

# Reflections on Diversity and Social Capital: A Critique of Robert D. Putnam's "E Pluribus Unum: Diversity and Community in the Twenty-First Century The 2006 Johan Skytte Prize Lecture"

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## Introduction

U.S. metropolitan areas are becoming more racially and ethnically diverse. According to recent population estimates by the U.S. Bureau of the Census, 111 of the nation's 361 metropolitan areas lost white population between 2000 and 2004 (Frey 2006). These changes have fueled a lively debate in Congress about immigration reform, in addition to sparking debates at the state and local government levels over the most appropriate way to provide public services to populations with diverse needs.

While many urban policy makers view these trends as opportunities to create cosmopolitan cities offering a diverse array of cultural amenities, Robert D. Putnam finds that increasing diversity may have unintended negative social consequences. His article "E Pluribus Unum: Diversity and Community in the Twenty-First Century The 2006 Johan Skytte Prize Lecture," published in *Scandinavian Political Studies*, links increased ethnic diversity to declines in social capital, which include "social networks and the associated norms of reciprocity and trustworthiness" (Putnam 2007, 137). This controversial finding generated a flurry of news reports and a lively debate about policy implications. While Putnam argues that his findings point to the need to create new "shared identities" that respect ethnic and cultural differences, others have cited his research to justify tightened controls on immigration (Jonas 2007). Putnam's results also raise questions about the efficacy of a variety of income-mixing and desegregation policy initiatives pursued by the U.S. Department of Housing and Urban Development during the past decade, including HOPE VI (Housing Opportunities for People Everywhere),

the Housing Choice Voucher Program, and the Moving to Opportunity demonstration initiative.

I argue that these policy debates are premature. I aim to show that Putnam's findings, while provocative, are difficult to interpret given the methodological and conceptual limitations of the study. The most important limitations include the failure to distinguish between diversity and residential segregation, potential biases resulting from aggregation across racial and ethnic groups, methodological problems with the specification of the regression model, and selection bias, which I argue is more problematic than the author acknowledges. Despite these methodological problems, I still commend Putnam and other scholars for tackling this very important topic. A broader goal of my essay, beyond the critique of Putnam, is to suggest how this research agenda could unfold.

### **Summary of the findings**

Putnam's analysis uses the Social Capital Community Benchmark Survey of approximately 30,000 people conducted in 2000. The survey is a combination of a national sample consisting of approximately 3,000 observations plus a community-level sample that was constructed from surveys conducted in some 41 U.S. communities. These range in size from small towns such as Yakima (WA) to entire states in some cases. Because every survey response is geocoded, Putnam can match each respondent to census tract and community-level characteristics obtained from the 2000 census.

He begins by presenting bivariate correlations between community-level measures of social trust and ethnic homogeneity.<sup>1</sup> Social trust is measured as the percentage of respondents indicating that they trust either their own ethnic group or other groups a lot, and ethnic homogeneity is measured using a Herfindahl index. In this case, the Herfindahl index is equal to 1 if the ethnic composition of the surrounding community is composed of a single ethnic group and equal to zero if all ethnic groups are equally represented. Regardless of the measure of social trust employed, Putnam finds that higher levels of ethnic homogeneity are associated with higher levels of social trust.

He then goes on to estimate ordinary least squares (OLS) regression models explaining the trust each individual has in his or her neighbors for the entire sample. Because this analysis is conducted at the individual level,

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<sup>1</sup>He suggests in the narrative that ethnic homogeneity is measured at the community level. Yet the axis for this variable is labeled as a census tract measure. Given that the community is the unit of analysis in this portion of the article, I assume that this is a typographical error.

he can match respondents to their average census tract characteristics. This allows him to examine the impact of ethnic homogeneity at the tract level, after he controls for a variety of neighborhood and individual factors. In this more detailed analysis, he again finds that more ethnic homogeneity is associated with more social trust.

