

Cost and Scale in Out-of-School Time

A Literature Review

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Learning in Communities / Providence

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TO: Learning in Communities / Providence Leaders
FROM: RI KIDS COUNT and Community Matters
DATE: August 25, 2003
RE: Cost-Scale Literature Review

This memo is a companion to the PowerPoint slide deck detailing the key lessons learned and most promising practices regarding cost and scale in out-of-school time.

Why focus on the relationship between cost and scale?

The true cost of quality out-of-school time (OST) programming is higher than is commonly understood. To meet the diverse needs of children, youth, and families, programs must invest in the infrastructure and resources necessary to provide quality programming. Organizations running high-quality OST programs must dedicate funding to recruit and retain a stable, skilled workforce; enhance and expand facilities; purchase sufficient materials and supplies; evaluate and monitor outcomes; coordinate with other youth-serving institutions; and more.¹

When speaking about the cost of OST, current thinking often assumes that cost is a “zero-sum game” in which programs must either make a tradeoff between quantity and quality or seek more money. In fact, understanding the relationship between cost and scale can help programs increase cost-efficiency so that they can:

1. Better utilize existing resources in order to increase participation or quality per dollar invested,
2. Maintain quality while expanding scale, and
3. Provide evidence that justifies further investment from funders and policy makers.

This last point is particularly important. Despite the enormous benefits of OST, the field can be perceived as an “endless well” by funders and policy makers – a field in which no amount of investment can ever solve the diverse challenges facing children, youth, and families. Although there is plenty of evidence to counter this perception, a better understanding of the cost-scale relationship may enable providers and systems to demonstrate that funders’ investments are being used wisely and responsibly. Eventually, this demonstrated capacity to steward resources may lead to the dedication of new public and private resources on behalf of children, youth, and families.

What is the research basis for exploring the cost-scale relationship?

The research exploring the relationship between cost and scale focuses on more traditional after-school programs serving younger children. Programs serving older youth tend to be more diverse in structure, making the issue of cost and scale more complex and varied.

However, even within this more focused inquiry on programs for younger children, reliable and standardized information about the cost of providing OST programming is not readily available. Little is known about total costs or the relative size and importance of many OST cost elements.² Costs vary greatly, depending on the types of services offered, program schedule (full-year vs. school-year, number of operating hours and days per week), program quality (including staff:child ratio, staff qualifications

¹ Elements of quality are derived from multiple sources including National School-Age Care Alliance. *Standards for Quality School-Age Care*. Boston, MA: Author, 1998 and Peter, Nancy. *Outcomes and Research in Out-of-School Time Program Design*. Philadelphia: Best Practices Institute, 2002.

² Halpern, Robert; Deich, Sharon; & Cohen, Carol. *Financing After-School Programs*. Washington, DC: The Finance Project, May 2000.

and training), neighborhood location, host agency (community-based provider vs. school district), and needs of the families served.³

No recent nationally representative data on the cost of after-school care exists. This forces people to rely on individual research studies. However, the lack of a standard methodology for collecting cost information makes it difficult to generalize the findings of several smaller studies to the field as a whole.⁴ Furthermore, many studies fail to consider major in-kind contributions, skewing the final cost calculations.⁵

In particular, there is little to no research focused specifically on the relationship between cost and scale in OST. There are a few papers that explore innovative strategies that child care can borrow from other fields, but most of these strategies have not yet been implemented or tested in OST.⁶

What are the key lessons learned?

Few systems are in place to monitor the costs of existing programs. – Programs frequently do not have complete cost information. The lack of critical cost information makes it difficult to plan strategically and reach management decisions that improve efficiency without sacrificing quality. Due to limited time and resources, program managers often focus more attention on not exceeding budgets than on improving programs’ efficiency and effectiveness.⁷

There are three primary categories of OST costs.⁸ – OST costs can be divided into start-up costs, ongoing operating costs, and infrastructure costs. Each has a different relationship to scale.

Type of Cost	Description of Cost	Relationship to Scale
Start-Up Costs	Initial costs associated with planning and preparing a program for operation	Start-up costs are mainly fixed, one-time costs that are unrelated to scale.
Ongoing Operating Costs	Costs associated with running an OST program on an ongoing basis	Only certain operating costs become more efficient with scale. (see below)
Infrastructure Costs	Costs of establishing and operating system elements that support direct service programs (includes systems to plan and evaluate programs, coordinate resources and information, train and license providers, arrange transportation, and more)	The OST field can experience cost savings when systems are implemented to serve a large number of programs. In doing so, the field can address common challenges and spread costs over a larger number of programs served, thus eventually reducing the cost per child. New infrastructural work, however, may add to existing costs.

