**Nonprofits in Context:**
**Assessing the Regional-level Correlates of Nonprofit Capacity Resources**

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## Introduction

Nonprofit organizations have complex relationships with the communities in which they are located. Their founders and supporters are motivated by deep-seated concerns, and ideas about how to address them are articulated in mission statements that derive, at least in part, from how these individuals experience community conditions. The communities in which nonprofits operate also influence them because nonprofits depend on the community for staff, volunteers, board members and a variety of other resources, including funding, to carry out their activities. Yet at the same time, nonprofits impact their communities through the programs they carry out in pursuit of their missions.

Important characteristics of nonprofits, such as their revenues and technological, financial, and human resource structures, will inevitably reflect more or less imperfectly the idiosyncrasies of the communities in which they are located, although such contextual variables are often omitted from systematic analyses of nonprofit organizations. In this paper, we present preliminary analysis of some of the contextual factors that impact nonprofit organizations. We do so by exploring how both demographic and institutional factors come to bear on the internal characteristics of nonprofit organizations.

## Capacity and Capacity Resources

There is no shortage of studies on nonprofit organizational capacity. Scholars have sought to define capacity, identify its dimensions, understand how it is created, and theorize how outcomes are related to varying levels of it. Eisinger (2002), in his study of food assistance programs, defines capacity as "a set of attributes that help or enable an organization to fulfill its missions" (p. 115). Sowan, Selden, and Sandfort (2004), in their effort to develop a conceptual framework for understanding organizational effectiveness and outcomes, identify *structures* and *processes* as key elements—or types of attributes, to remain consistent with Eisinger's broader definition—of organizational capacity. Capacity, they write, "refers to how the organization or program operates, the structures in place, and the operating processes that dictate direct employee action" (p. 715). Structures may refer to concrete resources, such as computers or financial reserves, while processes may refer to resources such as volunteer training programs or regular audits and evaluations. Other scholars go further in identifying the dimensions of capacity. Glickman and Servon (1998), for example, specify five types of capacities: resource (e.g. access to funds), organizational (e.g. competent staff), programmatic (e.g. ability to deliver a particular program), networking (e.g. relationships with other organizations), and political (e.g. community support) (see also Nye and Glickman 2000).[1]

Here we are not interested in favoring one particular definition or arguing for a new conceptualization of what constitutes capacity. Consistent with all of these definitions, we regard capacity, broadly, as the ability of organizations to achieve their missions. More important to this study, we will refer to *capacity resources* as those concrete organizational structures or institu-

[1] See also, Elliot (2002), who in her study of AmeriCorps*VISTA, used this framework, with some modifications: organizational, financial, networking, advocacy, and programmatic (p. 11). Further specifying dimensions of organizational capacity, Fredericksen and London (2000), suggest considering leadership and vision, management and planning, fiscal planning and practice, and operational support (p. 233). For other examples, see DeVita and Fleming (2001) and Venture Philanthropy Partners (2001).

tionalized processes that increase organizational capacity. While the precise relationship between the presence of capacity resources and organizational effectiveness is something scholars are still trying to work out, we take as starting premise that possessing key organizational components, or capacity resources, is important, if not fundamental, to achieving desired outcomes.

**Defining Community Context**

Whereas many previous studies consider capacity resources as independent variables for predicting organizational outcomes, here we study them as outcome variables in their own right – as dependent on other factors. We pay special attention to the community contexts in which nonprofits operate by first assessing whether regional-level factors affect the capacity resources of nonprofit organizations. We test the hypothesis that the capacity resources held by nonprofits are not only a function of characteristics internal to the organization, but that these capacities also reflect the unique social and institutional contexts in which nonprofits operate.

We recognize that there are many options for defining community context in terms of geography: neighborhood, city, county, metro-area, region, state, and so on. Indeed, the salient geographic region may vary from one type of nonprofit to the next – thus universities have much larger catchments than day care centers. For purposes of this analysis, our initial hypothesis, and the one upon which this paper is based, is that the metropolitan-area-level is a good place to start. While focusing on neighborhood or city-level factors is appealing and provides a dataset rich in variation, it does not account for the fact that cities themselves are embedded in regional contexts. Metropolitan areas, by contrast, are defined and re-defined over time according to ever-changing demographic and economic patterns. The idea behind metropolitan-area definitions is to identify core areas throughout the U.S. that contain "a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that

core" (U.S. Census Bureau 2006). Metropolitan area definitions therefore provide an attractive classification system we can turn to in order to study the social contexts in which nonprofits are embedded. Anything smaller might artificially carve up regional homogeneity, while anything larger would seem to overlook geographical nuances.

**Data**

Answering the type of research question that we are asking is particularly challenging because of the data that are needed to address it. Ideally, the data would need to be detailed enough at the organization-level to develop measures of nonprofit capacity, but the organizations sampled would need to be spread out across many distinct communities in order to test community-level effects. Unfortunately, the two available databases that include nonprofits spread across regions either contain no information on capacity (i.e. in listings of incorporated nonprofits) or only contain financial indicators (i.e. in IRS listings of tax-exempt entities). Thus no collection of data that we were aware of meets the basic requirements necessary to answer our research question, so we were left to piece one together ourselves.

A nation-wide study was beyond the scope of our analysis, so we selected the state of Indiana as a case to study. The primary advantage of doing so is that Indiana is one of the few states to have been subjected to a statewide survey of nonprofit organizations, with over-sampling in proportionally less populated regions throughout the state (see Grønbjerg 2002; Grønbjerg and Paarlberg 2001). This provides data with the attractive quality of being sufficiently detailed at the organization-level but also representative of many different communities.[2] An-

[2] The Indiana Nonprofit Survey is a cross-sectional survey of all types of Indiana nonprofits (described in more detail in Grønbjerg 2002). The sampling frame was a comprehensive database of Indiana nonprofits that was compiled from multiple source listings. A sample of 9,205 nonprofits, stratified by listing source and location in twelve communities, was drawn from the database and a total of 2,206 nonprofits responded to the mail survey, producing a response rate of just below 30 percent, once defunct and inappropriate organizations were removed from the original sample.

other appealing feature of Indiana is that it is a fairly average state in many respects, suggesting that findings based on this research may be suggestive of patterns taking place in other states. While we cannot claim that it is representative of other states, there is little about it that would make it an obvious outlier.

According to 1999 definitions, there are 13 metropolitan areas in Indiana (see Appendix 1). The largest, in terms of population size as well as geography, covers the Indianapolis Area and its suburbs. The 12 remaining metropolitan areas encompass the other major cities and economic hubs in the state: Fort Wayne, Evansville, South Bend, Gary, Bloomington, Muncie, and so on. We have grouped together Indiana's non-metropolitan counties into the category labeled "Non-metro Areas." We do not mean to imply that these many counties are homogeneous across all key dimensions, but they do have in common their rural nature.

Our data on community contextual factors come from a variety of sources. We use the 2000 Census of Population for data on total population, mobility, average household income, and percent of the population with at least a college degree. We use information from GuideStar (www.guidestar.org) for data on total grants and allocations distributed by local United Way and Community Foundations, cross-checked against relevant listings from the Indiana Association of United Ways and the Indiana Grantmakers Alliance. We obtained data on voting turnout from the Indiana Secretary of State's office. Finally, we obtained information on the location and enrollment in institutions of higher education from The Carnegie Foundation for the Advancement of Teaching.

**Methods: Testing Regional-Level Influence**

We use these data in two ways: first, to determine whether there is any statistical evidence that community-level factors help explain differences in nonprofit capacity; second, to investigate which community-level factors are consistent with observed differences in nonprofit capacity. We base our dependent variable—capacity resources—on a battery of questions included in the survey that asked respondents to indicate whether or not their organization possesses any of 16 components. Some of these questions focus on information technology resources (e.g. computers, Internet access, a website), some ask about the presence of human and management structures (e.g. written governance policies, a volunteer recruitment program), and others solicit information about financial management capacity (e.g. computerized financial records, reserves dedicated to capital improvement) (see Appendix 2 for the exact question wording). For the regression analysis below, we combined these binary variables to create an overall index score ranging from 0 to 1. In the descriptive analysis that follows, and for ease in interpretation and presentation, we replace this index with a summed score.

