

Beyond Equal Rights: Equality of Opportunity in Political Participation*

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Abstract

The stratification of political participation has occupied political scientists ever since the pervasive adoption of universal suffrage. In spite of an extensive body of research it is still poorly understood how these findings bear on our normative evaluation of the democratic process. In this paper we argue that the “Equality of Opportunity” (EOp) concept furnishes an attractive framework to close that gap. Drawing on the analytical tools developed by an expanding empirical literature on EOp we investigate to what extent political participation is determined by factors that are beyond individual control (‘circumstances’) and thus ‘unfairly’ distributed. As a result this work extends the scope of current research on EOp to the political realm and proposes an analytical framework to address the yet under-researched question of political opportunity.

JEL-Codes: D39; D63; D72

Keywords: Equality of Opportunity; Political Participation; Lower Bounds

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1 Introduction

Rousseau (1978) supposed that in well-run states “everyone rushes to the assemblies.” Judging by that standard, Western democracies are in increasingly bad shape as the drop in voting rates is a broadly shared tendency in these countries (OECD, 2015). The lack in political participation and the underlying stratification has been researched extensively by scholars of political sociology, who find that participation varies positively with socio-economic status (SES). The SES framework purports that people with lower socio-economic status, as embodied in income and education, dispose of fewer resources to cover the cost of political participation. Admittedly the importance of SES varies across political activities due to the different nature and amounts of the inputs required (Bénabou, 2000). For instance, formulating a petition to a local representative arguably requires a more comprehensive skill-set than joining a protest march. Campaign contributions require a certain financial leeway and are highly skewed in favor of the upper percentiles of the income distribution. In general, however, the link between education, monetary capacity and participation, as emanating from research in political sociology is stable and likewise accepted among scholars of economics (Bourguignon and Verdier, 2000; Campante, 2011; Milligan et al., 2004).

In spite of the breadth of research undertaken to discern the determinants of political participation, one is tempted to ask how these findings bear on our evaluation of the current state of democracy. Verba et al. (1993) suggest that a verdict on the legitimacy of democratic outcomes depends on the extent to which political inactivity is self-inflicted instead of being attributable to factors beyond individual control. In later writings these authors formulate this requirement more explicitly by highlighting the importance of “equity in the conditions or opportunities afforded to a player [in the political game]” (Verba, 2006). Yet in spite of the fact that the normative importance of political opportunities is widely appreciated, no rigorous empirical investigation has been forthcoming to this date (Brady et al., 2015).

In this paper we estimate equality of opportunity (EOp, or IOp for inequality of opportunity) in political participation in the United States. To be sure, we are interested in *effective* opportunities as opposed to merely *formal* opportunities. In most democracies the right to vote is unrestricted – as is the right to free speech and unhindered association. What we are concerned with in this work is the extent to which the differences among people to negotiate these formal opportunities are due to differences beyond their personal

control. We focus on the following eight margins of participation: (i) Vote registration for the 2000 Presidential election, (ii) vote casting in the 2000 Presidential election, (iii) volunteering in civic organizations, (iv) membership in political organizations, (v) monetary contributions to political parties, (vi) participation in rallies or marches, (vii) contact to officials, and lastly (viii) the vote frequency in statewide and local elections. Thereby we speak to two distinct branches of the literature.

First, we widen the scope of the existing (economic) literature on EOp by considering a new outcome dimension. To date research on EOp has focused on income (Björklund et al., 2012; Ferreira and Gignoux, 2011; Pistoletti, 2009), education (Brunori et al., 2012) or health outcomes (Fleurbaey and Schokkaert, 2009; Rosa Dias, 2009) while political participation has been neglected.

Second, the determinants of political participation are vastly researched in the field of political sociology (for comprehensive overviews: Barrett and Brunton-Smith, 2014; Verba et al., 2012). In addition to indicators of SES the literature has considered a host of different variables that are of interest from an equal-opportunity perspective: That is, either immutable personal characteristics such as race (Verba et al., 1993), gender (Schlozman et al., 1995), age and cohort (Blais et al., 2004), as well as influence factors that play out before the age of consent, such as parental political participation (Niemi and Jennings, M. Kent, 1991; Plutzer, 2002), local networks in the area of upbringing (Gimpel et al., 2006), or voluntary participation in youth organizations (McFarland and Thomas, 2006). All these factors have been analyzed in their own right but have not been used to construct a comprehensive measure of EOp. To close this gap we provide a rigorous analysis of political opportunity in the US.

Our results suggest significant IOp along each considered dimension of political participation, especially with respect to monetary contributions, contacts to officials, participation in rallies and marches, and the membership in political organizations. With the exception of vote registration, IOp is more pronounced in political participation than in personal income acquisition.

