Intergenerational Shared Sites: Saving Dollars While Making Sense

An Analysis Comparing Operational Costs of Intergenerational Shared Site Facilities

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About GU
Generations United (GU) is the national membership organization focused solely on improving the lives of children, youth, and older people through intergenerational strategies, programs, and public policies. Since 1986, GU has served as a resource for educating policymakers and the public about the economic, social, and personal imperatives of intergenerational cooperation. GU acts as a catalyst for stimulating collaboration between aging, children, and youth organizations, providing a forum to explore areas of common ground while celebrating the richness of each generation. Learn more at www.gu.org.

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Introduction

By Donna M. Butts,
Executive Director, Generations United

As the leading advocate for intergenerational shared sites, Generations United and our partners have extolled the cost effectiveness of these programs while encouraging their proliferation. While we heard story after story from the field that supported this claim, there was little research to underpin the argument. Now we are pleased to release the results of the first national study analyzing the costs of intergenerational shared site programs.

For years we have known the benefits of these types of programs for the children and older adult participants. Those that work daily in them can share stories of the incredible impact these programs have on the lives not only of the children, youth, and older adult, but also the staff who work with them and the larger community.

Beyond the stories, a growing body of research has shown impressive results as well. We know that preschool children involved in intergenerational programs had higher personal/social developmental scores (by 11 months) than preschool children involved in non-intergenerational programs. We know that children who regularly participate with older adults in a shared site program at a nursing home have enhanced perceptions of older adults, persons with disabilities and nursing homes in general. We also know that the vast majority of parents surveyed believe the intergenerational program is beneficial for their children.

For older adults, regular interaction with children results in an atmosphere that is more “family/home-like” and promotes social enrichment and a renewed interest in others. Older adults with dementia or other cognitive impairments experienced more positive affect during interactions with children than they did during non-intergenerational activities. Also intergenerational programs seemed to have a lasting positive effect on participants that carried over to the non-intergenerational activities they were involved in. Ninety percent of family caregivers indicated that their family member benefited from the intergenerational program. Finally, the majority (97%) of adult participants in a shared site indicated that they benefited from the intergenerational program and reported feeling happy, interested, loved, younger, and needed.

While we also heard anecdotally that these program save money by sharing staff, space, and other operational costs only a 1995 report on the U.S. Department of Health and Human Services’ shared site programs could be found. This report indicated that the use of shared facilities can result in a decrease in total expenditures for such items as equipment, administrative costs and overhead, but still evidence that these programs actually save money did not exist.

This preliminary study will help fill the void with very promising findings. It does appear that program costs are less when older adult, youth and child services share expenses. In particular, the study found personnel costs were significantly less in intergenerational shared site care facilities. This finding is even more profound given personnel costs often make up more than 30% of the program’s budget and is contrary to the belief that these programs will require additional staff. The study also found that the sites often experi-
enced cost savings in the area of rent. They were able to meet the square footage require-
ments for licensure with fewer feet which meant less money going towards rent. Given the large dollar amount some programs pay for rent, sometimes up to half a program’s budget, this finding could have serious implications.

In the end, the findings indicate that the more integrated the intergenerational program-
ing, the more likely they are to experience cost savings. Rather than simply sharing space, sharing expenses lowered the program costs. While this study honed in on shared care facili-
ties, it demonstrates the promise of all types of intergenerational shared site programs. In the future we plan to delve more deeply into building the research foundation that encour-
age cities, counties and neighborhoods to use resources more wisely to connect generations rather than separate them.

I would like to thank the team at Virginia Tech, Drs. Shannon Jarrott and Aaron Schroeder and Owen Perkins, for their commit-
ment and good work on this study. Thank you also to Generations United’s Special Projects Director Sheri Steinig for her leader-
ship in growing the intergenerational shared site field. And lastly, thank you for your inter-
est. All of us at Generations United hope our work supports your work to build bridges between generations.

7 Ibid.
Summary of Objectives and Findings

Background and Objectives
Intergenerational strategies promote the integration of young and old to support development and address the needs of either generation, both generations, and the larger community. Diverse intergenerational programs flourish across the United States as communities, administrators, researchers, and policy makers explore mechanisms for building community resources while addressing community members’ needs and strengths.

Shared site intergenerational programs are those that provide ongoing services concurrently to young and old persons in a single facility (Goyer, 2001) with opportunities for contact between the program participants. Adult programs provide services and programming for older persons, often with an emphasis on social interactions with age peers. These participants may or may not need medical attention. Senior centers and adult day services would be two examples of an adult program at a shared site facility. A child program provides care, supervision, and services for children. A child day care center is the most common example of a child program at a shared site program (Goyer & Zuses, 1998).

