Spatial Connections: Examining the Location of Children and the Nonprofits That Serve Them in the Washington, D.C., Metropolitan Area

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Executive Summary

The location and accessibility of nonprofit services are key factors in promoting efficient and effective service delivery networks for children and youth. Despite the importance of understanding where child and youth nonprofits are located, there is no systematic information on their spatial distribution and how their locational choices relate to the residential patterns of children and youth, particularly in high poverty areas. Using a newly developed dataset on nonprofit organizations in the D.C. area and the Urban Institute's Neighborhood Change Database, this study takes aim at this information gap by providing the first empirical assessment of the spatial allocation of locally oriented child and youth nonprofit resources in the D.C. metro area. Four key findings emerge:

• There is a wide spatial disparity in nonprofit resources for children and youth across jurisdictions in the region.

Some jurisdictions have relatively small nonprofit child and youth infrastructures, even when the sizes of their child populations are considered. In Prince William County, for example, there is less than one nonprofit provider for every 1,000 children, compared with three per 1,000 children in the District and more than six per 1,000 residents under age 18 in Falls Church (see map 1). There are 1.1 nonprofits per 1,000 children and youth in the region, as a whole. Per capita nonprofit expenditures in Prince William County are also relatively low. These groups spend roughly \$132,000 per 1,000 children, compared with more than \$4.4 million per 1,000 children in the District and \$5.5 million per 1,000 in Falls Church. Overall, groups in the region spend roughly \$1.2 million for every 1,000 children and youth. Per capita spending on children in poverty further highlights the disparity in the availability of charitable resources among jurisdictions in the region.

• There is a slight mismatch between the locational distribution of child and youth nonprofits and neighborhoods where high percentages of children live.

Less than two of every five child and youth nonprofits in the region, and one of every four dollars of nonprofit spending, are situated in neighborhoods that are densely populated with children, even though these areas comprise more than half of the neighborhoods in the metropolitan area. The spatial disparity is sharpest in the District, where nearly one-third of neighborhoods are densely populated with children, but only 21 percent of nonprofits and 13 percent of total nonprofit spending are sited in these areas.

• There are encouraging signs in the spatial distribution of nonprofit resources in neighborhoods with significant child and adolescent needs.

First, the composition of nonprofit provision in neighborhoods with high rates of child poverty is skewed toward social welfare organizations—the type of child- and youth-serving groups most inclined to address directly the causes of child poverty—instead of educational or youth development/recreation nonprofits. Second, child and youth nonprofits in neighborhoods with high child poverty are generally on equal

financial footing with organizations in neighborhoods where child poverty is less severe. Third, there is a near perfect spatial connection in the District—where the child poverty rate is heavily focused in the region—between the locational choices of child and youth nonprofits and the distribution of neighborhoods with high child poverty.

• The chief determinants of the spatial distribution of child and youth nonprofits across neighborhoods are child population and child poverty rates. These two factors affect the locational allocation of nonprofit resources in different ways.

While higher rates of child poverty in neighborhoods relate to nonprofit activity, particularly among social welfare organizations, greater proportions of children, without regard to their socioeconomic background, relate to lower nonprofit activity, when controlling for other demographic and socioeconomic factors. These findings may suggest that because more affluent families are better able to access nonprofit services that are located outside of their immediate residential neighborhoods, nonprofits that do not focus specifically on serving the poor have no incentive to locate in immediate proximity to potential clients. However, the needs of poorer children, and their more limited ability to travel for services, may cause some nonprofits to locate in areas with high child poverty. Other demographic and socioeconomic neighborhood indicators have little bearing on child and youth nonprofit locational patterns in the D.C. region.

Discussion

The findings in this report provide a mixed view of the spatial relationship between child and youth nonprofits and the children they aim to serve. Because the accessibility of nonprofit resources is vital to strong social service systems, policymakers and community leaders may want to explore methods to reduce the disparity in charitable activity for children and youth across the region. One option is to provide general support to the limited number of nonprofits that operate in the neighborhoods that appear to be underserved. Local leaders may also want to build on the relatively strong spatial allocation of social welfare nonprofits in neighborhoods with high child poverty by better understanding the intricate interplay of economic and organizational factors that encourage groups to locate in high need areas. We suspect that nonprofits are drawn to high poverty neighborhoods because of a mix of socioeconomic needs and the availability of space to run their operations. Alternatively, because neighborhoods change and groups with fixed assets may be unable to move their physical operations, some nonprofits may have already been supplying children and youth services in neighborhoods where socioeconomic conditions have declined. A deeper exploration of locational incentives can help community officials cultivate the capacity of existing nonprofits and develop new groups in high poverty neighborhoods.

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Since 1986, the Calvary Bilingual Multicultural Learning Center has provided a host of services to children and youth in the District of Columbia. Today, it acts as a community resource by supplying infant, toddler, and preschool programs for children and several developmental activities for school-age youth. It also works with other local nonprofits in the D.C. Healthy Families program to provide in-home visitation to assist first-time parents in understanding child development issues. These programs make Calvary Bilingual a vital social service agent for the community, but programming is only one piece of what makes an effective social service nonprofit.

Another equally important component of success is accessibility. At the most fundamental level, a nonprofit must be within reach of the children and youth it aims to serve. Calvary Bilingual has accessibility on its side, too, because it is located on the main artery that goes through the District's Columbia Heights neighborhood. Not only does Calvary Bilingual work to meet the needs of local kids through its extensive programming, but children in Columbia Heights need only to walk a few blocks to find this organization on Columbia Road.

Many community practitioners and scholars have good anecdotal accounts of organizations like Calvary Bilingual Multicultural Learning Center to show how resources can reach children in the D.C. region. But community leaders lack systematic information on the spatial distribution of nonprofit providers to get these resources to

neighborhoods of greatest need. As part of a broader study of nonprofits that serve children and youth (Twombly 2004a, b), this study takes aim at this information gap by providing the first empirical assessment of the spatial organization of child and youth nonprofit resources in the D.C. metropolitan area.

The study is guided by the following research questions:

- How are nonprofit resources for children and youth distributed across the jurisdictions in the region?
- How does the geographic distribution of nonprofit resources compare to the residential patterns of children and youth in local neighborhoods in the D.C. area?
- To what extent are nonprofit resources located in neighborhoods with high rates of child poverty?
- How do the locational patterns of child and youth nonprofits relate to the racial,
 ethnic, and socioeconomic composition of neighborhoods in the region?

By addressing these questions, the study highlights the jurisdictions and types of neighborhoods in the region with a strong array of nonprofit providers and those that may lack the charitable infrastructure to meet the needs of local children and youth. Taken together, the findings of the study can help community leaders, policymakers, and local funders better target resources to specific types of neighborhoods with high needs but limited charitable services.

METHODOLOGY AND DATA

The study uses descriptive statistics to examine the geographic distribution of local child and youth nonprofit resources in the region. The study defines children and youth as

newborns to those who are 17 years of age. Nonprofit resources are defined as the organizations and their total expenditures. The study also uses a multivariate model to assess the spatial relationship between nonprofit location and demographic, socioeconomic, and other factors at the neighborhood level. More details on the multivariate model are provided in appendix A.