Before investigating how various *community-level* factors might have some bearing on organizational capacity, it is first appropriate to ask, simply, whether other *organization-level* factors sufficiently explain the variation in the dependent variable. If so, further analysis would seem unwarranted. It would be entirely possible for nonprofits in these 14 regions to have roughly similar capacity resources on average. The specific capacity resources they possessed would certainly vary from organization to organization, but these differences might not vary systematically based on whether, say, nonprofits were located in Indianapolis in comparison to Evansville. We use a random-intercept model to test whether there is some variation in the dependent varia-

ble that cannot be accounted for by organization-level variables but is explained by some unobserved regional-level factors.

Formally, the random-intercept model is

$$y_{ij} = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \gamma_1 r_{1i} + \gamma_2 r_{2i} + \delta_1 d_{1i} ... + \delta_{10} d_{10i} + \mu_j + \varepsilon_{ij}$$

where $x_1$ and $x_2$ are full-time equivalent staff members and organizational age (see below); $r_m$ are dummy variables for revenue sources; $d_n$ are 10 dummy variables for types of nonprofit organizations; $\mu_j$ are the random effects of regions that follow a normal probability distribution with a mean of zero and a variance of $\varphi$; and $\varepsilon_{ij}$ are normally distributed errors, $\varepsilon_{ij} \sim N(0, \sigma^2)$. $\beta_1$ and $\beta_2$ are parameter estimates of the independent variables, while $\gamma_m$ and $\delta_n$ measure fixed effects of revenue sources and nonprofit types. $\beta_1$, $\beta_2$, and fixed effects do not vary across communities.

The true intercept of community *j*, when other dummy variables are ignored, is $\mu_j + \beta_0$ that is not, however, observable due to the random component $\mu_j$ (see Bryk and Raudenbush 1992; Rabe-Hesketh and Skrondal 2005). The random intercept $\mu_j$, unobservable heterogeneity, measures how far community *j*'s mean is deviated from the overall mean $\beta_0$. If these deviations are large, ordinary least squares (OLS) becomes inefficient and inferences are not reliable.[3] This random effect is tested using the likelihood ratio test that evaluates the difference between the log likelihoods of OLS and the random effects model. The null hypothesis is OLS without ran-

[3] Unlike the fixed effect model, the random-intercept model has two variance components: $\varphi$ and $\sigma^2$. If $\varphi$ takes the large proportion of the total variance, the random-intercept model will achieve large efficiency gain.

dom effects, $\mu_j = 0$ for all $j$.[4] If the difference is small, the random effect model does not improve the likelihood substantially; therefore, OLS is preferred.

For the dependent variable, we constructed an index of capacity resources. First, we created 16 dichotomous variables, one for each of the organizational components mentioned in the survey. Respondents reporting that they possessed the particular resource were assigned a 1; all others were given a 0. The index is simply the average of these 16 binary variables for each responding nonprofit, ranging from 0 to 1.

For independent variables, we use the square root of full-time equivalents (FTEs) as a proxy for the organization's size (the actual data on revenues contains too many missing values), and the natural log of the age of the organization. These two variables would seem to be the most obvious candidates for accounting, at the organization-level, for variation in capacity resources. We also include a binary variable that indicates whether the nonprofit received any of its revenues from government sources. We do so under the assumption that government contracts tend to impose significant management demands on recipient organizations and therefore also provide incentives or requirements for particular types of organizational components. Nonprofits interested in pursuing revenues from commercial sources may also have an incentive to acquire capacity resources in order to compete effectively with other nonprofit and for-profit organizations, so we include another binary variable to indicate the receipt of revenues from commercial activity. Other controls we include are: whether the nonprofit is registered as a public charity (a binary variable) since charities are subject to broader scrutiny than other nonprofits, and dummy variables for the field of activity in which the nonprofit operates (i.e. the arts, education, health, mutu-

[4] Model estimation and the likelihood ratio test are performed using the SAS MIXED procedure of SAS/STAT with the maximum likelihood method employed. The likelihood ratio follows the chi-squared distribution with one degree of freedom.

al benefit, public benefit, environment, and religion, with human services as the reference category). See Table 1 for descriptive statistics.

**Table 1: Descriptive Statistics for Random-Intercept Model**

| Variable | Label | Obs | Mean | Std Err. | Min | Max |
|---|---|---|---|---|---|---|
| Capacity | Capacity score | 2054 | 0.476 | 0.011 | 0 | 1 |
| Size | Square root of total FTEs | 2028 | 1.681 | 0.186 | 0 | 57.17 |
| Age | Natural log of organization's age | 2019 | 3.406 | 0.044 | 0 | 5.38 |
| Gov. Funding | 1 if NPO receives any government funding; else 0 | 1983 | 0.190 | 0.017 | 0 | 1 |
| Commercial $ | 1 if NPO relies on any commercial revenues; else 0 | 1983 | 0.191 | 0.016 | 0 | 1 |
| Charity | 1 if public charity; else 0 | 2186 | 0.321 | 0.016 | 0 | 1 |
| Art, culture | 1 if arts NPO; else 0 | 2186 | 0.046 | 0.007 | 0 | 1 |
| Education | 1 if education NPO; else 0 | 2186 | 0.077 | 0.011 | 0 | 1 |
| Environment | 1 if religion NPO; else 0 | 2186 | 0.032 | 0.007 | 0 | 1 |
| Health | 1 if environment NPO; else 0 | 2186 | 0.043 | 0.007 | 0 | 1 |
| Human Services | 1 if human services NPO; else 0 | 2186 | 0.293 | 0.017 | 0 | 1 |
| Public Benefit | 1 if health NPO; else 0 | 2186 | 0.186 | 0.016 | 0 | 1 |
| Religion | 1 if mutual benefit NPO; else 0 | 2186 | 0.243 | 0.015 | 0 | 1 |
| Mutual Benefit | 1 if public benefit NPO; else 0 | 2186 | 0.080 | 0.012 | 0 | 1 |

It is important to emphasize that we are not trying to make a strong causal argument with this model and we recognize, in any case, that cross-sectional data are notoriously ambiguous on questions of cause and effect. It is sufficient for our purposes here to simply try to account for the organization-level factors that would help explain variation in capacity resources.

**Findings: Regional-Level Influence**

Table 2 shows the results of the random-intercept model. We will reserve interpretation and comment on the independent variables until later and focus our attention on the likelihood ratio test for the first model (columns 1 and 2 in Table 2). The test compares a random-intercept model with OLS to see if there is substantial difference in log likelihoods of the models. The large likelihood ratio (LR) rejects the null hypothesis in favor of the random effects model, indi-

cating to us that there is a statistically significant unobserved heterogeneity at the regional level.[5] There appear to be some variation in capacity resources that organizational level factor cannot account for sufficiently. (We obtain similar results when we limit the analysis to indicators of information technology [see columns 3 and 4 of Table 2]). In short, the positive result from the LR test provides a formal way of showing that community does matter in explaining nonprofit capacity. Unfortunately, the models do not provide clues about *which* community-level factors might be most important. So it is to this question that we turn for the second part of the analysis.

**Table 2 Random-Intercept Models for Capacity of Nonprofit Organizations**

| | Overall Capacity | | Information Technology | |
|---|---|---|---|---|
| | Estimates (1) | SE (2) | Estimates (3) | SE (4) |
| Intercept | .1806 | .0306*** | .2341 | .0396*** |
| Size | .0194 | .0015*** | .0214 | .0021*** |
| Age | .0450 | .0056*** | .0305 | .0077*** |
| Gov. Funding | .1963 | .0165*** | .2182 | .0228*** |
| Commercial $ | .0435 | .0148** | .0084 | .0204 |
| Charity | .0394 | .0125** | .0705 | .0172*** |
| Art, culture | -.0620 | .0277* | .0279 | .0382 |
| Education | -.0091 | .0245 | .0914 | .0337** |
| Health | -.0055 | .0296 | .0759 | .0407+ |
| Public Benefit | .0445 | .0168** | .1158 | .0231*** |
| Mutual Benefit | -.0407 | .0252 | -.0195 | .0347 |
| Environment | .0616 | .0332+ | .1221 | .0456** |
| Religion | .1381 | .0164*** | .1929 | .0225*** |
| Intercept Cov. | .0063 | .0030* | .0091 | .0045* |
| Residual Cov. | 1.0559 | .0362*** | 1.9972 | .0686*** |
| Log likelihood | -637.9 | | -1175.75 | |
| LR Test | 73.98*** | N=1,717 | 90.49*** | N=1,710 |

+ <.10, * p < .05, ** p < .01, *** p < .001

**Findings: Comparative Analysis of Metropolitan and Non-metropolitan Areas**

The approach we use to sort which regional-level factors correspond to variation in the average level of capacity resources at the organization-level is necessarily more qualitative in nature than the analysis presented so far. To be sure, we have collected spreadsheets full of quan-

[5] This random intercept model is more efficient than OLS. OLS assumes that errors have a constant variance $\sigma^2$. Presence of random effects indicates variances of disturbances vary across communities. Under this circumstance, OLS estimates are not efficient.

