The Business of Elevating Early Education Quality:
Lessons from the Philadelphia Shared Services Initiative

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The Business of Elevating Early Education Quality

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“Program teams are often uncomfortable with the very concept of evaluation and have a propensity to view [the evaluator] as merely an extension of one or more of their funders. I have been politely asked to momentarily step out of the room in the middle of a strategy meeting.” (p. 33).

-- Michael Quinn Patton

Over the four and a half years that I served as the evaluator of the Philadelphia Shared Services Initiative (PSSI), I attended team meetings, participated on conference calls, and never once had the experience that Michael Patton describes in the quote above. To the contrary, the members of the team welcomed me and were eager to use me as a resource and sounding board. Over the course of the project, they repeatedly welcomed data I collected even when that data raised questions about the efficacy of certain activities they were undertaking. Additional questions became just more grist for their implementation mill.

This receptivity reflected the sense of mission the PSSI partners and their staff brought to the project. One interviewee described the group working on the Philadelphia Initiative as a “dream team.” It was a dream team in terms of the evident collegiality among those working on the project. It was also a dream team when it came to their passion for making the project have a positive impact on the quality of early education for low-income children. Perhaps this accounts for their transparency. I had the privilege of having a front row seat for both periodic disagreements and smooth collaboration. No effort was made to exclude me.

I would like to thank the entire team with whom I had the pleasure of interacting: Sharon Easterling, Tyrone Scott and Amanda Cronin from the Delaware Valley Association for the Education of Young Children; Amy Friedlander, Farrah Parkes and Christianne Balsamo from the Philadelphia Health Management Corporation; Louise Stoney, John Weiser and Libbie Poppick from the Opportunities Exchange, and Denise Sayer from CCA Global. Their cooperation was outstanding.

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1. Executive Summary

The Philadelphia Shared Services Initiative (PSSI) is a collaboration of three organizations whose mission is to improve the quality of early education programs for low-income, at-risk children. The objective of their project was to provide additional resources for early care providers through strengthening their business and administrative operations. The Delaware Valley Association for the Education of Young Children (DVAEYC) led the initiative with two partner organizations, the Public Health Management Corporation (PHMC) and the Opportunities Exchange (OE). Their premise for change was that by improving business and administrative operations, they could improve programmatic quality. The William Penn Foundation provided funding for the project over four years to support a two-year pilot phase followed by two years of implementation.

Shared Services Concept Although the shared services concept is widely used in the corporate sector to reduce costs and increase efficiency, the reorganization of business processes through shared services has made limited inroads in the nonprofit and social services sector. One exception is the growing number of cities with multi-tenant, non-profit centers who share the use and cost of meeting space, copiers, kitchen facilities and other services. The implementation of shared services principles, however, is far from standard practice in early childhood education.

One widely recognized barrier to the improved quality of early childhood education is its cost structure relative to its revenue potential. For most families, especially low- and moderate income families, public sector subsidies combined with parent fees generate too little revenue to cover the cost of delivering a high quality program. Studies confirm that only high quality programs give low-income children the ability to make up the deficiencies they face when entering their elementary school years. Yet the overall quality of early education is judged to be mediocre. The Alliance for Early Childhood Finance (AECF) identified shared services as a promising strategy for mitigating the high cost structure in early childhood care and education. AECF’s Louise Stoney and Anne Mitchell documented multiple examples where shared services principles were used to improve business practices. Their financial models demonstrated how shared services can contribute to the bottom line and free up resources for program improvements. Nationally, AECF and the Opportunities Exchange (OE) have been active in documenting and promoting shared service practices as a promising strategy for improving the quality of early childhood education.

The field of early education is overwhelmingly populated by a large number of small proprietary and nonprofit providers. Because of their expenses and modest scale, these businesses, whether for-profit or nonprofit, operate on exceedingly thin margins. Such margins make it difficult to allocate resources to more generous staffing, competitive salaries, and benefits that attract and retain more experienced teachers – all practices associated with program quality and positive child outcomes.

Technology Tools The use of online technology as a vehicle for sharing resources and creating scale economies for early education organizations is a further innovation. While AECF and OE have provided
information and technical assistance to shared services alliances around the country, the introduction of software and websites is new. The Philadelphia Initiative is noteworthy because it has introduced and developed three innovative technology tools for this sector. These include: ECESharedResources (later rebranded as SharedSourcePA), ChildWare, and ECEhire, described fully in Section 3. By demonstrating the value of shared services, they envision these platforms as a means to recruit early education providers to either form or join shared service alliances.

Failures and setbacks are an integral part of any innovation process. For that reason the William Penn Foundation and the three PSSI partners embraced a developmental evaluation methodology that emphasizes real-time learning. As expected, the Philadelphia Initiative’s theory of change and its planned activities continued to evolve throughout the project’s life. This evaluation documents unanticipated successes as well as a few flawed assumptions that prompted the partners to make unplanned changes to their original blueprint.

For example, PSSI’s most widely adopted service, its web portal for early education administrators, ECESharedResources, illustrates this adaptive process. DVAEYC and OE were instrumental in developing the national web portal -- ECESharedResources.com -- in partnership with CCA for Social Good (an initiative of CCA Global Partners). The site supplies "practical tools for childcare program managers" and was initially marketed as a way to save money on purchased goods and services. Early evaluation, however, prompted CCA to redefine their value proposition. CCA subsequently described the site as a "knowledge hub" enabling program administrators to "improve quality, share learning, and reduce costs."

Because of DVAEYC’s involvement, the website soon attracted the attention of the Pennsylvania and Pittsburgh affiliates of the National Association for the Education of Young Children (NAEYC). Partnering with DVAEYC they attracted the support of two other foundations to create a customized, Pennsylvania-specific version of the website, SharedSourcePA to replace ECESharedResources. This Pennsylvania-specific website, in turn, played a critical role in building a market among other states for their own customized versions of the national website in order to reflect each state’s unique licensing and regulatory environment. As of this writing, fourteen states have followed Pennsylvania’s lead, creating their own sites with five more currently in development, a remarkable expansion. The sponsoring organization in each state is represented on a national advisory group that meets telephonically each month to guide the continuing development of the content on the portions of the site that are accessible to all users nationally. This rapid adoption along with the guidance of leaders in the field from throughout the country represents a significant contribution to the field of early childhood education.

Another midcourse improvement was to replace the subscription model for supporting the web portal with a member benefit model. After a small increase in dues access to SharedSourcePA is now a benefit for Pennsylvania members of NAEYC. As of the end of the February 2014 twenty percent of DVAEYC’s members had logged-in during the previous four weeks and almost half had over the course of the previous six months.
Commercially available database software designed to facilitate child care management has been available to center directors for more than 25 years. Such software products and digital services save administrators time in carrying out enrollment, finance, attendance and other routine information management and transaction processing and data-intensive functions. PHMC's principal contribution to PSSI was to create a similar web-based administrative digital service called ChildWare.

PHMC's initially assumed that its business relationship with the pilot cohort of ChildWare customers might enable its consulting practice, Targeted Solutions, to develop a shared services hub business offering cost-effective financial management services to the early childhood education sector. This did not happen for reasons explained in Section 3. Alliance formation, however, remained one of the Initiative's goals. So the grantees adopted a different approach to forming shared service alliances during the past two years. They worked directly with providers to stimulate interest in forming two models for cost-savings shared services alliances.

Despite ChildWare users' enthusiastic reviews, PHMC struggled with weak demand. Opinions expressed in confidential interviews and focus groups showed that users consistently found ChildWare easy to learn and to use. They raved about PHMC's superb technical support and receptivity to adding functionality and features requested by users. We suspected ChildWare would be duplicative of commercially available software and digital services. We found, however, ChildWare embodies a breakthrough innovation: tailoring an application to the unique requirements of the early education system in Pennsylvania.

The early care and education system is administered by state government. Among other responsibilities states license programs and administer the Federal Child Care and Development Block Grant subsidy program. To achieve educational policy objectives states adopt their own quality rating and improvement systems, professional development registries and state-funded preschool programs. ChildWare is the only commercially available child care management software application designed to be compatible with a specific state's system. ChildWare produces all the reports Pennsylvania’s providers need to comply with licensing, subsidy program regulations, and the state's Keystone STARS quality improvement program. This characteristic differentiates ChildWare from every other program on the market and creates exceptional value to Pennsylvania licensees.

We attribute ChildWare's paradoxically slow adoption to some of the same idiosyncrasies in the early education industry that prompted the grantees to introduce PSSI's shared services tools in the first place: time and money. Directors simply don't have the time to evaluate new and unfamiliar products such as ChildWare; to become proficient in their use; and, in ChildWare's case, to input the data to make the system useable. ChildWare's licensing fee can also serve as a deterrent. PHMC charges a one-time setup fee of $500 to $1,500, depending on enrollment. With the exception of centers with extremely low-enrollments, the on-going cost equals only one-tenth to three-tenths of a percent of revenue. Nonetheless, in a field where tight margins reduce the intricacies of business finance to a simple cash management exercise, any additional claim on cash – regardless of the size of the expenditure, the time it will save, or the additional revenue it will generate – is necessarily subordinated to the persistent need to preserve the center's limited liquidity. Users, nonetheless, provided compelling evidence of
ChildWare’s value to them and to its untapped potential for the many licensed providers who continue to manage with paper, pencil and physical files.

PHMC also created a secondary web-based service, called ECEhire, that was designed to make it easier for providers to find and recruit candidates for teaching positions and to expedite pre-hiring due diligence. The original design encountered two barriers: The same cost-based reluctance that PHMC encountered in marketing ChildWare combined with the very limited supply of well-qualified teachers interested in jobs at the wage levels that prevail in early childhood education. PHMC has since redesigned the site as a statewide job posting website that is highly automated and, therefore, financially sustainable. With an average of more than five jobs being posted each week, use of the site is modest but increasing.

Public Policy PSSI pursued a number of strategies to convince state officials to take actions that would encourage providers to use shared services. Being a highly regulated field public policies exert an overriding influence on provider behavior. The grantees, however, faced a changing economic and political environment. The PSSI project coincided with the 2008 Great Recession’s effect on state resources and a new gubernatorial administration that was shifting away from the prior administration’s public sector activism.

Despite these obstacles, PSSI succeeded in gaining the support of the Deputy Secretary of the Office of Child Development and Early Learning. With the one exception of the state’s successful application for federal Race-to-the-Top (RTTT) funding, the Deputy Secretary’s interest in shared services did not translate into specific policy initiatives. The state’s RTTT application, however, did incorporate a proposal by DVAEYC and OE permitting the state to use RTTT resources to support shared service-related policy initiatives. At present, the state has not committed to do so. Nonetheless, the participants continue to hope that the state will use RTTT funds to begin an exploration and investment in shared services.

In retrospect, given the inhospitable policy environment, it is not surprising that shared services never became a priority for state policymakers. Policy change, moreover, takes time and depends on the serendipitous alignment of issue-awareness, politics, and policy-prescription. The grantees succeeded in insinuating shared services into the policy conversation in Harrisburg. Time will tell whether these three conditions will coincide in the near future.

Shared Service Alliances One of PSSI’s most poignant lessons is the difficulty of launching shared service alliances. The project’s initial theory was that such relationships would evolve organically through the use of ChildWare with PHMC’s consulting arm eventually serving as the back office for an alliance or as the vendor for providers outsourcing financial services. In reality, providers evinced no apparent interest in these options. After the hoped-for alliances did not materialize, DVAEYC and OE pursued two other alliance development avenues, the hub model and the start-up approach. The first, the shared services hub model, involved a search for a relatively large and well-managed provider capable of contracting with smaller centers to provide management services. The second, the start-up approach, involved a
more collaborative sharing arrangement in which PSSI’s staff sought to assist a group of providers interested in carrying out certain business functions cooperatively to reduce each center’s costs.

Both strategies proved to be very time- and labor-intensive. The team successfully identified a strong candidate to become a shared services hub. The organization explored the feasibility with the team’s technical assistance and support. However, the grant expired before that organization was able to complete its business plan. That organization’s strategic interest in serving the sector as a shared services hub remains and should business development resources become available, implementation remains a possibility. The second strategy was successful. Five organizations with nine sites and approximately 850 children formed the Philadelphia Early Learning Alliance (PELA). They are saving money on professional development, building maintenance services, and other functions.

**Scale and Quality: The Virtuous Cycle** PELA illustrates one of this evaluation’s most intriguing findings: the apparent predisposition of larger and higher quality programs to invest more time and effort to operate more efficiently and effectively. All nine PELA-affiliated centers participate in the state’s four-level quality rating system and all fall within the top two categories: STAR 3 or 4. Two of the five organizations are multi-site and the average capacity of every center in the alliance is a healthy 96. We found the same positive associations between quality and scale – center enrollment and number of organizations with multiple sites – among ChildWare licensees as well. Moreover, interviews with a small sample of intensive SharedSourcePA users produced a disproportionate number of STAR 2, 3 and 4 centers. These data seem to illustrate a positive feedback dynamic, which reinforces the premise behind the shared services movement: economies of scale enable programs to achieve a higher quality standard and perhaps also to be more quality oriented. Size, when combined with an interest in quality, evidently supports a virtuous cycle.