In the following section we outline the conceptual framework as well as the associated estimation strategy. Section 3 describes the dataset, followed by the presentation of the results in Section 4. Lastly, Section 5 concludes.

2 Conceptual Framework and Estimation Strategy

EOp is a framework for the normative assessment of the distribution of some desirable outcome p , such as health status, education or income. It is rooted in a philosophical discourse on the principles of distributive justice. The underlying normative cut – that people should be held responsible for their choices only, not for factors beyond their control – resonates in the most prominent contributions to this branch of the philosophical discourse (Arneson, 1989; Cohen, 1989; Dworkin, 1981; Rawls, 1971; Sen, 1979). On the one hand, the normative principle implies that inequalities are unacceptable if they are rooted beyond the sphere of individual control. It is the task of social policy to correct these inequalities, for instance by means of redistribution in the case of income. On the other hand, *equality of outcomes* is not a demand of justice as long as we reject the idea that the human endeavor is perfectly deterministic. To the extent that inequality is a result of individual effort, proponents of EOp accept the outcome distribution as fair.

The appearance of EOp in economics is strongly connected with the name of John Roemer (1998) and has stimulated an extensive body of literature ever since (see Ferreira and Peragine, 2015; Roemer and Trannoy, 2015, for recent overviews). Particularly the normative and econometric properties of different measurement approaches have been an area of in-depth interest (Van de gaer and Ramos, 2012).

In line with the underlying normative principle, EOp decomposes the observed outcome distribution $F(p)$ into a fair and an unfair component. From an EOp perspective, $F(p)$ would be fair if it was entirely determined by factors that lie within the realm of control of individuals i . To operationalize this idea, the empirical literature draws on the concepts of *circumstances* and *efforts* – the underlying assumption being that a set of circumstances Ω and a scalar θ of effort jointly determine the outcome of interest p . The relation between these components can be described by a function $g : \theta \times \Omega \mapsto \mathbb{R}^+$.

It is reasonable to assume that the distribution of efforts is not orthogonal to circumstances. For example, on the one hand the gender wage gap is the result of discriminatory processes in the labor market. On the other hand, it has been shown that females have increased their labor supply in response to a shrinking gender wage gap (Mulligan and Rubinstein, 2008). To phrase it in the terms of EOp: Females adjusted their effort in response to reduced discrimination based on the circumstance variable “gender”. To the extent that we want to correct for efforts that are endogenous to circumstances, the relation of interest

can be expressed in the following reduced form:

$$p = g(\Omega, \theta(\Omega), \epsilon), \quad (1)$$

where circumstances Ω and endogenous effort $\theta(\Omega)$ are considered as root-causes of unfair inequality, whereas differential effort net of circumstance influence, ϵ , yields the fair share of inequality.

To operationalize this idea econometrically we rely on a method of measurement which the literature refers to as the *ex-ante* approach.¹ Based on the realizations x_j of each circumstance $C^j \in \Omega$ we can partition the population into a set of types T , where the number of types is given by $K = \prod_{j=1}^J x_j$. Perfect EOp would prevail if all types $T^k \in T$ faced the same opportunity set. As we can only observe realized individual choices instead of the underlying opportunity space, we use the type specific mean realization of the outcome of interest, $\mu^k(p)$, as an estimator of the respective opportunity set. As the margins of political participation are measured in binary variables (see section 3) we sterilize the outcome distribution from the fair inequality component by fitting a logit model with circumstances as the only right-hand side variables:

$$\ln\left(\frac{p_i}{1-p_i}\right) = \sum_{j=1}^J \beta_j C_i^j. \quad (2)$$

Then, calculating predicted probabilities yields the estimator for the type specific opportunity set $\mu^k(p)$:

$$\mu^k(p) = \frac{\exp(\sum_{j=1}^J \hat{\beta}_j C_i^j)}{1 + \exp(\sum_{j=1}^J \hat{\beta}_j C_i^j)}. \quad (3)$$

The resulting distribution is called *smoothed* distribution, here denoted as Φ . Note that any inequality in Φ exclusively relates to differences in circumstances and thus conflicts with the ethics of EOp: The higher the dispersion in Φ , the more variation in $F(p)$ is explained by circumstances, the higher IOp in political participation.

From equations (2) and (3) it becomes obvious that this procedure yields a lower bound of IOp in political participation since variation from unobserved circumstances is captured in the error term and therefore attributed to the fair share of inequality. Thus, expanding the circumstance set under consideration always increases the variation in the smoothed distribution Φ unless these circumstances are orthogonal to the outcome of interest (see

¹It is *ex-ante* in the sense that the need for compensation is determined without regard for the realization of individual effort. See Van de gaer and Ramos (2012) for more details.