³ Halpern et al., 2000; Wechsler, Kershaw, Ferish, & Bundy. *Meeting the Challenge: Financing Out-of-School Time Programming in Boston and Massachusetts*. Boston, MA: Parents United for Child Care, February 2001.

⁴ Halpern et al., 2000.

⁵ Wechsler et al., 2001.

⁶ Mitchell, Anne & Stoney, Louise. *Economies of Scale: New Ways to Organize Early Care and Education to Stabilize the Industry*. The Alliance on Early Childhood Finance & National Technical Assistance Center, January 2003; Cornell University Cooperative Extension. *Model for a Single Payer System in Child Care*. Online; Stoney, Louise. *Looking into New Mirrors: Lessons for Early Childhood Finance and System-Building*. Horizons Initiative, 1998.

⁷ Zellman, Gail L. & Gates, Susan M. *Examining the Cost of Military Child Care*. Santa Monica, CA: RAND, 2002.

⁸ Halpern et al., 2000.

Many components make up OST programs' ongoing operating costs. – Since many programs do not account for infrastructure costs, it is important to analyze ongoing operating costs to identify any potential regular cost savings related to scale. Ongoing operating costs include:⁹

- Staff Salaries & Benefits
- Facilities
 - Rent (or debt service if facilities are owned)
 - Utilities
 - Maintenance
 - Custodial services
- Food
- Equipment & Furniture
- Supplies & Materials
- Transportation
- Administrative/Overhead
 - Planning & Coordination
 - Training
 - Accreditation
 - Evaluation & Reporting
 - Insurance

Staff salaries and benefits account for the majority of program costs.¹⁰ – Despite the many categories of OST program costs, staff salaries and benefits make up fully 65-80% of program budgets. Facility expenditures account for another 15-20%, leaving less than 20% – and often much less – for all other ongoing operating costs.

Only certain costs become more efficient with scale. – The breakdown of OST costs yields interesting conclusions about potential cost savings with increased scale.

- **Personnel salaries and benefits (65-80% of program costs) – There are few efficiencies with scale but a direct tradeoff with program quality.** In general, the cost of staff salaries and benefits grows with the number of children served in a program since programs need to maintain staff-to-child ratios in order to maintain quality. To minimize cost per child during expansion, programs should delay adding staff members until programs are ready to add a full-size group of children. For instance, it will cost more per child to hire an additional caregiver to expand by four children than if the program expands by ten or more children.

It is possible to achieve some cost savings in larger programs by setting up more efficient staffing procedures. For example, centers may hire a floater to cover for staff members who are sick, on break, or at trainings. In larger centers, the cost of this floater is spread across a greater number of staff. In smaller centers, the cost per caregiver is larger by comparison. However, studies indicate that potential cost savings are greater in programs serving younger children (infant, toddler, or preschool) than in programs serving older children. Since higher staff-to-child ratios are required for younger children, the cost of additional floaters is spread over more staff than in

⁹ Langford, Barbara Hanson & Blank, Martin J. *Cost Worksheet for Out-of-School Time and Community School Initiatives*. Washington, DC: The Finance Project, September 2000.

¹⁰ Based on the analysis of a cost, expenditure, and source-of-revenue (CESOR) study in three cities as part of the Making the MOST of Out-of-School Time (MOST) Initiative as reported in Halpern et al., 2000. In addition, a 1999 U.S. General Accounting Office report found that labor costs account for 75% of the total cost of providing child care in the Air Force (as reported in Zellman & Gates, 2002.)

programs serving older youth.¹¹

Another hypothesis suggests that programs can achieve cost-efficiencies by spreading the costs of administrative staff over a greater number of children per site. This approach is predicated on being able to attract and afford the compensation for administrators with the skills to manage more staff without compromising the quality of management and personnel activity. This is an untested hypothetical situation for which supporting data has not yet been identified.

Interestingly, many OST programs do not hire staff for specific administrative functions and program directors frequently assume dual roles of staff supervision and program administration. It is not unusual for program directors to write the next, pressing grant proposal at home over the weekend, without additional compensation, or sort through a difficult personnel issue after hours. As a result of this commonplace administrative leanness, programs often do not account for separate administrative costs, thus reducing efficiencies related to scale.