Putnam observes that his findings are consistent with a perspective he defines as “constrict” theory, in which diversity dampens both bonding social capital (in-group solidarity) and bridging social capital (out-group solidarity). His theory is not developed beyond its expected empirical outcome, however. Although we are left to wonder why people would “hunker down” and become social introverts in response to increased ethnic diversity, his findings are consistent with a behavioral model where individuals receive a disutility from interacting with members of a different ethnic group. In neighborhoods or metropolitan areas exhibiting higher levels of diversity, the probability of encountering someone from a different ethnic group is higher, so people allocate a smaller portion of their total leisure time to social interactions to minimize the disutility from imperfect matches in social settings. Households may also respond by allocating more time to nonleisure activities, such as commuting, particularly if doing so enables them to reside in areas with lower housing prices, as predicted by the monocentric urban model (Alonso 1964; Mills 1972; Muth 1969).

## **Critique**

My critique of these findings focuses on four issues: (1) the measurement of diversity, (2) aggregation bias, (3) methodological problems with the specification of the regression model, and (4) selection bias. I also consider several other minor issues within these broader categories.

### *The measurement of diversity*

A limitation of Putnam’s analysis is its inability to distinguish between the effects of community-level ethnic diversity and neighborhood-level residential segregation. In the scholarly literature, ethnic diversity is typically defined in terms of a single spatial unit of analysis, usually the metropolitan area or nation. Residential segregation, however, is typically understood in terms of the relationship between ethnic compositions distributed over smaller units of analysis (census tracts, census blocks, or other equivalent local neighborhood units) relative to the level of ethnic diversity observed at a larger scale. In metropolitan areas such as Atlanta, for example, many different ethnic groups are represented in the larger metropolitan area, yet

neighborhoods are composed largely of residents from a single group. Thus, whereas residents have the opportunity to come into contact with a diverse population at the metropolitan level, each person's residential life is shaped largely by interactions with members of a single ethnic group.

There are important reasons to believe that the diversity observed at the metropolitan versus the neighborhood scale could influence social trust in different ways. If social interactions are confined to the immediate neighborhood, then the surrounding metropolitan area may provide a poorly measured proxy for the level of diversity relevant for social interactions. At a minimum, this implies that Putnam's measure of ethnic homogeneity likely exhibits measurement error.

Even if the community is an appropriate geographic unit for defining social relations, it is possible that the more intimate interactions observed at the neighborhood level and the casual interactions observed at the community level may influence social trust in opposite ways. If conflict theory applies, then residents of an ethnically diverse metropolitan area would likely choose ethnically homogeneous neighborhoods to avoid encountering members of another group. In this case, the measure of community diversity would be negatively correlated with neighborhood measures of segregation, and the evidence Putnam presents would support the opposite conclusion that (neighborhood-level) ethnic homogeneity and social trust are negatively correlated.

Another reason to examine local segregation separately from metropolitan diversity is that decisions on intermetropolitan and intrametropolitan residential location are typically driven by very different sets of factors. Households tend to select metropolitan areas for employment reasons. Given a household's choice of employment location, mobility within the metropolitan area is usually shaped by intrametropolitan differences in housing or commuting costs, neighborhood amenities, public service packages, and, often, neighborhood racial or ethnic composition. If preferences for these amenities vary by ethnic group, then residential segregation within metropolitan areas may occur as households sort into communities and neighborhoods offering different local public services and amenities (Dawkins 2005). If residential segregation is driven largely by the Tiebout (1956) sorting process and residents are more satisfied with local public services as a result, then households may have fewer incentives to participate in community meetings and other activities that build social capital. This scenario suggests that the extent of local residential segregation may be more relevant than metropolitan ethnic diversity in shaping social capital.