Ferreira and Gignoux, 2011; Niehues and Peichl, 2014, for thorough discussions).

To obtain a scalar measure of IOp we subject Φ to two indices of inequality. First, we calculate the mean-log deviation (MLD) which many works on EOp in income acquisition adopt as the default measure in view of its desirable properties (Foster and Shneyerov, 2000). Second, we construct a dissimilarity index which is applied in various works on EOp with discrete outcomes (Foguel and Veloso, 2014; Paes de Barros et al., 2008). The dissimilarity index, based on which we will present most of our results, is constructed as follows. In a first step we calculate the dispersion in opportunities:

$$T = \frac{1}{2N} \sum_i \left| \mu^k(p) - \frac{1}{N} \sum_i \mu_i^k(p) \right|. \quad (4)$$

The term within the absolute value brackets indicates by how much a type specific advantage level diverges from the average realization within the sample. Note that the second term within the brackets corresponds to the mean of both $F(p)$ and Φ as the error terms in a logit estimation sum up to zero. The division by two is for interpretive purposes. As the sum of positive divergences from the average cancels with sum of negative divergences, T can now be interpreted as the number of opportunities that would have to be redistributed in order to obtain the fair outcome. In a second step we scale the dispersion measure by this second term to obtain the dissimilarity index:

$$D = \frac{T}{\frac{1}{N} \sum_i \mu_i^k(p)} = \frac{T}{\mu} \quad (5)$$

We can interpret D as the share of opportunities that is unfairly distributed.

3 Data

Given the estimation procedure it is evident that the dataset for this research endeavor needs to comprise both a set of indicators for political participation as well as a large set of circumstance variables in order to cushion the downward bias of our results.² The one study that strikes a balance between both requirements is the *National Longitudinal Study of Adolescent to Adult Health* (Add Health). Add Health is a four-wave panel study that originally focused on the causes of health-related behavior but broadened its research focus

²In the US context, longitudinal studies which allow the construction of finely grained type partitions, such as the *National Longitudinal Study of Youth* (NLSY79) and the *Panel Study of Income Dynamics* (PSID) perform poorly with respect to the first requirement. The reverse holds true for surveys with an explicit focus on political behavior, such as the *American National Election Study* (ANES).

throughout its recent waves. Initial information was collected in 1994 from a nationally representative sample ($N = 20,745$)³ of adolescents in grades 7-12. In addition to in-depth interviews with adolescents, questionnaires were administered to school representatives and parents. In the two most recent waves ($N \approx 15,000$) all respondents had achieved the age of consent, which makes it feasible to extract outcome variables on vote casting.

Before proceeding with a description of the variables of interest, we want to give an account of our understanding of political participation for the purpose of this work. Barrett and Brunton-Smith (2014) describe political participation as comprising all activities influencing the elaboration and implementation of public policy and the selection of representatives entrusted with this process. According to this view *participation* can be contrasted to *engagement* to the extent that the former refers to activities and actual behavior rather than to psychological dispositions, attitudes and interests. Thus, self-identified interest in politics or ideological leanings are beyond the realm of *participation*. Moreover, *political* participation can be contrasted to *civic* participation, where the latter relates to voluntary activity for the benefit of fellow human beings or the public good. Thus, community services, donations to and fundraising activities for charities are beyond the realm of the *political*. In practice, however, there is a fine line between civic and political participation as evidenced by the fact that non-political organizations, such as religious communities, often serve as recruitment vehicles for political action (Verba et al., 1993). This leads us to abstract from this second division.

According to this delineation, Add Health provides information on the following margins of political participation: (i) Vote registration for the 2000 Presidential election, (ii) vote casting in the 2000 Presidential election, (iii) volunteering in civic organizations, (iv) membership in political organizations, (v) monetary contributions to political parties, (vi) participation in rallies or marches, (vii) contact to officials, and lastly (viii) the vote frequency in statewide and local elections. Information on activities (i)-(vii) is sourced from wave three (Respondent age: 18-26) and captured in binary variables indicating whether the respective activity was undertaken within the last 12 months. Information on activity (viii) is sourced from wave four (Respondent age: 24-32) and captured in an ordinal variable with four expressions, ranging from “always” and “often” to “sometimes” and “never”. In addition we estimate IOp in income acquisition in order to obtain a sense of the relative

³The results in this version of the paper are still based on the public-use file of Add Health, which among others does not contain the full sample. The results will be updated once we have access to the scientific-use file.

magnitude of IOp in political participation. Table 1 provides summary statistics for the outcome variables.