**Building Organizational Capacity** The natural impulse is to concentrate quality improvement investments in the educational process as it unfolds in the classrooms. Perhaps PSSI’s most noteworthy contribution to the movement for quality improvement in early education is its tantalizing demonstration of the potential for lifting quality by investing “upstream” in organizational, managerial and systemic capacity-building, especially in those activities that create economies of scale, economies of specialization and intangible knowledge assets. The Philadelphia Initiative has shown that this is an extremely promising approach.
2. The Philadelphia Shared Services Initiative

The goal of the Philadelphia Shared Services Initiative (PSSI), hereafter referred to as the Philadelphia Initiative, the Initiative or PSSI, was to raise the quality of early education programs serving low-income children. Their approach in closing the achievement gap for these at-risk children is supported by ongoing research about the relationship between programmatic quality and financial performance. An Urban Institute study of child care centers, for example, describes quality improvement as the result of a Maslow-like developmental hierarchy: “Centers must first meet their own safety and survival needs (e.g., financial stability) before addressing more complex goals...that go beyond licensing requirements. Directors in the lowest quality programs were often struggling to keep their doors open and meet basic licensing standards; setting higher expectations for staff or services was not their most urgent priority.” Their report, “Understanding Quality in Context,” also notes that “many initiatives focus on a single issue, but quality arises from a combination of factors.” (Rohacek, et. al. p. xiii).

ORIGIN AND AIMS

The funding proposal submitted to the William Penn Foundation characterized PSSI as a “shared services start-up project for child care programs in Southeastern Pennsylvania.” The proposal also emphasized why they were focusing on shared services: “The Shared Services model has been successfully implemented in other sectors as a way for small businesses to benefit from economies of scale and thereby reduce operating expenses. Savings realized through this strategy can be reinvested in program enhancements such as staff compensation and benefits in order to improve overall program quality.”

The field of early education seems to be burdened with structural challenges that have made it difficult to recast its original mission from safely caring for children of working parents to the current expectation of delivering on an educational mission. This is especially true when it comes to services for low-income children, a population about whom research has confirmed the correlation between programmatic quality and later academic success. Such structural challenges include revenue reliance on a parsimonious publicly subsidized financing system along with an inefficient cost structure aggravated by the modest scale of most center-based programs.

The premise of the PSSI proposal is that achieving scale through shared services is a particularly promising approach to improving the business model for center-based early education. Louise Stoney and Anne Mitchell are early education experts and co-founders of the Alliance for Early Childhood Finance (AECF). After studying other industries for transferrable revenue and cost models, they identified shared services as a proven model that small early education providers could adopt to realize some of the economies of scale that currently elude them. The grantees described such economies in their pilot phase funding proposal to the William Penn Foundation:

_The project will implement and test two parallel models for delivering services. The first...will use a web portal designed and managed by CCA for Social Good to deliver a range of competitively priced services (health insurance, payroll services, marketing templates, bulk purchasing, and credit card processing) to up to 400 users by the end of the grant period (2012). A second more_
In-depth approach will...center around ChildWare, a comprehensive child care management tool to automate administrative and financial activities.

Through the Delaware Valley Association for the Education of Young Children (DVAEYC) and its partners PSSI piloted these elements of an innovative business model. They conceived business models as vehicles for improving the quality of early education for low-income children enrolled in child care centers.

The Pennsylvania Department of Public Welfare defined such centers as “the premises in which care is provided at any one time for seven or more children unrelated to the operator.” The Department’s licensing regulations define the primary purpose “to facilitate the safe and healthful care of a child in a child day care center” and establish minimum health and safety requirements.

State regulations, however, also appear to embody larger expectations that reflect an important change in emphasis that began to take hold in the 1990s when leaders in the field sought to abandon the designation, “child care,” because of the connotation of custodial care for working parents rather than educational value for children regardless of parental workforce status. Research had shown that educational outcomes were both needed and achievable with high quality programs. From that point on, people starting using the phrase “early childhood education” or “early care and education,” and child care centers were expected to achieve far higher levels of programmatic quality.

Thus regulations state centers will “support families by providing care that promotes the emotional, cognitive, communicative, perceptual-motor, physical and social development of the child.” For example, the state requires centers to have “a written plan of daily activities and routines.” The regulations further state that the center “shall be flexible to accommodate the needs of individual children and the dynamics of the group.” In addition, these “activities shall promote the development of skills, social competence and self-esteem.” In theory, these regulations provide a floor on program quality below which centers cannot legally operate.

The focus on quality among educators, parents, policy makers, and philanthropists is especially acute when it comes to low-income children. Widely accepted research findings, notably the HighScope Perry Preschool study, demonstrate that very high quality early education can dramatically improve lifetime outcomes for children at-risk for intergenerational poverty. The push for quality early educational has continued to gain momentum. Despite this, the quality of much of the early care and preschool education available to low-income children throughout the United States is far below the standards necessary to enable children to begin their primary education with the tools that will allow them to succeed academically and that will ultimately put them on a path to escape poverty.

PSSI is distinctive from the many initiatives existing to boost programmatic quality because it sees the fundamental barrier to quality early childhood education in this segment of the early care industry as being structural, arising from the economics of serving low-income families and the prevalence of inadequate business practices. Child care centers are business enterprises, even those operated by nonprofit or religious organizations. Each licensed center is organized around an implicit or explicit business strategy. That strategy arises from a pattern of decision-making that shapes services in order to
cater to the needs and desires of certain segments of their market. That is each center’s value proposition.

Because the cost of care is so high, for example, moderate-income families who are ineligible for subsidies might be attracted to centers with low rates. Consequently, these centers’ value proposition and business strategy is to compete on price. This leads them to hire less experienced, lower wage staff in order to meet the parents’ need for affordable care. The centers then trade quality for price. Other variables influence the market. Some working parents might select a center because of its convenient location. Others may choose a religiously affiliated center or one based on their cultural or ethnic identity. All centers tailor their services – employee compensation, location, facility quality and other attributes – so as to align their value proposition with the needs and desires of their target market. Because of the inherently high cost structure, however, centers that serve both low- and moderate-income families, even those that receive subsidies, face significant hurdles to delivering on a value proposition based on quality.

This is the structural dilemma shared services tries to address.

THE PARTNERSHIP

The Philadelphia Initiative is a collaborative effort involving three nonprofit organizations with a web services business partner, CCA for Social Good.

The Delaware Valley Association for the Education of Young Children (DVAEYC) is the regional chapter of the National Association for the Education of Young Children (NAEYC). DVAEYC has approximately 2,000 members in the five southeastern counties of Pennsylvania, which includes the Philadelphia metropolitan area. DVAEYC supports early childhood programs and practitioners with professional development and technical assistance to improve the quality of programs and engages in advocacy aimed at increasing public sector resources and improving the system of early care and education.

The Public Health Management Corporation (PHMC) is a large and diversified nonprofit public health institute with nearly 1,500 employees, 250 programs, and 11 subsidiaries. It builds healthier communities in greater Philadelphia through a variety of partnerships. Among its portfolio of programs is Targeted Solutions, a management consulting and administrative services practice. In 2011 PHMC won the state contract to serve as the Southeast Regional Key (SERK) responsible for developing and implementing an integrated and coordinated system of program quality improvements and professional development supports for providers of early childhood education in three southeastern counties, including Philadelphia. The SERK evaluates providers to assess their quality based on the state’s quality rating and improvement system, Keystone STARS.

The Opportunities Exchange (OE) assists nonprofit organizations serving low-income individuals to improve the quality of their programming and financial sustainability through the
development and use of shared services. Its primary focus is the field of early childhood education.

CCA for Social Good (CCA) is a relatively new affiliate of CCA Global Partners, a firm that provides support services to independent businesses that are competing against large national and even international businesses. This new affiliate targets its services to the social sector and builds on the parent company’s track record of helping independent organizations work together while maintaining their independence. CCA for Social Good draws on the parent company’s existing infrastructure to address the biggest issue facing small nonprofits – scale.

CCA for Social Good currently offers two web-accessible platforms – a platform for any nonprofit, NonprofitSharedResources.com, and ECESharedResources.com, a platform geared specifically toward early childhood education or child care programs. It decided to build an industry-specific platform for early education after Louise Stoney of Opportunities Exchange showed interest in CCA Partners’ business services tailored to the unique needs of independent flooring and bicycle retailers. She saw similarities between the specialized challenges facing these small commercial enterprises and those confronting independent child care centers.

PROGRAMMATIC COMPONENTS

Over the course of three consecutive grants – a six month pre-implementation planning phase followed by a two-year pilot phase followed by an additional two-year implementation grant – to DVAEYC from the William Penn Foundation (2009 to 2014), the members of the Philadelphia Initiative sought to bring shared services to the early childcare education sector in southeastern Pennsylvania. Their strategy involved the following five interconnected activities:

SharedSourcePA is the web-accessible platform created at PSSI’s direction.\(^1\) The business arrangement DVAEYC struck with CCA for Social Good was to develop content for that firm’s first industry-specific web platform, ECESharedResources. In exchange, CCA provided DVAEYC members with free access to the web-platform for a year. After the first year DVAEYC members would be required to purchase a subscription to access the website.

ChildWare is a child care management software application developed by Public Health Management Corporation (PHMC) and is web-accessible. Conceived as an on-ramp to more intensive financial management services available through PHMC’s Targeted Solutions department, it was also seen as facilitating back office administrative and financial management services on a cost-effective basis for multiple early care and education programs.

ECEhire was another web-based service that PHMC planned to implement. ECEhire was designed to address the staffing challenge in this high turnover and labor-intensive field. It was conceived as a vehicle to increase the pool of active candidates for positions, expedite the hiring process,

\(^1\) As explained elsewhere in this evaluation, DVAEYC initially worked on ECESharedResources before transitioning its members to SharedSourcePA, a customized version designed for Pennsylvania’s early educators.
and perform due diligence. It was also hoped it would give centers access to a workforce of more highly qualified employees.

**Shared Service Alliances** was known colloquially among the PSSI partners as “intensive shared services” in order to distinguish this component from the three web-based offerings. The web-based services were seen as introducing providers to the benefits of shared services in the hope that it would prompt them to form or join alliances with other small, independent and financially marginal early learning programs. Joining such shared service alliances would bring cost savings, make these programs financially more sustainable, and free up resources that could then be used to improve program quality. Shared service alliances can take a variety of forms: One example is through a hub – an established organization, such as PHMC’s Targeted Solutions, with administrative capacity and scale – to which small centers could outsource back office functions; a second example would be a group of cooperating centers that might agree among themselves to partner with each other in order to pool back office and other expenses.

**Public Policy.** Because of the large role state regulation and funding plays in shaping the operating environment for the early childhood education centers, changes in public policy have an enormous influence on PSSI’s outcomes. The Initiative’s partners worked to educate policymakers about the potential of shared services to increase administrative efficiency and advance the state’s policy objectives.

**PROJECT HISTORY**

The Philadelphia Shared Services Initiative received financial support from the William Penn Foundation over a four and a half year period, from September 2009 until March 2014. The phases included a six month pre-implementation planning grant (September 2009-February 2010); a two-year grant that funded the pilot phase (March 2010-February 2012); and a final two year grant for the implementation to support the build-out during which the grantees worked to increase the utilization of the shared services (March 2012-February 2014). The key evaluation findings from the first implementation phase:

The insight that the assumed cost-savings value proposition for the **ECEsharedServices** web platform was wrong. DVAEYC members used the site to access a variety of useful knowledge assets. This was one of two factors that influenced the decision to re-launch the site as **SharedSourcePA**.

The other factor influencing the name change was the decision to partner with the Pittsburgh and statewide NAEYC affiliates – PAEYC and PennAEYC – in order to serve the entire state, not just the five Southeastern PA counties, with a customized website. This led to the newly reconfigured Pennsylvania Shared Services Initiative (PASSI) to develop a sustainable business model for **SharedSourcePA**: one that relies on NAEYC membership fee income in lieu of the original subscription-based plan.
THE BUSINESS OF EARLY EDUCATION AND THE LOGIC OF SHARED SERVICES

Thin operating margins force most center-based early education organizations serving low-income families to adopt a business model that depends on unremittingly austere cost containment measures. For example, the U.S. Bureau of Labor Statistics reports that the median hourly wage for child care workers is $9.42 while the median entry level wage for a clerical position is $15.39, a difference of $5.97 per hour. By way of comparison, the Bureau of Labor Statistics places the median hourly wage for restaurant and fast food workers at $9.08. The low wages for early educators is the most vivid way to illustrate the field’s economic dilemmas. Early education cannot afford to offer a competitive wage for its largest and most important input, upon which successful outcomes largely depend.

Another distinctive characteristic of early education is the expanding administrative requirements to operate a program. Serving low-income children and striving to achieve quality adds to that burden. One national study cited in Rohacek reported that “some directors did not want to be involved with voucher or contract programs because their centers were not large enough to hire staff to cover the necessary paperwork or other requirements.” That operational reality highlights the importance of scale to viability as well as the administrative burdens associated with participating in public sector subsidy and quality improvement programs. “These directors implied that if they were larger, then there would be sufficient overhead to make different decisions regarding resource allocation.” (Rohacek, et. al. p 94).

Shared services as implemented by PSSI seeks to ease these strains by harnessing two economic principles – economies of scale and economies of specialization – along with the business management concept of value chain redesign.

Economies of Scale - The required minimum staff-to-child ratios makes child care an extremely labor intensive enterprise. Therefore, personnel expenses drive costs. In most cases salaries and benefits represent 70 to 80 percent of a child care center’s budget. For those centers serving low-income children, revenues depend on state subsidies. Subsidy rates, in turn, reflect the tension policymakers feel between subsidizing as many eligible children as possible and paying enough to ensure reasonable levels of quality. The resulting compromise pegs rates at a level of quality well below the standards shown to produce dramatically improved academic outcomes for low-income children.

The small scale of most early education operations exacerbates the disadvantageous cost structure. Multi-site programs and larger centers do generate some economies of scale. Scale improves the operating margins of centers, enabling them to budget more money to enhance program quality. Why then don’t more operators expand? Economics and business finance would suggest that the answer lies in some combination of weak demand and lack of physical and working capital to fund growth. Low net worth and insufficient net income to support debt service forecloses borrowing as an avenue for closing this capital gap. The combined effect of these various factors results in this segment of the industry being populated by very small proprietary child care programs. Given low profitability a high proportion of these programs are nonprofit organizations motivated by mission rather than financial return. These dynamics, therefore, produce a business model dominated by the imperative to contain costs.
By adopting shared service models a center could alter its cost structure, revenue model and mix of business activities so as to generate new revenue or free-up resources and redeployed them in ways that boost programmatic quality.