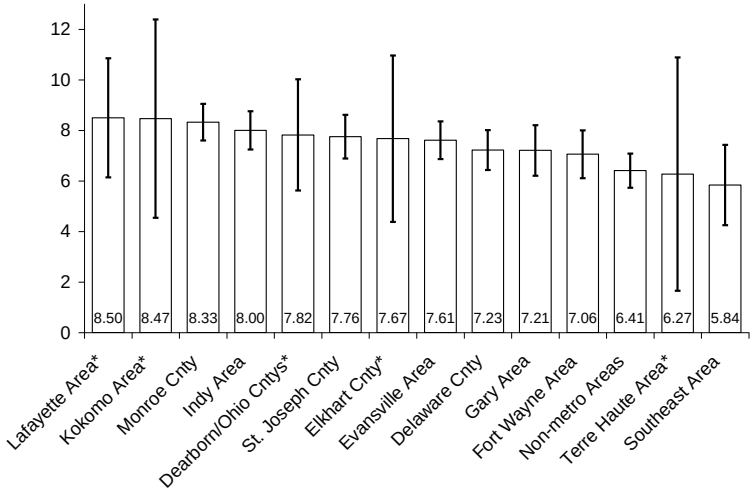
titative data, but our method of analysis relies more on a comparative approach than any hard-and-fast statistical formula. The reason has to do with the nature of our data, which are not ideally suited for more conventional means of researching similar types of questions. A common approach to investigating the effects of regional- or community-level factors on organizational- or individual-level dependent variables is hierarchical modeling. This approach allows the researcher to consider two levels of independent variables—one at the individual-level (level 1) and one at the community-level (level 2). For example, this approach is often used in education research, where analysts are interested in both individual predictors of, say, success in the classroom, as well as effects of classroom- or school-level characteristics. In theory, the method is an appropriate way to study our research question at hand. The structure of our data, however, does not allow it: there are too few (i.e. only 14) regional-level observations to provide reliable parameter estimates and standard errors. An alternative would be to use the county—instead of the metropolitan area—as our level 2 variable. This is also not feasible, however, because for a large majority of the counties we have too small a number of organization-level observations to reliably fit a model. Besides, as we mentioned above, we are concerned that conducting the analysis at the county level would cause us to overlook broader regional patterns. A final option that we considered was to aggregate all of the organization-level data to the county level. This would mean computing the averages on key variables for all the nonprofits in a particular county and merging these data with county-level demographic and institutional data. But the problem with this approach is, again, that in a large number of counties we only have a handful of observations, making the aggregated organization-level data (especially in counties with very few nonprofits included in the sample and responding to the survey) suspect and dangerously responsive

to outliers. We are left, then, to sort through this puzzle without the convenience of a statistical shortcut.

*Average Capacity Resources*

The first task is to scrutinize how capacity resources vary, on average, from region to region. To do this, we computed the average number of capacity resources possessed by the nonprofits residing in the respective metropolitan areas (see Figure 1; also see Appendix 3 for details on the factors that constitute this score). The whiskers on the bar graph bracket the estimated confidence intervals. For five of the metropolitan regions—Elkhart County, Kokomo Area, Lafayette Area, Terre Haute Area, and Dearborn & Ohio Counties—the confidence intervals are quite large, likely due to the relatively small number of observations in these areas (recall that the overall sample was stratified by community; in fact, it included expanded samples from all but one – Southeast Area – of the other regions in the figure). Because their confidence intervals are so large and the number of observations so small (fewer than 23 in each area), we are hesitant to make these regions central to our analysis. For that reason, although we include them in our figures (signified by an asterisk), we do not include them in our discussion.

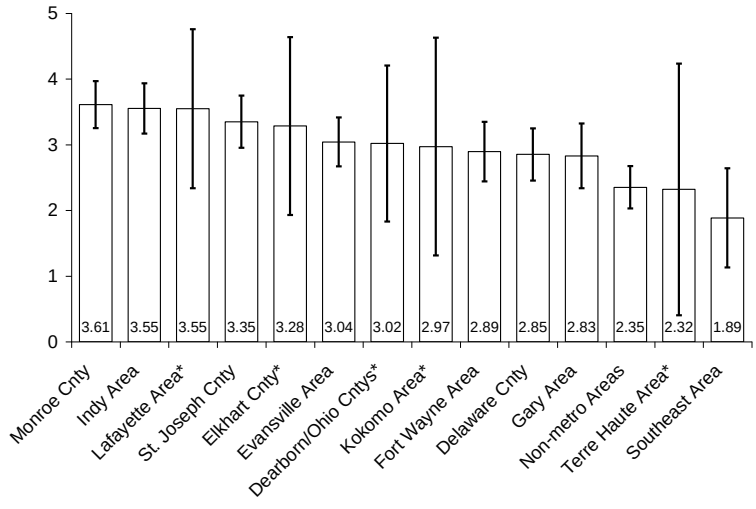
**Figure 1: Average Capacity Resources by Region**



It is evident from Figure 2 that there is some, although not much, variation in capacity resources across the different regions. Of particular note is the relatively high number of capacity resources in Monroe County and the Indianapolis Area, and the especially low number of capacity resources in the Southeast Area as well as the Non-metropolitan Areas.

Further investigation reveals that looking at the summed score of all the capacity resources (seen in Figure 1) masks regional variation in the different *types* of resources. When we look just at technology resources, for example, we find a different pattern (see Figure 2). The variation in the average level of technological resources across regions is much more obvious, both visually and statistically. Focusing for now on the two extreme ends of the distribution, nonprofits in Monroe County and the Indianapolis Area show the highest scores (averages of respectively 3.61 and 3.55) while nonprofits in Non-metropolitan Areas and the Southeast Metropolitan Area of the state show the lowest scores, with averages of 1.89 and 2.35 respectively.

**Figure 2: Average Technology Resources by Region**




When we examine other sub-components of the total capacity score, those related to management or financial capacity resources, then we find very little regional variation (see Figures 3 and 4), suggesting that the regional differences in nonprofits are driven primarily by tech-

nology (or a lack thereof). (However, we again find that nonprofits in rural Indiana counties and the Southeast Area stand out as comparatively lacking in management resources; there is virtually no variation in financial capacity resources.) Because technology is apparently at the heart of regional variation, at least when it comes to average capacity resources, we focus the rest of our efforts on trying to explain why it is that nonprofits in, say, the Indianapolis Area or Monroe County have relatively high levels of information and communication technology, while nonprofits in Non-metropolitan Area and Southeast Indiana have significantly lower levels.

