Photo Directories: A Tool for Organizing Sociability in Neighborhoods and Organizations

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Abstract

Despite strong evidence of the value of social capital, very little is known about how to design for social capital accumulation. One interesting opportunity is to support what we call organized sociability. Churches have long made use of photo directories to create a sense of community. We examine how photo directories can draw on and produce organized sociability in other settings. The "Who's That?" Project has been creating photo directories for neighborhood blocks and other groups for the last three years. Evidence from three small-scale experiments suggests positive impacts on organized sociability, with clearer evidence of impacts on directory makers than on participants.

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Introduction

A large and growing body of literature points to certain features of social organization as predictors of positive individual and collective outcomes. Some desirable features are structural, including dense networks within groups and sufficient ties between groups (Burt 1995, Granovetter 1973). Other features reflect social dynamics, such as norms of reciprocity, attitudes including social trust and a sense of community, and frequent collective activities. Positive outcomes include better health (Parker et al 2001), lower crime (Sampson et al 1997), better educational outcomes (Putnam 2000, ch. 17), economic development (Knack & Keefer 1997, Putnam 2000, ch. 19, Putnam 1993), and good government (Putnam 1993). Metaphorically, these structures and dynamics have been described as "social capital", resources that inhere in social relations and that can produce value for individuals and groups. Some researchers have adopted a narrower definition of social capital, to refer to one or another feature of social structure or dynamics, but we will use the term more generically and metaphorically to refer to any such feature that is thought to be a productive resource.

While most previous studies have treated social capital measures as independent variables, we also treat them as dependent variables (see Figure 1). As a result of some intervention such as making photo directories, do networks become denser? Do people interact more frequently? Do they trust one another more or feel a greater sense of belonging?

---Figure 1 about here----

One reason to treat social capital measures as dependent variables is that they can provide a cheaper, faster way to evaluate interventions. Previous studies correlating social capital with outcomes such as improved health, reduced crime, and better education suggest that if an intervention improves social capital it will probably lead to these other positive outcomes as well. Some interventions, however, may contribute to several desirable end outcomes, and it may be easier to measure the social capital effects than each of the individual end outcomes. More importantly, social capital effects may appear sooner than end outcomes such as education, economic development or good government. Thus, it becomes possible to evaluate interventions based on short term effects, and refine the interventions, before trying them on a grand scale.[1]

Here, we are concerned with a particular form of social capital that we call *organized sociability.* Sociability refers to the propensity of people to interact with each other even when there is no specific purpose for the interaction beyond the pleasure of the

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[1] A second reason to treat social capital measures as dependent variables is to provide a base for future experimental studies that would document causal links rather than mere correlation between social capital measures and positive individual and collective outcomes. Few previous studies have made causal claims. It is possible in some cases to argue causality from the temporal sequence of observed changes in social capital variables and end outcomes (e.g., Putnam's study of Italy Putnam RD. 1993. *Making Democracy Work : Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press. 258 pp.. But it is rare to find such natural experiments and still rarer to find sufficient data about them to yield strong conclusions. If interventions can be found that reliably cause changes in certain measures of social capital, these interventions can be used to manipulate social capital as an independent variable in experimental or quasi-experimental studies.

interaction itself. A neighborhood block (or other group) with greater *sociability* has members who socialize more and are more willing to socialize with those they do not yet socialize with. Sociability is *organized* when actions have been taken to make social interactions more likely, more pleasurable, or less risky. For example, leaders may welcome newcomers, introduce people, or organize events. Organized sociability is thus a group-level phenomenon. It is strongly influenced by individual level characteristics, including interpersonal trust, social networks, desire to socialize, and leadership, but is not a mere average of these characteristics. We refer to the process of building organized sociability as *organizing for sociability*.

Our goal of organizing for sociability fits into a feminist model of community organizing (Stall & Stoecker 1998). In that model, leaders emerge through enactment of many informal roles. Mobilization is typically for mutual aid or the creation of public goods, and action is taken in an "extended private sphere" beyond the private home but not necessarily in official public space or at public events. This contrasts with more traditional community organizing in the Alinsky style (Alinsky 1971), where leaders are groomed for formal positions and mobilization is for conflict with groups that have competing interests, in a public arena.

Organized sociability can be valuable in its own right as a direct contributor to quality of life in urban settings. It is also a useful base that more formal organizations can build on. Prior research indicates that social ties, one component of organized sociability, are an important precursor of participation in more formal organizations. Residents who socially interact with their neighbors are more likely to be aware of and join neighborhood organizations (Wandersman et al 1981). Neighboring behavior plays an important role in

the initial formation of and maintenance of a block association (Unger & Wandersman 1982). And the social (and physical) environment are more important than demographics or crime for explaining participation levels in such organizations (Perkins et al 1990).

The intervention that we explored in the "Who's That?" project (hereafter WT) is the creation and distribution of printed membership directories, for organizations and neighborhood blocks. The covers have group information (group photo, mission, map, acceptable use policies and/or leaders' contact information). Each page shows one or more members, including name and contact information, a photo with caption, and personal information such as hobbies, interests and skills. Unlike the membership databases that many organizations maintain, directories are distributed to the members, rather than only to leaders, and are in a format that can be easily saved and accessed (they may be kept near a phone or carried in a handbag). Unlike simple membership rosters listing names and contact information, which many neighborhoods and organizations create, our directories include photos and personal information.

We expected to find three main impacts from photo directories. First, the combination of photo, name and personal information in the directory should help members to learn and remember each other's names. A member who encounters another member but then forgets the other's name can refer back to a photo in the directory. In addition, it is easier to remember a name after learning even a little bit of information about someone.

Second, a photo directory should help create social connections, in several ways. A conversation between two unfamiliar members can be started because of a similar interest stated in the directory, or the personal information can be used as an ice breaker to move

a conversation more quickly beyond superficial pleasantries. The listings can lead to resource exchanges: members may list services available or wanted (e.g. babysitting, snow shoveling or yard work). One potential psychological impact on creating new connections is that people who have made themselves vulnerable by revealing personal information may have a stronger allegiance to the group and be more open to communication from other members. Similarly, newcomers who are trusted with personal information about existing members may feel more comfortable communicating with them.