**Economies of Specialization**

Specialization is a corollary benefit to scale. As an organization grows and adds staff, positions are defined more narrowly. This process results in greater division of labor. Functions previously handled by a generalist can be subdivided and delegated to employees with narrower but deeper knowledge of the relevant duties. In the field of early education such growth might enable a center director to hire an experienced bookkeeper and delegate those duties to someone who is better qualified. If the center director previously kept the books, which often happens with very small centers, by substituting the director’s high-value time with someone whose hourly rate is lower, the center saves money and a critical function is carried out by a more highly qualified person. The diagram 1 of organizational charts illustrates how, with increasing scale, a center’s staff can become more specialized. This process results in tasks being done better and, in many cases, at less expense. This is an important part of the alchemy of shared services.

**Value Chain Redesign**

This business management tool builds on the economic principles of scale and specialization described above. It includes reengineering business processes to enhance efficiency. Central to this practice are decisions about how to invest scarce resources to maintain and strengthen those core competencies that create economic value. The redesign process seeks to identify opportunities to outsource and automate functions wherever doing so generated an economic advantage. In outsourcing financial management activities, for example, the contracting organization seeks to reduce costs by capitalizing on the vendor’s economies of scale and specialization. Many early childhood programs do this routinely when they contract with a payroll service. ADP, the leading payroll service vendor, markets itself as “big services for small businesses.” It is a business that adds value through scale and specialization.

The other value chain redesign tactic PSSI introduced is automation. In automating functions, as ChildWare enables them to do, centers are able to take advantage of “structural capital.” These are investments in organizational infrastructure and procedures that systematize activities so that they can be performed better, repeatedly and more efficiently.
Most important, PSSI is noteworthy in its use of technology as a vehicle to enable the typical small-scale single-site, early learning organization to redesign the way it operates in order to capture economies of scale and specialization while, at the same time, maintaining the intimate size valued by parents of preschool-age children.

Given the structural realities of the early learning sector, harnessing these business concepts through shared services makes common sense. Through cooperative arrangements, small centers can achieve modest economies of scale and thereby improve their operating margins. Unfortunately, shared services is a concept difficult to sell. The same structural conditions that gave rise to this small-scale and fragmented industry also produced a perverse logic: the administrators don’t believe in Benjamin Franklin’s adage that time is money. Because money is so scarce, many providers operate on the assumption that time is infinitely elastic. These twin norms -- money is scarce and time is not -- repeatedly reappeared as DVAEYC, PHMC and OE worked to introduce the field to shared services and new business practices.

To sum up, PSSI is built on the premise that by adopting shared service models, centers can alter their cost structure, revenue model and mix of business activities so as to generate or free-up resources they can then redeploy in ways that boost programmatic quality.

**DESCRIPTION OF EVALUATION**

The shared services concept is a proven model in the private sector. Its introduction in the social sector, however, and among early childhood educators in particular, constitutes a potentially significant innovation in early education. As presently constituted, the fragile business model for low income preschool education has made it difficult for providers to achieve the levels of quality that research has shown can change the life trajectory for children raised in poverty. PSSI ushered in a series of innovative technology-based business processes in order to introduce early education providers in the region to the shared services concept. They hoped to motivate them to form or join shared service alliances. Their objective was to help these organizations achieve greater efficiency and effectiveness through scale and thereby produce saving that could be used to improve program quality. While the Alliance for Early Childhood Finance had documented examples of naturally occurring shared service models in the sector, very little data existed to support a deliberate effort to spread these business practices and encourage widespread adoption. Because PSSI was introducing untested web-based tools, both as ends in themselves and as vehicles for introducing end users to the potential of shared service alliances, it lent itself to a “developmental evaluation.”

According to Michael Quinn Patton, development evaluation is “pre-formative.” He argues that this is the appropriate evaluative model to employ when a novel intervention is being developed, piloted and refined. It helps to bring “the emerging model to the point where it is ready for traditional formative and summative evaluation.” (p. 4). He describes this approach as being “informed by systems thinking and sensitive to complex nonlinear dynamics.” In other words, the preliminary cause and effect expectations reflected in an innovative initiative's theory of change have not yet been tested against the real world complexities that reveal themselves through implementation.
The most unusual characteristic of this approach is the evaluator’s relationship to the project team. Unlike the conventional view of the evaluator as a detached umpire calling balls and strikes, developmental evaluators sit in the dug-out with the team, like a batting coach, offering the players feedback that might improve their performance. In *Evaluating Social Innovation*, Preskill and Beer describe the developmental evaluator as a “strategic learning partner and facilitator.” (p.8). They suggest that, “The evaluator’s primary function...is to infuse team discussions with evaluative questions, thinking, and data, and to facilitate systematic data-based reflection and decision making in the developmental process.” (pp 1-2).

**LOGIC MODEL**

Logic models are indispensable tools for making explicit a project’s underlying theory of change. However, at the developmental stage, it is common for theories to undergo significant change. Jamie Gamble describes this process:

> *In a developmental mode, we move from a logic model as a static instrument, to one that we expect to change and evolve over time. One technique is to build the model from scratch more than once over a period of time. While it may be more practical simply to update the original model, insights about how people’s thinking is evolving may be revealed through a comparison of new and old models.* (Gamble, p. 49)

In PSSI’s case, although the underlying theory about scale economies remained relatively stable, the logic model developed in 2010 bore little resemblance to the model constructed for the second two year grant in 2012. That model, shown in miniature in diagram 2, integrates lessons gleaned during the two year pilot phase. One of the significant changes appeared in the approach to alliance development shown in the activities section of the logic model (diagram 3). The original version of the Initiative’s theory of change model envisioned alliances emerging organically. For example, PSSI assumed that providers purchasing supplies from vendors featured on the web portal, would see the cost-savings, would grasp the value of shared services and therefore would naturally gravitate to alliances. While some purchases were made, there were no indications that they had this effect.

Similarly, they assumed the pilot group of *ChildWare* users would develop a trusting relationship with PHMC and recognize the advantages of purchasing financial management services from its Target Solutions division. In actual practice, the advantages of shared services turned out to be less evident and
compelling than expected. Interest in alliances and in purchasing licenses to use *ChildWare* were lower than expected.

So the next iteration of the logic model integrated these lessons. Diagram 4 displays the portion of that logic model which includes the grant period outcomes. Since the evidence showed that providers were apparently failing to intuit the value of shared service alliances or show an active interest in outsourcing back office functions, the logic model reflected the decision to directly organize two shared service alliances. One was to be built around a large and high performing early childhood education organization that would serve as a “hub” selling management services to a group of smaller and less well-resourced programs. The PSSI grantees altered their plan in order to identify and recruit a suitable organization to serve as the hub and help promote its services to small scale providers. Their other approach sought to rally a cohort of organizations to launch a peer-to-peer alliance that would operate more like a cooperative, pooling resources and back office activities to create some shared economies of scale.

The pilot phase showed that the benefits of shared services were not self-evident to providers, or even to policymakers for that matter. So the new logic model envisioned a process of successive engagement. The team adopted a four-step stages-of-change framework similar to those used in the fields of addiction recovery, marketing and sales, and change management. The short-term outcomes shown in diagram 4 follow the engagement sequence from becoming *aware* of the various shared service options and benefits; to showing passive *interest*; followed by information-seeking *exploratory* behavior, and finally to becoming *engaged* users. The logic model shows this framework extended to every activity.
The bigger challenge for the grantees was to construct a logic model that depicted a plausible theory for how the Initiative’s menu of shared services might ripple through the day-to-day activities of an early education center to produce better developmental outcomes for children. Diagram 5 illustrates the critical transitional stage during which the gains in operational performance stemming from shared services flow downstream and produce improved child outcomes. These improved operational results include declining vacancy rates, reduced staff turnover, and improved financial performance. They are cumulative results of access to information and knowledge; savings of time and money; reduction of work-related stress; and performance of tasks at a higher quality standard. All these arguably arise from utilizing ChildWare, accessing resources on SharedSourcePA, or outsourcing back office functions to an alliance. These modest task-related benefits, the grantees theorized, when aggregated over days, weeks and months, can be expected to impact the organization’s financial performance. Having greater financial resources, in turn, permit greater spending on programmatic activities. The net result should be improved programmatic practices, and the enhanced skills and effectiveness of the center’s leadership. These are essential inputs to pedagogical process quality which research has linked to better child outcomes.

Diagram 4. Grant period outcomes
Diagram 5. Long term outcomes
3. Findings

PSSI’s activities fall into three categories. The greatest effort went into developing a series of innovative web-based productivity tools and resources. The project also sought to spur the development of shared services alliances and to create a state policy environment that would be conducive to creative business and organizational arrangements that leverage scale economies to generate efficiencies.

WEB-BASED PRODUCTIVITY TOOLS AND RESOURCES

The Initiative’s most significant innovation has been its use of web-based tools – SharedSourcePA, ChildWare and ECEhire – as a way to deliver shared services at scale.

SharedSourcePA Findings

The William Penn Foundation’s grants to PSSI enabled DVAEYC to enter into a partnership with CCA for Social Good aimed at giving nonprofits the business and technology tools needed to operate more efficiently. DVAEYC provided content knowledge to CCA for Social Good to adapt its parent organization’s industry-specific small business web-based services model to meet the specific needs of the early childhood education field. In return, CCA for Social Good gave DVAEYC’s members free access to ECESharedResources for a year beginning in early 2010. Thereafter DVAEYC members had to become paid subscribers just like other users of the site.

Subscribers to ECESharedResources and to SharedSourcePA, the state branded version now available to Pennsylvania users, are eligible for volume discounts that CCA negotiates with many national corporations that sell business products and services. In an effort to make paid subscriptions more attractive to early childhood education providers, the grantees and CCA sought to negotiate similar arrangements with vendors selling products that early educators regularly use, such as classroom supplies and equipment. Discount School Supplies, for example, agreed to a cash discount of 20%. DVAEYC and OE recruited FoodSource Plus, a food supplier, to the list of discount vendors.

Evaluative data collected in 2011 provided evidence that the assumption that cost-savings would drive use of the site oversimplified the decision-making calculus among early education providers. The field is unarguably labor intensive. Consequently, purchased goods and services represent a very small percentage of the typical center’s budget. Moreover, as described more fully in the previous evaluation report, Common Knowledge: Lessons from the Philadelphia Shared Services Initiative, price is only one factor influencing purchase decisions. Cost-savings was not a compelling value proposition to those who were using the site.

Instead, child care center administrators logged on to the ECESharedResources and subsequently to SharedSourcePA to access its knowledge assets. These included sample job descriptions, performance review protocols, procedures to conduct safety inspections, online training, informational handouts for parents, and budget templates. SharedSourcePA, the site specific to Pennsylvania, also provided handy links to other materials, such as the state’s licensing regulations and the Consumer Products Safety Commission’s list of recalled items. Among the most valued resources were customizable templates – downloadable Microsoft Word documents that a center director could edit and use free-of-charge,
thereby saving many hours of drafting time. Moreover, since these documents were drawn from similar samples that other center administrators had prepared, used or revised over time, these samples represented considerable accumulated wisdom and experience.

DVAEYC discovered that its members valued the web portal as a "knowledge commons," a reservoir of useful information, documents, and tools about efficient and effective operation of an early education center. These pooled resources saved administrators time, enabled them to benefit from the accumulated experience and wisdom of other practitioners, and empowered them to apply this experience for improved programmatic outcomes. This easily accessible repository of knowledge assets proved to be the value proposition that has driven the growth of this web platform.

The development of a Pennsylvania-specific version of the \textit{ECESharedResources} site came about during the first two-year pilot grant when the statewide and Pittsburgh affiliates of NAEYC decided to partner with DVAEYC to create a version of the site customized with information specific to providers licensed in Pennsylvania. This is an option that CCA for Social Good offers to other states. Instead of selling subscriptions to end users, CCA enters into a contract with one or more statewide organizations to customize and manage a "branded" version of the site. Although these branded sites include much of the content available on the national \textit{ECESharedResources} site, they also contain exclusive, state-specific information and resources. Pennsylvania's site became \textit{SharedSourcePA}. The name captures both its Pennsylvania identity and pays homage to the growing appreciation of its value as a reliable "source" of content knowledge for practitioners in the field.

Interestingly, the insight about the knowledge-based value proposition gleaned from PSSI has led CCA for Social Good to reposition its product. In a recent press release, for example, CCA for Social Good described its newest state-branded site in Missouri as an "innovative web-based knowledge hub for ECE professionals [that] provides thousands of practical resources helping ECE providers save time, money and advance quality."

Finally, this shift embodied another breakthrough: a different business model. Recognizing the reluctance of providers to assume any additional costs, selling individual subscriptions to \textit{ECESharedResources}, which range from $50 to $100 annually, would have almost certainly proven to be enormously challenging. Instead the NAEYC affiliates raised the annual dues for their members by $15, making it an attractive inclusive member benefit and dramatically lowered the cost to early care providers.

\textbf{FINDING:} The creation and development of \textit{ECESharedResources} and its Pennsylvania successor, \textit{SharedSourcePA}, are accomplishments of national significance and DVAEYC is responsible for much of the content. The NAEYC-membership fee supported business model made the site self-sustaining.