Table 1: Outcomes

	Obs.	Mean	SD	Min.	Max.
Personal Income	4531	35093	45423	0	999995
Vote (2000)	4536	.452	.498	0	1
Registered (2000)	4552	.738	.44	0	1
Monetary Donation	4559	.0145	.119	0	1
Contact Official	4564	.032	.176	0	1
Rally/March	4564	.0397	.195	0	1
Volunteer Work	4552	.295	.456	0	1
Political Org.	4552	.025	.156	0	1
Vote Frequency	4745	2.38	1.16	1	4

Circumstance variables are derived from the first wave of Add Health, when the vast majority of respondents was younger than 18 years of age. We exclude all respondents older than 17 in the first wave. This restriction is not innocent. All applied researchers on EOp need to decide which individual characteristics they are willing to treat as circumstances – a decision that is highly normative. For the purpose of this work we treat the entire child biography up to the age of 18 as a circumstance and thus do not hold children responsible for any of their prior choices. In principle it is possible to specify the responsibility cut-off at an earlier age, say 16, which would decrease the eligible set of circumstances Θ .

The circumstances we consider are grouped in seven categories, which are all sourced from the first wave of Add Health. The first set includes demographic information such as age, migration status and race. Second, we consider family background information such the education of parents, the number of siblings and the self-perceived quality of the child-parent relationship. Third, we take account of variables that are indicative for the quality of the respondent’s social life as a child. Fourth, the childhood neighborhood is evaluated, among others in terms of its safeness, maintenance condition and urban characteristics. The fifth set captures characteristics of the school the respondent went to. Sixth, aspects of religiosity are represented by the frequency of attending service and the self-rated importance of religion. Seventh, the respondent’s physiological features during childhood are evaluated along various margins ranging from restrictions due to disabilities, over ratings of attractiveness, to self-rated maturity of development in comparison with the relevant peer group. Eighth, we integrate a battery of questions on psychological

dispositions such as suicidal intentions or ratings of self-efficacy and self-esteem. Lastly, we take account of risk behaviors including drug and alcohol abuse of both the respondent and his friends during childhood.⁴

Unfortunately some of the outcomes of interest are rare events within the sample which leads to non-convergence of the logit estimation due to complete separation (Albert and Anderson, 1984). That is, when we specify the circumstance set sufficiently rich, a subset of these circumstances perfectly predicts the occurrence of the event in question leading to the non-existence of a maximum likelihood estimate for the remainder circumstances. Therefore, we alternatively consider a scaled-down circumstance set which focuses on circumstances frequently utilized in the literature (i.e Björklund et al., 2012, , see Table 2 for summary statistics).