**Figure 3: Average Management Resources by Region**

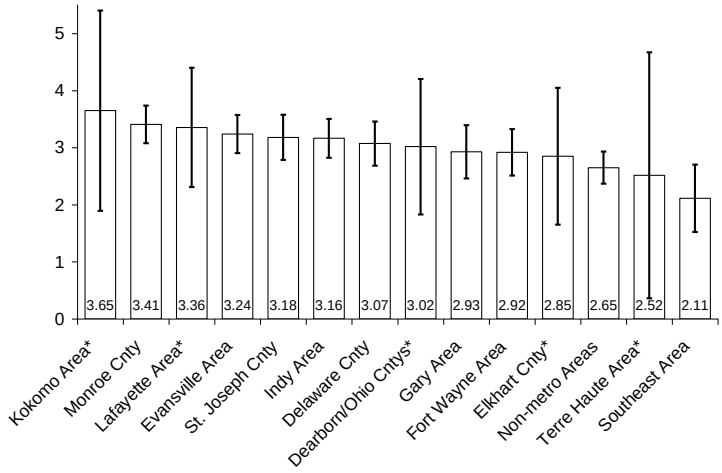
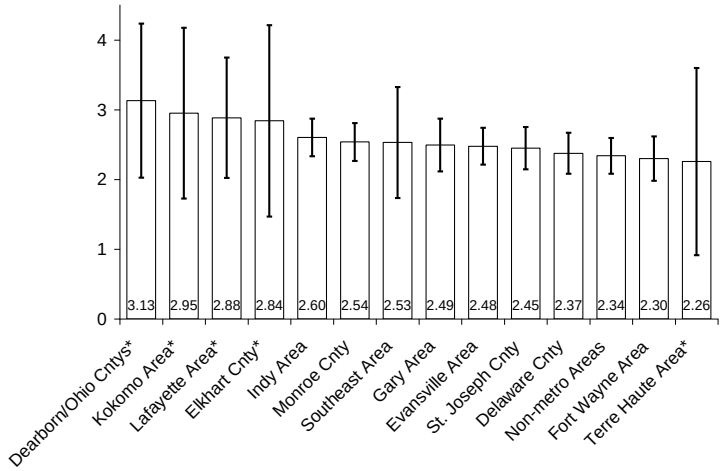



**Figure 4: Average Financial Resources by Region**



*Explaining Regional Variation*

Monroe County and Indianapolis Area nonprofits have, on average, more than 3.5 technology resources, with tight confidence intervals, suggesting only a moderate amount of variation within these areas. Rural nonprofits and those in the Southeast Area, by comparison, have an average of roughly 2 with, at least in the latter area, a much larger confidence interval. These differences are not trivial. Having only two technology resources would suggest that, for example, organizations might have a computer and computerized records, but no Internet, e-mail address, or website. Or it might mean having access to computers and the Internet, but not computerized records, an e-mail address for the organization, or a website for the organization.

What explains this variation? The random coefficients model suggests that the answer to this is not to be found solely at the organization-level. Some unobserved factor at the regional-level explains, at least in part, variation in the dependent variable.

As noted above, we collected data on a number of regional-level characteristics that theory and intuition suggested would be important. Here we present what we considered the most likely candidates. The first of these have to do with what we have loosely referred to as institutional resources, such as community foundation and United Way grants and allocations, and the presence of institutions of higher education.

Community Foundations. Philanthropic foundations, and especially community foundations, are obvious supporters of nonprofit organizations. The Urban Institute's National Center for Charitable Statistics defines community foundations as "[o]rganizations whose grant funds are derived from many donors rather than from a single source and held in an endowment that is independently administered. Income from the endowment is used to make grants for charitable purposes, usually in a specific community or region" (National Center for Charitable Statistics

2003:130). Because of their local focus, community foundations also generally seek to support and strengthen local nonprofit sectors, especially charities (Grønbjerg, 2006). We therefore expected that, in areas where community foundations are most active, nonprofits would have higher average levels of capacity resources.

Community foundations are particularly relevant for Indiana nonprofits. During the 1990s, the Lilly Endowment started the Giving Indiana Funds for Tomorrow (GIFT) initiative, which made funds and technical assistance available for community foundations in each of Indiana's 92 counties. At least in partial response to this effort, aggregate community foundation assets in Indiana increased from $100 million in 1990 to $1 billion in 2001 (Lilly Endowment 2001; Grønbjerg 2006). Although it is true that other types of grant-making foundations may benefit nonprofits throughout the state, we focus here on community foundations because of their obligation to a specified geographical area.

United Way. Like community foundations, United Way organizations usually have a specified geographical focus. Importantly, United Way organizations seek to provide ongoing support for nonprofits involved in the community and often combine this with technical assistance and community building efforts. We expected, therefore, that nonprofits in areas with active and large United Way organizations would benefit from their regional proximity to these community institutions. United Way financial support and community leadership, it would seem, should enable nonprofits to grow in capacity.

To our surprise, the data support neither of these hypotheses. Figure 5 shows the average value of grants and allocations made in 1999 and 2000 by community foundations, adjusted for

the total number of nonprofits in the area.[6] Figure 6 shows the same for United Way organizations.

**Figure 5: Community Foundation Grants & Allocations, Adjusted for Number of NPOs (in $1,000s)**

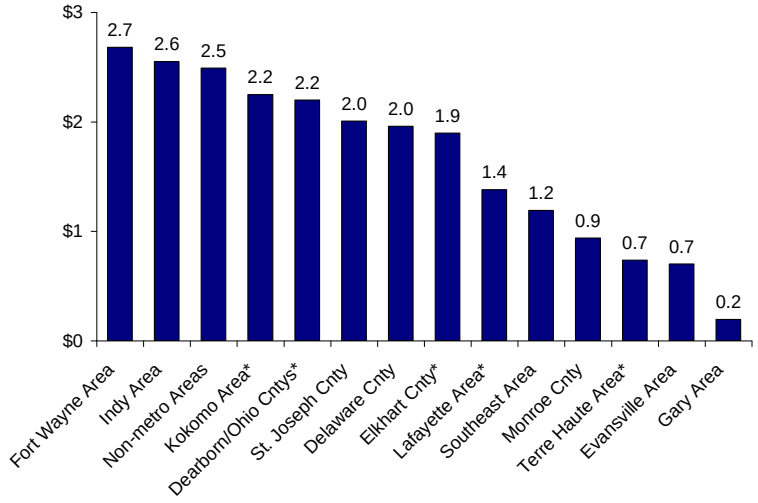
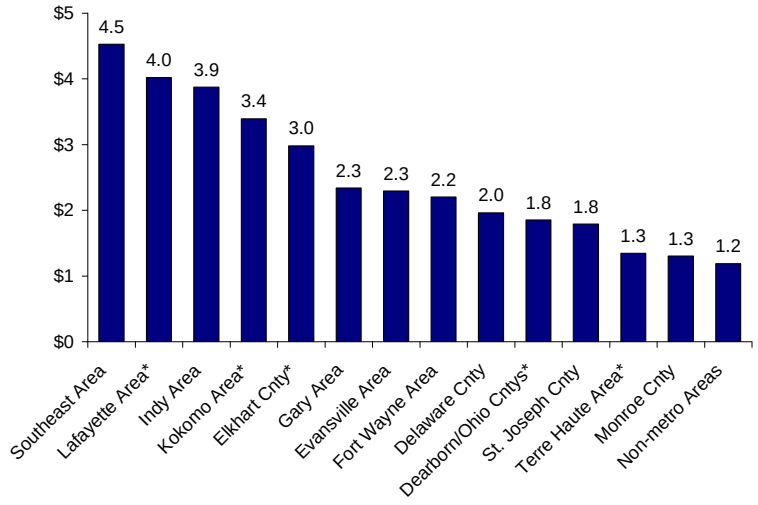



**Figure 6: United Way Grants & Allocations, Adjusted for Number of NPOs (in $1,000s)**




How do these figures stack up against our dependent variable? To simplify, we concentrate on the most obvious patterns apparent in the distribution of the dependent variable, capacity

[6] We adjust for the number of nonprofits in order to make the level of grants and allocations comparable across regions, on the argument that active United Way and Community Foundation organizations benefit the entire nonprofit community, not just the much smaller number of public charities that they fund directly. Data on the number of nonprofits in Indiana came from Gronbjerg and Paarlberg (2001). They retrieved the data from the IRS (Business Master File) and the National Center for Charitable Statistics. Data are from 1999.

