

# Nonprofits in the Neighborhood: Are Housing Prices Affected?

Are there benefits to a community and its residents when a nonprofit organization locates nearby? The nonprofit brings to the community employment and services that can have positive impacts on the area. The contributions of nonprofit organizations include the tangible and intangible, the financial and nonfinancial.

But there are also potential negative effects. These organizations are exempt from property taxes, placing an increased burden on other property taxpayers in the community. There are also NIMBY (*not in my backyard*) issues. Some nonprofit organizations provide services to people whom residents may perceive as dangerous or unpleasant.

Researchers at the Center for Urban Policy and the Environment (Center) conducted a study in Indianapolis/Marion County, Indiana, during 2005 and 2006 to analyze the effect of nonprofit organizations on residential property values. The Center published a detailed technical report on the analysis in October 2006.<sup>1</sup> That study continues Center work focusing on the relation between property values and public choices.<sup>2</sup>

To conduct the study, researchers used geographic information systems (GIS) to integrate the locations of nonprofit organizations in Indianapolis into a dataset of house sales prices. The data for the nonprofit organizations included information about the type of services provided by each organization, and the dataset for residential property values included individual and neighborhood characteristics for each house sold.

## Several factors are relevant to determining the impact of nonprofit organizations

Nonprofit organizations do not pay property taxes directly. However, if their presence increases the property values of the neighborhoods in which they are located, government is compensated for the property taxes it has foregone through the taxes of the then higher-valued properties.

A number of neighborhood and public good factors were included in this analysis. Several variables were collected from the U.S. Bureau of the Census (2003) at the block group level. The variables include:

- household income,
- percentage of African American residents,
- percentage of vacant housing,
- Center Township (the central city township) location,
- neighborhoods in the Meridian-Broad Ripple area and the west side location (two areas where initial models indicated clusters of error),
- accessibility to employment, and
- standardized school test scores (ISTEP and SAT) for school districts.

The research did not consider the value and distribution of the goods and services that nonprofits provide as part of the costs and benefits. The focus was on the degree to which a nonprofit facility has an impact on the price of nearby residential property.

The researchers considered a wide variety of nonprofit types in the analysis. Including the nonprofit sector as a whole and the major subsectors contributes to a broader understanding of the impact on housing prices.

## What's a Hedonic Model

Hedonic price modeling is a statistical method for estimating or predicting the price of a property by using both individual housing and neighborhood characteristics. In other words, the model predicts the price of a good, with the assumption that the price is the result of multiple factors.

Goods that are not explicitly valued in the market, such as clean air, can be valued implicitly by comparing parcels or dwelling units with different air qualities.



The data used to identify the locations and types of nonprofit organizations were collected during 1998–1999 by the Internal Revenue Service. Nonprofits were classified into service types by the National Center for Charitable Statistics (NCCS) at the Urban Institute and by the Center. Nonprofits were coded using the categories of the National Taxonomy of Exempt Entities (NTEE). This classification scheme was developed by the NCCS and is becoming the standard system for classifying nonprofits by the types of services they provide. It divides the universe of nonprofit organizations into 10 broad service categories, which can then be further broken down into more detailed activity areas (see <http://nccsdataweb.urban.org/FAQ/index.php?category=73>).

## Categorizing Nonprofits

**Arts and culture, education, health, and religion categories** are comprised of the range of nonprofits that provide these relatively well-defined services.

**Environmental nonprofits** could be involved in pollution abatement or control; natural resources conservation or protection; botanical, horticultural, or landscape services; environmental beautification; or environmental education.

**Animal-related nonprofits** could be involved with animal protection or welfare, wildlife preservation or protection, veterinary services, or zoos and aquariums.

**Human services nonprofits** could provide crime or legal-related services; employment; food or nutrition; housing or shelter; public safety or disaster response; recreation or sports; youth development; family or personal services; residential care; or services for special or vulnerable groups.

Nonprofits in the **international category** promote international understanding, development, or peace and security.

**Public benefit nonprofits** could be involved in civil rights, social action, or advocacy; community improvement or capacity building; philanthropy; science or technology; or public or societal benefit.

**Mutual benefit nonprofits** include insurance providers, pensions or retirement funds, fraternal societies, or cemeteries.

Table 1 shows the distribution of the nonprofits in the dataset into nine of the broad service categories of the NTEE (nonprofits in the “Unknown, Unclassified” service category have been omitted). The street addresses of these nonprofits were subsequently geocoded. The nonprofit dataset contained 5,108 organizations after geocoding.

**Table 1. Nonprofit organizations included in dataset, Marion County, Indiana, 1998-1999**

TYPE OF NONPROFIT	NUMBER OF GEOCODED ORGANIZATIONS
All Nonprofits (Total)	5,108
Arts & Culture	225
Education	821
Environment & Animal	80
Health	291
Human Services	1,066
International	41
Public Benefit	1,487
Religion	531
Mutual Benefit	566

Source: Center for Urban Policy and the Environment

Table 2 (pages 10 and 11) provides the mean, the description, source, and year collected for each variable in the analysis.

The significant results of the models<sup>3</sup> show that the effects of the housing, neighborhood, and control variables were as expected. Higher prices were obtained for:

- houses that were larger;
- houses that were newer;
- houses on larger lots;
- houses with air conditioning, basements, brick facing, and front porches;
- houses with more rooms, more bathrooms, and garage bays;
- houses with fewer stories;
- houses that were accessible to employment;
- houses with lower taxes and in neighborhoods with high household vacancy rates;
- houses with a lower percentage of African Americans in the neighborhood; and
- houses located in the Meridian-Broad Ripple area and outside Center Township and the westside location.