As human services, health care, and educational programs work to optimize programming, curriculum, and care for participants on limited budgets, they increasingly ask whether intergenerational programming can help them save money. Some organizations find that creating such programs generates additional work for staff (Hayes, 2001), which may detract from real or perceived cost-savings. While intergenerational contact may add developmental and relational value to a single generation program, administrators must meet their budgets, and intergenerational programs may be cut if they are perceived as costing more money than operation of the service without intergenerational programming. One study of intergenerational programs (Hamilton, Brown, Alonzo, Glover, Mersereaum, & Willson, 1999) revealed that most intergenerational programs discontinued within two years of their creation, suggesting the difficulty of sustaining such programs. Other evaluators described how strategic financial planning at shared site intergenerational programs can help facilities build their sustainability and offset financial setbacks in one program with the revenue generated by the other program (Hayden, 2003). Yet, much remains unknown about the potential for integrating programs to save or deplete precious financial resources.
Our objective was to ascertain the cost savings, if any, realized by shared site intergenerational programs that share operating expenses. Each of the US sites surveyed included adult and child programs in the same building or in close proximity (no further than across the street). Some programs were operated by a single organization, while others represented independent businesses. The only requirement for inclusion in the current study was their proximity to one another and that child and elder participants receive ongoing services concurrently at the programs.

Findings
Because of limited response rate, the data must be interpreted carefully. However, taken as an exploratory study with the purpose of both: (a) suggesting a potential answer to the research questions and (b) suggesting which variables are in need of continued and expanded focus, the results are quite informative.

The cost variables accounting for the largest portion of program budgets appear to strongly support the hypothesis that program costs are the same or less when adult and child services share operational expenses.

Also, it appears that there is a relationship between level of integration of operating expenses and the level of intergenerational contact within these facilities. That is, programs with high levels of intergenerational contact are more likely to integrate or share operating expenses and their operating expenses are likely to be the same or less than programs without integrated operating expenses.

Lastly, it is apparent that the two most important cost variables to consider in answering the research questions are rent (in terms of square footage) and personnel costs.
Research Methods

Survey Process
A database listing all known shared site facilities was provided by Generations United in order to contact all eligible programs. It was determined that the most effective and cost-efficient method of contacting each program was via phone and email. The first contact made with the facilities was by phone. This communication was meant to gather program record updates (i.e., contact information), verify that the program matched our criteria for a shared site facility, and to find the appropriate person employed at each site to answer our survey questions. The database provided by Generations United listed over 112 facilities across the country; however, after contacting all of the sites, many of these facilities were removed from the list due to duplicates, facility closures, and the determination that some of the programs could not be considered shared site facilities according to our definition (e.g., the programs were not physically proximate to each other). The most common reason a program did not qualify as a shared site was because either the adult or child program had closed. After removing these sites, the pool of shared site facilities was reduced to 75. This reduced list is now more accurate and user-friendly for contact with and future studies of shared site facilities.

Contacting each site by phone first was preferred over email because this method typically increases the response rate, and a phone call is more personal than an email. After the initial contact was made, the survey was sent and returned via email as a Microsoft Word document. By not asking the respondents to answer questions by phone we allowed them the opportunity to respond at their own convenience. Despite the many follow-up attempts to contact the facilities, many never responded to our survey. Non-response was due to staff possessing insufficient time to complete the survey, lack of interest in completing the survey, or ineligibility (since we did not get answers at each site we called, it is possible that some of the programs were no longer shared site intergenerational programs, and staff may have self-selected out of the pool of programs without notifying us). Thus, our survey response rate was 24 percent (18 responses/75 facilities). Data from both programs were received for fourteen programs; three programs provided data only on the child programs, and one program provided data only on the adult program.
Hypotheses
Two hypotheses reflect our focus on the relationship between operational costs, operational expense integration (i.e., sharing operating expenses at some level), and intergenerational interaction of shared site intergenerational programs.

H1: Operational costs per participant at shared site facilities with operational integration (OI) are the same or less than the operational costs per participant of shared site facilities without OI.

H2: Operational costs per participant at shared site facilities with high intergenerational activity levels are the same or less than operational costs per participant at shared site facilities without high levels of intergenerational activity.

H1: Operational cost variables. In order to effectively study the operational costs of each shared site facility, we surveyed respondents about eight operational cost variables for the child and adult programs, including: rent, food, personnel, equipment, maintenance, utilities, advertising, and supplies. Respondents reported their costs for each of these expense categories and indicated (yes/no) whether they shared these expenses with the other generation’s program. Programs that shared expenses at any level were categorized as having operational integration (OI) for that cost category. Thus a program might have operational integration for one cost category (e.g., rent) but not other cost categories. Survey results were then aggregated and analyzed separately for each operational cost variable. The findings from the cost variable data are explained in the next section.