The study includes jurisdictions in the geographic definition of the D.C. region put forth by the Metropolitan Council of Governments. These jurisdictions include the District; Montgomery, Prince George's, and Frederick counties in Maryland; Arlington, Fairfax, Loudoun, and Prince William counties in Virginia; and the independent cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park in Virginia. To ensure the statistical robustness of the analysis, the study combines Fairfax County and Fairfax City data, as well as Manassas and Manassas Park data. Census tracts are used as proxies for neighborhoods. There are 910 neighborhoods in the 11 jurisdictions in the region.

Demographic and socioeconomic data were obtained from the Urban Institute's Neighborhood Change Database (NCD), a national file that is organized at the census tract level for the 1970 through 2000 decennial census. Data on child- and youth-related nonprofits were obtained from the National Center for Charitable Statistics (NCCS) and several grantmakers in the region. The dataset—the *D.C. Regional Nonprofit Database*—was constructed in the fall of 2003 and cleaned during the winter of 2003–2004. It contains fiscal year 2000 data from nonprofits that filed the Form 990 with the U.S. Internal Revenue Service (IRS). The dataset contains information on the chief location or headquarters of each organization, and represents the most reliable, unduplicated count of

nonprofit child and youth providers in the region. A detailed description of the dataset is provided in appendix B.

The study uses the National Taxonomy of Exempt Entities (NTEE) classification to identify organizations in the D.C. Regional Nonprofit Database that have a primary organizational purpose to serve children and youth. More details about the identification of these groups are provided in appendix C. The study examines only nonprofits that are locally oriented (that is, groups that are local affiliates of national organizations, such as the Girl Scouts, or those that formed specifically to address local needs). Nonprofits in the region with a national or international focus are excluded from the analysis. The study includes 1,114 local nonprofits, which are divided into the following three categories of direct child and youth service provision:

- **Education** includes preschools and early childhood educational providers, K–12 private schools, charter schools in the District, and other education nonprofits, such as libraries and groups that supply afterschool or tutoring programs. Of the 1,114 local nonprofit child and youth providers in the region, 292 (23.3 percent) are education-related.
- Youth development includes community facilities, youth centers, scouting and 4-H,
 youth sports leagues, and camps. There are 306 local nonprofits (or 27.5 percent of all providers) that focus on youth development.
- Social welfare includes groups that focus on adoption, foster care, the prevention of
 abuse and neglect, child care, physical and mental health, crisis intervention and
 counseling, delinquency prevention, and nonprofits that provide multiple services that
 directly affect children. Social welfare is the largest category of local child and youth

nonprofits. Of the 1,114 groups that serve children and youth in the region, 516 (46.3 percent) supply social welfare services.

All data were "geocoded," a process that uses GIS software to assign latitude and longitude codes for mapping and spatial analytic purposes based on address information.

Some nonprofits could not be geocoded. These groups left blank the address field on their Form 990, listed post offices boxes that could not be accurately geocoded, or had incorrect address information that could not be identified by the GIS software. For a handful of organizations, particularly youth sports leagues, the address information on the Form 990 was for local parents rather than service delivery sites. These cases were not assigned geocodes.

Through telephone calls to organizations or web searches, we were able to correct the address data of several child and youth providers. Of the 1,114 nonprofits, 887 (or roughly 80 percent) received latitude and longitude codes. The geocoded nonprofits are significantly larger, more likely to work in the education and social welfare fields, and are more likely to be located in the District or close-in suburbs than the non-geocoded organizations. The most common type of non-geocoded nonprofit is local youth sports leagues.

The chief limitation of the data is that they do not contain information on satellite programs and mobile services, even though some providers operate in multiple communities or several neighborhoods within specific jurisdictions in the region.

Therefore, this report does not address the connectivity or geographic coverage of all programs for children and youth in the region. This is an important caveat for interpreting the spatial findings below. Nevertheless, the study captures the geographic dispersion of

the primary headquarters of local providers, which serve important roles in local neighborhoods not only as access points for child and youth services, but also as anchors for community stability and potential catalysts for economic redevelopment efforts (Twombly 2001).

FINDINGS

The findings of the study are presented in four sections, each organized around the research questions posed above. The first describes the availability of nonprofit resources for children and youth in the 11 jurisdictions in the region. The second highlights how these resources are spread across neighborhoods in the D.C. area. The third focuses specifically on the availability of child and youth nonprofits in neighborhoods where child poverty is high. The final section explores how the locational patterns of child and youth nonprofits relate to the demographic and socioeconomic composition of neighborhoods in the region.

How are nonprofit resources for children and youth distributed across the jurisdictions in the region?

There is a relatively wide array of charitable resources for children and youth in the D.C. metropolitan area. Indeed, the more than 1,100 local child- and youth-related groups in the region spent nearly \$1.3 billion in 2000 (Twombly 2004b). But while these groups are found in every locality in the region, they are not evenly distributed. At the state level, the District, Maryland, and Virginia each have roughly one-third of all local nonprofits that serve children and youth (table 1). But at the county level, the District has the most

¹ The GIS software used in this study is called ArcView.

nonprofit providers (347), followed by Montgomery County (220 groups) and Fairfax County (179 organizations). With only 14 groups in operation, Manassas has the fewest number of child and youth providers in the region.

Spending by child and youth nonprofits also varies substantially by jurisdiction in the region. At the state level, D.C.-based nonprofits had the highest aggregated spending (\$503 million), followed by groups in the Maryland suburbs (\$463 million), and those in Northern Virginia (\$330 million). Among localities, total spending was highest in the District, followed by Montgomery County (\$366 million) and Fairfax (\$169 million). Not surprisingly, small jurisdictions in the region tend to have low aggregate expenditures in their child and youth nonprofit sectors. Prince William County had nonprofit spending of \$11.2 million in 2000, while Manassas had \$5.7 million in expenditures that year. An exception to low spending in small localities, however, is evident in Falls Church, a community that, despite having only 15 local child and youth nonprofits, had nearly \$14 million in nonprofit expenditures in 2000.

Local child and youth sectors in the region's 11 jurisdictions also tend to emphasize different program areas (table 2). For example, compared with the region as a whole, child- and youth-related nonprofits in the District are more likely to supply social welfare services (53.3 versus 46.3 percent) and significantly less likely to focus on youth development and recreation (19.3 versus 27.5 percent). In contrast, the collection of child and youth nonprofits in Prince William County are twice as likely to focus on youth development and five times less likely to focus on education than groups in the entire region. And local child and youth providers in Alexandria are more likely to provide

social welfare and less inclined to supply youth development, recreation, and educational services than child-related groups in the region, when taken together.

It makes some sense that the availability of nonprofit child and youth resources varies across jurisdictions in the region. As shown in table 3, some jurisdictions, like Fairfax and Montgomery County, simply have more children to serve than other localities, and research on nonprofit formation suggests that groups will form to meet local needs (Twombly 2003). Still, there appear to be fundamental differences in the scope and output of local child and youth nonprofit sectors. Indeed, some jurisdictions have relatively small nonprofit child and youth infrastructures, even when the sizes of their child populations are considered. In Prince William County, for example, with 85,000 kids, there is less than one nonprofit provider for every 1,000 children. In contrast, the District has 347 nonprofits and 114,000 kids, which equals 3 per 1,000 children. In the small jurisdiction of Falls Church, there are more than 6 per 1,000 residents under age 18 (see map 1). There are 1.1 nonprofits per 1,000 children and youth in the region, as a whole.