Third, a photo directory can help to establish a group identity. Who is in the directory defines boundaries for the group. Group photos or other shared symbols on the covers can tie the group together. And the very act of making the directory signals that someone think it's an important enough grouping to invest energy in. In the neighborhood setting, the group identification generated by directories can contribute to a sense of membership one of the four elements that make up the theoretical construct of sense of community (McMillan & Chavis 1986). Prior research has shown that sense of community makes an independent contribution to participation rates in community organizations, beyond the effect of neighboring ties (Chavis & Wandersman 1990).

As we discovered in our trials, the process of making a directory is itself an opportunity for creating social connections. One or a few leaders can interview all the members, or members can pair up to interview each other. In either case, the interview creates an excuse for inquiring about and sharing more personal information than would naturally occur. We also found in our trials that taking photographs, especially with a digital

camera that allows for immediate viewing of pictures, can cause animated interactions that break down barriers to personal connections.

Wellman has argued that although social connections occur in neighborhoods, neighborhoods are not the only locus of such connections (Wellman 1979). Social networks include kin, friends, and workmates who do not live nearby. Thus, a focus on organizing for sociability need not focus exclusively on geographically defined groups. This paper reports on three trials of directory making, for both activity-based and geographically defined groups in Southeast Michigan. The first was a community health organization in Detroit. The second was a sports league in Ann Arbor. The third was nine neighborhood blocks in Flint, Ann Arbor, Ypsilanti, and Southfield.

Trial 1: A Community Organization

The East Side Village Health Worker Partnership (ESVHWP) is a network of local leaders on Detroit's East Side[2]. The Partnership is "a lay health adviser intervention aimed at improving women's and children's health." (Parker et al 2001). Local non-profit organizations such as community development corporations participate at the steering committee level (22 members) and local leaders from churches, citizen-police committees, education and the health field make up the village health workers (69

[2] The Partnership was established in 1995 and is part of the Detroit Community-Academic Urban Research Center funded by the Centers for Disease Control. The University of Michigan School of Public Health and City of Detroit Health Department are two of eleven community partners of the Center.

members). Each village health worker went through a training process. After graduation, they were invited to attend monthly planning meetings and were eligible to propose and participate in local health improvement projects.

The Partnership was interested in creating a photo directory of all members of the Partnership to increase communication among members. Health workers did not know all the steering committee members and the resources they could bring to projects. In addition, health workers from different training cohorts did not always know each other.

The partnership decided to collect photo and contact information, the birth day and month (but not year), hobbies, committees served on, and what skills the member was willing to offer to others. Interviews were conducted and photographs were taken at an annual picnic, or by arrangement with individual members, in the summer and fall of 2000. The director of the Partnership conducted the interviews. Photos were taken by village health workers and by WT staff at the picnic, or by the director during privately scheduled interviews.

For research purposes, members were asked to mark, on a list of all members, which ones they had contact with in the past 12 months. 36 respondents provided initial social network information. Photo directories were distributed to all members in November 2000. A follow-up survey (subjective directory assessment and social network) was distributed in the Spring 2001 as part of a larger Partnership survey, which was completed by 32 members.

60 of 91 members were included in the directory. Data collection for the directory turned out to be a labor intensive process. For those people who did not attend the annual picnic,

the director reported that it usually took two or three phone calls to set up an interview time and even then plans often had to be revised. She felt, however, that the effort was worthwhile, “The photo directory provided me with the opportunity to, an excuse if you will, to go out and really talk, sit down and talk to folks and see how they are doing and they appreciated that and I enjoyed it as well.” In particular, the director had a chance to invite some of the dormant members back into the fold.

The directories were well received. The only complaint came from a member whose photo was misplaced and hence not included. In the follow-up survey, 17 of 32 members surveyed indicated the photo directory was very useful in promoting communication between Partnership members and seven others said it was useful. Unfortunately, five respondents reported that they had not received their directories.

One primary use of the directories was for establishing identities. One member wrote on the survey, “Now I look up a person’s name and number and put a face to the name.” Another wrote, “Very useful! I had a hard time remembering.”

The second use was for contacting members. Having the contact information collected in one place, in a portable format, meant that the information was ready to hand when needed. Perhaps more importantly, the member interest listings made it easier to issue personal invitations. As one member wrote, “Very helpful, informative, details skills of each Village Health Worker.” The director reported that she knew of one member who used the directory to call people interested in diabetes prevention. Before the directory, she would have had to either send out a blanket invitation in the printed newsletter and hope that people would call her, or call everyone, or call only the people she already

knew were interested. The director felt that the net effect of these improved contact mechanisms was not to increase the activity of the natural "leaders" but to increase the participation levels of "behind the scenes" people who play important support roles.

Overall changes in the network structure were somewhat more ambiguous. The average number of members identified by the 36 respondents to the first survey was 15.0, compared to 23.0 for the 32 respondents to the second survey. In an unpaired t-test, this was statistically significant, but in the more appropriate paired t-test, with data from only the 18 respondents to both surveys, the increase was not significant, although the average increase was 5.0. Moreover, inferences about changes in network size are also suspect because the wording of the social network questionnaire inadvertently changed between administrations: instead of "had contact with", they were asked to mark members they had "worked or talked with." It is not clear which wording would induce respondents to mark more other members as part of their social networks.

Trial 2: A Sports League

The second trial of photo directories was with the Ann Arbor Ultimate Frisbee Summer League. The 2001 summer season lasted for twelve weeks starting in late May. 34 teams played in three pools of teams on three separate nights. Unlike many adult recreational sports leagues, this one required registration as an individual rather than as a team. A player could request to be placed on a team with two friends but not more, so most teammates began the season as strangers. In order to play well, and even to insure continued attendance, teams needed to establish social bonds early in the season.

The league provided all players with a roster of their teammates, including names and email addresses. For half the teams, we prepared photo directories in addition to the rosters. We matched teams and randomly selected one from each pair. Matched pairs played on the same night of the week and had approximately the same gender balance (teams were co-ed) and skill level (as self-reported during registration and aggregated by the league into a team score).

During games the first week of the season, WT staff interviewed each of the players on treatment teams and took individual and team photographs. Each player decided whether to be photographed and to provide a one line description about something they do (work or fun) other than Frisbee. We hired high school students to conduct the interviews and produce the directories and they embellished many of the individual descriptions: a beginning guitar player was apt to find an entry reading, “best guitarist east of the Mississsippi”. The front covers of the printed directories showed team photographs and the back covers showed maps of field locations.