\textit{SharedSourcePA} satisfied a previously unrecognized need for knowledge assets. Users found they could save time and improve their management practices by using the tools and resources on the site.
DVAEYC is responsible for much of the content on the original ECESharedResources site. And that website provided the technological and content "bones" CCA uses for branded sites like SharedSourcePA. CCA for Social Good now hosts 14 customized versions of the site for states or shared service networks. Five more are currently working with CCA to create their own statewide platforms. The ECE leaders in each of these states have coalesced into an informal national steering committee who participate in a monthly conference call with CCA for Social Good. During the call, these stakeholders guide the development of the platform's shared components.

The Pennsylvania site has distinguished itself from the other customized CCA sites because of its success in developing a sustainable business model, one that others can be expected to emulate.

**FINDING:** A high proportion of DVAEYC’s members regularly use the SharedSourcePA website.

The number of DVAEYC’s members who regularly use SharedSourcePA – defined as those who have logged-in during the prior six months – has grown gradually during the course of the project. The site is designed primarily to meet the needs of administrators. DVAEYC’s membership includes many classroom teachers and others in the field who would have little reason to use the site and have never logged-in. However, a significant proportion of DVAEYC members regularly use the site. When the grant

![Diagram 6: DVAEYC Member Log-ins](image-url)
period ended in February 2014, approximately 20% of the users had logged-in over the course of the prior four weeks and fully 49% had logged-in over the prior six months. Diagrams 6 shows DVAEYC member utilization of SharedSourcePA over time. Diagram 7 displays the distribution of users by most recent log-in at the end of the grant period.

The frequency with which users logged-in would be a good indicator of user engagement. Unfortunately, neither CCA for Social Good’s Google Analytics nor the administrative database, which track activity and users on the SharedSourcePA site, records the number of times users log-in. Even without an exact count, there is a great deal of evidence that there are more frequent repeat visits than were captured in these data. Based on the page views, daily traffic and time-on-site metrics, for example, it is reasonable to infer a high level of user engagement. Active users average 7-10 minutes per visit and view between 6 and 9 pages. (See Diagram 8 displaying these metrics graphically for the past two years).

Diagram 9 shows daily traffic at the SharedSourcePA website for the three month period beginning on December 1, 2013. It illustrates the factors that drive use. Every other Tuesday users receive an e-blast highlighting some resource on the website with an embedded link that takes users directly to the showcased item. On those dates the site shows a distinct uptick in traffic. Second, we found a degree of seasonality to the traffic: the fall shows more traffic than winter months; summer shows diminished use as do holidays. Finally, the e-blast responses suggest there is somewhat less interest in generic office administration topics, such as the business plan, annual report templates, and the Microsoft Office training and more interest in the materials that relate to child wellbeing and communications with parents around health issues.
While the log-in data does not record the number of times individuals log-in during any given period, we know that a high proportion of log-ins are return visitors. (See Diagram 10. This graph shows the ratio of returning to new visitors for all SharedSourcePA users, not just DVAEYC members). The databases record the date of each user’s most recent visit. In an attempt to estimate the frequency with which some users log-in to the site, the evaluator conducted two analyses: One compared the report of log-ins for three consecutive monthly intervals.
and the other for 13 consecutive weekly intervals. Since these data only capture each individual’s most recent log-in, not the total number, these two analyses systematically understate frequency. Nevertheless, they provide a useful relative measure of frequency of use. Diagrams 11 and 12 summarize the results of those two analyses. Apparently many of the users categorized as active – those who logged-in within the previous four weeks – and regular – those who logged-in within the previous six months – are returning with some frequency. A small number of them return with remarkable frequency while a larger proportion do so periodically.

**Diagram 11:** Analysis of frequency of DVAEYC monthly member log-ins

**Diagram 12:** Analysis of frequency of DVAEYC weekly member log-ins

**FINDING:** There is evidence of a positive association between a provider’s apparent motivation to improve programmatic quality, intentionality about professionalizing business and organizational practices and use of SharedSourcePA.

PSSI’s goal has been program quality improvement. The theory of change postulates that effective business systems and organizational management support quality improvement. Evidence of this association with respect to SharedSourcePA users, while weak, is noteworthy because of its consistency with more additional and more persuasive findings, reported below, regarding the characteristics of centers adopting ChildWare and participating in the Philadelphia Early Learning Alliance (PELA), the one shared service alliance formed as a result of this project.
The evaluator culled a sample of frequent users from the October to December 2012 utilization data summarized in Diagram 11 for follow-up interviews. Nine of the 36 users approached via email consented to be interviewed. Of those nine, two operated family child care homes. Although PSSI’s target audience is center-based programs, they always considered family providers as a secondary audience who could benefit from many of the Initiative's resources. One provider we interviewed was a consultant in the field of early education. All nine confirmed their frequent use, ranging from "intermittently intensive" to almost daily.

Interestingly, of the six center directors interviewed, four were participants in Keystone STARS: One was affiliated with a 2-STAR center, two with 3-STAR centers and one with a 4-STAR center. Given that only one in four of the centers participating in the state’s quality rating improvement system fall in the two to four STAR range and many more centers do not even participate, the apparent association between frequent use of SharedSourcePA and quality improvement effort is unexpected. However, given the small sample size, it is of no statistical significance.

On the other hand, additional evidence described later in this section provides stronger indications of the correlation among ChildWare users and PELA membership. Indeed, when the pattern of use among these three resources is taken together, it invites theorizing about a plausible explanation. We found no evidence to suggest a causal link indicating that PSSI resources spark the impulse to improve. It is more likely that PSSI shared resources facilitate the efforts of directors already working to improve early learning quality.

**FINDING:** The “Raise Quality” tab on the SharedSourcePA menu contains a wealth of new content to aid licensed programs to improve program quality through their participation in Keystone STARS.

One of the advantages of a branded version of the ECESharedResources website is the ability to customize content. SharedSourcePA contains a menu tab devoted to Pennsylvania's Quality Rating and Improvement System (QRIS).

DVAEYC’s “Raise Quality” menu tab, built over the past year, has been its most significant enhancement to SharedSourcePA since the conversion to a Pennsylvania-specific platform. The screenshot shown in Diagram 13 contains a small portion of the on-line toolkit created to walk centers through the

![Diagram 13. Screenshot of online QRIS tool](image-url)
state’s QRIS. Under the Raise Quality tab users can find the performance standards for each Keystone STAR level for center-based programs as well as for school-aged programs. Work is proceeding on the family child care standards tab. The center-based toolkit alone contains almost 500 links to resources, shown in blue typeface. Additional resources and tips are displayed in orange typeface.

**FINDING:** In addition to saving money, DVAEYC members who purchase goods and services from vendors offering discounts on SharedSourcePA also realized unanticipated time-saving productivity gains.

While SharedSourcePA cost-saving vendor discounts proved less important to providers than the site's other resources, we found evidence that some centers did take advantage of these. CCA does not generally receive sales information from vendors that provide discounts on its various websites. However, Discount School Supplies, a vendor recruited specifically for CCA’s early education sites, does share semi-annual sales information with CCA. In the first six months of 2014, for instance, the firm reported $130,000 in sales through the Pennsylvania site. That translates to $26,000 in savings for the providers who made these purchases. Interviews with users over the course of the project provided anecdotal evidence that purchases were also made from some of the other vendors.

Anecdotal evidence from interviews with SharedSourcePA users disclosed that these transactions produce unanticipated cost-savings as well as non-cash benefits such as time-saving productivity gains and other intangible advantages. Here are three examples:

- One Philadelphia center director said, "We were not happy with our existing payroll service. We trusted that the vendors on SharedSourcePA had been checked out. It is like getting a referral from someone you trust. We were really happy with the customer service person at ADP. The fees were a lot cheaper. They explained a lot of things we did not understand. For example, they informed us about a tax credit we were eligible for…Their customer service people do not make you feel like, ‘what do you mean you don’t know this?’… ADP provides free webinars. I really like that. I just had one [webinar] on important records to keep. They are having another on questions you can and can’t ask prospective employees. Another on tax stuff. Lots of good HR stuff."

- Because FedEx is one of the vendors offering discounted service through SharedSourcePA, another director tried the service. She marveled at the fact that "you call them and they come pick-up the parcel." Previously, to mail a parcel she had to leave the center, drive to the post office and wait in line. Before returning to the center, her errand could easily take half an hour. She observed that FedEx "has not been that expensive and it gets there the next day." The director's wonderment illustrates the schism that exists between routine business practices and the behavior of hyper cash-conscious managers in the field of early education. Because of SharedSourcePA, this director stumbled upon and tried a business service that is commonplace in other sectors of the economy. Viewed from the outside, a center director devoting half an
hour on a post office errand would be seen as an unproductive given the opportunity cost of the director's time. Almost anything else she does with that newly found half hour makes her a more effective center director.

• “We don’t think about business travel as [part of] early childhood [education]. We sent six teachers to a conference. I found numerous options and saved money using the Orbitz link [on SharedSourcePA]. Their tickets were cheaper and better than my fare that I scheduled months earlier. For some teachers, it was the first time they had ever been on an airplane. I felt good. For once, as an early childhood center, I was sending people on a business trip” that made them feel they are being treated as professionals.

**FINDING:** By far the most significant productivity gains realized by SharedSourcePA’s users arise from access to and use of the site’s store of knowledge assets.

When it comes to the administrative functions of operating an early education program, knowledge assets contribute to greater efficiency and effectiveness. These knowledge assets enhance productivity and take two forms: human capital and structural capital.

“The term ‘human capital’...is a graphic statement of the fact that people are indeed an asset of the organization...They are part of [its] productive capacity.” (Adams and Oleksak, P. 27). Few businesses are as labor-intensive or as reliant for its effectiveness on its human capital as early education. The knowledge of how to run an organization is in particularly short supply among small center-based programs. Our interviews produced repeated examples of how directors acquired very practical information that improved their effectiveness. One center director found the site’s information about budgeting particularly useful. “This type of information is not always easy to find. The board [of directors] information on the site was wonderful.” She had not gone to the site looking for that information. She came across the material while exploring, which led her to observe, “There is a lot of embedded information on the site. Budget information was fascinating.”

Unlike human capital, which “walks out the door at the end of the day,” structural capital is “knowledge that has been captured and becomes part of the organization,” such as documents, policies and procedures. As Adams and Oleksak write in *Intangible Capital*, “Any time that you capture ...‘best practices’... you are making every employee smarter when they come to work in the morning. Administrative support activities, such as enrollment, human resources management, and recordkeeping “can be systematized to become increasingly valuable forms of structural capital.” (pp. 27-34). SharedSourcePA’s downloadable forms, like the one to notify parents of their child’s exposure to a communicable disease, or parent information handouts, such as the one about biting, since they do not need to be recreated, have been converted into structural capital – a form of knowledge capital available to any registered user.

The downloadable templates found on the site are also forms of structural capital. The parent handbook is a good example. To earn a STAR 3 in Pennsylvania’s quality rating and improvement system, a center
must have a parent handbook. DVAEYC’s technical assistance providers have reported that they spend less time assisting centers develop a parent handbook now that they have access to the on-line template. According to an analysis prepared by CCA, DVAEYC’s technical assistance staff spends an average 11.75 hours assisting a center to develop its parent handbook. Before SharedSourcePA’s handbook template became available, it took 42 hours. That savings of 30.25 hours represents the value of the technical assistance provider’s expertise when captured as explicit knowledge. Add to this, the provider’s time savings. Since a director can now edit rather than craft and draft policies from scratch, it also takes her or him less time to create the center’s own parent handbook. This adds to the cumulative time savings for the entire industry.

In addition, the quality of the parent handbook template is the product of DVAEYC’s seasoned early childhood experts sifting through and selecting the best from many handbooks. Those source handbooks, in turn, contain revisions the original authors made over time to address previously unanticipated exigencies. The templates therefore embody the wisdom of scores of child care directors, each with years of accumulated experience. So unsurprisingly, in interviews with users, we found the downloadable templates to be among the site’s most cited benefits. “The site has everything you need to run a preschool efficiently and effectively,” one director noted, adding, “and it is high quality material. People did not share this stuff before. The culture in the field is changing. People see the value in lifting the whole field.”

**ChildWare Findings**

Software enabling child care centers to automate routine administrative chores such as tracking attendance, maintaining health records for each child and invoicing and fee collection has been available for the past 25 years. Vertical market software applications are relational databases programmed to meet the unique transaction-related requirements of specific industries. The [Open Directory Project](https://dmoz.org) lists 35 child care management software products currently available. Another website contains a list of 82. Some of the better known products include EZ-Care, ProCare, Child Care Manager, Maggey Software and Childcare Sage. Beginning in 1986, when personal computing was itself a young industry and child care software was an emerging product category, *Child Care Information Exchange*, an industry journal, published an annual center management software buyer’s guide. Although it continues to publish articles about child care management software from time to time, it discontinued the annual review of products more than a decade ago because the pace of innovation had slowed as the product category matured.

*ChildWare* is a unique early child education management software application in that it is designed specifically for providers operating in Pennsylvania’s regulatory, subsidy and quality improvement environments. Because it is specific to the early education system in Pennsylvania, *ChildWare* users are able to automate more administrative activities and realize significantly greater productivity than through competing products.
The Business of Elevating Early Education Quality

**FINDING:** ChildWare is extremely competitive because it is an easy-to-learn, user-friendly, full-featured and web-based child care management software system. Moreover, both user interviews and a case study provide compelling evidence that ChildWare users save time, generate more revenue, perform tasks they were previously unable to, execute tasks to a higher quality standard, reduce the risk of being out of compliance with licensing and quality standards, and experience less stress related to managing a complex and administratively-intensive enterprise.

The rationale for developing a new child care management software application, despite the number of commercially available products on the market, rested on a plausible blueprint for building a shared services hub at Philadelphia Health Management Corporation. PHMC’s consulting practice, Targeted Solutions, provides financial management services to small, nonprofit organizations. The grantees originally envisioned Targeted Solutions building a niche business by providing cost-effective and high quality outsourced financial management and related back office services for small, early childhood programs.