Per capita nonprofit expenditures in Prince William County are also relatively low. Groups in this county spend roughly \$132,000 per 1,000 children, compared with more than \$4.4 million per 1,000 children in the District and \$5.5 million per 1,000 in Falls Church. Overall, groups in the region spend roughly \$1.2 million for every 1,000 children and youth (see map 2).

These findings illustrate an economic disparity in child and youth nonprofit resources in the region and show that the size of the jurisdiction is not necessarily the best gauge for the organizational or financial resource base for children and youth at the local

level. Other factors may be at play. For example, Prince William County is one of the fastest growing jurisdictions in Northern Virginia, and it is likely that the limited nonprofit resources for children reflects a lag in the development of its child and youth nonprofit sector. But even in Prince George's County, a relatively well-developed jurisdiction in the Maryland suburbs, the availability of and spending by child and youth nonprofits are relatively low, compared with the population of children that likely needs their services.

Child poverty and nonprofit resources in the region's jurisdictions. Child poverty places heavy demands on nonprofit resources. Poor children face greater social and economic challenges than those from more affluent families, and nonprofit organizations are often the frontline access points for meeting their needs. In the D.C. metro area, child poverty rates vary substantially. It is highest in the District (32 percent) and lowest in Loudoun County (3 percent). The D.C. metro region, on the whole, has a child poverty rate of 9.5 percent.

Examining child poverty and the distribution of child- and youth-related nonprofits and their expenditures further highlights the disparity in the availability of charitable resources among jurisdictions in the metro region. For example, despite the District having the most child and youth nonprofits of any jurisdiction in the region, it has relatively few nonprofits to meet the needs of its tens of thousands of children and youth in poverty. As shown in table 4, the District has one nonprofit provider for every 100 poor children, a per capita rate trailed only by Prince William and Prince George's counties (see also map 3).

Per capita spending is lowest in Prince William County (\$224,000 per 100 children in poverty), where it is more than five times lower than the regional norm (\$1.3 million). Prince George's County (\$344,000), Manassas (\$546,000), and Frederick County (\$995,000) also have relatively low nonprofit spending for children in poverty (see map 4). In contrast to these localities, Falls Church exhibits substantial nonprofit spending relative to the distribution of its poor children. In fact, the local nonprofit child and youth sector in Falls Church spends roughly \$10.2 million per 100 children in poverty. While not all child and youth nonprofits target children in poverty, and not all nonprofit spending is applied to programs that ameliorate poverty, these findings reinforce the view of the wide economic disparity among local charitable infrastructures for children and youth in the region.

How does the geographic distribution of nonprofit resources compare to the residential patterns of children and youth in local neighborhoods in the D.C. area? Looking within jurisdictions, there is an acute need to know what organizations are available for children at the neighborhood level because the extent of charitable resources in a particular neighborhood can be a key factor in the successful social and cognitive development of local children. The 910 neighborhoods (or census tracts) in the D.C area were home to roughly 1.05 million children in 2000. In some neighborhoods, the proportion of children is very high. About half of the neighborhoods in the region (or 457 census tracts) have populations with more than one in four residents under the age of 18 (table 5). These "high child density" neighborhoods are particularly numerous in the Maryland suburbs (61.5 percent), less numerous in the Northern Virginia jurisdictions

(48.2 percent), and are comparatively few in number in the District (30.3 percent). Given the high density of children in many of these neighborhoods, one might expect that child and youth nonprofits would be drawn to these tracts because they contain a preexisting demand for nonprofit services and programs.

The data, however, show a slight mismatch between the locational distribution of child and youth nonprofits and areas where a high percentage (25 percent or more) of children live. Less than two of every five nonprofit child and youth nonprofits in the region are located in these high child density areas (table 5). Not only is there an apparent spatial mismatch between the location of nonprofits and neighborhoods where high proportions of children live, but nonprofit providers in these neighborhoods are smaller, on average, than those in less dense neighborhoods. Nonprofits in high child density neighborhoods account for roughly one of every four dollars spent on child and youth services in the region, despite the fact that they comprise more than half of all nonprofit providers in this study (see table 6).

Although the data cannot unravel why nonprofits tend to locate in lower density neighborhoods, there are several possible explanations. First, neighborhoods change and residential patterns shift over time. For long-standing nonprofits that own the property from which they deliver services, it can be difficult to move to other locations. One result of fixed-place immobility is the need to develop satellite offices and mobile service delivery options, which can increase the cost of doing business for providers.

Another potential explanation relates to the type of services provided. Child care services, for example, often are not in high child density areas in the region, and, instead,

are generally located in more commercial areas, possibly in response to the demands of parents who want to be near their children during the workday.

The analysis suggests, too, that the geographic mismatch between nonprofit organizations and neighborhoods that are densely populated with children varies substantially across the localities in the region. Indeed, *in some jurisdictions*, neighborhoods with relatively high proportions of children appear to be reasonably well stocked with nonprofit providers. For example, despite the relatively underdeveloped nature of the child and youth nonprofit sector in Prince William County, all of its providers are located in the jurisdiction's high child density areas (table 5).

The District contrasts sharply with Prince William County, however. The District has the biggest mismatch between the locations of nonprofits and the areas where high proportions of children live. D.C. has 57 high child density areas, but only 21 percent of nonprofits are located in these areas. These groups account for only 13 percent of all spending in the District on child and youth services (table 6). It appears that some of the child and youth activity occurs in relatively tight geographic bands in the downtown cluster and along the 14th Street (NW) and 16th Street (NW) corridors. These strips include significant commercial development with considerable retail space for charities and businesses. The well-developed public transportation system in the District may lessen the potentially negative impact of a geographic mismatch between the location of nonprofits and the children they aim to serve. But Frederick County, which also shows a slight locational mismatch, has a less developed transit system and is largely rural. Here, the locational disparity between nonprofits and the children and youth may create physical barriers to effective and efficient service delivery.

To what extent are nonprofit resources located in neighborhoods with high rates of child poverty?

Nonprofits are particularly important in neighborhoods where child poverty is high.

Emergency food and shelter services, adolescent parenting programs, and violence prevention initiatives are more inclined to be needed in neighborhoods with high child poverty than in better-off areas in the metro region. Nonprofit organizations are typically the frontline providers of these services, and children in poor neighborhoods must be able to readily access these services.

Of the 910 neighborhoods in the region, 152 (or 17 percent) have high rates of child poverty (table 7). The geographic dispersion of these neighborhoods is also not random in the region. Instead, they tend to be heavily concentrated in the District. Table 7 shows that more than two-thirds of all neighborhoods with high child poverty are located in the District, and more than half (56 percent) of the neighborhoods in D.C. are high child poverty areas. Clearly, the District is the epicenter for abject child poverty in the region.

Despite this grim picture, the data reveal several positive developments regarding the distribution of nonprofit resources in neighborhoods with significant child and adolescent needs. First, the composition of nonprofit provision in neighborhoods with high child poverty is skewed toward social welfare organizations—groups that directly address the symptoms and causes of poverty. While 48 percent of providers in neighborhoods with low or moderate rates of child poverty focus on social welfare,

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² For the purpose of this study, a neighborhood is defined as a high child poverty area if its rate of child poverty is 19 percent or greater, which is twice the regional child poverty rate of 9.5 percent in 2000.

nearly 60 percent of groups in areas with high rates of child poverty work on social welfare issues (table 8). While education and youth development/recreation nonprofits are important for the fabric of local neighborhoods and addressing the needs of children from all socioeconomic backgrounds, nonprofits that supply social welfare services may be best equipped to meet the immediate needs of children in poverty.