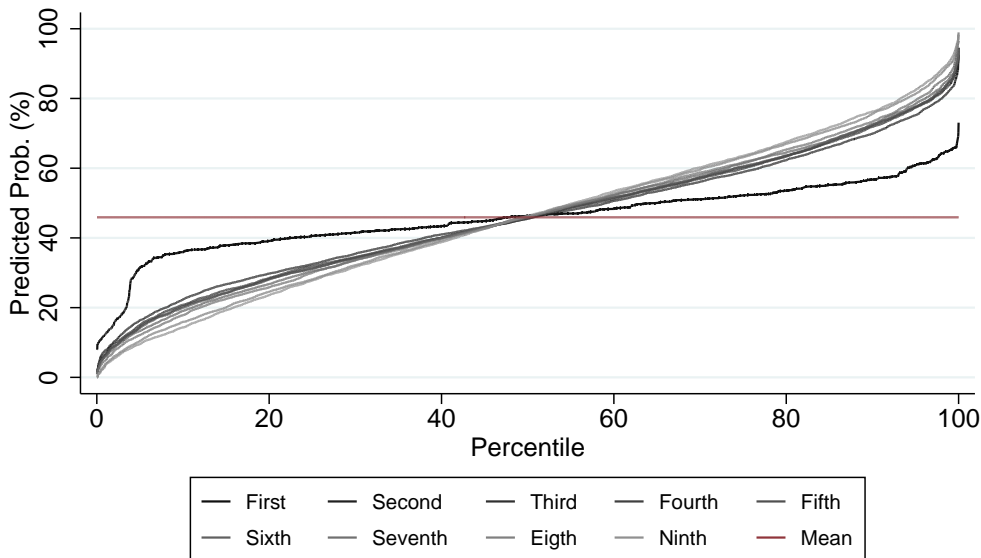
4 Results

Figure 1 illustrates opportunity dispersion for vote casting in the 2000 presidential elections. The maroon line indicates the mean participation within the sample. In total 45.9% of the respondents stated to have turned out at the polls, which is a very high estimate of turnout within the age group 18-26.⁵ This suggest that misreporting due to desirability bias (Ansolabehere and Hersh, 2012) might be relevant in our sample. The grey lines show the mean participation level for each type according to various circumstance sets. The darkest line considers demographic information only. Here, the most advantaged type at the 100th percentile participated with a probability of more than 70%. At the other end of the spectrum, the most disadvantaged type turned out with a probability of less than 10%. These differences are reinforced as we sequentially introduce the remaining circumstance categories. The lighter the shade of gray the larger the circumstance set under consideration. Accounting for the full set of circumstances the probabilities approach 100% and 0% for the most extreme types, respectively. Figure 1 highlights the fact that our measurement approach delivers a lower bound of IOp: The dispersion in type specific participation probabilities grows larger with the introduction of each additional circumstance set. In terms of the dissimilarity index, IOp attains a value of 20.9% with the most extensive circumstance set (see Table 2 for an overview of all scalar measure results).

Figure 2 documents that IOp varies strongly over the different margins of political par-

⁴In view of the breadth of circumstances considered, a thorough description of each circumstance variable cannot be given here. The interested reader is relegated to the Appendix, where summary statistics

Figure 1: Type Specific Opportunity Sets for Voting in 2000



Note: The following circumstance sets are introduced sequentially: First (Demographics), Second (Family Background), Third (Social Life), Fourth (Neighborhood Characteristics), Fifth (School Characteristics), Sixth (Religious Attitudes), Seventh (Physiological Features), Eighth (Psychological Dispositions), Ninth (Risk Behaviour). The maroon line yields the mean predicted probability of participating along the margin of interest within the sample. At the 100th percentile we have the probability of participation for the most advantaged type. At the 0 percentile the equivalent for the most disadvantaged type.

participation. In view of the econometric complexities associated with rare event outcomes (see section 3), we do not make use of the extensive circumstance set here. Instead we restrict ourselves to the base circumstance set in order to enable a comparison across different activities. Among the activities under consideration vote registration is most fairly distributed from an EOp perspective. Only the lowest percentiles of the smoothed distribution fall short in opportunities in comparison with the remaining population. The associated dissimilarity index attains a value of 7.8% (Table 2). The reverse holds true for monetary donations, contacts to officials, participation in rallies and marches, and the membership in political organizations. Here only the most advantaged types engage politically, whereas the vast majority of the population has a very low propensity to participate along those margins. This is reflected in Dissimilarity Indices of approximately 40% for these activities (also Table 2). Vote casting and voluntary engagement in civic organizations take a middle ground between both extremes, with 15.1% and 18.1% respectively. Again it is important to point to the lower bound nature of these estimates. Using the base circumstance set, the dissimilarity index for vote casting in the 2000 Presidential election is 15.1%, i.e. more on all circumstances are disclosed.

⁵For instance, the US Census Bureau estimates turnout in the 2000 Presidential election in the age group 18-24 to 36.1%.

Table 2: Results Overview for Scalar Measures of IOp

Margin	Circ. Set	N	Avrg. Particip.	Diss. Index	MLD
Contact Official	Base	3733	3.6%	41.8%	0.68
Monetary Donation	Base	3386	1.8%	39.7%	0.56
Political Organization	Base	3469	3.1%	42.0%	0.68
Rally/March	Base	3797	4.4%	39.0%	0.59
Registered (2000)	Base	4104	74.1%	7.8%	0.03
Volunteer Work	Base	4097	30.0%	18.1%	0.11
Vote (2000)	Base	4082	45.7%	15.1%	0.09
Vote: Always	Base	4277	25.6%	18.7%	0.13
Vote: Never	Base	4277	30.1%	18.1%	0.11
Vote: Often	Base	4277	17.6%	8.6%	0.04
Vote: Sometimes	Base	4277	26.7%	5.3%	0.02
Registered (2000)	Extensive	4073	74.0%	10.8%	0.06
Vote (2000)	Extensive	4055	45.9%	20.9%	0.24
Vote: Always	Extensive	4277	25.7%	24.3%	0.26
Vote: Never	Extensive	4277	30.0%	23.9%	0.19
Vote: Often	Extensive	4277	17.6%	12.0%	0.10
Vote: Sometimes	Extensive	4277	26.7%	8.4%	0.07