A spatial lag model, like the one used here, incorporates a simultaneity factor. That is, the impact of a phenomenon (for this research, the location of a nonprofit within a mile) on the price of a given property (say, property A) also affects the prices of neighboring properties (properties B, C, D, etc.). At the same time, the price of property A will be impacted by the change in the price of neighboring properties (B, C, D, etc.) because of the presence of nonprofits near these other properties. These effects ripple throughout the system as the value of each property is affected by its “neighbors” (for this analysis, “neighbors” are defined as houses within a one-mile radius), which in turn are affected by their “neighbors,” and so on. We can label these simultaneous and reciprocal influences “induced effects.”

Diagram 1 illustrates the relation between the direct and induced effects on house prices due to nonprofit proximity. In this diagram we are assuming that the impact of a given type of nonprofit on house price is positive. The solid lines in Panel A represent the direct positive effect that the proximity of the nonprofit has on the price of each house (House A and House B) within a mile of the nonprofit. The dashed line, on the other hand, indicates that, in addition, the price of each house is positively influenced by the increased price of its neighbor (the induced effects). Panel B shows that the impacts of induced effects can extend further. In this case, House C is located more than a mile from the Nonprofit 1. Therefore, that nonprofit does not have a direct impact on the price of House C. However, since House C is within a mile of House B, the sales price of House C will be positively influenced by the increased price of House B. In addition, House C will be positively influenced by Nonprofit 2. Likewise, House B will be positively influenced by the increase in the price of House C due to its proximity to Nonprofit 2.

### Results show that the contribution of nearby nonprofit organizations to the prices of houses sold is significant

Our analysis showed that the induced effects of neighboring properties increases the direct nonprofit effects by 56 percent.

Figures 1 through 8 illustrate the marginal effect and the cumulative effect in dollars on the average home value. Those values are based on multiplying the significant effects (regression coefficients) by the exponent of the average log sale prices, in this way converting the log of average home value to dollars ( $\exp^{11.443} = \$93,280$ ). Mutual benefit nonprofits have no significant effect on housing values according to the model and therefore are not included in the figures. The marginal effects of the other different types of nonprofit organizations vary.

The significant effects are interpreted as the marginal percentage increase in house sales price due to the locations of one or more nonprofit organizations (by type) within a one-mile radius. The cumulative effect is calculated by summing the significant marginal effects (those significant at  $p < 0.05$ ).<sup>4</sup>

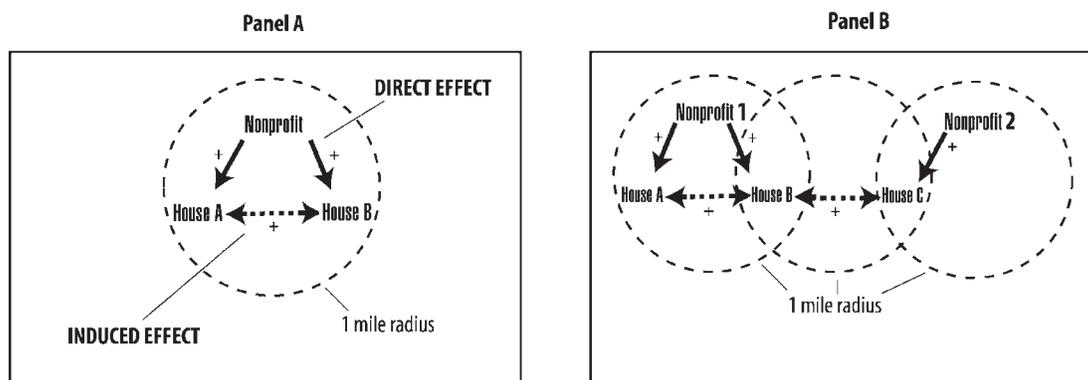
Our results show that the effect of nonprofit proximity on house sales prices varies:

- from positive to negative,
- among types of nonprofits, and
- by concentrations of nonprofits within nonprofit types.

These observations are true while controlling for the presence and concentrations of other nonprofit types.

For some nonprofit types, the effect is not significant unless multiple nonprofits are present (i.e., arts and culture, human

Diagram 1. **The direct and induced effects of nonprofit location on house sales prices**



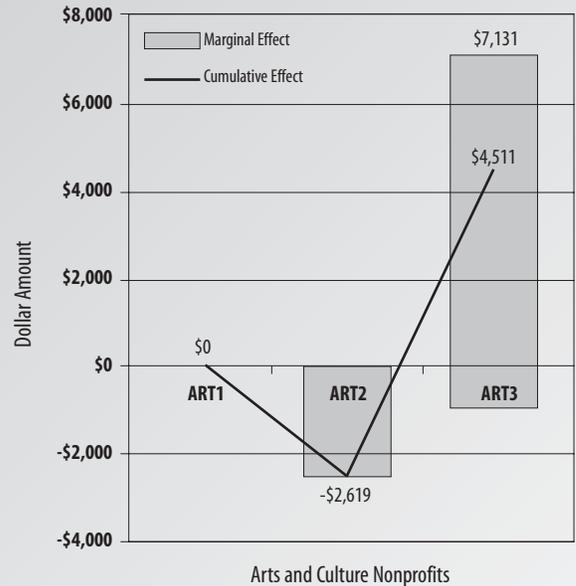


services, religious, and international). In addition, for some types, their influence on house sales price is straightforward and consistent. Education, health, and religious nonprofits have a positive effect on housing prices, and any significant marginal effect is also positive. Likewise, the interpretation associated with the effect of human services (negative) is consistent.

On the other hand, the results from the model for arts and culture and environment and animal, public benefit, and international are not as easy to interpret. Each of those has marginal effects which shift between negative and positive based on the concentrations of those types of nonprofits within a one-mile radius. Future exploration of the data and their geographic context may shed light on the intricacies of those relationships.