We collected data from three sources for this trial. First, the league sent us weekly team performance information such as player attendance, points scored and a spirit score assigned by the other team. If captains did not report a particular week’s information, both the league and WT staff followed up with the team captains to obtain the information. Second, a computer program counted the number of emails sent to each team’s listserv during the season. Finally, the league conducts an end-of-season web survey. In addition to typical questions about the league, we asked players on treatment teams about the photo directory and we asked all players team specific questions. The response rate on the web survey was 34% of all league participants.

We hypothesized that photo directories would impact treatment teams in positive ways, beginning with learning names more quickly. Learning names related to our second hypothesis: increased participation. In previous seasons, teams that did not perform well or were not socially cohesive experienced low attendance late in the season. If team members developed stronger bonds because of the photo directory, we hypothesized that they would experience less decline in attendance and would attend more social events (a local bar sponsored the league and players would head to this bar after the games). Our third hypothesis was that stronger bonds and increased participation would lead to greater satisfaction with the league. Our final hypothesis dealt with email traffic. If the photo directories increased bonds between players, then treatment teams would use their email lists more.

Players on treatment teams used and valued the photo directories somewhat. Out of 79 respondents from treatment teams, 20 used it three or more times to look at pictures or find someone, 39 said they used it once or twice and 20 said they did not use the directories. Almost 75% of the respondents indicated they still had the directory at the end of the season, perhaps reflecting the value of the map of field locations, in addition to the membership roster. The Ultimate Frisbee league wanted to evaluate whether to make directories for future seasons, so the survey asked players how much they thought the league should pay for the directories in future years (they were provided free of charge in the trial). 56% of respondents felt the league should spend $1 per player on the directories while 36% felt the league should not spend any money on the directories and 8% felt the directories were worth spending $5 per player. In general, players felt the directories were useful, but maybe a little more than was needed. One player wrote, “I

think the directory is valuable, but shouldn't be too fancy or expensive." Another wrote, "The directory was very useful, our team bonded very well—I'm not sure what effect the directories had on this, but it helped me." On the other hand, a dissenting voice argued that teams play each week and this regular contact was enough combined with the league provided rosters.

The hypothesized effects on learning names and other impacts were not confirmed. Players on control teams reported learning teammates' names faster than did treatment team players: 44% learned them the first week, compared to 20% for treatment teams. It is possible that the interviews and photos the first week distracted treatment teams from the task of learning names. However, control teams rated the quality of their captains higher and also rated more highly their overall team dynamics, the amount of skill building, and the gender balance during play. Thus, it seems likely that the difference in name learning reflected team captain differences or other differences in team dynamics unrelated to the photo directories.

Teams with photo directories had fewer emails per week (3.08 compared to 3.52) though the difference was not statistically significant. To control for team captain effects, we created a dummy variable to code for whether the average quality of captain score was above or below the median for all teams. Teams with more highly rated captains had two more emails per week, a statistically significant difference ($p < .01$). When controlling for captain quality in a multivariate regression, treatment teams had more emails per week than control teams, but this difference was not statistically significant.

Similar results held for team performance (attendance, points scored, and spirit scores). Differences between treatment and control groups were not significant. But differences between teams with higher and lower rated captains were significant.

Finally, similar results held for individual enthusiasm for the league. Players from teams with highly rated captains were significantly more enthusiastic (by 0.42 on a 5 point scale). The effects of photo directories, controlling for team captain quality, was positive but not statistically significant.

Trial 3: Residential Blocks

The third trial consisted of ten pairs of residential blocks around Southeast Michigan. A block was defined roughly as the dwellings fronting on a single street between two cross streets (Perkins et al 1990), though specific boundaries were set based on input from a captain who resided on the block. Blocks from the same neighborhood, with similar demographic and physical characteristics, were matched, with one receiving the treatment (making a directory) and the other serving as a control.[3]

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[3] We initially intended to make email listservs for each of the treatment blocks as well. In a study of a new suburb of Toronto where an essentially random selection of residents had free high-speed Internet access, Hampton and Wellman found that email was used frequently for intra-neighborhood communication (in addition to external communication) and that those with Internet access had greater local neighborhood participation Hampton K, Wellman B. 2000. Examining Community in the Digital Neighbourhood: Early Results from Canada's Wired Suburb. In *Digital Cities: Technologies, Experiences, and Future Perspectives*, ed. T Ishida, K Isbister, pp. 475-92. Berlin: Springer-Verlag. We found too few email users

The goal was to test the intervention with middle class blocks (family income $35,000 - $70,000 or property value of $120,000-$250,000) of varied racial composition that were neither highly organized nor drowning in despair. For a block to be included, a resident had to agree to serve as captain, meaning the resident would interview and photograph neighbors. Within these constraints, block selection was opportunistic. We used census data to identify middle class areas, then searched the Internet and called library information and referral desks and city planning departments looking for contact information for neighborhood organizations such as block clubs, neighborhood watch groups, citizen police groups and homeowner associations. At meetings, over the phone and in emails, we described the photo directory project and solicited interested volunteers. This was a time consuming process because neighborhood groups tend not to be very visible outside of their area and the group leaders have little time for new single-block projects because they are doing much of the neighborhood-wide organizing work. Once one block with a volunteer captain was identified, we attempted to find another similar block nearby but not adjacent, to avoid spillover effects between treatment and control groups.

In the spring of 2000, prior to directory making, we mailed surveys to residents, along with $5 as inducement to complete and return them. The overall response rate was 30%

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on our treatment blocks to make it worthwhile to set up listservs. However, Internet connectivity has vastly increased since we began Victory NJ, Cooper KB. 2002. *A Nation Online: How Americans Are Expanding Their Use of the Internet,* U.S. Government, Department of Commerce, Washington, DC, and this intervention might now be appropriate on most middle class blocks in the United States.

(199 of 661 possible households), which was disappointing but comparable to rates achieved with telephone contact in another attempt to comprehensively survey individual blocks (Perkins et al 1990). We did not want to conduct in-person interviews, because of the time required and because we did not want to risk confusion between the research interview and the directory-making interview that would occur soon after.