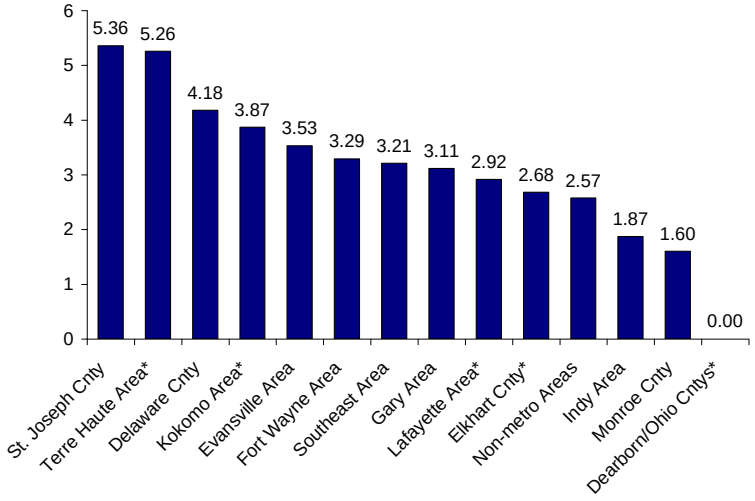
resources, across regions. In Tables 2 and 3 we saw that, barring our low-*N* regions, Monroe County and Indianapolis Area nonprofits scored high on capacity resources. In contrast, the Southeast Area and Non-metropolitan Area nonprofits scored strikingly low. If Monroe County and Indianapolis Area nonprofits' relatively high capacity resource scores were a function of community foundation or United Way grants and allocations, then we would expect that these areas would also have the highest average disbursements. This is clearly not the case. While the grants and allocations in the Indianapolis Area provides some support for the hypothesis, Monroe County's comparatively low level of institutional support by way of community foundations and United Ways suggests that these factors do not account for regional level variation in average capacity resources, at least not by themselves. Moreover, the level of community foundation giving is quite high in Non-metropolitan Indiana and the level of United Way giving is highest in the Southeast Area, both of which are at the bottom of the capacity and technology resources scores.

Institutions of Higher Education. We also thought that resources in the form of nearby colleges and universities would explain some of the regional-level variation in capacity resources. Colleges and universities often institutionalize support to nonprofit organizations—above and beyond that provided by the individual members of a community. For example, college and university administrations generally seek to maintain good relationships with the communities in which they are located by encouraging faculty and academic units to use their expertise to address community needs. In particular, nonprofits may benefit from university faculty with expertise in management, accounting, law, public affairs, information technology, and other relevant fields. It is not uncommon for university courses to incorporate a service-learning requirement whereby students are expected to devote a specified amount of time volunteering for

nonprofits. Nonprofit organizations are also often desirable locations for internships and class projects. We expected that all of these positive externalities of being located near universities and colleges would combine to support nonprofit organizations and would be manifest through increasing their organizational capacity.

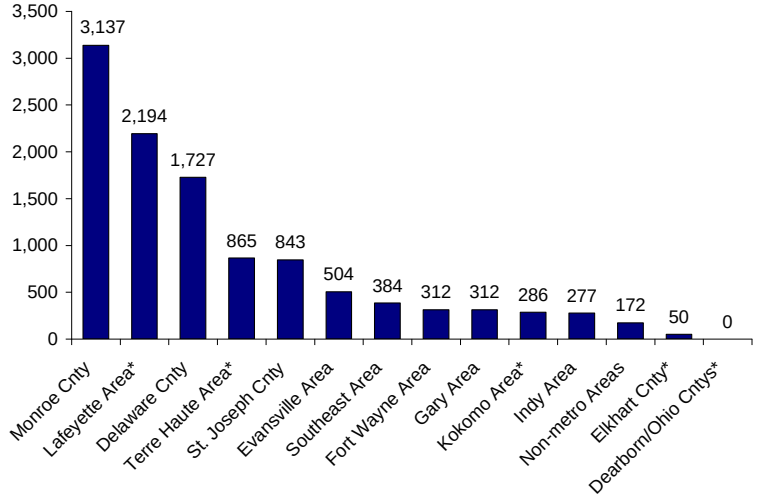
As with the community foundation grants and United Way support, the number of nearby colleges and universities does not appear to match up with patterns we observe in the dependent variable (see Figure 7). If the number of nearby colleges and universities was a good predictor of capacity, we would expect that St. Joseph County and Delaware Area nonprofits—both with more than five colleges or universities per 1,000 nonprofits, would show especially high levels of capacity. They do not. More telling is that Indianapolis Area and Monroe County nonprofits, both of which exceeded nonprofits in other regions in terms of capacity resources, are at the bottom of the distribution when it comes to the number of regional colleges or universities, adjusted for the number of nonprofit organizations. Data on the number of colleges and universities in the metropolitan area, therefore, also fails to provide persuasive evidence for this hypothesis.

**Figure 7: Number of Colleges or Universities (per 1,000 NPOs)**



It is possible that the simple presence of a college or university in a community is the wrong measure. After all, institutions of higher education vary widely in terms of their size and, presumably, influence. Perhaps areas with disproportionately large schools will be more likely to benefit from them because the institution is a more significant presence in the community: any positive externalities of being located in an area with a relatively large school would be magnified. We put this hypothesis to the test but, like the previous measure, it fails to match the pattern evident in the dependent variable. In Figure 8 we present the total number of students enrolled in Bachelors, Masters, or Doctorate degree granting institutions across the various communities. Monroe County is at the top of the distribution with the Indianapolis Area at the bottom (next to Non-metropolitan Areas). The Southeast Area is in the middle.

**Figure 8: Number of students enrolled in a BA, MA, or Ph.D. granting institution (per 10,000 individuals)**



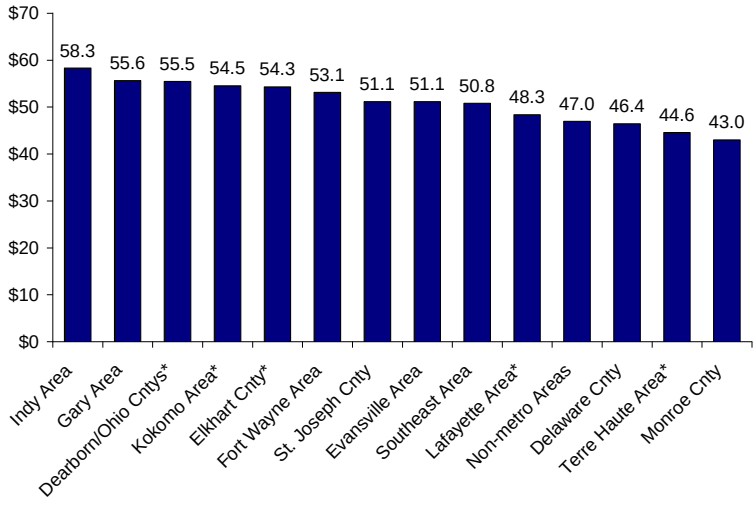

Besides institutional factors operating at the regional-level, we also examined demographic indicators. A wealth of research documents how individual-level characteristics, such as personal religiosity or household income, relates to personal philanthropic activity. Similar research also explores how these factors relate to the structure and density of local nonprofit sectors. Underlying all of this research is the premise that nonprofits' capacity is, at least partially, a

function of the demographic and economic characteristics of the communities in which they are embedded. This argument rests on the assumption that active and capable populations impart skills and resources to the nonprofits in their communities.

Household Income. Most analyses find that personal or household income is significantly associated with outcomes related to the nonprofit sector. Corbin (1999) found that the number of nonprofits per MSA positively relates to the per capita income of the same area. Booth, Higgins, and Cornelius (1989) found a similar general pattern. Income is a supply-side characteristic and its relationship with the size of the voluntary sector highlights nonprofits' resource dependence: nonprofits depend (at least partially) for support on the communities in which they are located. We expected, therefore, that areas that have a relatively high mean income would be home to individuals who would be able to provide, for example, monetary resources (e.g. donations and gifts) that would, in turn, improve nonprofits' capacity resources (e.g. information technology, financial reserves, evaluations, audits, etc.).

Figure 9 shows the mean household earnings for households with earnings in 2000. Although Indianapolis Area nonprofits are embedded in a regional context where households have relatively high incomes in comparison to the rest of the state, and they may indeed have benefited from this, we cannot conclude that household earnings are sufficient to explain high (or low) levels of capacity resources across all of the 14 regions. Monroe County, for example, falls at the bottom of the state in terms of average household income but still shows comparatively high levels of capacity. (Monroe County is also the region with the highest individual poverty rate.)