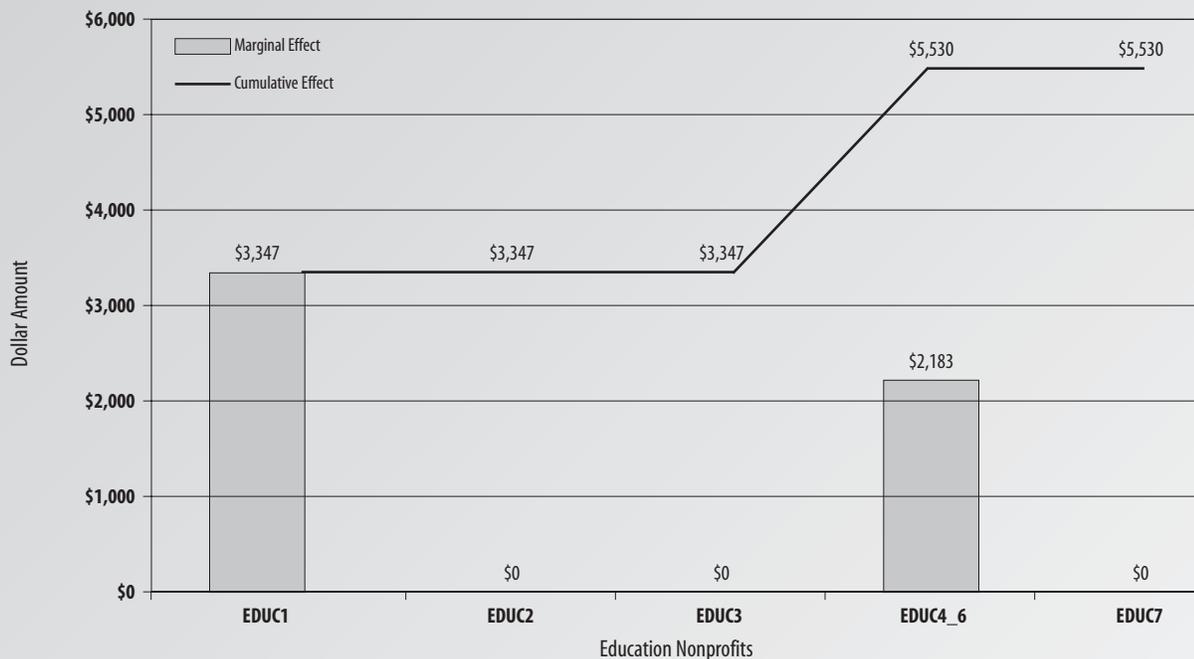
For example, as shown in Figure 1, there is no significant effect on house sales price due to the presence of only one nonprofit arts and culture nonprofit within a mile. When two arts and culture nonprofits are located within a mile, however, the effect is significant and negative by 2.8 percent, according to the model. Moreover, the presence of additional arts and culture nonprofits results in a significant marginal increase on housing values of 7.6 percent. Converted into changes in home sales prices,

Figure 1. Dollar effect on residential housing sale prices of Arts and Culture nonprofits within a mile, Marion County, Indiana, 1999



Source: Center for Urban Policy and the Environment

Figure 2. Dollar effect on residential housing sales prices of Education nonprofits within a mile, Marion County, Indiana, 1999



Source: Center for Urban Policy and the Environment



the average home value shows that the marginal effect on the price of a home due to two arts and culture nonprofits within a one-mile radius is  $-\$2,619$  and that the difference in price due to three or more nonprofits within one mile is  $\$7,131$ . The figure also shows that the cumulative effect of three or more nonprofits results in a price difference of  $\$4,511$  ( $\$7,131 - \$2,619$ ).

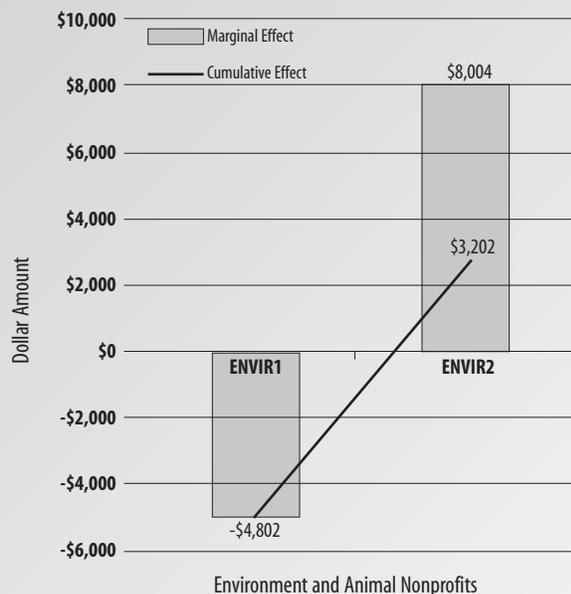
In dollars, the effects of the other nonprofit types are as follows:

- The effect of the first *education* nonprofit on the average sample sale price is  $\$3,347$ . The fourth to sixth education nonprofit within one mile increases the value of a property by an additional  $\$2,183$ . Therefore, the cumulative value of four or more education nonprofits is  $\$5,530$  (see Figure 2).
- The effect of the first *environmental* nonprofit is significant and negative (a  $\$4,802$  loss for the first environment and animal nonprofit) and the second is significant and positive (an increase of  $\$8,004$  for two or more). Each of these marginal effects is significant. The cumulative effect of two or more environmental nonprofits in housing values, holding all other

factors constant is equal to  $\$3,202$  (see Figure 3).