This plan addressed one of the challenges inherent in launching a shared service alliance: Identifying or forming an entity with the scale and administrative sophistication to deliver these services to its members. Targeted Solutions already supplied a vehicle even though it was not seen as operating specifically in the early childhood education arena. PHMC conceived of ChildWare as evolving into the technology infrastructure for managing back office services for multiple early learning organizations. By providing the software for the first year without charge, PHMC gained a pilot group of users. The feedback from the early adopters would enable PHMC to perfect the software. DVAEYC and its partners hypothesized that the pilot users, having experienced the benefits of ChildWare and having established a good working relationship with PHMC, might graduate to outsourcing administrative functions to Targeted Solutions, especially if the state would permit PHMC to submit invoices on behalf of its users. That did not happen.

ChildWare, which PHMC continues to develop and refine, has grown into a sophisticated web-based service that can compete with the commercially available products in terms of price, functionality, ease of use, user support and reliability. Although its product is less known, PHMC has made slow but steady progress in increasing the number of licensees paying for the service. Moreover, users' reliance on ChildWare grew over time as their data entry activities expanded to include additional ChildWare components such as staff data, attendance and meal tracking.

In total twenty-four organizations became licensees. Of these, six purchased licenses but, for varying reasons, either never became users or quickly abandoned the program. One of the six centers closed and three discontinued use because of cost – at least two of these were too small for the use of ChildWare to have made sense in the first place – and two discontinued use either because of lack of interest or administrative time constraints that prevented them from learning the system and entering data.
In interviews with 11 of the 24 agencies licensed to use *ChildWare* all expressed enthusiasm for the service because it simplified many routine administrative functions, enabled them to keep track of more information and make better use of that data. Based on these interviews the most valued feature of *ChildWare* is its To-Do list notification system. The user manual describes the to-do list function:

> The To Do List keeps you informed about deadlines such as when a staff member’s first aid training is about to expire, or when a child needs a new emergency contact form on file. It also lets you know if you are missing data on a child [without] a classroom assignment.

*ChildWare*’s to-do feature tracks the many items required to be in compliance with state licensing regulations. Monitoring these often prove to be an unmanageable task when manually tracking physical staff and child records. The software allows the user to decide which items will pop-up on the to-do list on the user’s home page. Users can also set-up the software to automatically generate email reminders to the primary user as well as to other members of the center’s staff. This capability creates peace-of-mind for harried administrators who readily admit they were rarely on top of a long list of compliance issues. Before using *ChildWare* users reported the chaos that proceeded Department of Public Welfare licensing visits. Site directors had to scramble, physically examining child and staff records to determine if all the required documentation were there and up-to-date. Then they hastily dispatched teachers to complete required training workshops or asked parents to update and complete forms. One director reported:

> I am responsible to see that staff has all the training and in the right categories. I had lists, but you have to keep up with them. I felt teachers should keep up with the trainings but they don’t, plus people just forget. Two weeks before inspection you say, “You need this.” Looking all these things up at inspection time is intense. Now I get notified that a training is expiring before it expires and before the inspection is even scheduled.

Another director described the same challenge:

> The most stressful period are the weeks leading up to a licensing visit. Three weeks before you are checking everything…[ChildWare] tells you which files need updating and you don’t have to go through each of the children’s files auditing for completeness and all the information being up-to-date. Same thing for the teachers and whether they are up to date on training.

The notifications continue to appear until the requirement has been satisfied or the task completed. This is an important example of how *ChildWare* reduces the level of stress associated with the job of running an early learning facility. This automated feature also saves a great deal of time and reduces the risk that the center will be found out of compliance.

Like any new software application, however, there is a learning curve. Users insist it is relatively easy to learn and intuitive to use.

*ChildWare* helps track four categories of information: Child and family data, billing and accounts receivable, staff data, and attendance and meal tracking. The child and family data is the most
frequently used part of ChildWare with 17 of 24 licensees maintaining these data. Thirteen use the billing and accounts receivable functions. Because the use of each component of ChildWare requires another level of learning and front-end data entry, organizations are prone to plateau rather than invest the time needed to reap additional benefits. This was true even though their license entitles them to use the other modules without additional cost and users themselves acknowledged they have realized significant benefits from those portions of the program they have adopted. One site director described why ChildWare users plateau after using only one or two of its modules:

*Now that we are on top of tuition [billing and accounts receivable], it would help having training on another aspect...In the beginning none of us were open to anything but tuition. So some of the training [PHMC delivered] was wasted because of when it was done. There is so much in ChildWare.*

PHMC has continued to encourage users to progress to full utilization. As Diagram 14 illustrates, users are gradually taking advantage of the software’s potential for improving productivity.

Users also report that PHMC has been exceptionally responsive to requests for new pre-programmed reports. They give high praise for the thoughtful design of forms as compared to those they had developed and used before transitioning to ChildWare. With its relatively small installed base of users and PHMC’s desire to continue to improve the product, users receive an exceptional level of technical support.

**FINDING:** ChildWare’s most consequential innovation -- the source of its competitive advantage and its unique ability to add value and increase productivity for Pennsylvania’s providers -- is its state-specific design.

PHMC designed the ChildWare software to expedite and improve administrative functions specifically for Pennsylvania’s early education centers. Thus, it generates reports for Keystone STARS; organizes data to share with the Early Learning Network, and contains functions to help providers prepare for the Department of Public Welfare’s inspections. This state-specific design of the software means that ChildWare is meaningfully more valuable to almost any of Pennsylvania’s early education programs than any other products on the market.
**FINDING:** Despite ChildWare’s many benefits, relatively few organizations have chosen to become users.

PHMC exceeded the modest grant period goal to have 30 sites using ChildWare. Twenty-four organizations with a total of 41 sites and 3,200 children are paid licensees. Evidently, the market for ChildWare is difficult to penetrate for a variety of reasons.

- **ChildWare** is a late entrant into a crowded market. Early learning organizations most inclined to adopt a technology solution to manage administrative tasks have already done so.

- Centers that previously purchased a competing product or service have to weigh the advantages of switching against the significant sunk costs already incurred in the initial purchase and staff training. PHMC does assist its new customers to migrate data from their existing system to ChildWare, removing one barrier to moving to a new product. Absent some extraordinarily compelling reason, centers using a competing product are resistant to switching to ChildWare.

- One of the most salient characteristics of center-based early education, especially those serving the low-income segment of the market, is extremely tight operating margins. The prospect of incurring even the smallest increase to the center’s cost structure is instinctively resisted. For example, one center director using ChildWare is delighted with its transformative impact on day-to-day operations. She attributes improved fee collections to her center’s use of the software. The increased revenue exceeds the cost of the ChildWare user license. Nonetheless she "wishes it cost half as much." The actual fee depends upon enrollment. With the exception of extremely low-enrollment centers, the annual cost per child is in the range of 8 to 25 dollars (see Diagram 15). Assuming an average rate for a 4 year old, the cost of ChildWare represents between 0.09% and 0.29% of revenue.² PHMC also charges a one-time setup fee of $500 to $1,500, depending on enrollment.

- Because of its perceived cost center directors view automation as a major business decision. That makes time, as well as cost, a barrier. Since directors are typically overwhelmed by urgent demands on their time they lack the “bandwidth” to rethink their management processes. Just to cultivate interest, therefore, requires PHMC to overcome the barrier of getting the director’s

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² Calculations based on cost data from *Parents and the High Cost of Child Care: 2013 Report*. Child Care Aware of America. p. 41.
attention. It takes still more time to evaluate the product, perform the initial data-entry and train staff in its use.

Finally, interviews found evidence that many directors are simply reluctant to change. One frequent SharedSourcePA user interviewed in the course of this evaluation confessed, "Our information is done old school." She also noted that "we track fee collection information in a notebook." As a frequent SharedSourcePA user, she had heard about ChildWare. As an administrator of a STAR 3 center with a licensed capacity that is close to 100, her center would otherwise be seen as a promising candidate for ChildWare, if it weren’t for director resistance.

DVAEYC and PHMC tested numerous strategies for marketing ChildWare. Both organizations talk with providers about ChildWare one-on-one and through presentations and demonstrations at meetings and conferences. The ChildWare website now has a very effective marketing video on its homepage narrated by DVAEYC’s Tyrone Scott. However, as the preceding list suggests, it is difficult to overcome the many obstacles to centers adopting this time-saving, revenue-generating, stress-relieving tool for better and more efficient management.

**FINDING: ChildWare creates efficiencies that produce improved financial performance.**

PSSI’s case for shared services rests in large part on the idea that business operation efficiencies – created with tools like SharedSourcePA, ChildWare and shared service alliances – generate savings and that these savings create pools of resources that can be used to improve programmatic quality and ultimately better child outcomes. It is an extremely difficult hypothesis to prove because of the inherent complexities of organizational processes in early education centers. If revenue increases, can the cause be traced to the use of shared services? Do the efficiencies generated by shared services produce resources that drop down to the bottom line? The evaluator conducted a case study of one multi-site organization, tracking that organization’s experience during its first 6 months using the service, in order to answer some of these questions with respect to ChildWare.

A case study explores a phenomenon in its real-world context. Despite the richness of the qualitative data such studies generate, researchers usually do not make generalizations based on case study findings largely because the applicability of one case study is not considered statistically significant. On the other hand, some examinations of qualitative research methodology caution that “formal generalization is overvalued as a source of scientific development” and “the force of example is underestimated.” (Flyvbjerg, B. P. 228). If a case provides evidence confirming the study’s hypothesis, the demonstration value is undeniable even though another organization’s experience might be different.

The case study conducted of the ChildWare user provides presumptive evidence to bolster the theory that shared services in general and ChildWare in particular contribute to more efficient delivery of early education services, freeing resources to flow to activities that enhance programmatic quality and improve child outcomes. The case study interviews and focus groups conducted for this evaluation
found compelling evidence that ChildWare enabled the organization to earn more money because of the its impact on enrollment and fee collections.

Prior to adopting ChildWare, information required to manage enrollment and collections was difficult to retrieve and was extremely time-consuming. The executive director at the evaluated center gave some examples: “How many preschool children are at site X? Are there any vacancies for Y age group at center Z?” Each site director handles her own center’s enrollment and has responsibility for fee collection. However, bookkeeping has always been centralized. So, to answer these questions, “Everyone would call [the bookkeeper] and interrupt her work.” Most of the data resided in the organization’s QuickBooks accounting software. Since that program is not designed specifically to retrieve this industry-specific information, it took [the bookkeeper’s] time to corral up-to-date numbers. Now, with ChildWare, “everyone has [direct and immediate] access to the information they need and the bookkeeper can do her job.”

The executive director previously spent a great deal of time checking with her site directors about receivables. When parents accumulated a large unpaid balance, they often transferred their child to another center, thereby disrupting the child’s care, creating a vacancy, and leaving an uncollectible balance. The ChildWare system changed that. She said, “It empowers the staff to be on top of collections. Now it is the center director’s fault if [a parent] is six weeks behind because [the director now] has access to all the data she needs in real time.” If a parent fails to make a payment, site directors can quickly and easily generate and print a statement themselves. Previously statements were only generated after a parent was 30 or 60 days in arrears, often too late for a lower-income parent to recover. Moreover, parents are able to understand the new ChildWare statements. Site directors found that parents had difficulty comprehending the old ones. With parents being up-to-date the center feels it can now “enforce late fees beginning in the new school year. We don’t want to make our money that way. However, we could not have enforced it before.”

She continues: “We are definitely writing off less. Until [we got] ChildWare [we] had never been as on-top of collections...Now collections are off my regular list of things to do.” Although year-end financial results were yet to be compiled, the executive director, bookkeeper and site directors all agreed that collections were up for one reason: Directors have the data they need to remind parents about outstanding tuition payments before they mount up and became uncollectible.

**FINDING:** ChildWare licensees were much higher quality as well as being larger in terms of number of sites and enrollment capacity than the norm.

The evidence that larger and more quality-oriented centers are more likely to use PSSI resources is especially noticeable among ChildWare’s licensees. Ten of the 26 licensee organizations had enrollments exceeding 100 children and four had enrollment that exceeded 250. And of the 43 centers operated by those organizations, 24 were rated as STAR 3 or 4 by the state’s QRIS. Only 5 of the centers did not participate in the Keystone STARS program. By comparison, only 13% of the centers licensed by the state are either STAR 3 or 4 and more than 50% do not participate in the quality improvement system.
**ECEhire**

Arguably the three most critical challenges center directors face are enrollment, revenue collection and teacher turnover. PHMC developed *ECEhire* as a human resources program in order to help centers quickly and efficiently fill positions. High turnover is demoralizing to co-workers and disruptive to children and parents. Since centers must maintain strict adult-child ratios, staff vacancies create crises. Substitute teachers, moreover, are scarce. So the center director is often pressed into classroom service at the moment when she needs more time to conduct a search to fill the vacancy. Too often this results in a cursory search and a rushed hiring decision, a process Whitebook and Bellm call the “warm body” syndrome. The logic of having a pool of available candidates who have been pre-screened would appear to be an irresistible prospect. That is what *ECEhire* offered.

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**FINDING:** As originally conceived and launched *ECEhire* failed to attract employers because of the program’s cost, and job seekers because of the industry’s low wages.