**Figure 8: Average Household Earnings (in $1000s)**




Residential Mobility. Scholars have been increasingly interested in social capital over the past few years. Social networks of trust are thought to greatly benefit communities in numerous ways. One important community condition that facilitates the development of social capital is residential stability. Robert Putnam writes

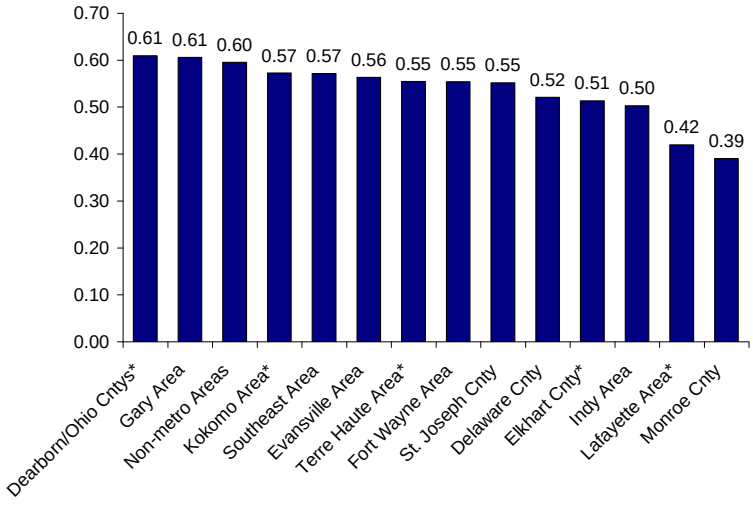
> …for people as for plants, frequent repotting disrupts root systems. It takes time for a mobile individual to put down new roots. As a result, residential stability is strongly associated with civic engagement. Recent arrivals in any community are less likely to vote, less likely to belong to have supportive networks of friends and neighbors, less likely to belong to civic organizations… (2000, p. 204).

Working from his conclusions, we hypothesized that areas with high residential stability would be home to communities with high degrees of social capital. Citizens would feel connected to their community and would be active in supporting community-based organizations, such as public charities, churches, and other nonprofits. Extending the Putnam hypothesis, residential stability would be related, if only indirectly, to nonprofit capacity.

If this is the case in some communities, it certainly is not true in any systematic way. The areas with very low degrees of residential mobility—the Indianapolis Area and Monroe County—are also the areas the have the highest average levels of capacity resources. Figure 9 shows

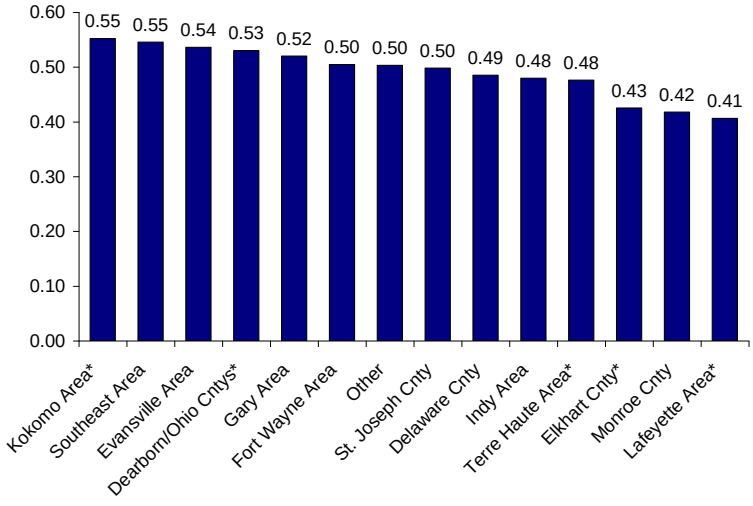
the proportion of the population in 2000 who had lived in the same county in 1995. Like our other community-level predictors of nonprofit capacity, residential stability fails to match up to the distribution of capacity resources across the state.

**Figure 9: Proportion of the population (in 2000) who lived in same county (in 1995)**




Civic Engagement. A more direct measure of civic engagement is voting behavior. For the reasons suggested above—that civically engaged citizens are presumably more likely to support nonprofit organizations in tangible ways—we suspected that voting behavior, as a crude measure of civic engagement, might help explain nonprofit capacity. Figure 10 shows the proportion of people who voted in the 2000 presidential election in each area. The Southeast Area had the highest level of voter turnout (but among the lowest levels of capacity resources) while Monroe County (which exhibits high levels of capacity resources) had close to the lowest levels of voter turnout, more than 10 points lower than the Southeast Area. See Figure 10.

**Figure 10: Proportion of the population who voted in the 2000 presidential elections**




Education. There is also much research on the positive effect of education on volunteering and giving (see Wilson 2000 for a review). Higher levels of education presumably lead to sensitivity about social problems and increased empathy (pp. 219-220). Educated people are more likely to be asked to volunteer and to be volunteers (Becker and Dhingra 2001). Education is also positively related to civic engagement. At the county level, Gronbjerg and Paarlberg (2001) found that higher levels of education is related to higher densities of nonprofits generally and charitable nonprofits in particular. Importantly, educated individuals are able to provide to nonprofits much needed talents and skills (e.g. consulting, accounting, legal, management, etc.). Bringing all of this research to bear on the internal structures of nonprofit organizations, we expected that nonprofits located in or near highly educated areas would have access to the type of human capital that would make it easier for them to secure and maintain management tools and resources: nonprofits in educated areas would be more likely to have access to educated and willing volunteers, staff, and board members and to benefit from their talents and skills.

Figure 11 shows the proportion of the metropolitan area populations that have at least a bachelor's degree. Here we finally find a pattern that closely matches the distribution of the de-

pendent variable. Monroe County, Indianapolis Area, and St. Joseph County nonprofits (and, incidentally, Lafayette, one of the small-*N* regions) are all at the top of the chart in terms of the proportion of the population with a college degree. Nonprofits in these same metropolitan areas are also those that reported the highest levels of capacity resources. Southeast Area and Non-metropolitan Area nonprofits, on the other hand, have the lowest proportion of the population with bachelor's degrees and, correspondingly, nonprofits in these areas have the lowest levels of overall and technology capacity resources. This, unlike the other regional-level factors provides persuasive evidence for a relationship between the level of education in an area and the capacity resources that nonprofits possess.

**Figure 11: Proportion of the Population with at Least a Bachelor's Degree**

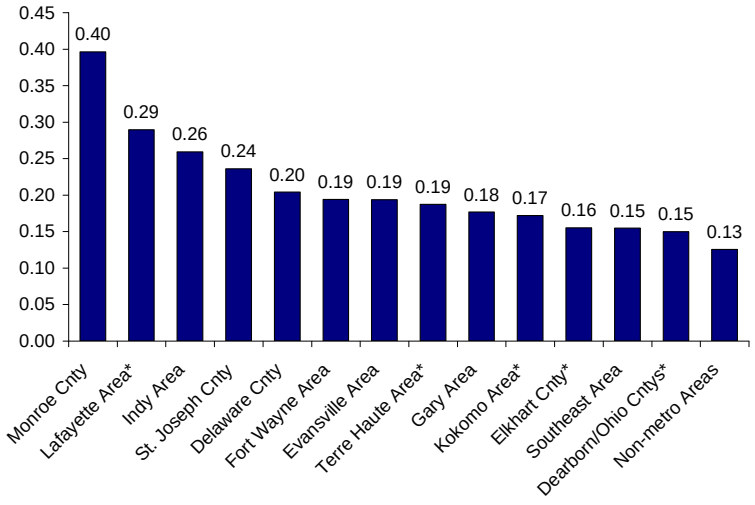
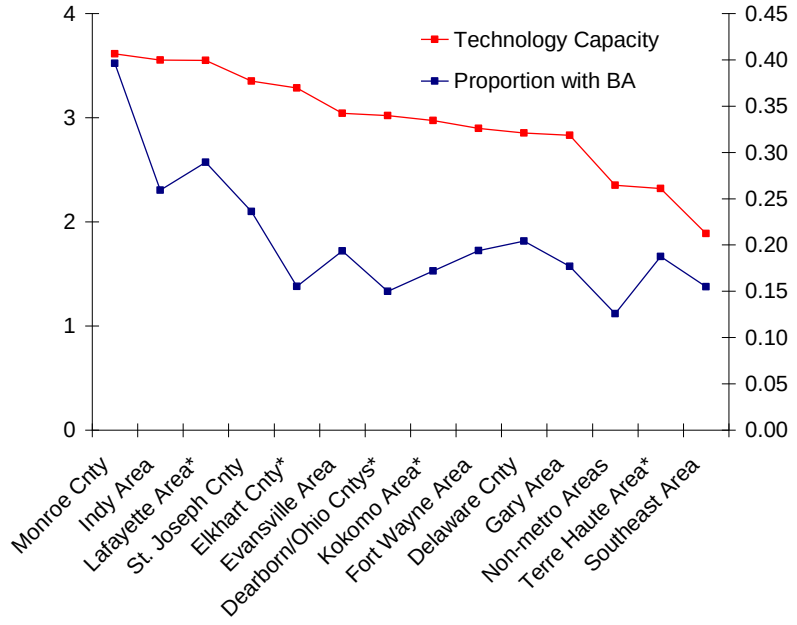