The demographics of survey respondents approximately matched our intentions. Income was more spread out than we anticipated: 37% reported annual family income of less than $35,000 and 16% reported more than $75,000. 59% were Caucasian and 26% African American. 59% of survey respondents were female. 78% owned their homes. 59% had no children living in the household. 12% were 65 or older, 24% were age 50-64, and 17% were under 30. The median length of time living on the block was 6 years.

In the spring of 2001, we sent follow-up surveys. We were much more persistent in sending reminders to households that had not yet returned surveys, using three reminder mailings in all. A total of 244 households returned follow-up surveys, for a response rate of 37%.

The surveys captured demographic information about respondents, acquaintance networks within the block, and several measures of social capital based on both activities and attitudes. To capture the density of acquaintances, residents were provided with a map of the block and asked to mark those houses where they knew someone’s first or last name.

Many questions about attitudes and activities have been used in studies to capture different aspects of social capital. The questions have been grouped into measures that

identify underlying constructs. While sub-communities of social science scholars seem to have reached agreement internally on these groupings and names for the constructs, there is considerable variation between sub-communities. In some cases, the same construct has more than one name and a single name is used to refer to different constructs.

Parker et al (2001) made one useful effort to disentangle some of these theoretical constructs. Their survey included questions reflecting six different constructs. They collected data from 700 respondents. They then performed a principal components analysis, and found that the components matched pretty well with the original constructs: questions coming from the same construct mostly ended up in the same component. This suggests that the different constructs really are measuring distinct variables. The principal components they found are summarized below:

- Sense of community 1: this is a good place to live (and related questions)
- Sense of community 2: have influence; recognize others
- Neighborhood social interaction
- Perceived control of factors that affect the neighborhood
- Neighbors intervening (e.g., if your kids were getting into trouble)
- Neighborhood participation (in collective activities inside and outside neighborhood)
- Mobility (turnover in neighborhood)

Our survey included the questions making up the first six of these seven components. The mobility scale included only two questions, one on how often people move in an out of the neighborhood and one on how many neighbors know the respondent. While the two may be correlated in most situations, the photo directory is likely to affect the latter but not the former, so we did not combine answers to those two questions into a single scale. In addition, we included a trust index made up of four trust and honesty questions, taken from the general social survey and the DDB Needham Lifestyle data source reported in Putnam (2000). Details on questions and scale reliability are in the appendix.

After initial surveys were completed, one block from each pair was randomly selected as the treatment group. The control blocks were given an opportunity to make directories the following year, after the second round of surveys, but only one block captain was still interested at that point. That block was surveyed again in 2002, and for the analyses below it is considered a treatment block, comparing the 2001 and 2002 surveys.

A WT staff person provided a single training session lasting less than an hour in each block captain's home. The session began with showing an example directory entry for the trainer. The trainer then interviewed the block captain to demonstrate what the interview would be like. Using a laptop computer and a portable printer, the trainer then printed out a page with the captain's directory entry.[4] The trainer then explained the functions of the digital camera, and gave the block captain a chance to take some pictures. The trainer left

[4] In some cases, due to technical difficulties, we had to mail the block captain's sample entry a few days later.

a kit with the block captain, including a camera, a list of names and addresses for the block based on public directory information,[5] an interview sheet for each residence on the block, and flyers to distribute advertising the photo directory effort.[6] During the interview process, we contacted block captains occasionally to find out how things were going. An email listserv of block captains was also created to share information on interviewing neighbors, but only two block captains posted messages to that list.

Block captains wrote on the interview sheets by hand. Once a block captain finished interviewing, we collected the cameras and interview sheets, entered the information into a database, matched the photos, printed the photo directories and delivered the directories back to the block captain. The block captain was responsible for delivering the directories to those neighbors who participated in the directory.

Eight of the ten captains from the treatment group completed directories. One apparently became too busy and never was avaialable for a training session. Another initially knew names of people from only two other houses, and found that her neighbors were not receptive to her efforts.[7]

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[5] The public directory (white pages) information was often out of date or inaccurate.

[6] We encouraged the block captains to distribute the flyers, then come back a few days later to conduct interviews.

[7] Other indicators also suggest that this was an unusually closed block. Besides the block captain, who was African American, only two other residents returned our survey. One of them, who was also African American, when asked to describe one good thing about the block, wrote, “I suppose one ‘good’ thing is

On those blocks that completed directories, participation ranged from 15% on the largest block (73 residences) to 72% on a smaller block (25 residences). Some people who indicated in the survey they were not likely to participate in the photo directory did end up participating, presumably because the block captain was a local person they knew or recognized. Some participants preferred to include a photo of only their home and some omitted contact or personal information. Of those who participated, 68% had people pictures, 74% included a phone number, 35% listed an email address and 80% provided at least some personal information such as hobbies or personal interests. Some of the personal information entries were pretty terse, however, consisting of just one or two words. On at least two blocks, captains reported that after seeing the directories residents mentioned that they wish they had included more information.

Setting up interviews with individuals was time consuming and required persistence, so that the overall process spanned many weeks and often took more than the 10-20 hours that we originally estimated when recruiting captains. Despite the frustrations of scheduling, and occasional negative reactions from neighbors, the process had its rewards. One block captain said, “It was nice with the digital camera you know you could show the people the picture and they could say whether they liked it or not…It was really nice with the kids.” All seven of the block captains who we interviewed after the process said that they were glad they did it and would recommend it to a friend. Their most

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that the neighbors pretty much keep to themselves and there is not a lot of neighborhood discord.” We have very little information about the social dynamics within the majority population of Orthodox Jews on the block.

common recommendation to other prospective block captains was not to go alone: some went with a neighbor, others a spouse, others with children, and they felt that they got a better reception as a result.

Predictors of participation

Before turning to how directories were used and what their impacts were, it is interesting to examine what factors explain whether people participated in the directory. Table 1 summarizes the block size and participation rates for all ten of the treatment blocks, plus the eleventh block that made a directory the following year. In general, block captains found that reactions were bimodal. As one captain said, "It was either that they hated the idea or that they loved the idea. There wasn't a lot of middle ground."

---Table 1 about here------

One previous study found that informal neighbor relations and sense of community were the two largest factors contributing to participation in formal neighborhood organizations (Chavis & Wandersman 1990). Another found that density of local acquaintances was a predictor of individual attachment to community, and that the influence came not only from an individual's own ties but independently from the average density of neighbors' local acquaintance network (Sampson 1991).