H2: Intergenerational levels. The second hypothesis relates to the level of intergenerational contact between elder and youth participants at each shared site facility. We analyzed the data to determine if a relationship exists between level of Intergenerational Activity (IA) and level of OI. If more intergenerational contact is associated with OI, and if OI is associated with cost savings, then an inference can be made that programs with higher levels of IA generally cost less than program with low levels of IA.

Significance Criteria
A significance “cutoff” point is established in a study to both determine when a variable should be considered as contributing to the results and to aid the researchers in eliminating unnecessary variables from a study. Given the response rate to our survey, we adopted a relatively large significance margin. While an alpha level of .05 or .1 would be preferred to more definitively determine support for or against stated hypotheses, an alpha level of .3 was selected so that the results could be used in a more exploratory manner. That is, variables that we are 70 percent confident show a relationship between cost and level of OI: (a) indicate a moderate level of support for the hypotheses and (b) warrant further verification via continued data collection.

If the significance margin for a variable does not reach the .3 level, then there is evidence that the variable should be considered for elimination from the study because there is little or no difference in cost between programs with OI and without OI for this cost variable. This is not, however, the only factor for elimination. Relative importance or magnitude of the operational cost variable to a facility’s entire budget is also considered, as is the case with the rent variable (discussed below).
Findings from all Cost Variables

Rent (Square Footage)
The cost variable Rent is unique among the other variables because it is the most difficult to analyze. Because of these difficulties, square footage per program participant was used as a proxy for rent.

The difficulties in dealing directly with rent are numerous. The first problem is determining how a facility’s rental costs relate to another facility that resides across the country. Property and rental value vary greatly from one location to another, so it is difficult to determine if there is a significant difference among the programs. The second problem with the rent variable is taking into account the different requirements placed on adult and child programs among all of the states. Each state sets its own guidelines for how many square feet per participant an adult or child program must own or rent. To remedy this problem, researchers conducting a larger study could group shared sites for analysis by state; even then, however, requirements would vary depending on the type of program (e.g., a child care center for toddlers would require more square feet per participant than an after school youth program). A third problem with analyzing the rent variable is the wide reliance on subsidies and grants. Many programs studied receive government funding or in-kind contributions of space from other organizations. While necessary to the programs, such sources of support can be difficult to accurately document, and they muddy the interpretation of rent data. Thus, we relied on square feet per participant as a proxy for rent.

By using square footage per program participant we find evidence to support our hypothesis that programs with OI for rent require, on average, 54 less square feet per participant. From this evidence it can be inferred that programs with OI will pay less in rent per participant than programs without OI.

While the data demonstrated a trend towards significant differences in square feet required by programs with OI for rent than programs without OI, the data only achieved an alpha score of .35. However, given that this variable alone could count for the most significant percentage of monthly cost incurred by a program and that the apparent relationship suggests that operational integration reduces rent cost, we strongly suggest including square footage per participant as one of the important variables to consider and on which to collect further data.

Results

Figure 1. Average square feet per participant by level of operational integration.
Personnel
The data for the cost variable Personnel demonstrate that programs with OI on personnel expenses will pay approximately $1,290.00 less per month per participant than a program without personnel OI based on a p score of .23. The personnel cost variable is the most important variable analyzed that met our significance criteria because personnel costs make up an average 37 percent of all operational expenses for responding programs. Due to this variable’s large proportion of total expenses, it could have great bearing on decisions to integrate operational expenses at shared site facilities.

The second reason the Personnel cost variable is so important is because the magnitude of difference between the average monthly cost per participant of programs with OI for personnel and those programs without is great. The mean cost for personnel per participant per month among programs with OI on personnel is $483.14, whereas the mean cost for personnel of programs without OI is $1,772.42. Thus, programs that integrate personnel expenses spend $1,289.28 less per participant each month.

Food
Analyzing the data collected for the cost variable Food shows that programs with OI for food pay approximately $40.00 more per month per participant than a program without OI for food. Programs with OI on food spend significantly more on food per participant each month than programs without OI on food (p=.26).

Average Food Costs Per Participant Per Month

Figure 3. Average food costs per participant per month by level of operational integration.
**Equipment**
Responses about the cost of equipment reveals that programs with OI on equipment pay approximately $17.00 less per month per participant on equipment (e.g., copiers, appliances, or furniture) than a program without OI in this category (p = .15).