- **Facilities-related costs (15-20% of program costs) – There are few efficiencies with scale because cost grows with program size.** As programs grow in size, they require more space, which increases the associated rental, utility, and custodial costs. Programs may experience slight efficiencies in utility costs (i.e., if programs use lights and heat in a set number of rooms but add more children, they spread the utility cost over more children). It is important to remember that many programs, especially programs located in school buildings, receive facilities and/or utilities as in-kind donations, so they may not benefit from small gains in cost-efficiencies.
- **All other operating costs (less than 20% of program costs) – Only a portion of other operating costs become more efficient with increased scale.**¹² Overhead costs (e.g., insurance, marketing, fundraising, training) have some efficiencies with scale since costs grow more slowly than the organization as a whole. However, back office functions are not currently a large part of OST expenses. Food, supplies, and material costs grow with the number of children served. Programs may receive small discounts for larger orders, but there are few cost-efficiencies otherwise. Equipment and furniture are largely fixed costs independent of scale.

It is difficult to achieve economies of scale in OST. – Few economies of scale exist in OST:

- As demonstrated above, labor is the largest program cost and does not benefit from scale. Only certain program costs benefit from scale, and these costs account for a small part of overall OST costs. Therefore, reaching economies of scale in these areas will not result in substantial cost savings.
- Costs are most sensitive to staff salaries and are only minimally sensitive to changes in administrative and facility costs. For example, one study that performed a sensitivity analysis on child care costs concluded that reducing salaries by 20% (though likely not a viable option due to the impact on quality) reduces the cost of care per child by 15% whereas reducing facility rental costs by 50% only reduces the cost of care per child by 2%.¹³

¹¹ Zellman & Gates, 2002.

¹² Halpern et al., 2000. McKinsey & Company. *Key Takeaways from Boston's After School for All Partnership (PowerPoint deck for discussion only)*. Boston: McKinsey, November 2001.

¹³ Local Child Care Planning Council of Santa Clara County. *The True Cost of Quality Child Care: Financing Strategies for Silicon Valley*. Santa Clara County, CA: Local Child Care Planning Council, July 2002.

- The area of greatest potential savings – infrastructure – only reduces current costs when it more efficiently distributes current expenditures over a larger number of programs or children. It can reduce the per-child cost of new, increased resource allocations by engaging a larger number of programs and staff in any activities that result from the new investment. However, even with these efficiencies, any new spending on systems and infrastructure also drives up the cost per child.

OST programs face expansion challenges, which can make it even more difficult for programs to achieve economies of scale. – Many programs have little flexibility to expand or achieve economies of scale since they do not own or control their facilities.¹⁴ Some programs do not have the financial resources to afford the additional space, staff, and materials required for expansion. Some youth, families, and providers prefer smaller programs, which poses additional barriers for programs seeking to expand.

Some programs have achieved lower costs per child. – In general, the more a program is enriched with arts, sports, and activities requiring specialized staff, the higher its cost. Thus, programs that do not provide these enrichments have lower costs per child. In this scenario, however, there appears to be a direct tradeoff between cost and quality.

There are two studies which show lower costs per child without an apparent difference in quality. A study of military child care programs found that per child cost was lower in some larger centers, suggesting that there are potential efficiencies with scale.¹⁵ The study did not, however, include school-age care in the regression analysis of cost per child nor did it conclude how the other centers attained such efficiencies. The high quality, high cost per child, and substantial government subsidy of all the centers in the study – both those that realized additional savings and those that did not – may limit the applicability of this finding to urban, under-resourced programs and systems.

A different study found that some school-based programs operated by schools have lower costs per child than school-based programs operated by social service agencies.¹⁶ These school-run programs generally did not pay for the use of facilities, a cost which another study suggests can make up as much as 35% of the budget of a program that pays a school to operate in the school building.¹⁷ However, the authors noted that these school-run programs operated fewer hours and days per week than those run by outside agencies, and were frequently closed on days when schools were closed (when costs tend to be higher due to the need for full-day care). When accounting for these differences, school-based programs did not necessarily achieve lower costs per child.

Cost savings through scale are most likely to occur in well-resourced programs where per child costs are above average. – The most conclusive documentation of savings attributable to scale comes from the military sector. Military child care programming is widely acknowledged to be among the highest quality in the world and is measurably more expensive than programming available in average U.S. communities.¹⁸

¹⁴ Halpern et al., 2000.

¹⁵ Zellman & Gates, 2002.

¹⁶ Halpern et al., 2000.

¹⁷ Child Care, Inc. *Increasing Access to Our Public Schools*. New York: Author, undated.

¹⁸ Zellman & Gates, 2002.

There are no economies of scope in child care.¹⁹ – Programming for different ages requires different types of staffing, programming, and materials. There is no evidence that serving different age groups together is more efficient than serving them separately.

What are the promising practices and innovative strategies?

There are many potential innovative strategies to address cost and scale, but few have been implemented systematically in OST.