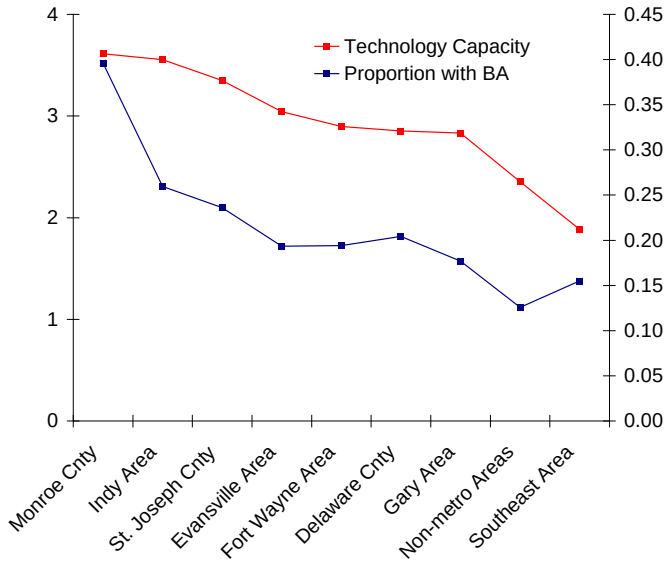

Figure 12 presents this relationship in another way. It shows that when the proportion of the population with a BA degree is relatively high, so is the level of capacity resources. The correlation is not perfect, but the general trend is quite obvious.

**Figure 12: Proportion of the Population with at Least a Bachelor's Degree (Red) and Number of Technology Resources (Blue)**




If we remove our low-*N* areas, the trend is even clearer. See Figure 13 (see also Appendix 4 for more figures).

**Figure 13: Proportion of the Population with at Least a Bachelor's Degree (Red) and Number of Technology Resources (Blue)**



## Conclusion

In this paper, we have sought to determine the community-level factors that help explain nonprofit capacity. The study was made difficult by a number of challenges. The first of these was the scarcity of available data with which to investigate the topic. To overcome this, we cobbled together a dataset that relied, in part, on statewide organization-level survey data and, in part, on demographic and other community-level data. Doing so allowed us to adequately research the question at hand, but in a more descriptive and comparative manner than would have been possible if there existed data more appropriate to sophisticated statistical techniques like Hierarchical Linear Modeling.

The other challenge to studying this topic is that even though the metropolitan areas vary significantly on a number of key dimensions, they often do so only subtly. This was even true for variations in capacity. For these reasons it is especially striking that we were able to identify a community-level explanation that appears to co-vary with the dependent variable.

The analysis presented above identified one regional characteristic that might explain variation in nonprofits' capacity resources. The pattern of educational attainment across the 14 regions studied here parallels the pattern of average capacity resources. No other regional characteristic does so with such consistency. Nonprofits appear to benefit from being located in areas where the population is relatively well-educated.

We do not mean to imply that the other regional factors do not have any effect on nonprofit capacity. We suspect that in some areas they have a great effect. However, the effects of other regional characteristics do not appear to exert a systematic influence across many areas in the same way that education does.

Above, we hypothesized that an educated citizenry relate to nonprofit capacity in any number of ways. Educated people are more likely to be sensitive to social conditions, to exhibit higher levels of civic engagement, to volunteer, and, importantly, to have talents and skills to offer nonprofits. In the context of technology resources, individuals with education—paid and volunteer—will be particularly likely to be able to offer concrete services, such as helping to network office computers or construct a website for the organization. Numerous other positive externalities could also benefit nonprofits more indirectly. More work could be done to tease out the precise way in which high levels of education translates into nonprofit capacity. Furthermore, other regional-level factors might also be usefully collected and analyzed to see whether they provide any more insights into how and why nonprofits in these different communities vary. For example, one might also consider how government structures in the metropolitan areas impacts nonprofits. In more diverse populations, religion might also be an important characteristic to consider, as might other contextual factors, such as patterns of residential mobility, the presence of a professional workforce, or other indicators of community infrastructure.

In the future, we hope to explore whether including five non-metropolitan counties where we have enough cases to warrant analysis, while excluding the four metropolitan regions in which we have very few cases, confirm the patterns noted here. In addition, while we believe that the metropolitan region is the most appropriate geographic unit for assessing the impact of community context on nonprofit capacity, there are some reasons for moving the analysis to the county level. Thus Indiana relies extensively on counties to carry out state government policy and both Indiana United Way organizations and Indiana community foundations generally use counties as the boundaries for their funding efforts. In fact, we may have data on enough non-profits in enough counties to warrant hierarchical linear modeling at the county level.

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Appendix 1

**Appendix 2: Metropolitan Areas**

| Metro-Area | County | | Organization[1] | |
|---|---|---|---|---|
| | *N* | Names | *N* | % |
| Dearborn/Ohio Cntys | 2 | Dearborn, Ohio | 7 | 1 |
| Delaware Cnty | 1 | Delaware | 137 | 2 |
| Elkhart Cnty | 1 | Elkhart | 20 | 2 |
| Evansville Area | 3 | Posey, Vanderburgh, Warrick | 183 | 4 |
| Fort Wayne Area | 6 | De Kalb, Whitley, Allen, Huntington, Wells, Adams | 222 | 10 |
| Gary Area | 2 | Lake, Porter | 153 | 9 |
| Indy Area | 9 | Boone, Hamilton, Madison, Hendricks, Marion, Hancock, Morgan, Johnson, Shelby | 251 | 26 |
| Kokomo Area | 2 | Howard, Tipton | 14 | 1 |
| Lafeyette Area | 2 | Tippecanoe, Clinton | 22 | 3 |
| Monroe Cnty | 1 | Monroe | 134 | 2 |
| Southeast Area | 4 | Scott, Clark, Floyd, Harrison | 83 | 3 |
| St. Joseph Cnty | 1 | St. Joseph | 206 | 4 |
| Terre Haute Area | 3 | Vermillion, Vigo, Clay | 13 | 1 |
| Non-Metro Area | 55 | All other counties | 737 | 30 |

[1] *N* is based on the number of survey responses per county; % is the weighted percentage of non-profits surveyed

**Appendix 2: Survey Questions**

Q27 Does your organization have any of the following organizational components?

| *Organizational components* | *Check yes or no* Yes | No |
|---|---|---|
| A web site for your organization (*please list address:* _____) | ☐ | ☐ |
| An email address for your organization | ☐ | ☐ |
| Computers available for key staff/volunteers | ☐ | ☐ |
| Direct internet access for key staff/volunteers | ☐ | ☐ |
| Computerized financial records | ☐ | ☐ |
| Computerized client/member/program records | ☐ | ☐ |
| Written governance policies or by-laws | ☐ | ☐ |
| Written conflict of interest policy | ☐ | ☐ |
| Written personnel policies | ☐ | ☐ |
| Written job descriptions | ☐ | ☐ |
| Formal volunteer recruitment program | ☐ | ☐ |
| Formal volunteer training program | ☐ | ☐ |
| Reserves dedicated to capital improvement | ☐ | ☐ |
| Reserves dedicated to maintenance/equipment | ☐ | ☐ |
| A recent audited financial statement | ☐ | ☐ |
| An annual report produced within the last year | ☐ | ☐ |
| An evaluation or assessment of program outcomes/impact within the past 2 years | ☐ | ☐ |