### *Aggregation bias*

Although Putnam calculates a measure of trust in “other” ethnic groups, he does not examine variations in this measure *across* ethnic groups. We know from survey data, for example, that blacks tend to be more willing than whites to reside in neighborhoods where other racial or ethnic groups are highly represented (Dawkins 2004). By aggregating across ethnic groups in this way, Putnam ignores several important sources of heterogeneity. In the community-level analysis, we are given the average level of within-group and between-group social trust for each community, but we do not know the actual degree of exposure to other ethnic groups experienced by the respondents. For example, the 510 people who responded to the Atlanta Metro portion of the survey could all have resided in the majority-white suburbs and hence experienced a very high level of ethnic homogeneity compared with the average resident of metropolitan Atlanta.

Further, because the community-level analysis does not consider the respondent’s ethnic background, we do not know whether residence in a majority-white suburb equates with a high or low level of exposure to other ethnic groups. Even in the individual-level analysis, which controls for the ethnicity of the respondent in addition to the ethnic composition of the neighborhood, his or her ethnicity is not interacted with the ethnic homogeneity of the surrounding census tract. As a result, we do not know whether whites exhibit different levels of social trust when surrounded by white versus nonwhite neighbors. Because contact theory is ultimately about exposure to *other* ethnic groups and not about exposure to a *variety* of ethnic groups, Putnam’s results are not necessarily inconsistent with this hypothesis. Further, Alesina and La Ferrara (2002) find that ethnic heterogeneity impairs the formation of social capital only when minority groups are too small to form their own separate community groups. This finding points to the need to interact the ethnicity of the respondent with the relative size of his or her ethnic group in the surrounding census tract.

Putnam’s failure to distinguish between different types of ethnically homogeneous and ethnically mixed communities also masks important underlying sources of heterogeneity. An area that is 100 percent white would exhibit the same value on the Herfindahl index as an area that is 100 percent black. Homogeneous white neighborhoods and metropolitan areas exhibit very different regional, cultural, economic, and social characteristics than do metropolitan areas and neighborhoods where minority groups are more highly represented. Also, we know that while many ethnically mixed neighborhoods exhibit stable levels of diversity, many are rapidly transitioning from one state to another, depending on where the neighborhood falls with respect

to the ethnic tipping point. A neighborhood that is 50 percent white and 50 percent black, for example, may be transitioning to either an all-white or an all-black neighborhood. The first type of transition is more likely associated with gentrification, while the second is likely associated with white flight—two very different neighborhood dynamics that cannot be distinguished in Putnam's cross-sectional analysis. Within these two extremes also lie stable ethnically integrated neighborhoods.

### *Specification of the regression model*

The regression analysis relies on an OLS model when an ordered probability model would have been more appropriate, given that the dependent variable is measured on a 4-point ordinal scale. OLS in this case estimates the marginal change in social trust resulting from a 1-unit change in the degree of ethnic homogeneity when other factors are held constant. Putnam's results suggest that moving from 0 to 1 on the ethnic homogeneity scale (the full range of this variable) would result in a 0.18 increase in the 4-point ordinal scale of trust. On its face, the magnitude of this effect does not seem large, since increasing the degree of homogeneity from the lowest to the highest possible value would not raise the index even a single point. This is a misleading interpretation, however, because the 0.18 estimate is based on the assumption that the dependent variable is measured on a continuous scale that ranges from negative to positive infinity, rather than on a categorical scale that is bounded by 1 and 4.

In addition to inaccurate predicted probabilities, particularly at the extremes of the distribution of the dependent variable, statistical significance tests based on the OLS model will be incorrect because they fail to take into account the presence of heteroskedasticity, which occurs when the dependent variable is measured on a categorical scale. OLS in this case also fails to consider the fact that the dependent variable is actually a ranking rather than an interval-level variable. A more reliable estimate would have been obtained from an ordered probability model such as the ordered probit or ordered logit, which estimates the conditional probability of a higher categorical response on the ordinal scale, compared with the next highest category on that scale.