ECEhire encountered two problems: the cost of the service and the industry’s low wages. The most significant barrier to its success is the structurally dysfunctional labor market in the field of early childhood education. In their interim report to the Foundation, the grantees observed “the fundamental asymmetries in the labor market for ECE professionals” and described the response to PHMC’s *ECEhire* service:

> Although PHMC reviewed over 400 applications and over 100 providers signed up for the site, only six hires were completed. These six hires represented only four candidates; one was hired for two part-time positions and another left their position and was re-hired by another agency through ECEhire.com. The inability of the program to match a higher proportion of agencies and applicants was a matter of simple economics. The salary and benefits offered by most providers were inadequate to meet the needs of most qualified and reliable candidates and they were therefore not interested in the positions. On the reverse, the lack of qualifications and professionalism among candidates willing to accept lower wages did not fit with provider needs and they were therefore not interested in hiring them.

One member of the team put the dilemma this way: “Who with a bachelor's degree wants to work for twelve dollars an hour? Until we solve the wages and benefits problems” labor supply will be persistently lean.

*ECEhire*’s prospects were at risk as well because of the propensity of center directors to substitute their own time for hard cash outlays. *ECEhire*’s business model was fee-based. It offered in-person pre-screening interviews and credential reviews for a modest fee. The grantees saw this as the heart of *ECEhire*’s value proposition. Assuming the site attracted candidates who were better qualified than it actually did, this would seem like a very attractive service. However, independent of the quality of the candidate pool, one member of the PSSI team ruefully conceded during an interview, “even heavily subsidized and with people having to pay only a nominal fee, there was little demand” for these pre-screening services. In other words, the field’s other structural economic conundrum – lean operating
margins – exerted a prescriptive influence on expenditures irrespective of the non-cash benefits they might create.

PHMC treated this setback as an unsuccessful prototype. It then redesigned and re-launched the site as a statewide job posting site.

**FINDING:** The redesigned ECEhire is a cost-effective way for employers to advertise positions and an even more efficient way for early childhood professionals to learn about openings.

PHMC proved to be highly adaptive. The redesigned ECEhire site is an automated and lower cost service. Job seekers can sign-up for ECEhire’s free Weekly Job Digest listing available positions by region. Employers can post job openings for $20 (although a $10 promotional rate is periodically available). For that modest sum the position is widely distributed through four platforms, a posting to the ECEhire site, an announcement in the Weekly Job Digest, a listing on Craigslist with a link to the ECEhire posting, and dissemination on social media including ECEhire's Facebook page and "tweeted" to ECEhire's followers. The rapid and extensive circulation of job postings through the website and social media is designed to make ECEhire the “go-to” site for job hunters and employers. ECEhire no longer offers labor intensive in-person pre-screening of candidates. Employers, however, can for a fee take advantage of an optional electronic screening of applicants. ECEhire automatically forwards qualified applicants to the subscribers.

In the year and a half since the re-launch ECEhire has had 10,660 unique visitors. The marketing strategy appears to be working in that roughly one-third of the visits came from people directly typing the URL in their browser; one-quarter come from the weekly emails, 21 percent followed links placed on Craigslist, and 17 percent follow links on DVAEYC’s and Pittsburgh AEYC’s websites.

**SHARED SERVICE ALLIANCES**

Shared services strategies achieve financial savings through economies of scale. These efficiencies result from centralizing administrative functions. In most cases these arrangements also generate economies of specialization that cause administrative functions to be accomplished more proficiently as well as at a lower cost.

PSSI’s initial strategy – the one pursued during the 2010 to 2012 grant period – envisioned PHMC’s Targeted Solutions consulting practice evolving into a “hub” delivering outsourced financial management services. This strategy assumed an outsourcing business affiliation evolving organically out of PHMC’s relationship with pilot ChildWare users. If the state allowed PHMC, as the repository for ChildWare data, to electronically submit invoices to it on behalf of its licensees, the providers would be paid more quickly and without the same level of effort. However, that arrangement never materialized.

In response, the team developed a more proactive two-pronged approach to alliance formation for the 2012 to 2014 grant period. The first prong involved a new hub strategy. Instead of ChildWare users
outsourcing their financial management to PHMC’s Targeted Solutions, PSSI decided to identify a high performing early childhood education provider in the region – one that already had achieved some economies of scale – and explore its interest in selling back office services to smaller providers. These smaller centers could save money relying on the hub’s systems and operational sophistication. The second prong involved a cooperative arrangement among a group of child care organizations. To launch this type of alliance PSSI set out to identify a small group of adventuresome providers willing to explore cooperative arrangements if they promised real savings.

The search for a hub quickly narrowed to Federation Early Learning Services (FELS), a large early education organization with eight centers, most of them STAR 4 and accredited by the National Association for the Education of Young Children (NAEYC), and, since 1992, the home of the state-funded Child Care Information Services Northeast (CCIS).

**FINDING:** It proved to be far more challenging than expected to launch a shared services hub, although we found indications that, with more time and additional supports, it might yet prove feasible.

Adopting a hub model appeared to be the path of least resistance. Building an alliance on top of a successful center operating at scale is inherently less risky than a start-up. While it is true that the risk of failure is lower with an existing organization forming a hub, this approach has its own risks and complexities. First, there are few early childhood education organizations in the region with the operating scale and entrepreneurial leadership to be legitimate alliance hub candidates. Second, lack of interest, anxiety about the effect of strengthening competitors, over-committed staff, concerns about strategic fit, business risk and cost are just some of the considerations that naturally surface and complicate the decision to pursue shared services as an opportunity.

In FELS’ case, interviews suggest that, because of these issues, FELS felt it needed more in-depth business feasibility planning technical assistance than PSSI could supply, especially as the grant period was ending and Opportunities Exchange, which provided most of the technical assistance, had completed its grant-funded work. The organization’s leadership, however, maintains it continues to be interested in serving as a hub. “The whole reason we wanted to do this,” Maddy Malis, FELS’ chief executive, told us, “and the reason it is not dead, is that it is part of our strategic plan. We want FELS to be a regional resource for other early childhood programs. We also want to grow. As long as back office services do not undermine our business, it adds to our business portfolio. It is expanding who we are.” Malis believes a shared service hub reinforces FELS’ distinctive capacity to serve the early education field in the Delaware Valley.

FELS’ most significant unresolved feasibility questions revolve around demand for this new business venture and the availability of financial resources to capitalize it. Opportunities Exchange helped FELS examine different business models, explore the potential services it might offer, and project the cost of offering such services. FELS met with a group of family child care providers in an informal focus group to get reactions to the idea. Family child care providers, however, were never seen as a market that could
afford or necessarily need these services. The plan was to organize a second focus group composed of small center-based programs that could offer a more fertile market for back office shared services. United Way sent an email blast to its “Success by Six” participants introducing them to the shared service concept, anticipating that some would take part in the second focus group. By this time, unfortunately, FELS no longer had the available staff to organize the focus group and the funding for Opportunities Exchanges technical assistance came to an end.

The three impediments to FELS’ effort to develop a shared services hub in late 2013 and early 2014 were:

- Immediate competing demands on the leadership staff’s time;
- Insufficient business feasibility planning assistance to provide confidence that the demand for this service is likely to materialize, and
- The capital to build the organizational capacity to launch this new line of business.

Like other organizations in the early childhood field, FELS management’s time is heavily constrained and rationed between competing demands. Malis described the lack of follow-up as one of “losing steam,” rather than lack of interest. She explained, for example, “It would have taken staff to get that second focus group going.” FELS simply did not have the human resources to deploy for business planning and development. Malis also described the knowledge gaps consultants would need to fill:

*When you are opening a new center, there are steps you take. The information you plug in will differ from location to location. What are the options? In operating early childhood programs or CCISs we could do it blindfolded. We have grids and we know what you have to consider. This was new. We needed more help.*

With limited financial reserves, Malis lacked the resources to hire consultants who could fill those knowledge gaps.

Actually launching a shared services business requires even more capital. Undercapitalization is a chronic and under-acknowledged problem in early education, especially for programs serving the subsidized portion of the market where quality is such a critical concern. Undercapitalization also confronts an organization like FELS as it contemplates a new and expanded role as a shared services hub. Without sufficient unrestricted net assets – equity – or an equity-like capital grant, it lacks the essential financial resources to adequately plan the venture and growth capital to market its services and build the organizational capacity it needs in order to launch this adjacent business opportunity. Without start-up capital, embarking on an expansion carries even greater risk to the new venture’s success as well as to the core business’ viability.
**FINDING:** PSSI succeeded in spurring and facilitating the formation of a professional development shared service alliance.

Prompted to explore shared service alliances by DVAEYC, Leslie Spina, the director of Kinder Academy, mobilized five organizations to form the Philadelphia Early Learning Alliance (PELA) in order "to strengthen business practices and enhance program quality." The William Penn Foundation made a grant that supplied the growth capital required to launch PELA. The funding subsidized the alliance’s operations for two years on a declining basis until member fees and in-kind services could fully support its activities. This funding provided a financial incentive that made it easier for prospective members to join the alliance. While the alliance members are not yet bearing the full cost, they are pleased with the cost savings they already see. These projected savings provided the impetus for forming the alliance. In addition, PELA members especially value some significant and unanticipated intangible gains they credit with enhancing the performance of their programs. As a result, this partnership can be expected to survive after the foundation’s startup subsidy comes to an end.

PELA is different from the hub alliance model FELS sought to develop. The target market for FELS’ back-office services are small centers that struggle to achieve quality because their small size creates a difficult-to-surmount structural impediment. Recruiting centers to join its alliance would have required FELS to overcome the expected reluctance to pay for the alliance’s back office services and the natural aversion to a perceived loss of autonomy. Director Spina set out to recruit likeminded center directors who are operating high quality preschools and could be motivated to join the alliance by the prospect of program improvement. For PELA’s members joining the alliance involved a commitment of time but little financial risk or loss of autonomy.

PELA’s value proposition rested on making better use of its members’ resources, such as their budgets for professional development. In the process they discovered they had birthed a supportive and collegial community of early childhood professionals. This was an unanticipated outcome and possibly the most worthwhile byproduct of the collaborative for the center directors and staff. In part, this is a case where success breeds success: The collaborative members’ centers are atypically large. Two-thirds of the centers are part of a multi-site organization. Moreover, all the centers participate in the state’s Keystone STARS quality improvement rating system and have earned either a STAR 3 or 4 rating. PELA’s membership is glaringly unrepresentative of licensed programs in Pennsylvania. (See table, below).

<table>
<thead>
<tr>
<th>Philadelphia Early Learning Alliance Membership</th>
<th>Number of Centers</th>
<th>Total Number of Children</th>
<th>Keystone STAR Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PELA Member</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chinatown</td>
<td>1</td>
<td>96</td>
<td>4</td>
</tr>
<tr>
<td>Kinder Academy</td>
<td>4</td>
<td>310</td>
<td>3 &amp; 4</td>
</tr>
<tr>
<td>St. Mary’s</td>
<td>1</td>
<td>137</td>
<td>3</td>
</tr>
<tr>
<td>Tuny Haven</td>
<td>2</td>
<td>212</td>
<td>3</td>
</tr>
<tr>
<td>Woodland</td>
<td>1</td>
<td>110</td>
<td>3</td>
</tr>
</tbody>
</table>
PELA members exemplify a noteworthy pattern previously noted with respect to ChildWare licensees and, to a lesser extent, among SharedSourcePA’s most frequent users: A disproportionate concentration of larger and higher quality early education programs. These programs benefit from a convergence of self-reinforcing advantages including entrepreneurial and able business and educational leadership, a commitment to continuous quality improvement, and scale economies. These qualities both motivate and enable them to adopt new tools, resources and practices, like those developed through PSSI. Use of these shared services – SharedSourcePA and ChildWare, and PELA membership – in turn, improve centers’ economies of scale, productivity, business performance, and program quality.

One of PELA’s noteworthy achievements has been the efficient and effective professional development system it evolved for the Alliance’s teachers. Previously the teaching staff was responsible for selecting and enrolling in workshops that enabled them to meet the state’s professional development requirements. PELA now contracts with technical assistance providers to deliver training workshops that the PELA directors select according to individual staff members’ expressed and observed needs. Since the cost of each workshop is fixed, filling the seats reduces the overall cost for PELA members. “We have all the training [the staff] need,” Spina explained. “We make it convenient. We facilitate carpooling. We have a hand in choosing the training.” The bottom line is that members “are paying less for higher quality training” and the training is tailored to “the specific professional development needs of their employees.” As a result, the directors see an impact on quality.

In addition, the Alliance has organized its own “mini” professional development conference. The shared professional development activities have a side benefit: The teachers get to know colleagues in the other PELA affiliated centers, a benefit that stimulates a healthy cross-fertilization of practices. Finally, the impact of professional development is reinforced by mentor teachers. “In the end,” Spina speculates, “this is likely to be the most valuable” of PELA’s activities because it helps teachers translate professional development into classroom practice. The Alliance started with a single mentor teacher. Now it has two and soon expects to add a third. Mentor teaching opportunities give more seasoned members of the Alliance’s teaching staff a chance “to stretch their wings. It can make the Alliance a vehicle for career growth.”

PELA has also enabled its members to address their facility maintenance needs. The Alliance worked out an on-call arrangement with a handyman to perform repairs. Each member covers the cost of its own repairs, but because of the number of facilities involved, the handyman provides his services at a favorable rate. Spina noted that deferring repairs often leads to more extensive and more costly fixes. This arrangement makes it possible to address problems promptly, without a time-consuming search for a handyman, and at reasonable cost.

This partnership also produced unexpected outcomes for the directors. “It is a support group where I can say things I can’t say elsewhere,” Spina explained. “I can share problems. I share resumes. I first call the people in my alliance about anything. ‘I am going to collect these materials for my centers. Does anyone else need me to pick them up for them?’ Someone else had coloring books for kids. Sharing those things were not on the radar” until the directors began to work together, including monthly meetings. She gave one further example: “We are leaving this afternoon for a statewide mandated
meeting and three of us are driving together. [The alliance] has changed our relationship. We did not do this before. There is a high level of trust.” Because of the benefits members have realized, they are formalizing the Alliance. PELA is becoming a tax-exempt nonprofit corporation.