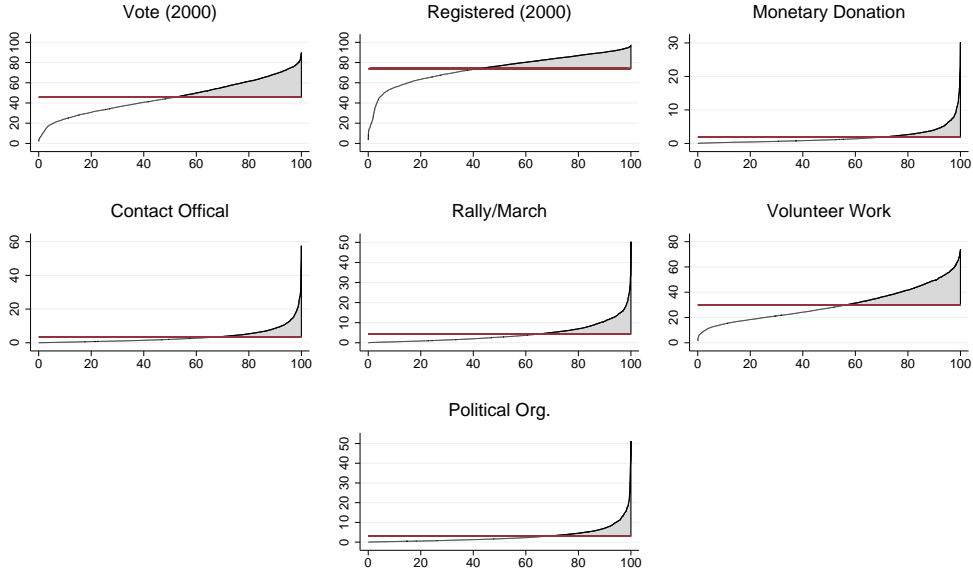
Note: The base circumstance set corresponds to the variables outlined in Table 2. The extensive circumstance set accounts for all circumstances available (see Appendix). Avrg. participation corresponds to the sample average with respect to the margin of interest. The last two columns yield two different scalar measures of IOp, the Dissimilarity Index and the Mean Log Deviation in type specific propensities to participate in the respective activity.

than five percentage points lower than with the most extensive circumstance set.

Recall that these results are exclusively based on respondents aged 18-26 at the time of the survey. Therefore, one may argue that they represent IOp in *political initiation* rather than political participation tout court. In fact, it has been shown that initial differences in political behavior tend to converge over the life cycle irrespective of socio-economic characteristics (Plutzer, 2002). Can we observe akin convergence for political opportunities as well? To address this question Figure 3 shows estimates of IOp in vote frequency in both local and statewide elections. This outcome variable has been sourced from wave four when respondents were aged 24-32. Employing the base circumstance set, the dissimilarity index for participation in every election attains a value of 25.6%. Reversely, the dissimilarity index for never casting a vote in any election attains a value of 30.1%. Unfortunately, comparisons of voting behavior across both waves are difficult as the respective questions vary. While the first asks about a specific election, the second inquires about vote frequency more generally. Therefore, it is difficult to rule out a life cycle convergence hypothesis with respect to political opportunities. As a minimal statement, however, we can conclude that unequal opportunities continue to exist as respondents grow older.

To this stage it has been shown that IOp in political participation does exist to varying

Figure 2: Comparison of Type Specific Opportunity Sets Across Various Margins

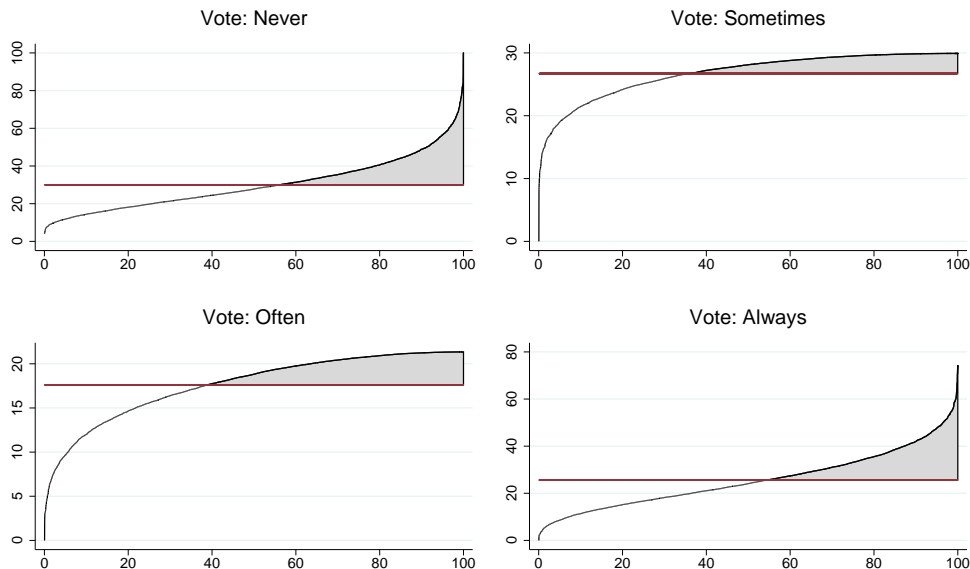


Note: The black line indicates the type specific estimate for the respective opportunity set using the Base circumstance set (see Table 2). The maroon line yields the mean predicted probability of participating along the margin of interest within the sample. At the 100th percentile we have the probability of participation for the most advantaged type. At the 0 percentile the equivalent for the most disadvantaged type. The grey area indicates the numerator of the dissimilarity index.