### *Selection bias reconsidered*

If people with low levels of social capital choose to reside in neighborhoods with low levels of ethnic diversity, then Putnam is correct in his assessment that selection bias likely leads to underestimating the impact of diversity

on social capital. In this version of the selection bias story, households that exhibit ethnic prejudice and low levels of trust in other ethnic groups (and perhaps even their own) choose residential location for the explicit purpose of avoiding negative social interactions. As a result, the positive correlation between neighborhood-level ethnic homogeneity and social capital is dampened by the fact that as social trust increases, households become more likely to choose to reside in a diverse neighborhood.

The impact of selection bias is complicated, however, by the fact that a household's allocation of time to social interactions is a function of the total allocation of time to leisure activities, which in turn is a choice variable in the residential location decision. In the monocentric model (Alonso 1964; Mills 1972; Muth 1969), households make trade-offs between housing prices and leisure time lost because of commuting to choose an optimal residential location within the urban area. Without first specifying a model in which households choose residential locations that yield the maximum utility from the consumption of leisure (including social interactions and other leisure activities), housing, and other goods, subject to budget and time constraints, it is impossible to determine a priori the direction of bias resulting from selection effects.

### **Placing Putnam's study in context**

Despite these methodological issues, Putnam's study is consistent with an emerging body of literature that examines the impact of racial and ethnic diversity on social capital and community participation. Studies have shown that socioeconomic diversity is associated with lower expenditures of public goods (Alesina, Baqir, and Easterly 1999; Poterba 1997), particularly on social programs (Lindert 1996); lower participation in groups (La Ferrara 2002); and lower levels of trust (Alesina and La Ferrara 2002; Glaeser et al. 2000). These and other studies are reviewed in Costa and Kahn (2003) and Putnam.

Counterevidence is provided by an emerging body of literature that finds socioeconomic diversity to be an important catalyst to innovation and inter-ethnic understanding. Jane Jacobs (1969) argues that diversity insulates cities against variations in global economic demand and helps spur innovation by facilitating the sharing of knowledge among diverse industries. Glaeser et al. (1992) find empirical support for this hypothesis. Scott Page (2007) argues that ethnic and cultural diversity among groups of highly skilled workers helps catalyze creative thinking and problem solving. Studies also find that educational desegregation initiatives help graduates interact with diverse

groups later in life (Bowen and Bok 1998). Finally, the literature on racial segregation provides evidence that local spatial isolation carries with it many social costs, including the inability to form bridging social ties linking workers from different social and economic classes.

These two conclusions are not necessarily inconsistent, because few studies have sought to examine the relative costs and benefits of a given pattern of diversity, whether it involves land use, industrial, racial, ethnic, or income diversity. Putnam's findings call for further research on these effects. Several of the studies mentioned earlier also propose creative solutions to the methodological issues I have identified, particularly the selection bias problem.

### **Where do we go from here?**

I conclude with a discussion of suggested directions for further research, based on the limitations of Putnam's study, along with gaps in the literature. There are four areas where additional research is needed:

1. *The interaction between metropolitan diversity and neighborhood residential segregation in influencing the formation and stability of social capital.* The points I have raised indicate the need to distinguish between processes influencing metropolitan patterns of diversity and processes driving residential segregation within metropolitan areas in terms of the impact of each on social ties. There are good reasons to believe that each pattern influences social networks in very different ways, due to the importance of proximity in shaping patterns of social interaction, the differences in the determinants of intermetropolitan versus intrametropolitan mobility, and the differential effects of selection bias at different spatial scales. Future studies should separate these effects and examine their interaction.
2. *The relationship between social capital and residential location decisions.* Putnam's research begs for further understanding of how households make trade-offs among the opportunity for social interaction, commuting costs, and housing costs in deciding on residential location. Social networks may also influence the rate of residential mobility, if households are reluctant to move away from particular locations when local social ties are strong (Dawkins 2006). Further research is needed to understand these complex relationships.
3. *The impact of diversity on within-group and between-group social ties.* I have argued that despite Putnam's claims to the contrary, we still know little about the differential impacts of diversity on the formation of social

networks within and between groups. Understanding these relationships is crucial to establishing the validity of different theoretical perspectives linking diversity to social capital.