**Maintenance**
The data results for the cost variable Maintenance indicate that programs with OI in this category pay approximately $16.10 more per month per participant than programs without OI. However, the results did not achieve statistical significance (p = .36), so we cannot attribute the difference to sharing (or not sharing) expenses for maintenance.

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![Figure 4. Average equipment costs per participant per month by level of operational integration.](image)

![Figure 5. Average maintenance costs per participant per month by level of operational integration.](image)
Utilities
Analyzing the data collected for the cost variable Utilities shows that programs with OI for this cost category pay approximately $16.00 less per month per participant on utilities (e.g., water, gas, and electricity) than programs without OI (p = .37). This evidence reveals a trend that supports our hypothesis that programs with OI in this category spend the same or less on utilities costs than programs without OI. However, as with the cost variable Maintenance, Utilities has a p score above .3, thus making the Utilities results statistically insignificant.

Advertising
Results for the cost variable Advertising demonstrate that programs with OI in this cost category pay approximately $1.70 more per month per participant than programs without OI (p = .22). While statistically significant, the mean difference between programs that share utility expenses and those that do not is minimal.

Supplies
Analysis of the cost variable Supplies illustrates that programs with OI in this category pay approximately $18.70 more per month per participant than programs without OI for supplies (p = .096). In this case, programs that share supplies expenses spend significantly more per participant each month than programs that do not share expenses for supplies.
Significant Cost Variables

Five of the cost variables were significantly different between programs with OI and programs without OI. Programs without OI spent less on Food, Advertising, and Supplies per participant each month than programs with OI in these cost categories; the magnitude of difference ranged from $1.70 (advertising) to $40.00 (food) per participant per month. Programs with OI spent less on personnel and equipment per participant each month than programs without OI in these categories. Programs that shared equipment expenses spent $17.00 less per person each month for equipment than programs that did not share equipment expenses. Programs with shared personnel expenses spent $1,290.00 less per participant each month on personnel than those sites without integrated personnel expenses.

While more cost variables were significantly lower among programs without OI than among programs that integrated expenses in these categories, the study’s overall findings still support our hypothesis because of the relative importance of each variable in terms of cost. Below is a graph illustrating the portion of total expenses each cost variable has among all of the cost variables (including rent). As shown in the pie chart, more than 95 percent of all expenditures are explained by two cost variables, Rent, which showed a trend towards cost savings for programs that share rent expenses, and Personnel, which revealed significant cost-savings for programs with OI in this category.

<table>
<thead>
<tr>
<th>Cost Variable</th>
<th>Average Cost per Participant per Month</th>
<th>Proportion of Program Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent (Square Footage)</td>
<td>$2,170.93</td>
<td>58.48%</td>
</tr>
<tr>
<td>Personnel</td>
<td>$1,369.52</td>
<td>36.89%</td>
</tr>
<tr>
<td>Food</td>
<td>$89.10</td>
<td>2.4%</td>
</tr>
<tr>
<td>Equipment</td>
<td>$72.40</td>
<td>1.95%</td>
</tr>
<tr>
<td>Advertisement</td>
<td>$5.25</td>
<td>0.14%</td>
</tr>
<tr>
<td>Supplies</td>
<td>$5.25</td>
<td>0.14%</td>
</tr>
<tr>
<td>Total</td>
<td>$3,712.45</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Table 1. Proportion of operating budgets by expense category.
Relative Importance of Cost Variables

Figure 9. Proportion of operating budget accounted for by expense categories.
It is apparent from the graphs above that the two most important variables to consider when determining cost-effectiveness of OI of shared site facilities are Rent (in terms of square footage) and Personnel.

**Intergenerational Results**

The Intergenerational section of the survey was designed to extract data regarding whether or not the participants of the adult and child programs interacted on a regular basis. We hypothesized that programs with high intergenerational contact would cost as much or less to operate than programs without high intergenerational contact. We used a median split to assign programs to the category of high intergenerational contact or low/medium intergenerational contact. Thus, programs with intergenerational contact less than the mean of 300 minutes/week were assigned to the “low intergenerational contact” category while programs reporting 300 or more minutes per week of intergenerational contact were categorized as “high intergenerational contact.” Using a Chi-Square analysis, our findings showed that programs with OI have significantly more contact time between generations (p<.05). Given the support for our hypothesis that shared site programs with OI cost as much or less than programs without OI, we can then infer that programs with high intergenerational contact cost as much or less per participant to operate than programs without high intergenerational contact.