degrees along each margin of interest. Yet concerns about existing injustices in the democratic process could be mitigated if opportunity sets in political activities were substitutes rather than complements. In the first case, a disadvantaged type in one dimension would be among the advantaged types in other dimensions. In the second case a disadvantage in one dimension would be accompanied by disadvantages in all other dimensions as well. Table 3 lists correlations of type specific probabilities for all modes of participation considered in this work. As most correlations are significantly positive we can conclude that opportunities for different political activities are complements rather than substitutes. For instance, a high propensity to vote goes hand in hand with a high propensity to contact an official, to participate in a rally or to engage in both civic and political organizations. There is one noteworthy exception. A favorable opportunity set for monetary contributions substitutes for the propensity in vote casting, volunteer work and the engagement in political organizations. It is interesting to speculate about how differences in the resources necessary to make monetary contributions as opposed to the latter three activities are connected to circumstances such as the socioeconomic status of the family or psychosocial processes during childhood. Yet a thorough investigation of these differences must be left for future research.

Lastly, we turn to the magnitude of IOp in political participation as opposed to IOp

Figure 3: Type Specific Opportunity Sets for Frequency of Voting



Note: The black line indicates the type specific estimate for the respective opportunity set using the base circumstance set (see Table 2). The maroon line yields the mean predicted probability of participating along the margin of interest within the sample. At the 100th percentile we have the probability of participation for the most advantaged type. At the 0 percentile the equivalent for the most disadvantaged type. The grey area indicates the numerator of the dissimilarity index.

in income acquisition, which to date has been the most extensively researched outcome dimension by scholars in this literature. Figure 4 plots the MLDs of the smoothed distributions of personal income and the various dimensions of political participation. We rely on the MLD as it has been the most widely used inequality index in research on IOP in income acquisition. The vast differences in the MLDs for political activities are consistent with the results presented previously in terms of the dissimilarity index. Monetary contributions, contacts to officials, participation in rallies and marches and engagement in political organizations are most unjustly distributed from an equal-opportunity perspective. Voting and voluntary work take a middle ground, while the registration to vote evokes the least normative concern. The MLD in personal income attains a value of 0.062 which corresponds to other lower bound estimates of IOP in annual income in the US (Niehues and Peichl, 2014). It is noteworthy that, safe for vote registration, all margins of political participation are more unjustly distributed than personal income.

5 Conclusion

In this work we have presented the first estimates of EOp in political participation. We found that political opportunities are particularly unjustly distributed in the areas of mon-

Table 3: Correlations-Predicted Prob.

	Vote (2000)	Registered (2000)	Monetary Don.	Contact Official	Rally/ March	Volunteer Work	Political Org.
Vote (2000)	1.000						
Registered (2000)	0.875***	1.000					
Monetary Don.	-0.057***	0.033	1.000				
Contact Official	0.395***	0.348***	0.092***	1.000			
Rally/ March	0.560***	0.441***	0.028	0.617***	1.000		
Volunteer Work	0.601***	0.537***	-0.166***	0.458***	0.611***	1.000	
Political Org.	0.400***	0.319***	-0.048**	0.520***	0.686***	0.558***	1.000

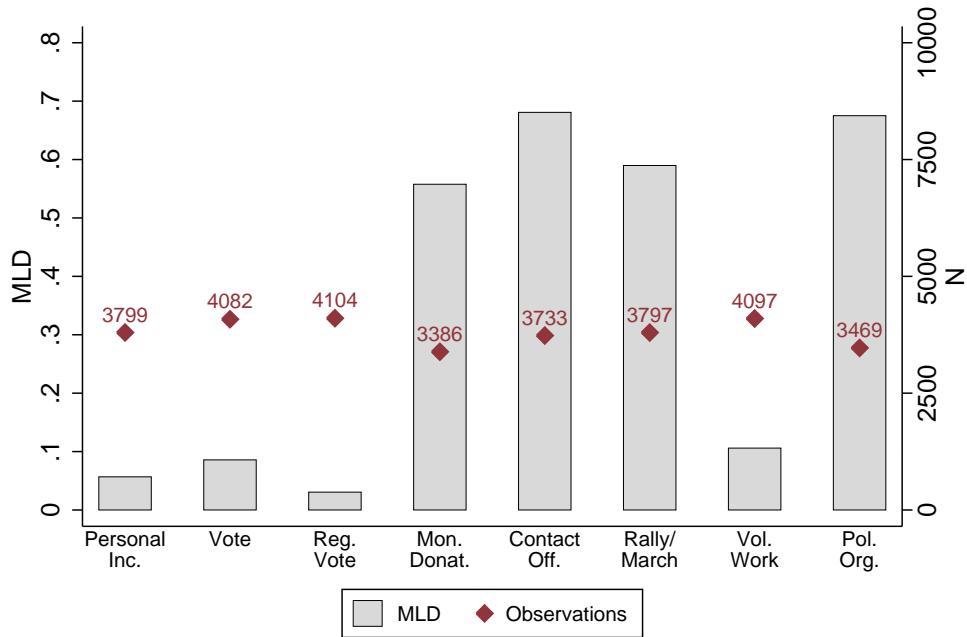
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