Second, child and youth nonprofits in neighborhoods with high rates of child poverty are generally on equal financial footing with organizations in neighborhoods where child poverty is less severe. In fact, groups in areas where child poverty is extensive have average revenues and expenses of \$3.5 million and \$3.0 million, respectively, compared with \$3.6 million in average revenue and \$3.3 in average expenses for child and youth nonprofits in other parts in the region (table 8). Nonprofits in the two types of neighborhoods do differ significantly in asset holdings, but the variation in assets is largely attributable to the location of several well-capitalized K–12 educational institutions in relatively wealthy neighborhoods in the region.

Third, there is a near perfect spatial connection in the District—where the child poverty rate is highest in the region—between the locational choices of child and youth nonprofits and the distribution of neighborhoods with high rates of child poverty. In D.C., 56 percent of nonprofit child and youth organizations are located in neighborhoods where child poverty is extensive, and these neighborhoods comprise 56 percent of all areas in the District (table 9). The general geographic match between nonprofit child and youth providers and neighborhoods with high rates of child poverty is evident in other parts of the region, as well. In Alexandria, for example, 31 percent of all child- and youth-related

nonprofits are located in neighborhoods where the rate of child poverty is substantial; these areas comprise 22 percent of all neighborhoods in the city.

How do the locational patterns of child and youth nonprofits relate to the racial, ethnic, and socioeconomic composition of neighborhoods in the region?

In a strictly theoretical sense, nonprofits—like all organizations—have an incentive to locate near potential clients. But as this study has shown, the connection between the residential patterns of children and youth and the spatial distribution of the nonprofits that serve them in the region is not entirely straightforward. Research suggests other factors that may relate to the locational choices of nonprofit organizations. In separate studies, McPherson (1983) and Wolch and Geiger (1983) determined that nonprofits generally site near available financial resources. Wolpert (1988, 1993) charted the disparate degrees of generosity across metropolitan areas and concluded that social service providers are more likely to locate in central cities, where social service needs tend to be greater than in suburban communities. Baum and Haveman (1997) suggest that organizations may locate in "crowded" areas where they are physically close to other providers, which allows them to share information and resources, spread infrastructure costs among several groups, access pools of qualified labor, and reduce the search costs of potential clients (see also Bielefeld and Murdoch 1995, 2004).

In the D.C. metro region, however, the chief determinants of the spatial distribution of child and youth nonprofits are two counterintuitive factors. While higher rates of child poverty in neighborhoods relate to greater levels of nonprofit activity, particularly among social welfare organizations, greater proportions of children, without

regard to their socioeconomic background, relate to lower nonprofit activity, when controlling for other demographic and socioeconomic factors. These findings suggest that because more affluent families are better able to access nonprofit services located outside of their immediate residential neighborhoods, nonprofits that do not focus specifically on serving the poor have no incentive to locate in immediate proximity to potential clients (Wolpert 1993). However, the needs of poorer children, and their more limited ability to travel for services, may cause some nonprofits to locate in areas with high rates of child poverty.

Other demographic and socioeconomic neighborhood indicators appear to have little bearing on child and youth nonprofit locational patterns in the D.C. region. For example, neighborhood size, measured as total population, and racial and ethnic composition have no statistically significant effect on the distribution of child and youth groups in the region (table 10). Median household income (a proxy for the availability of community financial resources) and the median rental value (a proxy for the affordability of space from which to provide nonprofit services) are positively correlated with child and youth nonprofit location in local neighborhoods, but neither factor is statistically significant.

DISCUSSION

The location and accessibility of nonprofit services are key factors in promoting efficient and effective service delivery networks for children and youth. This study presents a mixed review on the spatial connection between nonprofit organizations and the children and youth they aim to serve in the Washington, D.C., region. On the one hand, there is a

clear economic disparity in nonprofit resources for children across jurisdictions and neighborhoods in the region. Some communities simply have more developed nonprofit sectors for children and youth than others. In Falls Church, for example, there is an abundance of nonprofit resources. In Prince William and Prince George's counties, charitable infrastructures for children and youth seem minimal and underdeveloped.

Moreover, the location of nonprofits—at least their chief headquarters—is negatively correlated with the residential patterns of children and youth in the region, and there is a relative absence of charitable activity in neighborhoods with high proportions of children. On the surface, these findings should raise concern among community leaders, funders, and policymakers, because, at a minimum, children and their families must be able to physically reach social service agencies.

On the other hand, there is a strong and positive link between the locational choices of some nonprofits, particularly social welfare organizations, and neighborhoods with severe pockets of child poverty. Indeed, the motivation behind nonprofit location appears to change dramatically in neighborhoods where child poverty is extensive. The Calvary Bilingual Multicultural Center in the Columbia Heights neighborhood in D.C. is a prime example of this nonprofit locational pattern. Although Columbia Heights does not have a high proportion of children among its population, it has extreme child poverty. Indeed, more than 40 percent of the children in Columbia Heights fall below the poverty line—a rate that is more than four times greater than the child poverty rate for the region on the whole. Thus, while the spatial mismatch of child and youth nonprofits and their potential clients, *in toto*, may signal a potentially inefficient distribution of nonprofit resources in the region, many neighborhoods with significant social and economic needs

have some degree of nonprofit infrastructure, presumably providing poor children with immediately accessible services.

An important caveat to this study is that some providers work in multiple communities, and their scope of service provision may not be adequately reflected in the data. The role of faith-based organizations may also reduce the slight disconnect between the spatial distribution of child and youth resources and the residential patterns of children in the region. Nevertheless, the locational distribution of nonprofit headquarters is important not only as service delivery sites, but also as physical community anchors around which other charities and businesses can develop.

Because the accessibility of nonprofit resources is vital to strong social service systems, these findings should ring a cautionary note. Community leaders may want to explore methods to reduce the disparity in charitable activity for children and youth across the region. One option is to invest in the limited number of nonprofits that operate in the neighborhoods that appear to be underserved. Another is to promote capacity building strategies through start-up grants and general support to formalize the development of new nonprofits in these areas.

Community leaders may also consider building on the relatively strong presence of social welfare nonprofits in neighborhoods with high child poverty by better understanding the intricate interplay of economic and organizational factors that encourage groups to locate in high need areas. The findings show that, except for the residential distribution of children and child poverty, demographic and socioeconomic factors at the neighborhood level appear to play a limited role in the geographic choices of child and youth nonprofits. We suspect that organizations locate in high poverty

neighborhoods because of a mix of social and economic needs and the availability of space to run their operations. Otherwise, because neighborhoods change over time and groups with fixed assets may be unable to move their physical operations, some nonprofits may have already been supplying child and youth services in neighborhoods where socioeconomic conditions have declined. A deeper exploration of locational incentives can help community officials cultivate the capacity of existing nonprofits and develop new groups in high poverty neighborhoods.