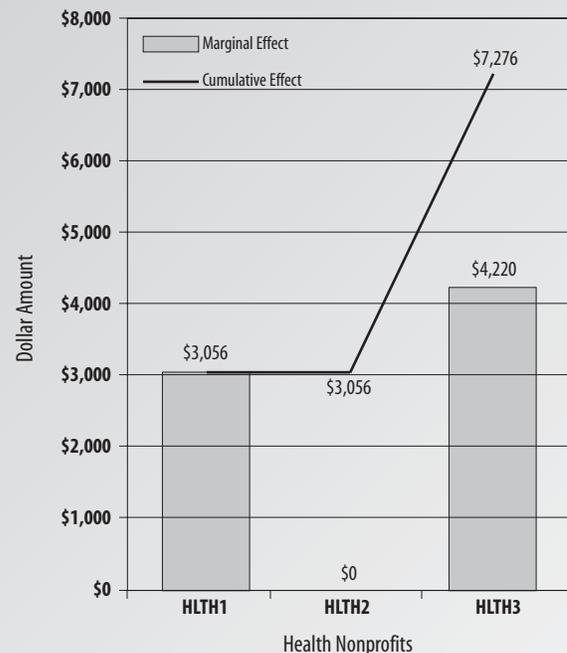
- As applied to the average home value, the first *health* nonprofit adds  $\$3,056$  to the price of a home. Three or more health nonprofits result in an additional  $\$4,220$ , for a total  $\$7,276$  effect (see Figure 4).
- One *human services* nonprofit within a mile does not have a significant effect on housing price. The marginal effect of two human services nonprofits is negative and leads to a decrease in price of  $\$2,910$ , but additional marginal changes due to more human services nonprofits within a mile do not significantly affect the price of houses until these nonprofits are densely clustered within a mile of the property. Specifically, the model indicates that the average effect of ten or more human services nonprofits leads to an additional negative effect of  $\$8,440$  (see Figure 5 on page 6).
- The presence of one *public benefit* nonprofit within a mile has a negative effect on house sales price (a loss of  $\$4,511$ ), and the presence of two public benefit nonprofits has a positive effect on

Figure 3. Dollar effect on residential housing sales prices of Environment and Animal nonprofits within a mile, Marion County, Indiana, 1999



Source: Center for Urban Policy and the Environment

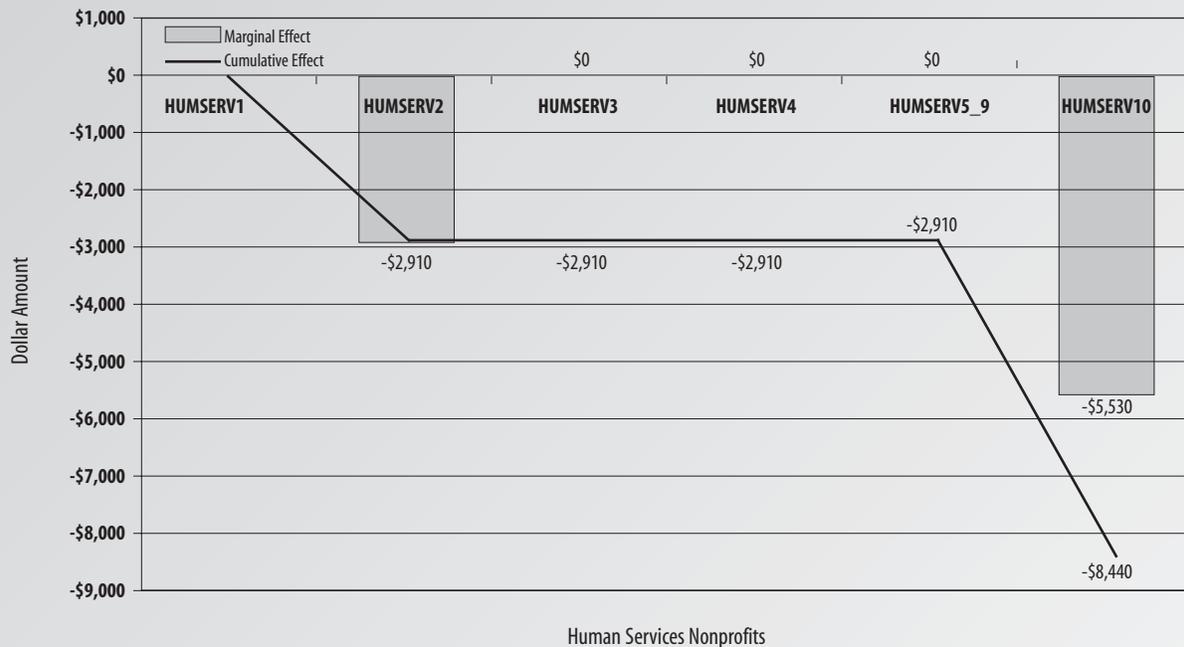
Figure 4. Dollar effect on residential housing sales prices of Health nonprofits within a mile, Marion County, Indiana, 1999