4. *Ways to retain the benefits of diversity while minimizing its costs.* The most promising area for new policy research lies in identifying strategies that are successful in promoting the benefits of diversity while minimizing its costs. For example, low-cost strategies such as multicultural festivals, art exhibits, and performances may promote intercultural understanding by facilitating accidental interactions among groups that would otherwise not come into contact. Residential mobility strategies deserve further research, given that segregation itself has been shown to be complicit in a variety of social ills.

Regardless of the strategy, Putnam's findings, along with the literature surrounding the topic of diversity and social capital, call for increased attention to successful cases of diverse interactions. As the nation becomes more diverse, the lessons from these cases will prove invaluable to shaping the "shared identity" Putnam seeks.

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### *References*

- Alesina, Alberto, Reza Baqir, and William Easterly. 1999. Public Goods and Ethnic Divisions. *Quarterly Journal of Economics* 114(4):1243–84.
- Alesina, Alberto, and Eliana La Ferrara. 2002. Who Trusts Others? *Journal of Public Economics* 85(2):207–34.
- Alonso, William. 1964. *Location and Land Use*. Cambridge, MA: Harvard University Press.
- Bowen, William G., and Derek Bok. 1998. *The Shape of the River: Long-Term Consequences of Race in College and University Admissions*. Princeton, NJ: Princeton University Press.
- Costa, Dora L., and Matthew E. Kahn. 2003. Civic Engagement and Community Heterogeneity: An Economist's Perspective. *Perspectives on Politics* 1:103–11.
- Dawkins, Casey J. 2004. Recent Evidence on the Continuing Causes of Black-White Residential Segregation. *Journal of Urban Affairs* 26(3):379–400.

- Dawkins, Casey J. 2005. Tiebout Choice and Residential Segregation by Race in U.S. Metropolitan Areas, 1980–2000. *Regional Science and Urban Economics* 35(6):734–55.
- Dawkins, Casey J. 2006. Are Social Networks the Ties That Bind Families to Neighborhoods? *Housing Studies* 21(6):867–81.
- Frey, William H. 2006. Diversity Spreads Out: Metropolitan Shifts in Hispanic, Asian, and Black Populations since 2000. Working paper. Brookings Institution, Metropolitan Policy Program.
- Glaeser, Edward L., Heidi D. Kallal, Jose A. Scheinkman, and Andrei Schliefer. 1992. Growth in Cities. *Journal of Political Economy* 100(6):1126–52.
- Glaeser, Edward L., David I. Laibson, Jose A. Scheinkman, and Christine L. Soutter. 2000. Measuring Trust. *Quarterly Journal of Economics* 115(3):811–46.
- Jacobs, Jane. 1969. *The Economy of Cities*. New York: Vintage.
- Jonas, Michael. 2007. The Downside of Diversity. *Boston Globe*, August 5.
- La Ferrara, Eliana. 2002. Inequality and Group Participation: Theory and Evidence from Rural Tanzania. *Journal of Public Economics* 85(2):235–73.
- Lindert, Peter H. 1996. What Limits Social Spending? *Explorations in Economic History* 33(1):1–34.
- Mills, Edwin S. 1972. *Studies in the Structure of the Urban Economy*. Baltimore: Johns Hopkins University Press.
- Muth, Richard. 1969. *Cities and Housing*. Chicago: University of Chicago Press.
- Page, Scott. 2007. *The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies*. Princeton, NJ: Princeton University Press.
- Poterba, James M. 1997. Demographic Structure and the Political Economy of Public Education. *Journal of Policy Analysis and Management* 16:48–66.
- Putnam, Robert D. 2007. *E Pluribus Unum: Diversity and Community in the Twenty-First Century* The 2006 Johan Skytte Prize Lecture. *Scandinavian Political Studies* 30(2):137–74.
- Tiebout, Charles. 1956. A Pure Theory of Local Expenditures. *Journal of Political Economy* 64(5):416–24.