The Alliance’s instrumental role in facilitating inter-organizational peer knowledge and resource sharing is a striking and unexpected payoff for PELA’s members. Other benefits include information exchange and support among its classroom teachers and center directors. Many large corporations invest heavily in developing and supporting similar relationally-based communities of practice like PELA’s to facilitate professional development and organizational learning. Communities of practice are described as “groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.” Communities of practice for PELA’s teachers and directors emerged organically from the collaborative process. These communities share three defining characteristics.

**Domain:** They have “an identity defined by a shared domain of interest;” early childhood education in PELA’s case.

**Community:** Members develop an affinity and collective identity associated with the concept of community. “In pursuing their interest in their domain, members engage in joint activities and discussions, help each other, and share information. They build relationships that enable them to learn from each other.” It is evident that teachers and directors feel real affinity for their peers who work at the other alliance-affiliated centers.

**Practice:** Finally, “a community of practice is not merely a community of interest – people who like certain kinds of movies, for instance. Members of a community of practice are practitioners. They develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems—in short a shared practice.” (Wenger-Trayner, E. & Wengner-Trayner, B).

PELA’s success at building the early education practices of its staff takes professional development to a different level. Practice is an artifact of applied and often tacit knowledge, defined as on-going social and experiential learning. Its presence is reflected in the skills evident in day-to-day work-related activities. Unlike explicit knowledge of developmental stages taught in classrooms and assigned reading, tacit knowledge comes from reflective conversations with other practitioners, casual exposure to and observation of more seasoned teachers, and a mentor’s coaching. It is evident in the teacher’s ability to instinctively assess a child’s developmental needs and adapt her behavior to facilitate the child’s development. The skill with which a teacher executes the practice of supporting young children’s development is far more important than their academic credentials. Yet, in most early education settings, there are few opportunities to support this type of learning. Even directors, who are often trained as early childhood educators, not as supervisors or business managers, can acquire new skills to manage a small labor-intensive and low-margin business through tacit knowledge developed in a community of practice like the one PELA has spontaneously generated.

Reporting on research about high staff turnover in early education, Whitebook and Bellm noted, “Adults derive satisfaction from environments that provide interesting, meaningful and challenging work; the opportunity to use all of their capabilities; recognition and respect for their achievements; the presence
of congenial colleagues; and having control over and taking responsibility for their work.” (p. 37). These are among the frequently overlooked qualitative characteristics of a good work environment. Through its increased use of mentor teachers, training workshops designed to address targeted professional development needs, inter-center interaction, and emerging communities of practice, PELA is creating more professional and stimulating work environments. Most importantly, these elusive workplace attributes are the qualities that reduce high turnover and help improve the quality of early education.

**PUBLIC POLICY**

As with the first grant period, public policy continued to be a PSSI priority during the final two-year grant period, despite a persistently unfavorable economic and political environment. While they had no ability to affect the economy, DVAEYC and its partners recognized the controlling influence that state spending, education policies, and regulations exert in creating either a hostile or hospitable environment for shared services.

During the first two-year implementation grant, the PSSI partners sought state approval for third-party electronic billing for subsidy payments. As noted earlier, the hope was that this capacity would enable PHMC to bill electronically on behalf of ChildWare users. Providing that service was seen as a way for PHMC’s Targeted Solution’s to gradually transition into a shared service hub with ChildWare users becoming its first customers for back-office services. ChildWare would thus become the technology infrastructure for Targeted Solution’s shared services hub. The state approved the third-party billing concept and agreed to a pilot but never launched it. Since then, CCIS has implemented an on-line invoicing system that has negated the need for a third party. The grantees’ other aspiration was to integrate ChildWare data entry with the state’s PELICAN system. The latter obligates providers to re-key data, increasing the administrative burden on providers. This idea has not gained traction with Office of Child Development and Early Learning (OCDEL).

**FINDING:** PSSI managed to initiate a conversation about the role of shared services in early education policy and created an opening for initiatives under the Race-to-the-Top funding awarded to the state. However, the political environment prevented the project from making significant headway.

Over the first two years DVAEYC and OE were frustrated by their inability to make headway with incremental or technical tweaks to state policies and procedures such as integrated Childware-PELICAN data entry. Consequently they tried different approaches. First, they tried to persuade policy leaders about the impact that shared services could have on the system’s financial viability, efficiency, and quality of services. They followed up by proposing specific policies that supported alliance formation. The grantees persuaded Barbara Mitzenberg, the Deputy Secretary of the Office of Child Development and Early Learning (OCDEL), to attend Opportunities Exchange’s Shared Services Technical Conference in order to present the potential benefits of shared services. This is a national convening that has been held four times since 2008. While Mitzenberg was persuaded about the benefits of shared services for
the sector, it never became a sufficiently high policy priority for her to overcome bureaucratic resistance within OCDEL’s Bureau of Early Learning Services.

Nonetheless, the grantees did manage one significant policy success. In submitting its Race-to-the-Top (RTTT) application to the US Department of Education, OCDEL included material drafted by Louise Stoney of the Opportunities Exchange describing shared services as an innovation the state planned to fund if awarded the grant. The state's 340-page RTTT application refers to shared services in four places and states that it intends to “expand understanding of and participation in Shared Services Alliances, especially in programs that serve large numbers of children with high needs to maximize the sustainability of high-quality programs.” The US Department of Education funded this RTTT application. As the state begins to refine and implement RTTT-funded initiatives, we hope the agency will follow-through and include shared services among the strategies it uses to build a more robust and high-quality early education system.

It is important to acknowledge the political and economic forces shaping the policy environment during the course of PSSI’s grant implementation. Under Governor Ed Rendell’s administration OCDEL’s leadership pursued an aggressive policy agenda that made Pennsylvania a national leader in early education. However, beginning in 2009 the policy climate shifted dramatically, first with the onset of the Great Recession with its fiscal impact on the state’s finances and second, with the impact of the transition (following the 2010 election) to a new gubernatorial administration committed to “small government.”

Political scientist John Kingdon’s policy agenda-setting model is widely accepted in evaluations of public policy advocacy. Kingdon argues successful policy advocacy depends on a "window of opportunity."

For the window to open, three streams of dynamic processes must be moving at roughly the same time. The first stream is the problem stream, the sense among those with the power to act that a legitimate problem exists that deserves to be addressed...The second stream is the political stream, the sense among those with the power to act that the timing for action is right in relation to public sentiment and consistency with other policy objectives...The third stream is the policy stream, the existence of an implementable policy that fits the scope of the problem, is understandable to those who need to understand it, and can attain sufficient support. (McDonough, J.H. pp. 239-240).

The policy making arena is highly competitive. Shared services as a policy solution not only competes with proposed policies advanced by other early childhood advocates, it competes with policy initiatives advanced by other government agencies in renewable energy, tax policy, and economic development, to name only a few. Moreover, as Kingdon points out, “policy solutions often precede the emergence of problems; effective policy entrepreneurs work hard to spot emerging problems to which their new policy ideas can be applied.” (McDonough p. 240). At this point in time, shared services is still a novel and esoteric idea. It is being advanced by PSSI’s small group of established early childhood leaders. Few people, even in the early childhood field, recognize that the inefficiencies that arise from the small scale of most centers are central to the conversation about how to improve the quality of early education. To
imbue shared services with the salience to compete in the policy arena requires more time and substantially more resources than PSSI had at its disposal. In any event, because of the recession and the priorities of Governor Corbett’s administration, the third stream, the political environment, we have concluded PSSI faced insurmountable barriers to success in this arena over the past four years.
4. Discussion and Implications

As reported in the previous section on findings, the Philadelphia Shared Services Initiative has broken important new ground through its strategy of improving program performance by improving organizational efficiency. It has demonstrated ways in which technology can cost-effectively strengthen the early education sector and do so at scale. It has shown that scalable technology can be used to create a sustainable infrastructure of web-based productivity and quality improvement tools. It has also seeded a rapidly expanding network of state-specific web-platforms that facilitate information exchange throughout the industry.

In so doing PSSI has altered both the perception and the reality of shared services in the field of early childhood education. Shared services need not require an inherently threatening, costly and risky restructuring with its concomitant loss of autonomy. Although alliances offer the greatest potential to alter scale economies, ChildWare, SharedSourcePA and ECEhire are useful mechanisms for reducing some of the limitations of modestly-scaled organizations. These three web-based services have produced a shared reservoir of intangible structural capital — technology tools for sharing systems, knowledge and processes that save time and money. Since resource constraints constitute an essential barrier to program quality, the savings that PSSI’s tools create provide the opportunity for users to redirect scarce resources in ways that improve program quality and child outcomes.

This section indulges in a bit of speculation about the broader implications of this Initiative. These are presented as a series of hypotheses informed by the preceding evaluation findings, the earlier PSSI evaluation report, Common Knowledge, combined with a growing body of research on early education quality and theory as well as insights from the fields of business management, economics and organizational development. The goal is to stimulate fresh thinking about existing public policy and philanthropic strategies for accelerating the pace at which the supply of high quality early education for at-risk children expands. Specifically this section of the evaluation makes the following points:

- PSSI demonstrates the value of investing in a robust early education infrastructure described here as “systemic capacity.” SharedSourcePA, ECEhire, ChildWare and shared service alliances provide compelling examples of systemic capacity-building.
- To be successful, comprehensive quality improvement strategies should strengthen the organizations delivering early education and not focus exclusively on the activities and interactions that occur in the classroom.
- Paradoxically, centers may need to achieve a certain threshold size and capacity before they are able to benefit from shared services' full potential.
- Given the constraints of scale on the one hand and recent research about quality thresholds on the other, to improve the supply of quality early childhood education for low income children, it may be wise to supplement shared services strategies targeting smaller and less capacitated organizations with efforts to grow larger and higher quality ones.
- From a business finance perspective, shared services are designed to improve the operating performance of the small-scale and economically marginal portion of the industry by reducing costs and improving productivity. Revenue, however, is not the only financial constraint facing
the industry. Inadequate net income and retained earnings have produced a capital gap. Efforts to help larger and higher quality operators to expand (or in FELS’ case, to develop a shared service hub as a new line of business) will require significant and adequate capital investments.

**INVESTING IN SYSTEMIC CAPACITY BUILDING**

PSSI’s focus on promoting operational efficiency is a healthy and overdue complement to existing quality improvement interventions. However, it is easy to overlook the Philadelphia Initiative’s impact at a systems level. System level change is generally associated with activities in the public policy arena. PSSI had relatively little success influencing public policy. Nonetheless, the Initiative’s biggest impact has been in building “systemic capacity”. This refers to the capacity that resides within entities that are part of the early education value chain but which do not directly deliver early education services.

In the organizational development field “capacity building” is jargon for assisting individual organizations perform more efficiently, effectively, and sustainably. A few of the common ways to build an organization’s internal capacity include professional development, reorganization, and the introduction of new technology systems. *Common Knowledge*, the evaluation report for PSSI’s first two years, described the Philadelphia Initiative’s approach to capacity building as being different in part because it invested in building a system of supports – capacity – that are external to organizations, but are designed to bolster internal organizational performance. (Sussman, 2012. p. 18). The report characterized these external resources as "systemic capacity." During the past two years PSSI has continued to demonstrate the unique ways in which its web-based services buttress the capacity of center-based programs.

The matrix on this page depicts the systemic capacity building landscape. The three lightly shaded quadrants – contractual, cooperative, and commons – represent different types of systemic capacity, while the unshaded cell labeled “autonomous” represents the capacity building paradigm that involves organization-by-organization investments in internal capacity.

While all organizations need to invest in conventional internal capacity building, we find that it can sometimes be more cost-effective to invest in one or more of the other three systemic capacity building quadrants. PSSI developed capacity in each of these three quadrants.

**Contractual** – Outsourcing exemplifies the contractual (independent/external) model in which a business or organization contracts with a third party to perform a routine support activity. These primarily entail easy to sever transactional relationships. The contracting organization retains a high degree of independence while leveraging economies of scale and specialization. *ChildWare* is a good example of this type of systemic capacity. The hub alliance model is another. PSSI
helped FELS, for example, to evaluate the feasibility of establishing another business line as a shared services hub that allowed other centers to purchase its back office administrative services. This too would have constituted a form of contractually-based external capacity.

**Cooperative** – The lower left quadrant (internal/shared) covers collaborative activities. PSSI’s grant-funded activities stimulated PELA’s formation, a shared service alliance that exemplifies this paradigm. Shared services in this quadrant are “internal” in that the participating organizations directly deliver early care and education services and have a governance-like role either through membership or an ownership stake. Being more relational than transactional and requiring greater interdependence, participants in these alliances surrender somewhat more autonomy but retain more of a voice.

**Commons** – PSSI launched one broadly shared (external/shared) capacity building investment – *SharedSourcePA*. It occupies the lower right quadrant of the matrix. Like the Interstate Highway System and other public infrastructure projects, *SharedSourcePA* is a system anyone can use provided they belong to a NAEYC affiliate in Pennsylvania. *ECEhire* also has characteristics that place it in this quadrant.

Like *ECEhire* or *ChildWare*, *SharedSourcePA* adds value to early education centers by augmenting in-house competencies and functions. These technology-based tools supply some of the resources and infrastructure that the field of early childhood education needs to increase its productivity and improve performance. Although it may seem paradoxical, PSSI built systemic capacity in order to accomplish organizational capacity building – measures that make organizations more efficient, effective and sustainable.

We believe in its systemic capacity-building PSSI demonstrated the potential technology, intermediary institutions, and cooperative arrangements have to create a tide lifting some, if not all, boats. Providers able to ride that tide, we speculate, are those already motivated to become more efficient, deliver higher quality programming, and produce better outcomes for young children.