Source: Center for Urban Policy and the Environment

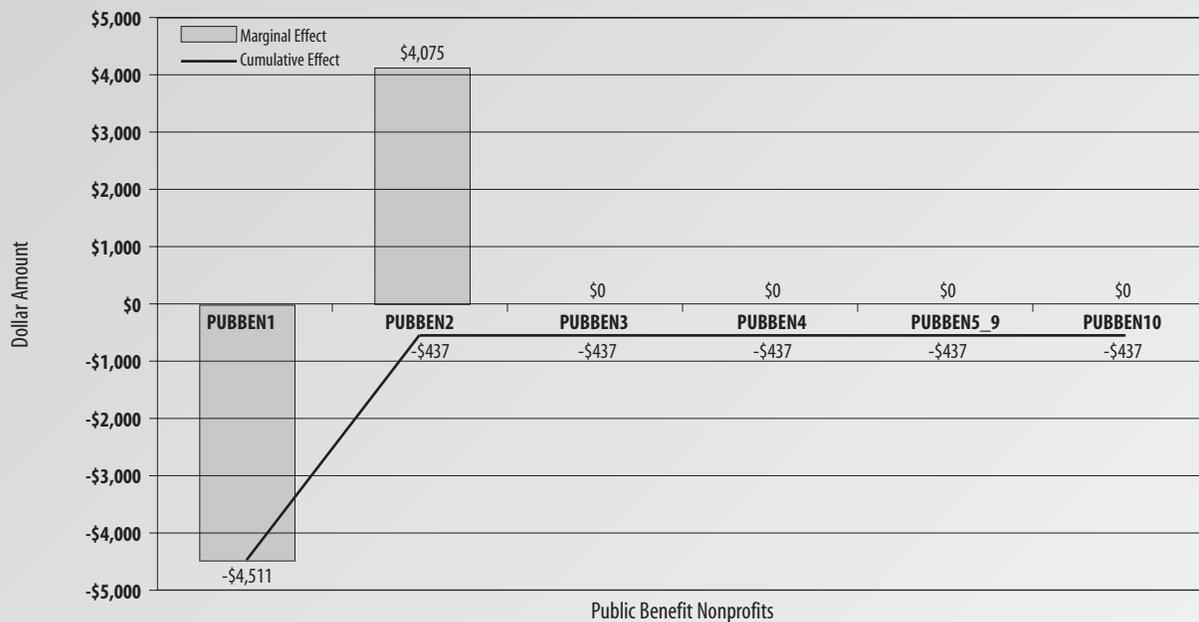


Figure 5. Dollar effect on residential housing sales prices of Human Services nonprofits within a mile, Marion County, Indiana, 1999



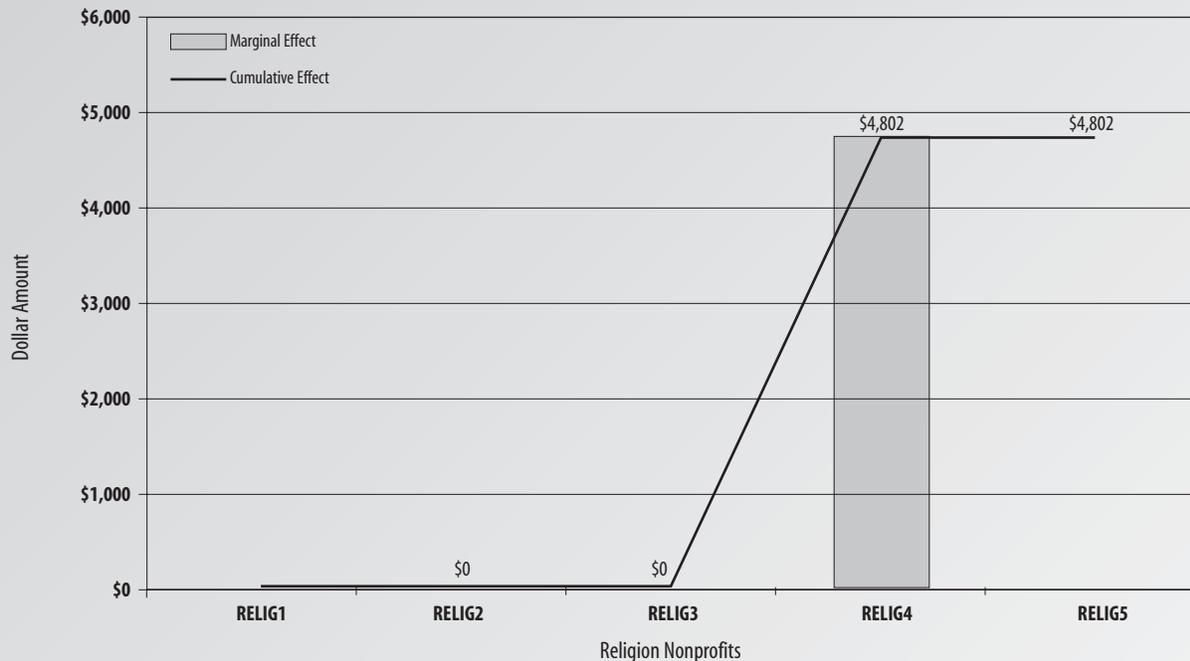
Source: Center for Urban Policy and the Environment

Figure 6. Dollar effect on residential housing sales prices of Public Benefit nonprofits within a mile, Marion County, Indiana, 1999



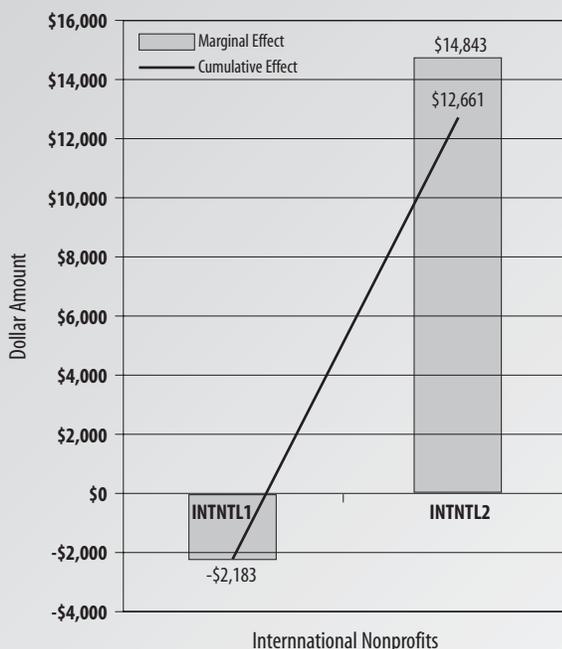
Source: Center for Urban Policy and the Environment

Figure 7. Dollar effect on residential housing sales prices of Religion nonprofits within a mile, Marion County, Indiana, 1999



Source: Center for Urban Policy and the Environment

Figure 8. Dollar effect on residential housing sales prices of International nonprofits within a mile, Marion County, Indiana, 1999



Source: Center for Urban Policy and the Environment

sales price (a gain of \$4,075). The presence of more than two public benefit nonprofits has no additional effects. The cumulative effect of two or more nonprofits, consequently, is a loss of \$437 (see Figure 6).