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TABLES and MAPS

Table 1. Distribution of Child and Youth Nonprofits and Their Spending, by Jurisdictions in the D.C. Metropolitan Region, 2000

	Number of nor	profits	Total spending by	nonprofits ^a
Jurisdiction	N	%	\$	%
District of Columbia	347	31.1	503,389,300	38.8
<u>Maryland</u>				
Frederick	63	5.7	27,223,247	2.1
Montgomery	220	19.7	366,472,901	28.3
Prince George's	<u>117</u>	<u>10.5</u>	69,202,128	<u>5.3</u>
Subtotal: Maryland	400	35.9	462,898,276	35.7
<u>Virginia</u>				
Alexandria	40	3.6	54,205,874	4.2
Arlington	45	4.0	56,006,001	4.3
Fairfax ^b	179	16.1	168,923,266	13.0
Falls Church	15	1.3	13,540,603	1.0
Loudoun	37	3.3	20,802,724	1.6
Manassas ^c	14	1.3	5,680,823	0.4
Prince William	<u>37</u>	<u>3.3</u>	11,259,442	0.9
Subtotal: Virginia	367	32.9	330,418,733	25.5
D.C. Metro Region	1,114	100.0	1,296,706,309	100.0

Source: D.C. Regional Nonprofit Database, The Urban Institute

a. Spending amounts correspond to Form 990 filers in 2000. Of the 1,114 local child and youth providers, 79.2 percent filed Form 990.

b. Fairfax includes Fairfax County and Fairfax City.

c. Manassas includes Manassas City and Manassas Park.

Table 2. Distribution of Local Nonprofits Serving Children and Youth in the D.C. Metro Region, by Type of Provision, 2000

	Educa	tion	Youth deve	lopment	Social w	elfare	Tot	al
Jurisdiction	\mathbf{N}	%	N	%	N	%	\mathbf{N}	%
District of Columbia	95	27.4	67	19.3	185	53.3	347	100.0
Maryland								
Frederick	7	11.1	23	36.5	33	52.4	63	100.0
Montgomery	75	34.1	57	25.9	88	40.0	220	100.0
Prince George's	<u>27</u>	23.1	<u>40</u>	34.2	<u>50</u>	<u>42.7</u>	<u>117</u>	<u>100.0</u>
Subtotal: Maryland	109	27.3	120	30.0	171	42.8	400	100.0
<u>Virginia</u>								
Alexandria	5	12.5	7	17.5	28	70.0	40	100.0
Arlington	14	31.1	12	26.7	19	42.2	45	100.0
Fairfax ^a	54	30.2	58	32.4	67	37.4	179	100.0
Falls Church	2	13.3	3	20.0	10	66.7	15	100.0
Loudoun	9	24.3	16	43.2	12	32.4	37	100.0
Manassas ^b	2	14.3	3	21.4	9	64.3	14	100.0
Prince William	<u>2</u>	<u>5.4</u>	<u>20</u>	<u>54.1</u>	<u>15</u>	<u>40.5</u>	<u>37</u>	<u>100.0</u>
Subtotal: Virginia	88	24.0	119	32.4	160	43.6	367	100.0
D.C. Metro Region	292	26.2	306	27.5	516	46.3	1,114	100.0

Source: D.C. Regional Nonprofit Database, The Urban Institute

a. Fairfax includes Fairfax County and Fairfax City.

b. Manassas includes Manassas City and Manassas Park.

Table 3. Nonprofit Resources for Children and Youth in the D.C. Metro Region, by the Number of Children in Jurisdictions, 2000

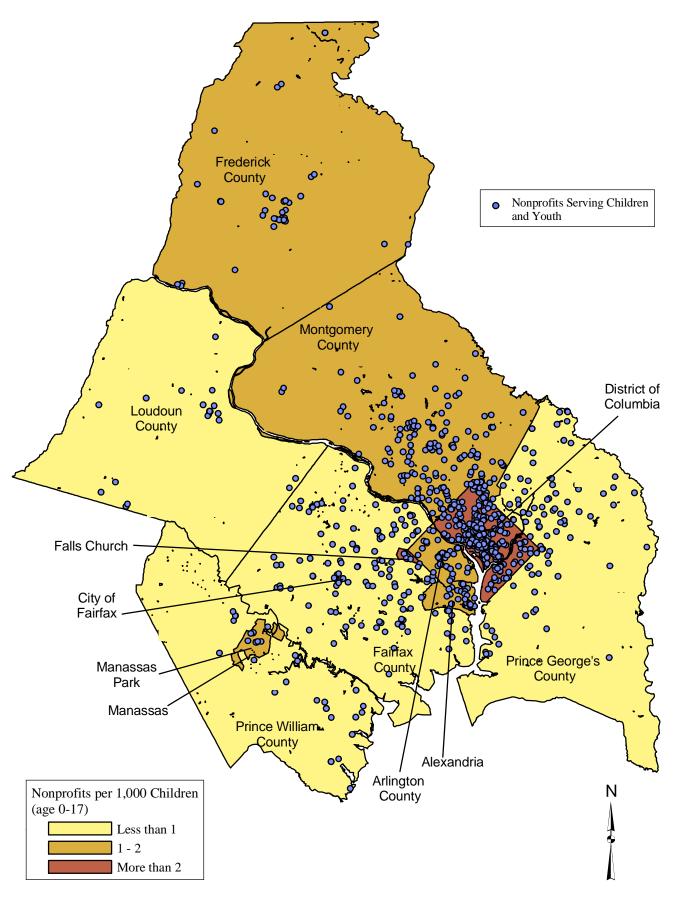
		Local nor	nprofits serving		
			en and youth		
	Number			Nonprofits	Nonprofit
	of			per 1,000	spending per
Jurisdiction	children	N	Total spending	children	1,000 children
District of Columbia	114,332	347	\$503,389,300	3.0	\$4,402,873
<u>Maryland</u>					
Frederick	53,764	63	\$27,223,247	1.2	\$506,347
Montgomery	220,580	220	\$366,472,901	1.0	\$1,661,406
Prince George's	214,522	<u>117</u>	\$69,202,128	<u>0.5</u>	\$322,588
Subtotal: Maryland	488,866	400	\$462,898,276	0.8	\$946,882
<u>Virginia</u>					
Alexandria	21,532	40	\$54,205,874	1.9	\$2,517,457
Arlington	30,944	45	\$56,006,001	1.5	\$1,809,915
Fairfax ^a	250,043	179	\$168,923,266	0.7	\$675,577
Falls Church	2,444	15	\$13,540,603	6.1	\$5,540,345
Loudoun	50,436	37	\$20,802,724	0.7	\$412,458
Manassas ^b	13,604	14	\$5,680,823	1.0	\$417,585
Prince William	<u>85,432</u>	<u>37</u>	\$11,259,442	<u>0.4</u>	<u>\$131,794</u>
Subtotal: Virginia	454,435	367	\$330,418,733	0.8	\$727,098
D.C. Metro Region	1,057,633	1,114	\$1,296,706,309	1.1	\$1,226,046

The Urban Institute; 2000 Decennial Census, U.S. Bureau of the Census

a. Fairfax includes Fairfax County and Fairfax City.

b. Manassas includes Manassas City and Manassas Park.