To see if similar results held for participation in the directories, we investigated what factors were correlated with participation. The column in Table 1 titled "average neighbors known" shows the block-level average number of neighbors known. It is at best weakly correlated with the participation rates for the blocks. In Table 2, the column labeled "initial average" shows that directory participants scored higher than non-

participants on most of the social capital measures. For example, the average number of neighbors known was 7.22 for directory participants (other than the block captains) and 4.93 for non-participants.

----Table 2 about here----

In order to test the statistical significance of the different social capital measures in predicting directory participation, we estimated logistic regression models using data from the nine blocks that completed directories (see Table 3) The dependent variable was whether a household participated in the directory or not. The individual-level covariates were number of neighbors known (houses marked as knowing first or last name of at least one resident) and each of the social capital measures.[8] Respondents from the same block were treated as repeated measures (using stata's svylogit command with each block a primary sampling unit), in order to correct for correlation among data points coming from the same block.[9]

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[8] We would have liked to include age as a covariate, because some block captains reported that some seniors who were happy to talk to the block captains did not want to be included in the directory. However, many survey respondents omitted their age and we would expect a severe response bias, as those people who opted out of the directories for privacy reasons were probably also less likely to return the research surveys. Thus, we did not have a reliable measure of age to include.

[9] Without the correction, a standard logit model yields identical point estimates but with tighter confidence intervals and hence lower p-values than are warranted, which could lead to spurious findings. The method we used is more conservative.

----Table 3 about here----

The effect of number of neighbors known was statistically significant in all the model specifications in Table 2. Controlling for the number of neighbors known, only the first sense of community scale had a statistically significant additional effect.[10] This scale focuses on affective attachment (see appendix for questions). The finding is consistent with that of Chavis & Wandersman (1990).

Analysis of Directory Use

Most people used their directories only occasionally. Of 77 respondents from directory blocks, 6 reported eight or more uses, 13 reported using their directories three or more times, 37 once or twice, 11 never, and 10 reported never receiving directories. 55 of the respondents who reported receiving directories reported that they still had them and knew where to find them, even though the surveys were sent more than six months after the last directories were distributed.

When asked on the surveys what they used the directories for, the most common answers had to do with simply getting acquainted. One wrote, “To put names to the faces of neighbors that I see daily but did not know personally.” Another wrote, “See who our neighbors are that are farther down the street that we don't know.” Some people used them to initiate problem solving. One wrote, “To call neighbor about dogs in the area.”

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[10] The model specification that includes all the social capital measures simultaneously has too many degrees of freedom to give meaningful estimates with the small number of blocks and residents.

One resident who apparently did not find the directory useful offered a tonge-in-cheek response, “Paper recycling.”

Analysis of Social Capital Impacts

The block captains all noted that neighbors interacted with the captains differently. One said, “I think it was just waving and saying hi whereas now people tend to stop you and want to actually talk.” Another noted that she was receiving more friendly hellos and had a greater feeling of security.

Some of the captains noticed impacts on others as well. On one block that had not previously held block parties, residents approached the captain about two weeks after the directories were distributed to organize a block party. Nine people got together to organize the party, and all but four families on the block attended. On the same block, the captain described an elderly couple that rarely came out of their house. Through a series of interactions, beginning with an hour-long interview for the directory, the couple began to feel safer and started to sit outside on their porch (which of course created more security for others on the block as well). On another block, the captain reported that participation in the annual rummage sale was higher than in previous years. On another block, the captain reported that neighbors surrounding a house where there were frequent disturbances discussed how to handle those disturbances and felt better because they no longer felt isolated in dealing with the problem.

To test quantitatively for social capital impacts, we analyzed changes in measures from the pre-directory survey to the post-directory survey the following year. While we hypothesized that the directories would have an impact on everyone, we expected the

effects to be strongest for the block captains, who spent a lot of time with their neighbors, and then next strongest for the people who participated in the directories. Even non-participants, however, might have some gains, as a result of being asked, and as a result of spillover effects from neighbors who did participate. We expected that the effects would be strongest for measures of very local social capital and measures focused on sociability rather than trust or activities. In particular, we expected the largest increases in the number of neighbors known, the first sense of community scale, and in neighborhood social interactions.

Our initial analysis focused on the nine blocks that completed directories, to see if there were differences among captains, participants, and non-participants. Table 2 shows changes from treatment to follow-up for each of the measures. Participation in the directory seemed to have an effect. Though not all the results were statistically significant, on the treatment blocks the changes in most social capital measures from the initial survey to follow-up were highest for block captains, in the middle for non-captains who participated in the directories, and lowest (often negative) for people who did not participate.

To test for statistical significance, Table 4 shows parameter estimates for regression models. The value from the follow-up survey was the dependent variable. The value from the initial survey was an independent variable, along with dummies for whether the respondent was the block captain and whether the respondent was in the directory. As before, correction for within block correlation was made, using stata's svyreg command with blocks as primary sampling units.

----Table 4 about here----

The non-zero coefficients on the constant terms and the coefficients less than one on the values from the initial survey suggest a regression to the mean, a common occurrence for repeated measures. That is, people who scored higher (or lower) than average in the first survey tended to move toward the average in the second survey, all other things being equal. Thus, the differences among groups was even greater than might be apparent from the raw numbers in Table 3, because the groups with higher initial scores had more positive changes, despite the overall regression to the mean.

We then examined the overall effects for the treatment blocks, combining participants and non-participants. We also compared the results on the eight first-year treatment blocks to their respective control blocks, to see if there may have been some unmeasured change in the environment that was causing changes on both treatment and control blocks, rather than an effect of the treatment. Table 5 shows changes from treatment to follow-up combined for all residents on the eight first-year treatment and control blocks.[11]

----Table 5 abut here----

[11] Note that in tables 1-4, the block that made a directory in 2001 is considered a treatment block, with changes in survey measures from 2001 to 2002. In Table 5, that block is considered a control block, using survey measures from 2000 and 2001. The two treatment blocks that did not make directories and their matching control blocks are omitted from the data in Table 5.

Despite the differences between participants and non-participants, the average change for all residents on treatment blocks was not clearly positive, and changes on treatment blocks did not differ significantly from those for the control blocks. In regression models with only the initial measure and a dummy for treatment vs. control blocks, the coefficient on the dummy did not approach significance for any of the social capital variables, and the signs were in different directions for different measures.