- *Religious* nonprofits have no significant effect on housing price until four or more are located within a one-mile radius. The effect at that point when applied to the average housing price in the sample is \$4,802 (see Figure 7).
- One *international* nonprofit located within one mile has a negative effect on home values (a loss of \$2,183). However, the presence of two or more within a mile has a relatively large positive effect on housing values (about 16 percent or \$14,843). Both of these effects are significant. The cumulative effect of two or more international nonprofits is \$12,661, after netting out the loss from the first nonprofit (see Figure 8).

In the analysis, some marginal effects were not statistically significant. Lack of significance could be interpreted as a reflection of a random relationship between the two variables in the population. This suggests that the effects should not be considered in the sample results. On the other hand, the effects could be interpreted as valid for the given dataset and included



in the overall evaluation of the model. We present our results in both ways in the full report ([http://www.urbancenter.iupui.edu/PubResources/pdf/211\\_Location.pdf](http://www.urbancenter.iupui.edu/PubResources/pdf/211_Location.pdf)) and consider the calculations including only significant effects, as a more conservative estimate of the impact of nonprofits on house sales price.

The results of the aggregated effects of nonprofits on the housing market in Marion County are shown in Tables 3 and 4. Table 3 shows that the total effect of the configuration of the nonprofits in the county on the houses sold (from our sample data) is an increase in sales price of \$42,969,665 when all coefficients are included, and \$41,422,241 when only statistically significant coefficients are included. Table 4 shows that when the effect of nearby nonprofits is applied to all owner-occupied units, there is an aggregate net increase of \$836,848,529 when all coefficients are included, and \$803,752,531 when only statistically significant coefficients are included.<sup>5</sup>

In all cases, the presence of education nonprofits in the county results in the greatest aggregate positive effect, followed by health nonprofits and then religious nonprofits. In most of the calculations, arts and culture nonprofits are next in order, but in some, public benefit and international nonprofits also have large effects. It should also be noted that there are many more religious organizations in the community than those listed in the IRS data because religious organizations are not required to register as

nonprofits with the IRS. Our analysis, therefore, has likely underestimated the impact of all of the religious organizations in the community. The presence of human services nonprofits results in the greatest negative effect, followed by environment and animal and public benefit nonprofits.

### The effect on housing prices is one measure of the benefits of nonprofits

In this analysis the researchers set out to examine the general idea that nonprofit activity can provide benefits to local communities as well as entail costs. The degree to which the proximity of nonprofits results in the increases or decreases in the sales prices of nearby houses would be one factor in the overall equation to calculate the costs and benefits of the nonprofit sector. Other factors are (1) the value of nonprofit goods, services, and employment, and (2) the cost to local governments of foregone property taxes.

The results demonstrate that the proximity of nonprofits influences house sales price over and above structural, public goods, and neighborhood variables. We find that the contribution of nonprofit proximity to the prices of houses sold is significant. In the Indianapolis/Marion County area, it amounted to over \$40 million between 1998 and 2000. If the effect were applied to all houses in this area, the contribution would have been over \$800 million.

**Table 3: Impact of nonprofits on houses sold, Marion County, Indiana, 1998-2000**

Type of NPO	Number of Houses Sold within a Mile of Nonprofit Type (Sample)	Impacts of Nonprofits on Houses Sold (all coefficients)	Impacts of Nonprofits on Houses Sold (significant coefficients)
Arts and Culture	5,549	\$ 13,578,363	\$ 4,757,310
Education	8,610	33,055,037	46,093,164
Environment/Animal	3,239	(12,744,445)	(12,744,445)
Health	5,375	21,081,371	27,300,350
Human Services	8,963	(41,847,905)	(35,618,188)
Mutual Benefit	7,307	(4,233,128)	-----
Public Benefit	8,866	13,872,199	(7,283,210)
Religion	8,250	16,157,149	14,866,234
International	1,770	4,051,025	4,051,025
Grand Total		42,969,665	41,422,241

Source: Center for Urban Policy and the Environment

**Table 4: Impact of nonprofits on houses sold, Marion County, Indiana, 1998-2000**

Type of NPO	Number of Total Houses within a Mile of Nonprofit Type (Sample)	Impacts of Nonprofits on Total Houses (all coefficients)	Impacts of Nonprofits on Total Houses (significant coefficients)
Arts and Culture	23,763	\$ 246,290,400	\$ 53,978,840
Education	36,083	803,256,550	1,089,281,100
Environment/Animal	14,672	(330,194,650)	(330,194,650)
Health	24,866	491,847,480	625,350,180
Human Services	37,599	(1,021,546,000)	(871,514,620)
Mutual Benefit	32,472	(115,011,952)	-----
Public Benefit	37,179	213,433,430	(272,737,600)
Religion	35,591	463,477,980	424,293,990
International	8,767	85,295,291	85,295,291
Grand Total		836,848,529	803,752,531

Source: Center for Urban Policy and the Environment



Some types of nonprofits, however, may have negative consequences on house sales prices. It must be remembered, however, that this analysis did not consider the value of the goods, services, and employment that these nonprofits provided, benefits that may well be larger than any detrimental effects of reduced house sales prices.

The nonprofit sector, overall, has a positive impact on house sales price—an expression of the value that they add to communities. Communities, in this way, are paid back for the public investment that is made in the nonprofit sector via its tax exemption. Further analysis should consider additional factors that may influence the relations we have uncovered, such as narrower categories of service areas, or why the number of nonprofits may change the direction of effects. Policymakers and community leaders should be aware of this contribution when assessing the value of nonprofit organizations in their communities.