Map 1. Location of Nonprofits Serving Children and Youth and the Number of Nonprofits per 1,000 Children in the D.C. Metro Area, by Jurisdiction



Map 2. Location of Nonprofits Serving Children and Youth and Their Combined Expenses per 1,000 Children in the D.C. Metro Area, by Jurisdiction

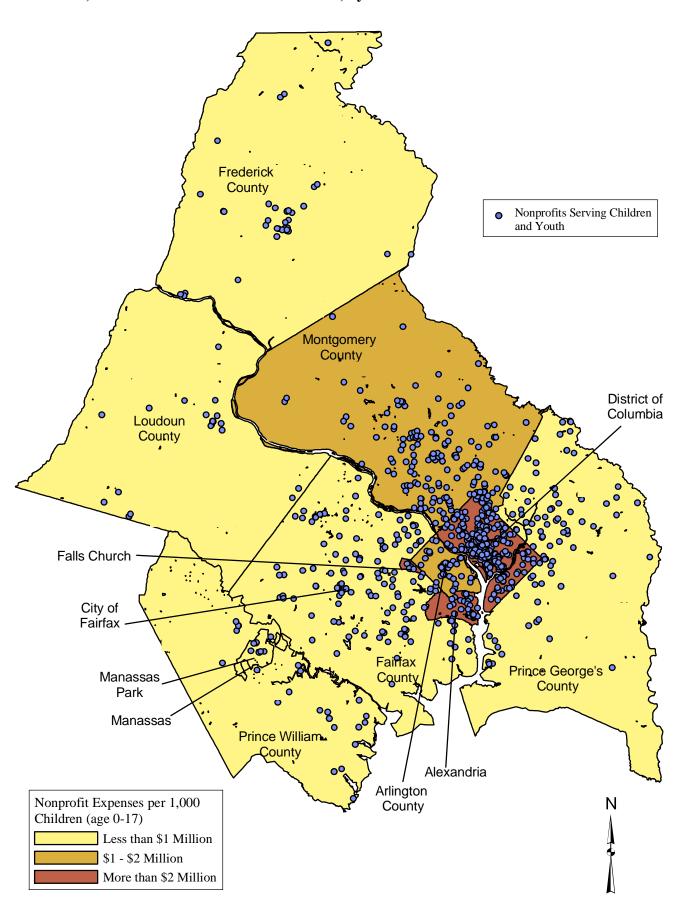


Table 4. Nonprofit Resources for Children and Youth in the D.C. Metro Region, by the Number of Children in Poverty in Jurisdictions, 2000

		Loc	al nonprofits		
Jurisdiction	Children in poverty	N	Total spending	Nonprofits per 100 children in poverty	Nonprofit spending per 100 children in poverty
District of Columbia	35,367	347	\$503,389,300	1.0	\$1,423,331
Maryland Frederick Montgomery Prince George's Subtotal: Maryland	2,735 13,516 20,108 36,359	63 220 <u>117</u> 400	\$27,223,247 \$366,472,901 \$69,202,128 \$462,898,276	2.3 1.6 0.6 1.1	\$995,366 \$2,711,401 <u>\$344,152</u> \$1,273,133
<u>Virginia</u> Alexandria Arlington	3,027 2,899	40 45	\$54,205,874 \$56,006,001	1.3 1.6	\$1,790,746 \$1,931,908
Fairfax ^a Falls Church Loudoun	13,452 133 1,417	179 15 37	\$168,923,266 \$13,540,603 \$20,802,724	1.3 11.3 2.6	\$1,255,748 \$10,180,905 \$1,468,082
Manassas ^b <u>Prince William</u> Subtotal: Virginia	1,041 <u>5,031</u> 27,000	14 <u>37</u> 367	\$5,680,823 <u>\$11,259,442</u> \$330,418,733	1.3 <u>0.7</u> 1.4	\$545,708 \$223,801 \$1,223,773
D.C. Metro Region	98,726	1,114	\$1,296,706,309	1.1	\$1,313,440

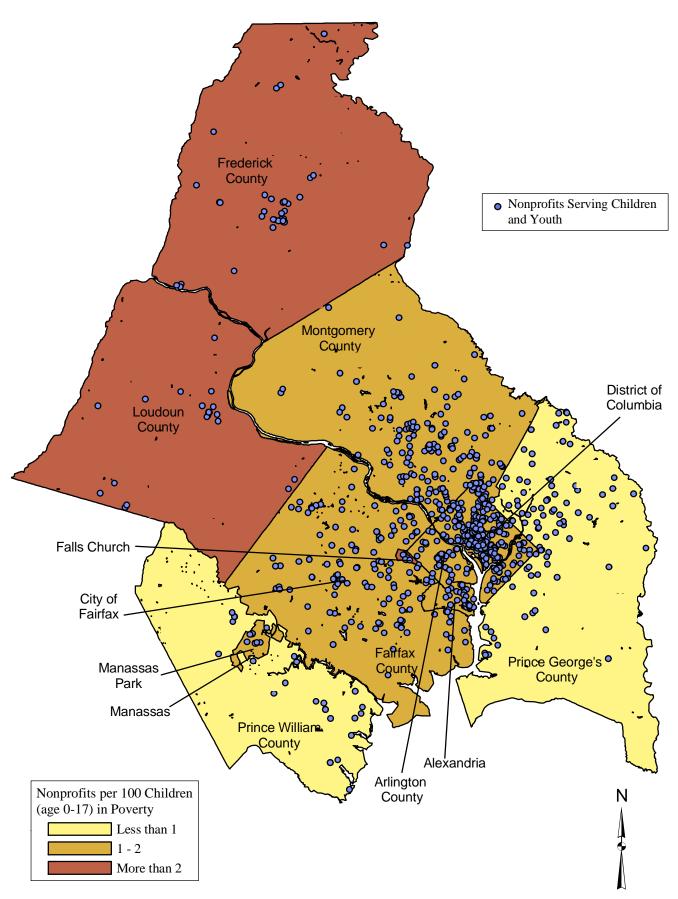
The Urban Institute; 2000 Decennial Census, U.S. Bureau of the Census

Note: Dollars in thousands.

a. Fairfax includes Fairfax County and Fairfax City.

b. Manassas includes Manassas City and Manassas Park.

Map 3. Location of Nonprofits Serving Children and Youth and the Number of Nonprofits per 100 Children in Poverty in the D.C. Metro Area, by Jurisdiction



Map 4. Location of Nonprofits Serving Children and Youth and Their Combined Expenses per 100 Children in Poverty in the D.C. Metro Area, by Jurisdiction