**ORGANIZATIONALLY-FOCUSED CAPACITY BUILDING**

The most logical place to intervene to bring about programmatic improvement would seem to be at the point in the early education process that is most proximate to the desired outcome, that is, “downstream” activities that take place in the classroom. That has been the dominant quality improvement tactic. PSSI, on the other hand, pursued a counter-intuitive strategy in which the Philadelphia Initiative intervened "upstream."

Diagram 17 depicts early education organizations as a value-creation process. The process begins at the organizational level where resources are pulled together and activities coordinated. Following the
watershed analogy, organizational resources flow downstream to feed a sequence of value-enhancing activities that eventually results in children intellectually and developmentally prepared for school success.

If interpersonal interactions in the classroom anchor the downstream end of an early education center’s value chain, the organizational level represents the upstream end. The pool of assets accumulated at the organizational level flow downstream to feed the physical and work environments. These, in turn, form the tributaries flowing into the program environment before collecting in the relationships and interactions that occur between teachers and children in the classroom. If those resources are adequate and everyone performs as they should, the process can be expected to result in children leaving the program prepared to succeed.

**Diagram 17: The value chain early education centers. (Sussman, et. al, p. 6).**

Louise Stoney and Anne Mitchell at the Alliance for Early Childhood Finance arrived at the shared services strategy after researching financing and business models from a variety of fields. These suggested mechanisms for ameliorating the gulf between a learning center’s per child income and the cost of supplying a **quality** early education. The genius of Stoney and Mitchell’s work and PSSI’s implementation of it lies in the realization that quality begins with the basic design and functioning of early learning organizations -- the organizational environment. Quality improvement interventions at the other end of the value chain to varying degrees depend for their success on upstream factors that might otherwise constrain the resources required to produce high performance downstream. Stoney and Mitchell focused on the business model and strategic decisions about which administrative activities need to be carried-out in-house, and which ones could be more cost-effectively outsourced to third parties or a shared service alliance. These are organizational interventions, not programmatic ones.

**Hypothesis:** It may be a mistake to pursue programmatic effectiveness or teacher effectiveness in isolation from the entire organizational system in which programs are embedded and upon which they rely for many of the resources and conditions that contribute to programmatic success.
The evidence gleaned from PSSI’s implementation of shared services principles confirms the value of rethinking the institutional business model found among center-based early education organizations. Re-engineering the value chain — the scope of administrative and operational activities conducted independently and in-house — can free-up resources, time and attention, and ameliorate some of downstream conditions that constrain programmatic quality and interfere with the achievement of better child outcomes.

Hence PSSI’s experience lends credence to a second hypothesis: It may be a mistake to pursue programmatic effectiveness or teacher effectiveness in isolation from the entire organizational system in which programs are embedded and upon which they rely for many of the resources and conditions that contribute to programmatic success.

**SCALE AND SHARED SERVICES: THE CATCH-22**

This report has identified a series of reasons to explain ChildWare’s modest market penetration given the many benefits it generates for users. Arguably most of these reasons, either directly or indirectly, can be attributed to the diseconomies of small center-based early learning programs. The reasons relate to time or cost.

**Time:** Many of the explanations directors offered for their lack of interest in ChildWare can be summed-up as lack of administrative bandwidth. Directors are often so overwhelmed just staying current with routine managerial and administrative tasks that they cannot find the time to evaluate ChildWare. Anticipating the investment of time required to learn a new system also discourages efforts to explore its benefits. And finally, finding time to perform the initial data entry presents another obstacle despite PHMC’s assistance with this task.

**Cost:** Expense was another frequently cited reason for staying with “pencil and paper” recordkeeping. For most early learning centers, and especially those serving children from low and moderate income families, margins are exceedingly thin. As a result, strict cost controls are essential to the organization’s economic viability. This situation creates a baffling cognitive dissonance: Despite ChildWare’s potential for dramatically reducing the administrative burden of running a center, maintaining full enrollment, and enhancing fee collections, we found considerable resistance to incurring any additional expenses, even when doing so would produce a net benefit.

This evaluation has documented these impediments to ChildWare’s wider adoption. These factors also serve as barriers to joining shared service alliances or in utilizing PSSI’s other tools. Perhaps this explains why it is larger and higher quality programs that more readily adopt these tools, such as ChildWare. Being larger and invested in quality, these are the centers with the economies of scale and specialization to have the leeway for more farsighted directors to take the time and spend the money to take advantage of the many benefits of using ChildWare and the other tools developed by the grantee and its partners.
Therefore, a third hypothesis is that centers must reach a certain size before they have the financial resources, administrative bandwidth, and operational efficiency to absorb some of the most easily adopted shared services tools. This Catch-22, in turn, explains the apparent virtuous cycle described earlier in this evaluation: Scale economies beget greater operational efficiency and effectiveness and enable centers to improve programmatic quality. The resulting advantages enable them to exploit opportunities to further improve both operations and programs. The converse is also true: Insufficient scale creates a significant barrier to becoming more efficient or from making significant programmatic quality improvements and, troublingly, from taking advantage of shared services.

All this affirms the foundational economic principles upon which shared services rest: All other things being equal, the larger each facility and the more centers it operates, the lower its per child cost will be. Scale conserves time and money. If the director decides to apply those savings to activities that improve quality, greater scale yields higher quality independent of other external quality improvement investments made downstream. The irony is that shared services – a strategy that allows small early learning programs to share some costs, capture economies of scale, and thus invest more heavily in quality – are more apt to benefit larger, higher quality centers because they have greater capacity to utilize these services.

**INVESTING IN SIZE AND QUALITY**

Recent research makes it tempting to take this logic about scale and quality one step further and speculate that to improve programmatic quality and child outcomes, it is more efficient to invest in larger organizations with high quality programs.

Well-designed studies of extremely high quality early education programs, such as the Abecedarian Project and High/Scope Perry Preschool, demonstrate that at-risk children participating in such programs experience significantly improved academic performance. Those positive outcomes extend well into adulthood. These studies have influenced efforts throughout the country to improve both availability and quality of early education, especially for low-income and at-risk children. Achieving quality is the key to positive outcomes.

Although we might assume the relationship between quality and child outcomes to be linear, Deborah Phillips, in an address to participants at the Child Care and Development Block Grant celebration, explained that emerging research suggests the relationship is non-linear. As Phillips notes, "This research thus far has indicated that benefits to children of experiencing quality care accrue primarily at the high end of the scale." (Phillips p.10). Instead of "lifting all boats" equally, this research suggests

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3 The impact of a mediating variable – the quality of organizational leadership – may help explain both the larger scale and higher quality found among those centers adopting shared services.
investments to improve the quality of early education, produces greater improvements in child outcomes among programs further along the quality curve.

If true, the implication for Pennsylvania may be that there is a far higher return on investments made to improve centers that have earned 3 or 4 Stars on the state’s QRIS rating system than in lower rated early learning centers. PSSI’s experience would seem to buttress the case for targeting quality improvement investment at relatively larger programs that have already achieved a modicum of programmatic quality. The data for ChildWare users and PELA’s members are unambiguous: The centers using ChildWare and joining PELA are overwhelmingly Star 3 and 4 centers and larger than average.

Many factors presumably contribute to the apparent allure PSSI’s menu of shared services had for high quality programs. As the previous hypothesis posits, there may be a threshold size below which a center’s organizational capacity may be inadequate to absorb and meaningfully benefit from shared services. The recent research Phillips cites suggests that the same may be true for program quality. In both cases society’s rate of return may be higher in larger organizations with higher quality programs than in small and relatively lower quality programs. An intriguing hypothesis is that it is both easier to build the capacity of larger, higher quality early childhood education organizations and the resulting quality improvement is likely to be more impactful than equivalent investments in smaller organizations.

Hypothesis: It is easier to build the capacity of larger early childhood education organizations and the resulting quality improvement is likely to be more impactful than equivalent investments in smaller organizations.

leaders committed to delivering quality early education.

A REVENUE AND A CAPITAL PROBLEM

The system of early childhood education for low-income at-risk children faces two economic challenges, an inadequate revenue stream as well as lack of capital. Shared services addresses the first. Shared services compensate for small scale with measures to lower the cost structure and create operating efficiencies. Insufficient revenue, however, also means undercapitalization and capital is needed both to enable centers to achieve scale and the field to build sources of systemic capacity like shared services.

As described throughout this evaluation, shared service arrangements are effective for ameliorating the negative impact modest scale has on the operating budgets of small child care centers. The resulting improvements in a center's financial performance should surface in its statement of activities, the document that shows operating revenue and expenses. However, given the forgoing discussion of the relationship of scale and quality, it is important to note the relationship an organization's operating performance has on its statement of financial position or balance sheet. The latter supplies the most reliable indicator of an organization's financial health. Anemic revenue means that there are no
accumulated operating surpluses -- retained earnings -- to flow on to the balance sheet. Those retained earnings provide a cushion against adversity, the liquidity to meet payroll and other financial obligations on a timely basis, and savings to expand or to invest in capital improvements such as office equipment or facility improvements. Debt is a tool some organizations use to pay for capital improvements or cope with periodic cashflow challenges. However, lenders rely on proof of a dependable and sufficient revenue stream as the primary source of loan repayment. Thus, for early education organizations debt is an inadequate substitute for organizational net worth. Insufficient revenue is an important factor limiting the initial scale of early education enterprises as well as their ability to grow later.

That means the only source of capital is "equity" from external investors. Equity buys an ownership stake in a for-profit company. But who would invest in an early education business with little earning potential? In the nonprofit sector the equivalent of an equity investment is a grant. Instead of dividends and growth in the value of shares that successful for-profit ventures create, the return on a capital grant to a nonprofit is a non-monetized "social rate of return." The return is the value of the incremental improvement in quality the investment creates for each cohort of children who benefit from those improvements over time. The return comes in the form of academic performance, grade-level reading in third grade, high school graduation rates and the like. Capital grants are also scarce with the exception of grants to support capital campaigns.

**Hypothesis:** In addition to insufficient revenue, lack of investment capital in the form of accumulated earnings, equity investments or grants, and the inability to borrow to fund growth, are important factors limiting the initial scale and subsequent ability for early education enterprises to grow.

The William Penn Foundation’s grant to DVAEYC to support PSSI is an example of a relatively rare type of capital grant: most of the funds paid for the creation of intangible intellectual assets -- ChildWare, ECEhire, and SharedSourcePA -- all of which are now largely self-supporting with earned income. The Foundation also made a start-up grant to PELA: a start-up that expects to be self-supporting through membership fees.

One of the challenges that faced the Federation Early Learning Services as it evaluated the feasibility of building a back-office shared services hub was the lack of sufficient risk capital to conduct a feasibility study. That study would have helped it to gauge the willingness of smaller organizations to pay for these services. Should it eventually embark on this new line of business it will also need risk capital to cover operating losses for staff and physical capacity during the ramp-up period as it recruited clients. Capital grants are essential to seed and build shared service ventures. It is important to remember that building a systemic infrastructure of shared services requires capital like the type the Foundation granted to develop PELA and PSSI's three web-based services.
As described early in this report, the small scale of most early education operations exacerbates the disadvantageous and unavoidable cost structure inherent in early education. Multi-site programs can capture some economies of scale as do larger centers that can serve more children. The larger scale improves the operating margins of centers and organizations, enabling them to budget more money to enhance program quality.

Why then don’t more operators expand? Economics and business finance would suggest that the answer is some combination of weak demand and lack of physical and working capital to fund growth. Low net worth and insufficient net income to support debt service exacerbate this capital gap. The scarcity of entrepreneurially inclined leaders in the field is almost certainly a contributing factor. The net effect on this segment of the industry is that it is populated by very small proprietary child care programs. A high proportion of these are nonprofit organizations motivated by mission rather than financial return. As a result, these dynamics produce a business model dominated by the imperative to contain costs. By subscribing to shared services, a center might be able to alter its cost structure, revenue model, and mix of business activities so as to generate or free-up resources that they can then redeploy in ways that boost programmatic quality.

Ironically, the evidence from PSSI is that programs may need to achieve a threshold level of size, organizational capacity and quality before they are able to fully realize the benefits of many shared services. The Philadelphia Initiative’s experience, paradoxically, particularly when considered alongside research findings showing the improvement in child outcomes at the margin are significantly greater with each increment of quality, raises the possibility that investments in shared services and in other quality improvement initiatives should target the larger, higher quality centers.

On the other hand, capital investments, not just operating grants, do build the shared services infrastructure that produce scale efficiencies and the resources that support improved program quality. This project has shown, moreover, the value of investing in organizational capacity, not simply programmatic capacity. It supplies intriguing evidence that many center-based providers of early education are too small to fully benefit from shared services. Finally, it demonstrates the efficiency of shared services. This approach should be part of any strategy to strengthen nonprofit early education organizations serving low-income children, improve program quality and close the achievement gap.
References


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**Abbreviations**

AECF - Alliance for Early Childhood Finance  
DVAEYC – Delaware Valley Association for the Education of Young Children  
FELS - Federation Early Learning Services  
NAEYC - National Association for the Education of Young Children  
OCDEL - Office of Child Development and Early Learning  
OE – Opportunities Exchange  
PAEYC - Pittsburgh Association for the Education of Young Children  
PELA - Philadelphia Early Learning Alliance  
PELCAN - Pennsylvania’s Enterprise to Link Information for Children Across Networks  
PennAEYC – Pennsylvania Association for the Education of Young Children  
PHMC – Public Health Management Corporation  
PSSI - Philadelphia Shared Services Initiative  
QRIS – Quality Rating and Improvement System  
RTTT - Race-to-the-Top  
SERK- Southeast Regional Key