Promising Practices – Ideas that have been implemented and work

Create a systemic infrastructure to share existing costs across programs. – Programs face common challenges which can often be addressed more effectively at the system level. By collaborating to create a common infrastructure for transportation, workforce development, and other system elements, cities can spread current costs over a larger number of programs. This reduces the cost per program which, in turn, reduces the eventual cost per child.

Use public school facilities to expand the supply of OST programs. – School buildings represent potential facility space for OST programs. Using these existing facilities, it can be cost-efficient to expand scale in school buildings either by scaling up existing school-based sites or opening new programs in school buildings. Programs achieve cost savings in one of two ways:

- Schools that donate existing space as an in-kind service reduce the out-of-pocket OST expense per child.
- In situations where schools charge rent to OST programs, the rental fees are frequently cheaper than rent in community-based spaces. Using lower-rent school facilities, therefore, can reduce the cost per child.

Multi-sited organizations build internal infrastructure to maintain and support quality. – Multi-sited organizations can expand scale by either opening new sites or increasing the number of children served at existing sites. In order to maintain quality in OST programming, some multi-sited organizations have created an internal infrastructure (with dedicated staff) to support quality programming. These agencies host networking meetings, provide trainings across a number of sites, and offer technical assistance to individual programs. In doing so, these organizations achieve some cost-scale benefits while making the extra effort to maintain and improve quality.

Innovative Strategies – Ideas that have not yet been implemented systematically in OST

Increase the number of children served *per site* while maintaining quality. – This strategy appears to be one of the most cost-effective ways to expand scale.²⁰ When quality is preserved, direct program costs increase proportionately with site size. As a result, increasing site size need not impact quality since programs can maintain the staff:child ratio and existing level of quality while increasing scale. By increasing the number of children served in a particular program, organizations can spread site-specific overhead expenses across more children, thus reducing the cost per child.

¹⁹ Mocan, H. Naci. *The Child Care Industry: Cost Functions, Efficiency, and Quality (abstract)*. Cambridge, MA: National Bureau of Economic Research, 1995. The author mentioned, however, that this issue is less clear in the case of school-aged children.

²⁰ McKinsey & Company, 2001.

It is important to note that, for program, leadership, financial or logistical reasons, not every site is ready or able to expand. One strategic idea is to identify and support “ready-to-grow” sites with technical assistance, training, and information sharing so that they are equipped with the tools to expand once the program is ready to do so.

Increase the number of children served *per organization* while maintaining quality. – In multi-sited organizations, increasing the total number of children served will spread expenses for centralized administration across a larger number of children. The rationale underlying this strategy is similar to the one listed above (increasing the number of children per site). Whereas the site-based approach spreads *site-specific overhead* expenses across more children, this approach spreads *centralized organizational* expenses across more children.

Multi-sited organizations can increase the overall number of children served in one of two ways:

- Add new sites
- Serve more children in existing sites

In theory, organizations should reduce per-child cost regardless of which method they use. Multi-sited organizations that are able to increase children per organization without opening new sites can enjoy additional cost savings. They spread both site-specific overhead expenses and centralized administration expenses across more children. In addition, the central office does not need to increase costs in order to provide support to additional sites.

For example, consider one organization that serves a total of 100 children at four sites (25 kids each). The organization can double its capacity by either serving more children at existing sites (same 4 programs now serve 50 kids each) or doubling the number of sites (eight programs serve 25 kids each). It is cheaper for the central office to support four programs than eight.

Establish provider networks that allow multiple programs to enter joint contracts.²¹ – Organizations can develop new alliances that allow individual programs to reach economies of scale, merge administrative functions, and negotiate with potential funders as a group.²² Doing so could help to streamline costs, negotiate reduced prices, collectively raise funds, and improve cash flow. This strategy provides an opportunity for youth-serving organizations to focus on direct service and hire experts who could focus on fiscal management, fundraising, and other administrative services.

Programs could form an entity to jointly contract for:

- **Administrative services** – Forming an alliance would allow programs to centralize common administrative services and reduce costs (i.e., by reducing the need for separate administrative staff in each program).²³ Youth-serving organizations could jointly contract for several administrative services including:
 - Billing and fee collection
 - Subsidy collection and management
 - Payroll
 - Accounting

²¹ Mitchell & Stoney, 2003.

²² Mitchell & Stoney, 2003.

²³ Cornell University Cooperative Extension. *Model for a Single Payer System in Child Care*. Online; Mitchell & Stoney, 2003.