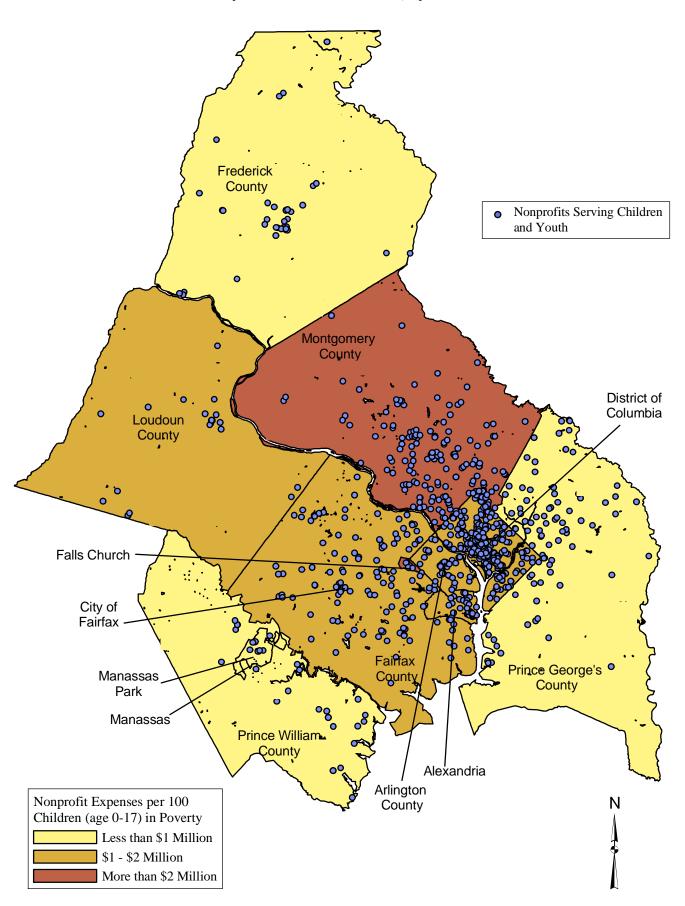


Table 5. Distribution of Child and Youth Nonprofits in Neighborhoods in the D.C. Metro Region Where More Than One-Quarter of the Population Are Children, 2000

than 25% of population are under 18

Location of children and youth Neighborhoods where more nonprofits in neighborhoods where more than 25% of population are under 18

		% of all		% of all nonprofit
Jurisdiction	Number	neighborhoods	Number	providers
District of Columbia	57	30.3	64	20.8
<u>Maryland</u>				
Frederick	23	71.9	23	56.1
Montgomery	95	53.7	73	41.0
Prince George's	<u>123</u>	<u>67.2</u>	<u>60</u>	<u>65.9</u>
Subtotal: Maryland	241	61.5	156	50.3
<u>Virginia</u>				
Alexandria	0	0.0	0	0.0
Arlington	3	7.7	1	2.6
Fairfax ^a	77	45.3	57	43.2
Falls Church	1	33.3	5	50.0
Loudoun	29	90.6	18	85.7
Manassas ^b	6	100.0	8	100.0
Prince William	<u>43</u>	<u>89.6</u>	<u>25</u>	<u>100.0</u>
Subtotal: Virginia	159	48.2	114	42.4
-				
D.C. Metro Region	457	50.2	334	37.7

Sources: D.C. Regional Nonprofit Database and Neighborhood Change Database,

The Urban Institute; 2000 Decennial Census, U.S. Bureau of the Census

a. Fairfax includes Fairfax County and Fairfax City.

b. Manassas includes Manassas City and Manassas Park.

Table 6. Distribution of Child and Youth Spending in Neighborhoods in the D.C. Metro Region Where More Than One-Quarter of the Population Are Children, 2000

Spending by children and youth
Neighborhoods where more than 25% of population are under 18

Spending by children and youth nonprofits located in neighborhoods where more than 25% of population are under 18

		% of all		% of spending by all
Jurisdiction	Number	neighborhoods	\$	nonprofits
District of Columbia	57	30.3	62,970,312	13.5
<u>Maryland</u>				
Frederick	23	71.9	5,959,615	23.9
Montgomery	95	53.7	118,818,535	37.0
Prince George's	<u>123</u>	<u>67.2</u>	17,712,080	<u>27.2</u>
Subtotal: Maryland	241	61.5	142,490,230	34.7
<u>Virginia</u>				
Alexandria	0	0.0	0	0.0
Arlington	3	7.7	87,674	0.2
Fairfax ^a	77	45.3	69,908,815	45.0
Falls Church	1	33.3	11,748,809	89.3
Loudoun	29	90.6	15,014,672	78.8
Manassas ^b	6	100.0	1,492,660	100.0
Prince William	<u>43</u>	<u>89.6</u>	8,772,078	<u>98.9</u>
Subtotal: Virginia	159	48.2	107,024,708	35.0
-				
D.C. Metro Region	457	50.2	312,485,250	26.4

Sources: DC Regional Nonprofit Database and Neighborhood Change Database,

The Urban Institute; 2000 Decennial Census, U.S. Bureau of the Census

a. Fairfax includes Fairfax County and Fairfax City.

b. Manassas includes Manassas City and Manassas Park.

Table 7. Distribution of Neighborhoods in Jurisdictions in the D.C. Metro Region, by Level of Child Poverty in 2000

		Type	of neighb	orhood		
-			Moderate	e or low		
	High child po	verty ^a	child po	verty	All	
Jurisdiction	N	%	N	%	N	%
District of Columbia	106	56.4	82	43.6	188	100.0
Maryland						
Frederick	3	9.4	29	90.6	32	100.0
Montgomery	7	4.0	170	96.0	177	100.0
Prince George's	19	10.4	164	89.6	183	100.0
<u>Virginia</u>						
Alexandria	7	21.9	25	78.1	32	100.0
Arlington	3	7.7	36	92.3	39	100.0
Fairfax ^b	6	3.5	164	96.5	170	100.0
Falls Church	0	0.0	3	100.0	3	100.0
Loudoun	0	0.0	32	100.0	32	100.0
Manassas ^c	0	0.0	6	100.0	6	100.0
Prince William	1	2.1	47	97.9	48	100.0
D.C. Metro Region	152	16.7	758	83.3	910	100.0

The Urban Institute; 2000 Decennial Census, U.S. Bureau of the Census

a. A neighborhood is defined as a high child poverty area if its rate of child poverty is

¹⁹ percent or greater, which is twice the regional child poverty rate of 9.5 percent in 2000.

b. Fairfax includes Fairfax County and Fairfax City.

c. Manassas includes Manassas City and Manassas Park.

Table 8. Characteristics of Local Child and Youth Nonprofits by Level of Child Poverty Neighborhoods in the D.C. Metro Region, 2000

_	Location of local child and youth nonprofits				
	In neighborhoods with	In neighborhoods with low or			
	high child poverty ^a	moderate child poverty			
Type	<u>%</u>	<u>%</u>			
Education	24.9	31.6			
Youth development	15.6	20.4			
Social welfare	59.6	48.0			
Resources (averages)	<u>\$</u>	<u>\$</u>			
Revenue	3,441,277	3,591,776			
Expenses	3,045,739	3,268,488			
Total assets	3,598,775	5,118,415			
Total liabilities	1,432,744	1,615,142			
Location	<u>%</u>	<u>%</u>			
District of Columbia	76.9	20.4			
Frederick	2.7	5.3			
Montgomery	4.0	25.5			
Prince George's	6.7	11.5			
Alexandria	4.9	3.6			
Arlington	2.2	5.0			
Fairfax ^b	2.2	19.2			
Falls Church	0.0	1.5			
Loudoun	0.0	3.2			
Manassas ^c	0.0	1.2			
Prince William	0.4	3.6			

The Urban Institute; 2000 Decennial Census, U.S. Bureau of the Census

a. A neighborhood is defined as a high child poverty area if its rate of child poverty is

¹⁹ percent or greater, which is twice the regional child poverty rate of 9.5 percent in 2000.

b. Fairfax includes Fairfax County and Fairfax City.

c. Manassas includes Manassas City and Manassas Park.