One possible explanation for this pattern of results is that directories had no effect on average, despite the differential effects on participants and non-participants. With this interpretation, on the treatment blocks differences in improvements in social capital were not caused by participation in the directory but reflective of some other variable that caused both participation in the directory and improvements on those measures. The only obvious candidate is that people who were not on the block much would have a declining connection to the block and would also not be in the directory, because they would not have been home when the block captain tried to interview them. One proxy for time on the block is number of hours worked, a question on the initial survey. However, the directory participants reported working more hours on average than non-participants, not less, and there was almost zero correlation between hours worked and, for example, change in number of people known on the block over the course of the year. It is hard to think of another plausible covariate of both declining social capital measures and non-participation in the directory, though this possibility can not be ruled out.

It seems more likely that the directories did have some effect on the captains and the people who participated in them. If the overall effect was neutral, then negative effects on non-participants must have balanced out the positive effects on participants. One reason

for negative effects on non-participants is that refusing to participate could have led to repercussions: block captains may have become less friendly or, in order to avoid cognitive dissonance, people who refused may have revised downward their opinions about the block. With this interpretation, the net effect of directories would be to polarize a block, making those who were most neighborly more connected and further isolating those who were initially less inclined.

Another possible explanation of the overall pattern of results is that directories had a positive impact on participants and no impact on non-participants, but that there was mis-measurement of differences between treatment and control groups. One possible source is simply random variation: the number of blocks was small, so random effects could have led to selection of control blocks that were on a more natural upswing in neighborly activity. Another possibility is selection bias in who returned surveys. Overall, people on treatment blocks were more likely to return follow-up surveys, as reflected in the sample sizes in Table 5. Since those who are feeling better about their block would be more likely to respond to a survey, a higher response rate is likely to be somewhat less biased toward positive feelings and, by extension, positive changes since the first survey.

Discussion

The motivations for participation in community organizations have been studied extensively. Clark and Wilson (1961) offered an influential typology of benefits from participation in organizations: *material benefits* are personal tangible rewards; *purposive benefits* result from desired supra-personal outcomes such as community-level changes; *solidary benefits* result from socializing and belonging. While they used the typology of

benefits to classify organizations, others have used it to investigate individual motivations for participation in voluntary organizations. Research summarized in Prestby et al (1990) suggests that the most active participants are motivated most by prospective purposive benefits, but that solidary benefits also play a role, and in some studies solidary and purposive motivators were not clearly distinguishable. The question remains, however, as to what would motivate activity by those who do not currently participate in neighborhood organizations.

As the residential trial proceeded, we developed an informal typology of residents. *Neighborhood activists* participate in meetings designed to maintain organizations and organize and participate in activities designed to deal with specific issues or to make specific improvements in quality of life in the neighborhood. These are the people whose motivations have previously been studied. A second group of residents we call *social butterflies*: they are friendly and know a lot of neighbors, but do not necessarily participate in organized activities and they are motivated primarily by solidary benefits rather than purposive benefits. A third group of residents, who we call *good neighbors,* are friendly and responsive to overtures but do not go out of their way to initiate contacts with neighbors. A fourth group of residents, who we call *isolationists*, would prefer to be left alone. Further research would be needed to validate this typology: we developed it during the trial and thus our instruments were not well suited to verifying it. Still, we will rely on these categories to some extent in the remainder of the discussion.

The most striking lesson from these trials is that the process of making a photo directory is an important social capital building opportunity, above and beyond any impacts that the directory itself has. In the community health organization, the need to interview

health care workers gave the director an opportunity to renew contacts with dormant members. By contrast, in the sports league trial, this opportunity was squandered because WT staff conducted the interviews and took the photographs; perhaps as a result, the overall impacts of the intervention were much less clear. Neighborhood block captains had an excuse to make personal connections with fellow residents, sometimes even with residents (especially elderly residents) who chose not to participate in the directory. One captain said, “I enjoyed meeting the people that live around me, met a lot of great people, made quite a few new friends.” For captains who were social butterflies, this project turned curiosity about neighbors (which might in other circumstances be constructed as nosiness) into a public contribution. There are many opportunities for activists to make public contributions by recruiting participants and coordinating meetings or other activities. The directory making process enlists a somewhat different set of skills and puts them to public use.

Two blocks where husband and wife teamed up to serve as block captains provide striking illustrations of the activist-butterfly distinction. The husband on one block and the wife on another were organizers who participated in neighborhood wide activities. Their spouses were more interested in meeting immediate neighbors. One telling exchange during an interview after directories were made illustrated the difference in orientation.

B: “Don’t you think that everybody here knows who lives on this block?”

A: “No, not necessarily….If your car is loud - it's gotta be something specific about you - it just means they recognize that you live here. Doesn't mean they know where you live.

B: I know the face of everybody that stays on this block. Everybody.

A: Well that's fine! You are different! I don't. And I lived here the same amount of time as you have.

Photo directories appear to magnify rather than substitute for pre-existing social capital. For example, the best single predictor of individual participation in the neighborhood directories was the number of neighboring houses where a resident knew someone’s name, and participating led to knowing even more neighbors. The rich got richer.

On the other hand, the directories may also be useful at tapping latent interest of less visible members of a group. The director of the community health organization thought that some of the “behind the scenes” people became more active after the directory. On neighborhood blocks, making the directory not only creates an opportunity for butterfly types to channel their energy toward public purposes, it also creates an opportunity for good neighbor types to signal that they are not isolationist. This may increase their sense of commitment to the block, making them more receptive to future organizing efforts. It also allows future organizers to focus their invitations on neighbors who are more likely to be receptive.

Further research is needed to validate whether the proposed construct of organized sociability is well-defined and to examine whether it really is a resource for broader

organizing. Previous research has shown that individual sociability is correlated with participation in neighborhood organizations. It is plausible but obviously evident that more organized social activity makes an additional contribution, either in the form of increasing motivation or developing leadership skills.

Looking to the future of research on directory making, two sets of issues require attention. One set revolve around measurement. While the interviews with the community organization director and the neighborhood block captains suggests that participants benefited more than non-participants, the net effects across all residents were not significantly different between treatment and control blocks. One reason may simply be that the sample sizes were too small relative to the intra-individual variance arising from unmeasured inter-individual and inter-block factors.