**Appendix 3: Components of Capacity Resources Scores**

| | Capacity Dimension | | | |
|---|---|---|---|---|
| Capacity Resource: | All | Tech. | Mgmt. | Fin-ancial |
| A web site for your organization | x | x | | |
| An email address for your organization | x | x | | |
| Computers available for key staff/volunteers | x | x | | |
| Direct internet access for key staff/volunteers | x | x | | |
| Computerized financial records | x | x | | x |
| Computerized client/member/program records | x | x | x | |
| Written governance policies or by-laws | x | | x | |
| Written conflict of interest policy | x | | x | |
| Written personnel policies | x | | x | |
| Written job descriptions | x | | x | |
| Formal volunteer recruitment program | x | | x | |
| Formal volunteer training program | x | | x | |
| Reserves dedicated to capital improvement | x | | | x |
| Reserves dedicated to maintenance/equipment | x | | | x |
| A recent audited financial statement | x | | | x |
| An annual report produced within the last year | x | | | x |
| An evaluation or assessment of program out-comes/impact within the past 2 years | x | | | |

Appendix 4

**Figure 14: Scatter Plot of Technological Capacity and Household Earnings**

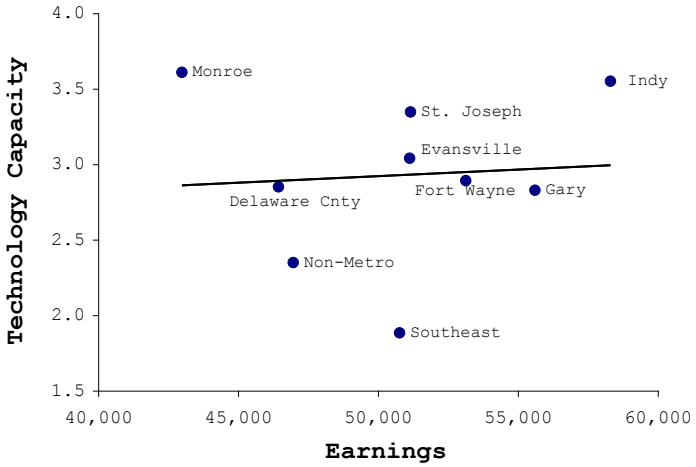


**Figure 15: Scatter Plot of Technological Capacity and Proportion of People with a BA**

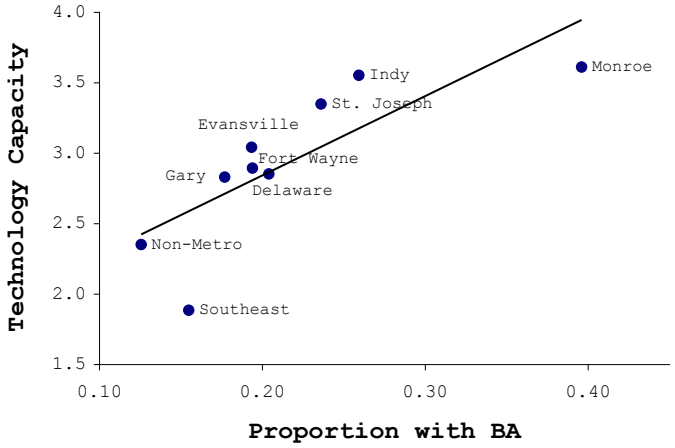


**Figure 16: Scatter Plot of Technological Capacity and Voter Turnout**

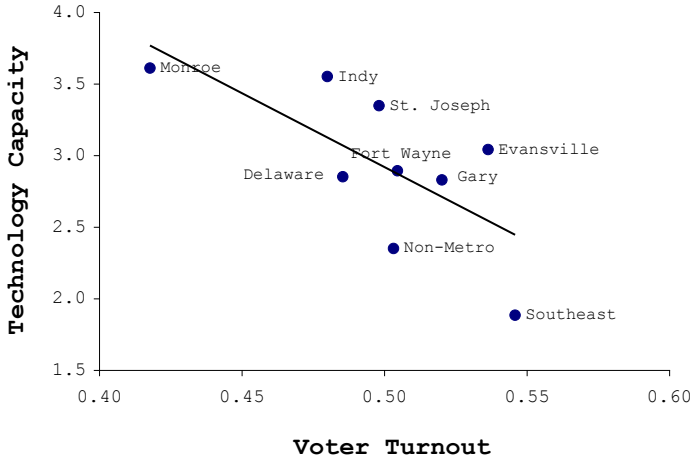

**Figure 17: Scatter Plot of Technological Capacity and United Way Grants**

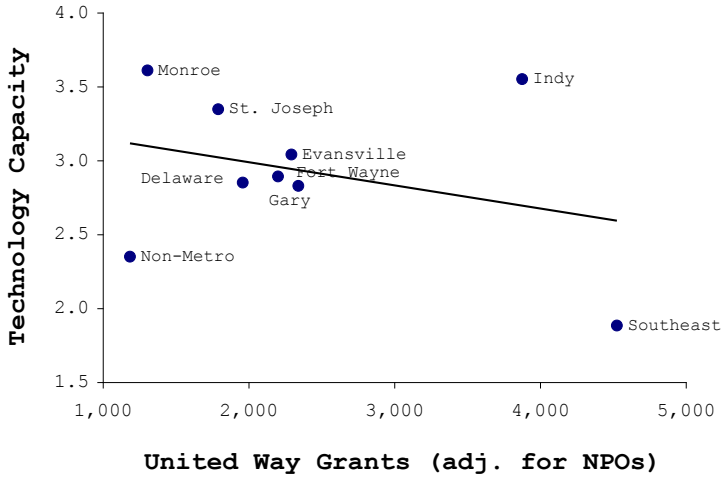


**Figure 18: Scatter Plot of Technological Capacity and Community Foundation Grants**

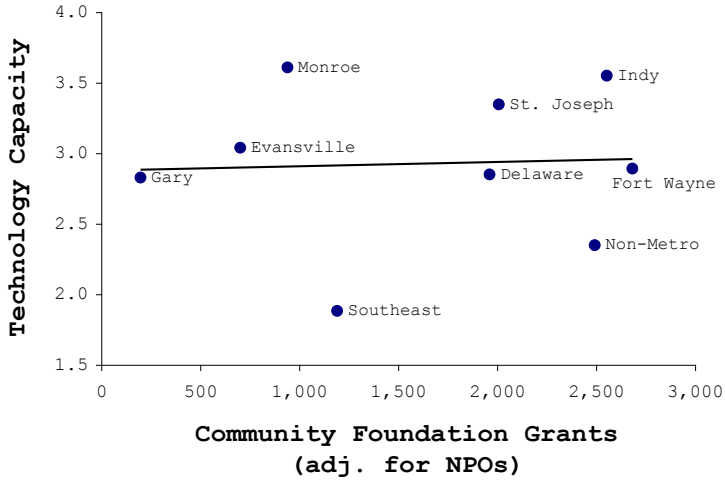


**Figure 19: Scatter Plot of Technological Capacity and College/University Enrollment**

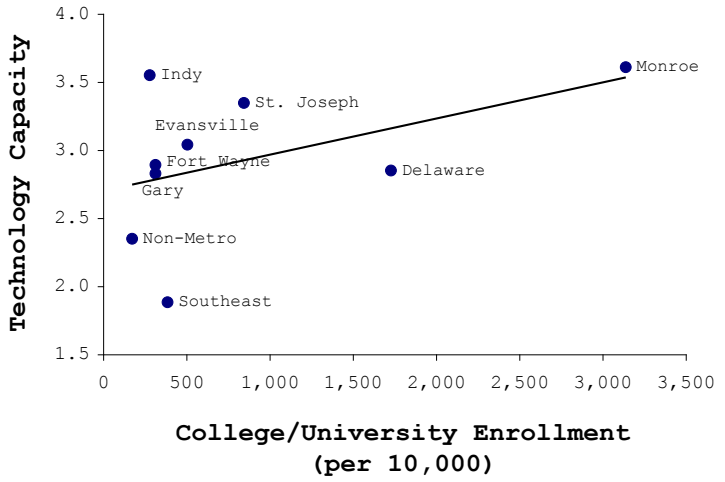

**Figure 20: Scatter Plot of Technological Capacity and Residential Mobility**