Table 9. Distribution of Local Child and Youth Nonprofits by Level of Child Poverty Neighborhoods in the D.C. Metro Region, 2000

	Neighborhoods child pove		Neighborhoods with moderate or low child poverty		
		% of		% of	
	% of all	nonprofit	% of all	nonprofit	
Jurisdiction	neighborhoods	providers	neighborhoods	providers	
District of Columbia	56.4	56.2	43.6	43.8	
Maryland					
Frederick	9.4	14.6	90.6	85.4	
Montgomery	4.0	5.1	96.0	94.9	
Prince George's	10.4	16.5	89.6	83.5	
<u>Virginia</u>					
Alexandria	21.9	31.4	78.1	68.6	
Arlington	7.7	13.2	92.3	86.8	
Fairfax ^b	3.5	3.8	96.5	96.2	
Falls Church	0.0	0.0	100.0	100.0	
Loudoun	0.0	0.0	100.0	100.0	
Manassas ^c	0.0	0.0	100.0	100.0	
Prince William	2.1	4.0	97.9	96.0	
D.C. Metro Region	16.7	25.4	83.3	74.6	

The Urban Institute; 2000 Decennial Census, U.S. Bureau of the Census

a. A neighborhood is defined as a high child poverty area if its rate of child poverty is

¹⁹ percent or greater, which is twice the regional child poverty rate of 9.5 percent in 2000.

b. Fairfax includes Fairfax County and Fairfax City.

c. Manassas includes Manassas City and Manassas Park.

Table 10. Predictors of the Location of Local Nonprofits for Children and Youth in Neighborhoods in the Washington, D.C., Metro Region

Variable	Coefficient	SE	Signif.	p
Demographics				
Total population (per 1,000 residents)	0.01	0.03		0.73
Percent of population aged 0 to 17	-6.22	1.39	**	0.01
% African American population	0.30	0.44		0.50
% Hispanic population	-0.38	1.32		0.77
% Foreign born population	1.92	1.11		0.09
Socioeconomic				
Median household income (per \$10,000)	0.05	0.05		0.27
% of population age 0 to 17 in poverty	2.38	0.77	**	0.01
Median gross rent (per \$100)	0.02	0.03		0.58
Location (fixed effects)				
Alexandria	0.00	0.44		1.00
Arlington County	-0.61	0.40		0.13
Fairfax	-0.63	0.33		0.06
Falls Church	1.04	0.88		0.24
Frederick County	0.50	0.46		0.28
Loudoun County	0.32	0.54		0.55
Manassas	2.33	1.06	*	0.03
Montgomery County	-0.33	0.32		0.31
Prince George's County	-0.52	0.28		0.07
Prince William County	0.01	0.47		0.98
Constant	2.45	0.40	**	0.01

Sources: DC Regional Nonprofit Database and Neighborhood Change Database, The Urban Institute

Note: The District of Columbia is the reference group in the model.

R-squared = 0.18

^{*} p <= 0.05

^{**} p <= 0.01

Appendix A: Construction of the Multivariate Model

The study uses an ordinary least squares model to relate the spatial distribution of local nonprofit child and youth organizations to several demographic and socioeconomic variables. The model is performed at the census tract level, which serves as a proxy for neighborhoods in the region. The dependent variable is the number of local child and youth nonprofits in any particular census tract.

Demographic and socioeconomic variables are included in the model as independent predictors of the location of nonprofit providers. Demographic factors are total population, percentage of the population under the age of 18, and the percentages of the population who are African American, Hispanic, or foreign born. Socioeconomic factors include the child poverty rate, median household income, and median gross rent. Median household income is a proxy for the availability of wealth in a neighborhood. Median gross rent is a proxy for the relative locational costs borne by nonprofits to operate in a given neighborhood. The inclusion of these variables in predicated on existing theory and research on nonprofit locational choices (Bielefeld 2001; McPherson 1983; Wolch and Geiger 1983; Wolpert 1988, 1993; Wolpert and Seley 2004) and factors that impact the agglomeration of organizations in local areas (Baum and Haveman 1997; Baum and Oliver 1996; Bielefeld and Murdoch 1995, 2004).

Dummy variables for the jurisdictions in the Maryland suburbs or the Northern Virginia suburbs were also included in the model to capture the fixed effect differences across localities in region. The District is the reference group in the model. These variables theoretically account for the variation in county and city-level approaches to policymaking and other differences that can affect the locational choices of nonprofit organizations in the region.

Appendix B: Nonprofit Data Source

The primary nonprofit data source of the study is the National Nonprofit Organizational Database (NNOD), which is a multiyear data file produced by the National Center for Charitable Statistics (NCCS) at the Urban Institute. The NNOD contains roughly 650,000 observations of public charities that filed Form 990 with the IRS from 1998 to 2000. It has detailed financial and program information that is missing from other nonprofit files.

This study examines nonprofits that filed in fiscal year 2000, which was the latest and most complete set of records available in the NNOD when this study's dataset was constructed during the fall of 2003. The initial step to construct the dataset was to extract information from the NNOD about groups that filed in fiscal year 2000 and were located in the D.C. region. This process revealed 7,628 nonprofits. But because nonprofits with less than \$25,000 in gross receipts and religious congregations are not required to file the Form 990, the NNOD underrepresents small organizations and religious groups. To address this limitation of the NNOD, several lists were collected from foundations and grantmakers in the region. The external lists were verified and merged with the NNOD extract, a process that uncovered 509 additional nonprofits in the region. Combining the NNOD extract and external directories created a final dataset—the D.C. Regional Nonprofit Database—that includes information on 8,137 nonprofit organizations. Among these groups, 1,114 are locally oriented nonprofits that primarily focus their programs and activities on children and youth in the D.C. metro region.

Appendix C: Identifying Nonprofits That Serve Children and Youth in the D.C. Region

Nonprofits with a primary purpose to serve child and youth were identified through the National Taxonomy of Exempt Entities (NTEE), a hierarchical classification system that categorizes organizations according to their stated purpose on the Form 990. NTEE codes are assigned to all observations in the National Nonprofit Organizational Database and were reviewed to reduce classification errors and delete duplicate records. The NTEE codes were manually applied to observations from the external data sources.

The NTEE codes found more than 1,100 local nonprofits that serve children and youth. These groups provide a host of services and programs in education, youth development and recreation, and social welfare. Education providers includes prekindergarten and Head Start providers, primary and secondary private schools, charter schools in the District, nonprofit libraries, and other education providers, such as groups that focus on tutoring and afterschool activities. Youth development and recreation includes community facilities, youth centers (such as the Boys and Girls Clubs), scouting troops, and youth sports. Social welfare consists of adoption, foster care, and groups that focus on the prevention of abuse and neglect; child care; community physical and mental health organizations; crisis intervention and counseling; delinquency prevention; and multiservice organizations, such as Catholic Charities and the Jewish Social Service Agency. Although multiservice nonprofits may supply services to community residents of all ages, their crucial role in the delivery of services to children and youth in the D.C. region warrants their inclusion in the study.

Some types of nonprofits that may provide programs for children and youth were excluded from this analysis. Their exclusion was based on two factors. First, large organizations, such as local hospitals, were excluded because the extent of their program activity directed toward children could not be ascertained. Second, large nonprofits, such as local universities that provide some youth development and mentoring programs were excluded because the majority of their services were not targeted specifically to children and youth. In general, only direct providers are included in the study. That is, nonprofits that provide financial or management support for organizations that serve children and youth in the region were excluded from the study.