The need for larger sample sizes suggests a need for lower cost measurement tools. Production and administration of the mail surveys was by far the largest cost in conducting the neighborhood trial. Moreover, the very act of conducting a survey prior to conducting interviews for directories may sow confusion about what the directory is and make people suspicious of it. It would be beneficial to develop some very brief instruments that the block captains could administer as part of their interview process. For example, the block captain might collect a network measure by asking people to mark houses where they know names (or code for weak vs. strong ties) and omit the attitude and activity measures entirely. Such a study could only draw conclusions about the effects of directories on neighborhood social networks, but that might be sufficient to make a clear case for whether they are valuable.

In addition to measurement issues, there are three production issues that must be solved if photo directories are to be widely deployed in neighborhoods and community organizations: leadership, usability and cost. Leadership matters. In the neighborhoods, block captains varied in their persistence, and in their skill at putting people at ease and eliciting interesting personal information from them. An interesting question for the future is whether block captains can be trained to interview well—we hope to experiment with both in-person and on-line training and support groups for directory makers.

Usability is another challenge. In all of the trials, WT staff entered information and photos into a database program and selected a graphical layout for the printed directories. As the general population becomes increasingly familiar with computing technology, it should be possible in principle to make a software application that is easy enough for most community leaders to use. We have developed both web-based and stand-alone interfaces, but each has its drawbacks. The web-based version requires transfer of photos to and from a web server, which is just tolerable with a high-speed connection, but not with the 56K modems that most people have at home. The stand-alone interface is quite usable once installed, but separate installation packages have to be developed and tested on a variety of platforms, and the software may not run on older computers in homes and community organizations.

The costs of directory production create a third challenge. By turning directory-making over to organization members, direct labor costs can be avoided. Photography costs can also be minimized: as technology improvements drive down prices and improve quality, many individuals are purchasing digital cameras, and for people who do not own them, public libraries or community-development agencies could allow people to borrow them.

Printing costs remain, however. Printing could be skipped in favor of web-based access, but paper is a far more appealing medium for photo directories for most organizations, for reasons ranging from speed and portability of access to allaying privacy and security concerns. When printed in volume, costs can be driven far below the per page costs of printing on a home printer or retail charges at a copy shop. Even so, the logistics of collecting, say, $1 per household to pay for a neighborhood directory might add a significant hurdle. It will be interesting to see if sponsorship can be arranged, perhaps from commercial advertisers such as home insurance companies or mortgage lenders, or from community foundations or local governments.

Conclusion

Photo directories appear to be a promising intervention for drawing on and building organized sociability. They provide an opportunity for developing leadership, by taking a leader's natural sociability and directing it towards producing something of public value. They also provide an easy way for interested but not yet connected individuals to signal their willingness to be more connected. The directory itself can help create a sense of group identity. Reading through a new directory can make a member feel like he or she belongs, and that the group is worth belonging to. In short, they provide an answer to the age-old question, "Who's That?" The challenge remain to scale up the production process to hundreds or thousands of organizations and neighborhoods, and to scale up the research techniques in order to provide clearer quantitative evidence of the conditions under which directories are useful.

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Appendix: Social Capital Measures

The following social capital measures were derived from individual survey responses. A complete copy of the survey instrument can be found on line at www.whothat.org/SURVEY.pdf. Where necessary, scales were reversed so that larger numbers always indicated higher social capital. Alpha is computed for responses to the initial survey. N reflects the number of people who answered all the questions in the scale on the initial survey.

Sense of community 1 (N=170; alpha=.82)

- My block is a good place for my kids to grow up and thrive
- I expect to live on this block for a long time
- I think my block is a good place to live
- It is very important to me to live on this particular block

- I feel at home on this block
- People on my block share the same values

Sense of community 2 (N=183; alpha=.71)

- I care about what my neighbors think of my actions
- I can recognize most of the people who live on my block
- I have influence over what this block is like
- People on this block get along with each other
- I feel at home on this block
- I have an active part in keeping my community going

Neighborhood social interaction (N=191; alpha=.82)

- How often have you asked one of your neighbors over to your house or gone to their house for a meal, to play cards, to watch TV, or just to socialize?
- How often have you asked one of your neighbors for help, like getting your car started, getting a ride with them, borrowing a tool, or asking them to watch your kids while you ran an errand?
- How often have you talked to one of your neighbors about personal problems you were having or they were having?

- How often have you gone out for an evening with one of your neighbors to a movie, a sports event, for a drink, or some other activity?

Perceived control[12] (N=193; alpha=.76)

- I can influence decisions that affect my block
- By working together with others on my block, I can influence decisions that affect the block
- I am satisfied with the amount of influence I have over decisions that affect my block

Neighbors intervening (N=171; alpha=.90)

- How likely is it that one of your neighbors would do something about it if someone was breaking into your house in plain sight?
- How likely is it that one of your neighbors would do something about it if someone was trying to sell drugs to one of your children in plain sight?

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[12] Only three of the five questions from the scale in Parker EA, Lichtenstein RL, Schulz AJ, Steinman KJ, Israel BA, James SA. 2001. Disentangling Measures of Individual Perceptions of Community Social Dynamics: Results of a Community Survey. *Health Education and Behavior* 28 were included in our survey.

- How likely is it that one of your neighbors would do something about it if there was a fight in front of your house and someone was being beaten up?

- How likely is it that one of your neighbors would do something about it if your kids were getting into trouble?

Neighborhood participation (N=170; alpha=.80)

- If there is a problem on this block, people who live here can get it solved

- People on my block work together to influence decisions at the city, state, or national level

- People on this block have connections to people who can influence what happens on the block

- Most people on the block are active in groups outside the local area

- who you think would get involved: when it comes to getting things done to improve your block, who takes part?

- who you think would get involved: when it comes to standing up to say something about an issue that affects the block?

Trust (N=183; alpha=.67)

- Most people are honest.
- Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?
- Do you think most people would try to take advantage of you if they got a chance, or would they try to be fair?
- Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?