## ENDNOTES

- <sup>1</sup> Bielefeld, W., Payton, S., Ottensmann, J., McLaughlin, W., & Man, J. (2006). *The location of nonprofit organizations influences residential housing prices: A study in Marion County, Indiana*. Indianapolis, IN: Center for Urban Policy and the Environment, School of Public and Environmental Affairs, Indiana University—Purdue University Indianapolis. ([http://www.urbancenter.iupui.edu/PubResources/pdf/211\\_Location.pdf](http://www.urbancenter.iupui.edu/PubResources/pdf/211_Location.pdf))
- <sup>2</sup> For example, see *Public choices and property values: Evidence from greenways in Indianapolis* (03-C19). (2003). Center for Urban Policy and the Environment, School of Public and Environmental Affairs, Indiana University—Purdue University Indianapolis.
- <sup>3</sup> Refer to the Appendix in the complete report for the maximum likelihood regression results of spatial lag model for all variables.
- <sup>4</sup> See [http://www.urbancenter.iupui.edu/PubResources/pdf/211\\_Location.pdf](http://www.urbancenter.iupui.edu/PubResources/pdf/211_Location.pdf) for a complete explanation of the model and coefficients.
- <sup>5</sup> Again, see [http://www.urbancenter.iupui.edu/PubResources/pdf/211\\_Location.pdf](http://www.urbancenter.iupui.edu/PubResources/pdf/211_Location.pdf) for an explanation of the calculations for the impacts.

## A Brief Word on Methodology

Using GIS technology, researchers tallied the number and type of nonprofits within a one-mile radius of each house sold between 1998 and 2000 in the study area (Indianapolis/Marion County, Indiana). By smoothing the data, the effect of neighboring block groups is included and taken into account. That is, the procedure allows for boundary effects. Researchers then built a hedonic price model to calculate the effect on housing sale prices.

The researchers employed a maximum likelihood model, multiple regression, to operationalize the model, with house sales price as the dependent variable and several measures of housing characteristics as the independent variables.

The housing characteristic data used for the analysis were collected from 1999 sales entered into the Multiple Listing Service (MLS) database of the Metropolitan Indianapolis Board of Realtors (MIBOR). MIBOR is a professional association representing central Indiana realtors. MIBOR maintains a MLS for a 12-county service area. The researchers used only the Marion County portion of that database. These proprietary data were acquired by the Center through a cooperative agreement with MIBOR. MIBOR estimates that its MLS database contains 80 percent of all housing sales in their service area.

Complete discussion of the methodology and data used in this analysis can be seen in the full report ([http://www.urbancenter.iupui.edu/PubResources/pdf/211\\_Location.pdf](http://www.urbancenter.iupui.edu/PubResources/pdf/211_Location.pdf)).



Table 2. **Variables in the analysis**

VARIABLE	MEAN	DESCRIPTION (SOURCE)
<b>Structural Variables (MIBOR, 1999)</b>		
Square Feet	16.45	Square feet in structure (in 100s)
Number of bathrooms	2.04	Number of bathrooms in house
No air conditioning	.15	Value = 1 if no air conditioning, 0 if air conditioning
Age	36.21	House age in years
Number of garage bays	1.63	Number of car bays in garage
Basement	.41	Value = 1 if basement, 0 if no basement
Number of rooms	7.09	Number of rooms in house
Brick facing	.60	Value = 1 if brick facing, 0 if no brick facing
Front porch	.55	Value = 1 if porch, 0 if no porch
Number of stories	1.44	Number of stories in house
Lot less than one-half acre	.85	Value = 1 if lot less than one-half acre, 0 otherwise
Lot more than 1 acre	.03	Value = 1 if lot greater than 1 acre, 0 otherwise
<b>Public Goods and Neighborhood Variables</b>		
Effective tax rate	1.13	Semi-annual taxes divided by sales price (MIBOR, 1999)
Median neighborhood household income	50,980	Median household income in census block group (U.S. Census, 2000)
Center Township location	.13	Value = 1 if in Center Township, 0 if not in Center Township (Center, 1999)
Percentage African Americans in neighborhood	20.62	Percentage African American in census block group (U.S. Census, 2000)
Accessibility to employment	99,080	Employment accessibility index: sum of ZIP code employment weighted by the negative exponential of distance to the ZIP code (Center, 1999)
Household vacancy rate	7.51	Percentage of vacant households in census block group (U.S. Census, 2000)
ISTEP scores	57.26	Mean Indiana standardized school test scores in school district. Indicator of neighborhood school quality (Indiana Dept. of Education, 1999)
SAT scores	988.79	Mean Scholastic Aptitude Test score in school district. Indicator of school quality and neighborhood socioeconomic class (Indiana Dept. of Education, 1999)
Meridian-Broad Ripple Area	0.02	Value = 1 if in designated Meridian-Broad Ripple Area, 0 otherwise (Center, 1999)
WESCO	0.004	Value = 1 if in designated WESCO area, 0 otherwise (Center, 1999)
<b>Nonprofit Variables (NCCS, 1998–1999)</b>		
<b>ARTS &amp; CULTURE</b>		
ART1	0.59	Value = 1 if 1 or more Arts and Culture nonprofit facility within a 1-mile radius of a house; 0 otherwise
ART2	0.30	Value = 1 if 2 or more Arts and Culture nonprofit facilities within a 1-mile radius of a house; 0 otherwise
ART3	0.17	Value = 1 if 3 or more Arts and Culture nonprofit facilities within a 1-mile radius of a house; 0 otherwise
<b>EDUCATION</b>		
EDUC1	0.92	Value = 1 if 1 or more Education nonprofit facility within a 1-mile radius; 0 otherwise
EDUC2	0.81	Value = 1 if 2 or more Education nonprofit facilities within a 1-mile radius; 0 otherwise
EDUC3	0.65	Value = 1 if 3 or more Education nonprofit facilities within a 1-mile radius; 0 otherwise
EDUC4_6	0.46	Value = 1 if 4 or more Education nonprofit facilities within a 1-mile radius; 0 otherwise
EDUC7	0.17	Value = 1 if 7 or more Education nonprofit facilities within a 1-mile radius; 0 otherwise
<b>ENVIRONMENT &amp; ANIMAL</b>		
ENVIR1	0.35	Value = 1 if 1 or more Environment and Animal nonprofit facility within a 1-mile radius; 0 otherwise
ENVIR2	0.056	Value = 1 if 2 or more Environment and Animal nonprofit facilities within a 1-mile radius; 0 otherwise
<b>HEALTH</b>		
HLTH1	0.58	Value = 1 if 1 or more Health nonprofit facility within a 1-mile radius; 0 otherwise
HLTH2	0.37	Value = 1 if 2 or more Health nonprofit facilities within a 1-mile radius; 0 otherwise
HLTH3	0.19	Value = 1 if 3 or more Health nonprofit facilities within a 1-mile radius; 0 otherwise
<b>HUMAN SERVICES</b>		
HUMSERV1	0.96	Value = 1 if 1 or more Human Service nonprofit facility within a 1-mile radius; 0 otherwise
HUMSERV2	0.88	Value = 1 if 2 or more Human Service nonprofit facilities within a 1-mile radius; 0 otherwise