**Table 2. Level of intergenerational contact (in minutes) by level of operational integration.**

<table>
<thead>
<tr>
<th>Level of Contact</th>
<th>Operational Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>High &gt; 300</td>
<td>4</td>
</tr>
<tr>
<td>Low &lt; 300</td>
<td>1</td>
</tr>
<tr>
<td>Column Total</td>
<td>5</td>
</tr>
</tbody>
</table>

**Figure 10. Average minutes of weekly intergenerational contact by level of operational integration.**
Conclusion

Our results partially support hypothesis one that “operational costs per participant of shared site facilities with OI are the same or less than the operational costs per participant of shared site facilities without OI.” Further, our finding that programs with OI also had higher intergenerational contact supports hypothesis two that “operational costs per participant of shared site facilities with high intergenerational activity levels are the same or less than the operational costs per participant of shared site facilities without high levels of intergenerational activity.”

As a first attempt to assess the cost-savings of shared site intergenerational programs, considerable future research remains to be done to more fully explore the relationship between OI, intergenerational contact, and operational costs per participant at shared site intergenerational programs. Future studies of shared site facilities should narrow the research to only the cost variables of Rent as expressed in square footage and Personnel because both were found to provide statistically significant differences or trends towards significance with programs integrating operating expenses spending less per person in operation costs. Further, when combined, the two variables account for over 95 percent of total costs per month for shared site facilities.

The investigators are currently re-contacting the sites that declined to complete the original survey. With an abbreviated survey, we expect to increase our response rate and improve the stringency of our statistical significance criteria.

We explored why programs with OI spend less money on personnel and rent. Considering personnel, staff at some sites work with both populations of participants. These staff members typically are intergenerational coordinators, physical or occupational therapists, or nursing staff, and programs may find that sharing a staff member costs less than paying for part-time contractual services that serve just one program. Additionally, if the child and adult programs belong to an umbrella organization, top administrators may serve both programs, which would streamline personnel costs.

Personnel costs per participants will vary depending on the nature of the programs at the shared sites. For example, a senior center will cost less per participant to staff than a nursing facility. Our sample consisted primarily of adult and child care programs, with an even distribution across programs with and without OI. Thus, we are confident that differences are not due to the type of program in each category.

Regarding rent, it is likely that sharing common space (e.g., a dining room, quiet area, recreation space, or outdoor area) allows programs to meet activity and space requirements with fewer absolute square feet per participant. Given the high proportion of an organization’s budget devoted to personnel and rent, any opportunity to save money is desirable, particularly if it further supports the well being and development of clients.

Our association of higher intergenerational contact with OI, and thus the potential for greater cost savings, also merits further exploration. The relationship between intergenerational contact and OI raises a “chicken and egg” question. For example, programs commit-
ted to high levels of intergenerational contact may have more opportunities and reasons to explore the cost-savings in integrating expenses. Programs committed to an intergenerational program that supports client, family, and community well-being may be more inclined to explore innovative ways of sharing resources. Conversely, when community needs cannot be fully met with public funding, some shared site programs may evolve specifically with the intent of integrating expenses rather than clients; these programs could not likely serve a single generation without co-location. Such programs that co-locate primarily to save money may subsequently find that programs can achieve more than financial benefit by sharing contact with each other.

We propose to make available the database as a resource to others interested in the budgetary aspects of shared site programs. Concerns about added expense associated with operational and intergenerational integration may prohibit community agencies from combining their efforts to serve the community.

Findings that shared site intergenerational programs can achieve cost-savings should encourage administrators to invest in efforts to sustain integration of participants as well as expenses. For example, research and our own experiences lead us to conclude that one of the reasons intergenerational programs discontinue is lack of administrative support (Gigliotti, Morris, Smock, Jarrott, & Graham, 2004; Jarrott, Gigliotti, & Smock, 2006). That is, an enthusiastic employee or volunteer initiates an intergenerational program, and when this person changes roles or leaves the organization, the intergenerational program ceases to exist (Deutchman, Bruno, & Jarrott, 2003). With anticipated personnel and rent savings, administrators could explore how to invest some of the savings in an initiative to institutionalize intergenerational contact by funding and staffing an intergenerational coordinator position. This person supports staff training, intergenerational program planning and implementation, and evaluation. Intergenerational coordinators prove invaluable to sustainability of rich intergenerational programs (Bressler, Henkin, & Adler, 2005; Weintraub & Jarrott, 2008).

Our results reveal that connecting generations via shared site programs has the potential to yield mutual financial benefit as the child and elderly participants may serve as interpersonal resources to each other. Co-located programs should explore the potential to meet client needs cost-effectively by integrating expenses and clients; single generation programs should consider the potential of co-locating theirs with another generation’s program. Sharing helps all resources expand.
Citations


