month development phase, staff were trained on a dummy system, which prepared staff and identified design problems before the launch.

In addition to the newly customized management information system, Jeremiah Program implemented an Early Head Start/Head Start case management system to track a range of child records. But program leaders decided to manually upload a range of data into the management information system — including information about children from an Early Head Start and Head Start case management system and data from partners such as wages, grades, college schedules and child assessments — an arrangement that has proved workable. As the staff get feedback from the sites or identify new data needs (such as additional data on fathers), they continue to refine the system.

With most of its data in a single database, Jeremiah Program can now measure family progress, and staff have the data they need to consider the whole family as they work with moms and children.

Dual Generation Partnership: Adapting to Growth

San Antonio's Dual Generation Partnership, coordinated by United Way of San Antonio and Bexar County, is a multiagency effort focused on creating pathways to opportunity for children and families. The partnership comprises eight main organizations and aims to prepare parents for jobs and careers while providing high-quality early childhood and educational experiences for their children. The initiative originated in the city's EastPoint neighborhood, home to five public housing developments with about 800 households with children younger than 10, and now serves families across a much larger area covering 10 zip codes.

When the initiative launched in 2012, Dual Generation partners were using a variety of stand-alone data systems, spreadsheets and printed documents, and systems were not linked. Early in the pilot, the United Way proposed a data platform that would allow them to integrate data generated by child care centers and other service providers. However, because the pilot operation was still nascent and reporting needs were still shifting, the partners decided it would be more appropriate to track outcomes manually in Excel spreadsheets until data requirements and service delivery mechanisms were established.

This approach worked until the partnership expanded in 2016 to include additional service providers and more families co-enrolled with multiple providers. As the partnership expanded, data needs became more complex, and the risk of data errors and unintentional service duplication increased. This prompted the partners to explore other options — in particular, systems that would allow them to collectively manage client cases. They looked for easy-to-learn systems that were scalable and would minimize data errors. The partnership also wanted a system that could support extensive reporting and data analysis, would remain viable throughout initiative growth and change and could grow to serve the needs of multiple collective impact partnerships.

In late 2017, the Dual Generation partners jointly selected a system that would allow for two-generation data to be imported or directly entered by partners and that would enable them to share case management of participating families. While still in development, the new integrated system will operate in parallel to partners' existing systems and collect a range of two-generation information, including family goals and progress, services received, child assessments and attendance. All partner staff will be able to view up-to-date data, allowing partners to take collective responsibility for the family and coordinate services. Eventually, the system also is intended to track data on a family's progress using a joint self-sufficiency measurement framework across all members of the partnership.

The vendor providing the system is heavily involved in developing and managing it, reducing the partnership's system management requirements to allow for increased focus on using the data for measurement and improvement. The partnership began finalizing data requirements in early 2018 and expects to fully implement the system later in the year.

The data system will track household income and whether parents have obtained or maintained employment — key measures of family self-sufficiency. San Antonio would also like to increase the number of children achieving more developmental milestones. The data system will track child attendance and allow partners to access child assessment scores so staff can respond with timely and appropriate services and interventions.

Conclusion

The organizations and partnerships profiled in this brief are taking different approaches to developing an integrated data system to improve programs and program outcomes for parents and their children. Despite some of the challenges they face — which are not unlike those experienced by other government and nonprofit organizations working to develop more robust data systems — these programs are finding innovative ways to confront the inefficiencies and inadequacies of existing systems to truly understand the complexity of family circumstances and generate the information they need to appropriately address these issues in a timely fashion. Many organizations are generating solutions that empower frontline workers to act in family members' best interests and help them reach the goals they set for themselves — instead of solely focusing on compliance or counting service delivery outputs. These shifts have involved significant planning, new technologies, changes in staffing and organizational structure, the development of new external partnerships and an intentional focus on data security and integrity.

Despite this progress, implementation barriers and challenges remain. The work to improve these integrated systems is ongoing, and each of the organizations continues to refine them to improve outcomes. New solutions are needed from business intelligence and software development firms, and public agencies must be willing to refine data requirements that impede programs from providing families with pathways to opportunity and mobility. Parents and caregivers are invaluable partners for organizations looking to improve child well-being and foster community change, and they must be engaged[6] in this process as well.

The Casey Foundation hopes this brief provides useful lessons about data for other organizations pursuing two-generation strategies and that it will spark interest and increase momentum on these fronts.

ENDNOTES

1 For more information on the research and rationale behind two-generation strategies, see The Annie E. Casey Foundation. (2014). *Creating opportunity for families: A two-generation approach* (KIDS COUNT policy report). Baltimore, MD: Author. Retrieved from www.aecf.org/resources/creating-opportunity-for-families

2 The Annie E. Casey Foundation. (2017, March 14). *Advancing two-generation approaches: Funding to help families succeed.* Baltimore, MD: Author. Retrieved from www.aecf.org/resources/advancing-two-generation-approaches

3 The Annie E. Casey Foundation. (2017, July 6). *Advancing two-generation approaches: Developing an infrastructure to address parent and child needs together.* Baltimore, MD: Author. Retrieved from www.aecf.org/resources/advancing-two-generation-approaches-1

4 Ascend at the Aspen Institute. (2016, March). *Making tomorrow better together: A report from the two-generation outcomes working group.* Washington, DC: Author. Retrieved from http://ascend.aspeninstitute.org/resources/making-tomorrow-better-together

5 Ascend at the Aspen Institute. (2018). *2Gen outcomes bank.* Retrieved from http://outcomes.ascend.aspeninstitute.org

6 The Annie E. Casey Foundation. (2016, August). *Engaging parents, developing leaders: A self-assessment and planning tool for nonprofits and schools.* Baltimore, MD: Author. Retrieved from www.aecf.org/resources/engaging-parents-developing-leaders

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