- Food management (e.g., USDA food program) or preparation
 - Insurance management
 - Benefit management
 - Technical support
 - Marketing
 - Tax preparation
- **Purchases** – Organizations could join together to buy children’s materials, office supplies, furniture, and equipment in bulk. By combining purchases, organizations may be able to negotiate discounts and reduced prices for goods and services.
 - **Employee benefits** – Organizations could buy better benefit plans (e.g., health) due to the increased number of employees.
 - **Fundraising** – A provider network could raise funds collectively for shared expenses, wage enhancements, and/or quality improvement initiatives.

Contract with an Administrative Service Agency.²⁴ – Programs could contract with an outside agency to provide administrative services (see list above). Administrative Service Agencies only profit when the systems they implement benefit their clients. Therefore, they have an economic incentive to ensure that the services and systems they provide on behalf of youth-serving organizations result in direct cost savings to the programs. Programs can use an Administrative Service Agency to develop systems for use at the program site (that they can oversee on their own), or they can contract with an agency to provide the services on an ongoing basis. However, it is important to note that back office functions are not currently a large part of child care expenses. There is also little existing incentive for youth-serving organizations to streamline their systems, as few currently track the amount of time and money they spend on administrative services.

What are the barriers to successfully implementing initiatives to increase scale cost-effectively?

As noted in the lessons learned section, many programs face barriers to expansion. Some programs may not have access to sufficient facilities to house more children or adequate funding to hire necessary staff, and others may face resistance to growth from youth, families, and providers. As a result, it may be difficult to implement certain strategies that require programs to increase the number of children served at individual sites or across a larger organization.

Partnering to share costs is a powerful concept but may be a difficult practice to implement. Youth-serving organizations and OST providers may find it difficult or unappealing to enter joint contracts for a number of reasons:

- Some organizations may not have established relationships or trust with other youth-serving organizations.
- Organizations likely have differing systems, policies, and procedures in place for certain administrative tasks. Programs may resist changing their processes in order to accommodate other agencies.
- Organizations may resist outsourcing due to fear that they would no longer have direct control over particular functions or immediate access to information.

²⁴ Cornell University Cooperative Extension. *Model for a Single Payer System in Child Care*. Online.

- Organizations may fear that they could damage relationships with families by handing control of billing and fee collection to an outside agency that has direct contact with the families. Since out-of-school time is largely a “relationship business,” organizations may worry about putting these relationships at risk. (On the other hand, billing and fee collection may place strain on existing relationships, and some organizations may be happy to give this responsibility to an outside agency.)
- Organizations may resist joint marketing and fundraising efforts since they likely have different messages, missions, goals, and services. Providers may worry that joint efforts could confuse funders and reduce overall revenue designated to specific programs or organizations. Furthermore, many organizations struggle to coordinate fundraising even among their own programs, let alone in a consortium or partnership.

Certainly, there are potential cost efficiencies in out-of-school time. In the OST field, however, knowledge about cost and scale is limited. It will be useful to continue searching for models or examples of programs and collaborations showing cost savings through scale.

Resources for More Information

Cornell University Cooperative Extension. *Model for a Single Payer System in Child Care*. Online. http://www.cce.cornell.edu/restructuring/doc/viewpage.asp?id=Models_for_System_Design

Halpern, Robert; Deich, Sharon; & Cohen, Carol. *Financing After-School Programs*. Washington, DC: The Finance Project, May 2000. http://www.financeprojectinfo.org/Publications/financing_afterschool_programs.htm

Langford, Barbara Hanson & Blank, Martin J. *Cost Worksheet for Out-of-School Time and Community School Initiatives*. Washington, DC: The Finance Project, September 2000. <http://www.financeproject.org/costworksheet.pdf>

Local Child Care Planning Council of Santa Clara County. *The True Cost of Quality Child Care: Financing Strategies for Silicon Valley*. Santa Clara County, CA: Local Child Care Planning Council, July 2002. www.childcareoptions.org/pdf/True-Cost.pdf

Mitchell, Anne & Stoney, Louise. *Economies of Scale: New Ways to Organize Early Care and Education to Stabilize the Industry*. The Alliance on Early Childhood Finance & National Technical Assistance Center, January 2003. <http://smartnet.smartstart-nc.org/national/financing/economiesbrief.doc>

Wechsler, Samantha; Kershaw, Amy; Ferish, Elaine; & Bundy, Andrew. *Meeting the Challenge: Financing Out-of-School Time Programming in Boston and Massachusetts*. Boston, MA: Parents United for Child Care, February 2001.

Zellman, Gail L. & Gates, Susan M. *Examining the Cost of Military Child Care*. Santa Monica, CA: RAND, 2002. <http://www.RAND.org/publications/MR/MR1415/>