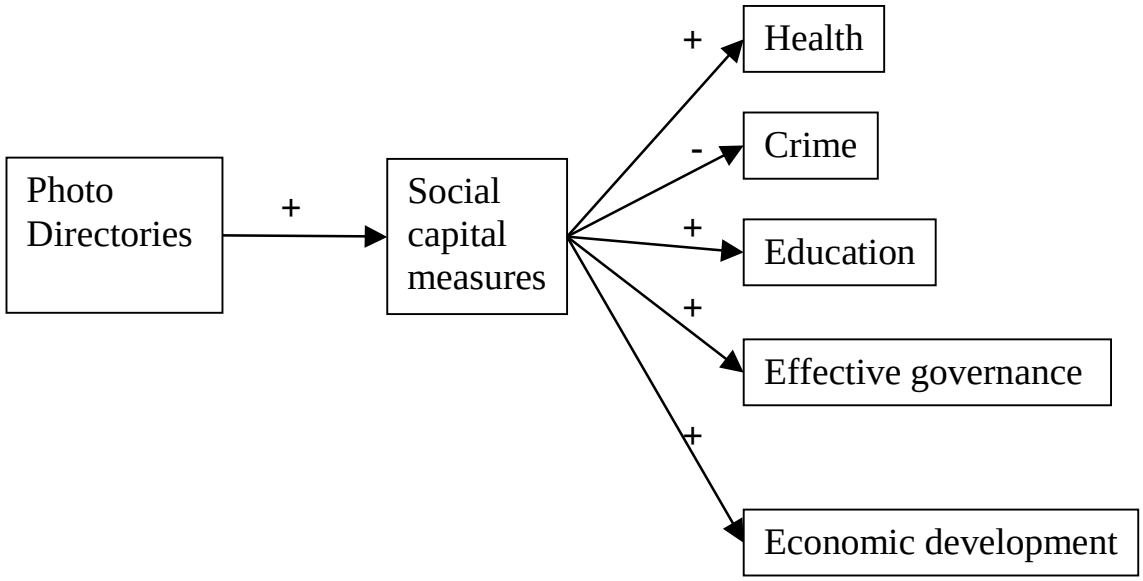

Figure 1: Hypothesized relationships between variables. Previous studies have investigated the effects of social capital. This study treats it as a dependent variable.

Number of Households	Respondents to first survey	Average # of neighbors known in first survey	Number of Directory Entries	Participation Rate
25	15	7.2	18	72%
39	6	5.5	25	64%
34	18	8.83	20	59%
36	19	8.32	19	53%
27	6	2.67	13	48%
17	9	4.89	8	47%
36	7	8.14	13	36%
43	2	7.5	9	21%
74	21	4.76	11	15%
32	11	6.82	--	--
25	3	3.33	--	--

Table 1: directory participation rates

		N	Initial average	Average change
Neighbors known	Non-participants	28	4.93	-.36
	Participants	45	7.22	.46
	Block captains	7	11.43	3.57
Sense of Community 1	Non-participants	28	3.52	-.19
	Participants	44	3.72	.03
	Block captains	8	3.79	.19
Sense of Community 2	Non-participants	28	3.36	-.01
	Participants	44	3.6	.05
	Block captains	8	4.1	.31
Neighborhood social interaction	Non-participants	28	1.91	-.16
	Participants	43	2.09	-.05
	Block captains	8	2.39	.30
Perceived control	Non-participants	27	3.01	.11
	Participants	38	3.43	.01
	Block captains	8	3.75	.33
Neighbors intervening	Non-participants	24	4.13	-.18
	Participants	42	4.09	.17
	Block captains	8	4.47	.17
Neighborhood participation	Non-participants	27	3.37	.16
	Participants	44	3.68	.14
	Block captains	8	3.70	.16
Trust	Non-participants	22	6.48	.42
	Participants	39	6.53	.08
	Block captains	7	7.00	.14

Table 2: Changes in social capital measures for block captains, participants and non-participants in the directory, on the nine blocks that made directories.

N	101	101	99	95	95	99	89
Const	-3.46**	-3.54*	-1.35*	-3.16*	-1.39	-2.60	-1.47*
Neighbors known	.17**	.14**	.16**	.15**	.19**	.16**	.17**
Sense of Community 1	.83*						
Sense of Community 2		.91 (p=.10)					
Neighborhood social interaction			.42 (p=.18)				
Perceived control				.83 (p=.14)			
Neighbors intervening					.20 (p=.28)		
Neighborhood participation						.61 (p=.21)	
Trust							.14 (p=.12)
Block average of neighbors known							

Table 3: Logistic regression models predicting individual participation. * means p<.05. ** means p < .01. For each model, only survey respondents who answered all relevant questions are included, so the number of data points ranges from 89-101.

Dependent variable: final measure of…	Neighbors known	Sense of Community 1	Sense of Community 2	Neighborhood social interaction	Perceived control	Neighbors intervening	Neighborhood participation	Trust
N	80	80	80	79	73	74	79	68
R-squared	.54	.39	.29	.36	.32	.29	.32	.37
Const	1.50**	1.51*	1.85**	.68**	1.92**	1.8*	1.98**	2.48**
Initial measure	.62**	.52**	.45*	.56**	.40**	.52*	.46**	.68**
Captain?	4.69 (p=.09)	.19 (p=.08)	.16	.48*	.52 (p=.10)	.19 (p=.19)	.03	.21
In directory?	1.69*	.31**	.11	.20	.15 (p=.17)	.33*	.15	-.32

Table 4: Regression estimates of social capital impacts. Each column shows coefficient estimates for the dependent variable in the column header, as measured in the follow-up surveys. The initial measure in each case is the measure of the same variable specified in the column header. * means p<.05; ** means p<.01. p-values between .05 and .20 are specified explicitly.

		N	Initial average	Average change
Neighbors known	Treatment	69	6.54	.52
	Control	56	6.7	1.14
Sense of Community 1	Treatment	68	3.68	-.05
	Control	54	3.59	.00
Sense of Community 2	Treatment	68	3.57	.04
	Control	54	3.55	.02
Neighborhood social interaction	Treatment	67	2.12	-.09
	Control	52	1.80	.00
Perceived control	Treatment	61	3.34	.06
	Control	52	3.30	.03
Neighbors intervening	Treatment	62	4.13	.07
	Control	52	4.08	-.03
Neighborhood participation	Treatment	67	3.55	.16
	Control	54	3.58	.15
Trust	Treatment	57	6.54	.23
	Control	48	6.68	.14

Table 5: Changes in social capital measures for all residents on the eight blocks that made directories the first year and their matching control blocks.

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