Table 2. **Variables in the analysis** (Continued from previous page)

VARIABLE	MEAN	DESCRIPTION (SOURCE)
<b>HUMAN SERVICES (Continued)</b>		
HUMSERV3	0.74	Value = 1 if 3 or more Human Service nonprofit facilities within a 1-mile radius; 0 otherwise
HUMSERV4	0.60	Value = 1 if 4 or more Human Service nonprofit facility within a 1-mile radius; 0 otherwise
HUMSERV5_9	0.47	Value = 1 if 5 or more Human Service nonprofit facilities within a 1-mile radius; 0 otherwise
HUMSERV10	0.16	Value = 1 if 10 or more Human Service nonprofit facilities within a 1-mile radius; 0 otherwise
<b>MUTUAL BENEFIT</b>		
MUTLBEN1	0.78	Value = 1 if 1 or more Mutual Benefit nonprofit facility within a 1-mile radius; 0 otherwise
MUTLBEN2	0.58	Value = 1 if 2 or more Mutual Benefit nonprofit facilities within a 1-mile radius; 0 otherwise
MUTLBEN3	0.38	Value = 1 if 3 or more Mutual Benefit nonprofit facilities within a 1-mile radius; 0 otherwise
MUTLBEN4	0.23	Value = 1 if 4 or more Mutual Benefit nonprofit facilities within a 1-mile radius; 0 otherwise
<b>PUBLIC BENEFIT</b>		
PUBBEN1	0.95	Value = 1 if 1 or more Public Benefit nonprofit facility within a 1-mile radius; 0 otherwise
PUBBEN2	0.88	Value = 1 if 2 or more Public Benefit nonprofit facilities within a 1-mile radius; 0 otherwise
PUBBEN3	0.79	Value = 1 if 3 or more Public Benefit nonprofit facilities within a 1-mile radius; 0 otherwise
PUBBEN4	0.68	Value = 1 if 4 or more Public Benefit nonprofit facility within a 1-mile radius; 0 otherwise
PUBBEN5_9	0.58	Value = 1 if 5 or more Public Benefit nonprofit facilities within a 1-mile radius; 0 otherwise
PUBBEN10	0.23	Value = 1 if 10 or more Public Benefit nonprofit facilities within a 1-mile radius; 0 otherwise
<b>RELIGION</b>		
RELIG1	0.88	Value = 1 if 1 or more Religion nonprofit facility within a 1-mile radius; 0 otherwise
RELIG2	0.72	Value = 1 if 2 or more Religion nonprofit facilities within a 1-mile radius; 0 otherwise
RELIG3	0.52	Value = 1 if 3 or more Religion nonprofit facilities within a 1-mile radius; 0 otherwise
RELIG4	0.36	Value = 1 if 4 or more Religion nonprofit facilities within a 1-mile radius; 0 otherwise
RELIG5	0.25	Value = 1 if 5 or more Religion nonprofit facilities within a 1-mile radius; 0 otherwise
<b>INTERNATIONAL</b>		
INTNTL1	0.19	Value = 1 if 1 or more International nonprofit facility within a 1-mile radius; 0 otherwise
INTNTL2	0.04	Value = 1 if 2 or more International nonprofit facilities within a 1-mile radius; 0 otherwise



## Indiana's Future: Identifying Choices and Supporting Action to Improve Communities

This project, funded by an award of general support from Lilly Endowment, Inc., builds on the Center's research to increase understanding of Indiana. The Center's goal is to understand the people, economics, problems, and opportunities in Indiana, and to help decision-makers understand the impact of policy decisions. The Center also works to mobilize energy to accomplish these goals.

In cooperation with the Metropolitan Indianapolis Board of Realtors (MIBOR), researchers at the Center are investigating how prices of housing, including affordable housing, vary by location and over time in the Indianapolis area. This is one of a series of reports on these analyses.

The Center for Urban Policy and the Environment is part of the School of Public and Environmental Affairs at Indiana University–Purdue University Indianapolis. An electronic copy of this document and other information about community issues can be accessed via the Center Web site ([www.urbancenter.iupui.edu](http://www.urbancenter.iupui.edu)). For more information, visit the Center Web site or contact the Center at 317-261-3000.



*State of Indiana*

**Authors:** **Wolfgang Bielefeld**, faculty fellow, **Seth Payton**, senior policy analyst, **Tami Barreto**, special projects, **John Ottensmann**, director of urban policy and planning, **Wendy McLaughlin**, program analyst, National Cancer Center, and **Joyce Man**, faculty fellow, Center for Urban Policy and the Environment.



CENTER FOR URBAN POLICY  
AND THE ENVIRONMENT

ADDRESS SERVICE REQUESTED

334 North Senate Avenue, Suite 300  
Indianapolis, IN 46204-1708  
[www.urbancenter.iupui.edu](http://www.urbancenter.iupui.edu)

# IUPUI

INDIANA UNIVERSITY SCHOOL OF PUBLIC AND ENVIRONMENTAL AFFAIRS  
INDIANA UNIVERSITY–PURDUE UNIVERSITY INDIANAPOLIS