Does Income Inequality Increase Charitable Giving?

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Abstract: Do households react to changes in the distribution of income in their neighbourhoods and localities in their charitable donations? The theoretical prediction of the effects of income inequality on giving is unclear. We study how the change in income inequality as measured at the neighbourhood and locality (municipality) levels affects reported giving by households in Canada between 1991 and 2006. We find, on average, that an increase in inequality will increase charitable giving. These results, however, are sensitive to the geographic dispersion of low and high income households in neighbourhoods that form a locality. There is evidence to suggest that the effect on donations is smaller in areas with high levels of inequality at both the neighbourhood and locality levels.

When there is a significant gap between the rich and the poor, is charitable giving affected? The income distribution in Canada, like many countries, has been changing over the last twenty years, with a higher proportion of income being reported by those in the top 1%. Between 1980 and 2005, this share increased by 27%, rising from 8% in 1980 to 11% in 2005 (Milligan, 2013). Using the Gini coefficient as a measure of income inequality, we have also seen a 15% increase in inequality over this same period, from 0.352 to 0.404.[1]

[1] There is some variation in these numbers depending on the data source used. The numbers reported here come from the Census and are for individual pre-tax income. Using data from tax filers, there is a similar increase in the Gini coefficient, but the top 1% share rises by roughly an extra 1.5 percentage points. For additional analyses of income trends in Canada, see Frenette, Green and Milligan (2009), and Fortin et. al. (2012).

Inequality is not just a national concern: it is also observed within communities and localities. An important strand of research on inequality is the strand that is focused on assessing the social and economic consequences of growing inequality. These consequences are best studied at a local level.[2] Recent empirical work focusing on local publically provided goods finds mixed effects of inequality on funding for those goods. For example, Boustan et. al. (2013) finds increase in municipal spending on police and fire services increases with increases in income inequality and Corcoran and Evans (2011) finds that education spending increases with increasing income inequality in school districts.. On the other hand, Alesina et. al (1999) finds no measurable effect of inequality at the city level on public spending and Kaplan et. al (1996) finds a negative effect of increasing inequality at the state level.

What might drive these different results is tied to the mechanisms underlying decisions on the level of public expenditures. If the median voter drives preferences for public goods, under greater income inequality the median voter feels poorer, and may thus support higher taxes and public expenditures (Meltzer and Richard, 1981). Alternatively, if income differences promotes greater polarization between those with high and low incomes, those with high incomes may prefer private provision over public provision of certain goods and those with lower incomes may face severe constraints that drives a preference to lower support for public expenditures (Epple and Romano, 1996). In contrast, models of group affiliation (Alesina and LaFerrara, 2000) typically posit that individuals prefer to interact with others who are similar to themselves, or may derive less benefit from public goods that benefit members outside their group, in which case we would expect to find a negative effect on donations in areas with increasing income inequality.

[2] See, e.g. Kawachi, Kennedy, and Wilkinson 1999; Deaton 2001; Mellor and Milyo 2002; Kelly 2000; Fajnzylber, Lederman, and Loayza 2002; Alesina and La Ferrara 2000, 2002; Costa and Kahn 2003.

Should we expect to find similar effects of changes in income inequality on the private provision of public goods as measured by charitable giving? Theoretical work on the effects of income redistribution on private giving suggests that if income is redistributed across donors, then there should be no effect on giving. Redistribution from non-donors to donors, however, would suggest that we will observe an increase in giving (see, Bergstrom, Blume, and Varian, 1986).[3] Chan et. al. (1996, 1999) provides experimental support for the prediction that greater income inequality leads to increases in donations. The broader experimental literature, however, finds negative effects of income heterogeneity on contributions (Anderson et. al., 2003; Bagnoli and McKee, 1991; Brookshire et al., 1989; Cardenas, 2002a,b; Fisher et. al., 1994; Isaac and Walker, 1988; Rapoport and Suleiman, 1993), or no effect (van Dijk and Grodzka, 1992; Sadrieh and Verbon, 2004).

In this paper we add to the literature by studying how increases in local income inequality affects Canadian tax-receipted donations reported between 1991 and 2006. We measure inequality based on two local geographies: namely the census division (CD) and the forward sortation area (FSA). A CD typically covers a city or municipality (e.g. Toronto) or groups of municipalities (e.g. Kitchener-Waterloo-Cambridge) that are joined together for the purposes of regional planning and managing common services. An FSA is a geography defined by Canada Post that contains about 7000 households, and roughly reflects the natural and artificial boundaries of neighbourhoods. Across the period under study, the average measure of inequality is slightly higher in CDs than in FSAs. The level of inequality, as measured by the average levels Gini coefficient in each period, increases an average of 12% in CDs and 11% in FSAs. Overall, however, the average growth in the Gini coefficient across neighbourhoods is 16%.

[3] The same result does not hold in general (though it does in special cases, such as quasi-concave utility) in the so-called "warm glow" model, where in addition to the total amount of the public good, individuals derive utility from their own contribution.

Our statistical analysis focuses on the average donation per household and the fraction of households reporting donations at the FSA level. On average donations increased by 76% over the sample period and the fraction of households reporting donations declined by 15%. Payne (2012) observes that the bulk of the growth in donations has been in the higher income neighbourhoods. Our core results suggest that increases in the CD or FSA inequality measures results in an overall increase in charitable giving. However, in areas where both the CD and the FSA inequalities increase, the effect of the interaction of these measures results in less of an increase in donations compared to areas where, for instance, the CD inequality increases but the FSA inequality remains relatively constant (as would be observed in communities where there is neighbourhood segregation of households based on income). The results also suggest that increasing inequality also results in a decline in the fraction of households that donate but the amount of the decline that is attributable to income inequality is relatively small.

Our results are robust to using different measures of income inequality, namely the Theil index, the 90/10 ratio of household income, and the share of the income represented by those with the top 1% of income.