etary contributions, contacts to officials, participation in rallies and marches, and the membership in political organizations. Furthermore we have shown that a lack of opportunity in one dimension is complemented by restricted opportunities in other dimensions of political participation. In terms of magnitude, IOp in political participation exceeds IOp in income acquisition.

The following steps will be undertaken in the near future to extend the current state of the analysis:

1. The results in this version of the paper are still based on the public-use file of Add Health, which among others does not contain the full sample. In a next step the current analysis will be re-run using the extensive sample.
2. One noteworthy recent development in the political science literature is the evolving interest in genes as mediators of environmental influences that determine political participation (Alford et al., 2005; Fowler and Dawes, 2008). By virtue of the fact that “genes are fixed, they represent the purest measure of biological inheritance” (Fowler et al., 2008) and thus should be of particular interest in the estimation of EOp. Add Health holds available allelic information on six genetic markers, which were collected from a subsample ($N = 2,574$) as part of the third wave. Therefore we will extend this work by including genetic information in a separate circumstance set.
3. It is important to note that it is beyond the ambit of the current analysis to estab-

Figure 4: Comparison to IOp in Personal Income



Note: The grey bars yield the mean log deviation for the smoothed distribution of respective margin of participation using the base circumstance set (See Table 2). The maroon diamonds show the number of observations used for estimation.

lish claims on the causes of the existing political opportunity structure in the US. To guide policy, however, it is indispensable to move beyond the exploratory approach of the current analysis and to understand the underlying mechanisms at play. Decomposition exercises à la Fortin et al. (2011) and Gelbach (2016) or Shapley-value decompositions as suggested in Björklund et al. (2012) may provide fruitful avenues to disentangle the individual importance of single circumstance variables.

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6 Appendix

Table 4: Circumstances: Base Set

	Obs.	Mean	SD	Min.	Max.
Male	6051	.48	.5	0	1
Race: Black	6049	.227	.419	0	1
Race: Native American	6049	.0104	.102	0	1
Race: Asian	6049	.0326	.178	0	1
Race: Other Non-White	6049	.107	.31	0	1
Birth/Year: '77	6051	.19	.392	0	1
Birth/Year: '78	6051	.193	.395	0	1
Birth/Year: '79	6051	.192	.394	0	1
Birth/Year: '80	6051	.179	.383	0	1
Birth/Year: '81	6051	.149	.356	0	1
Birth/Year: '82	6051	.0957	.294	0	1
Born in US	6051	.942	.233	0	1
US Citizen	6049	.954	.209	0	1
Suburban	6049	.366	.482	0	1
Urban: Residential Only	6049	.314	.464	0	1
Commercial Prop: Mostly retail	6049	.0195	.138	0	1
Commercial Prop: Wholesale/Industr.	6049	.00678	.0821	0	1
Other Residential Area	6049	.017	.129	0	1
Mom: <9th grade	6047	.0377	.19	0	1
Mom: HS Dropout	6047	.0868	.282	0	1
Mom: Voc. School (No HS)	6047	.00612	.078	0	1
Mom: High School	6047	.279	.449	0	1
Mom: GED	6047	.0336	.18	0	1
Mom: Voc. School (+ HS)	6047	.067	.25	0	1
Mom: College Dropout	6047	.119	.324	0	1
Mom: College	6047	.197	.398	0	1
Mom: College (+ Professional)	6047	.0814	.273	0	1
Mom: No School	6047	.000992	.0315	0	1
Mom: Educ. Unclear	6047	.0412	.199	0	1
Dad: <9th grade	6045	.0331	.179	0	1
Dad: HS Dropout	6045	.0586	.235	0	1
Dad: Voc. School (No HS)	6045	.00364	.0602	0	1
Dad: High School	6045	.202	.401	0	1
Dad: GED	6045	.0202	.141	0	1
Dad: Voc. School (+ HS)	6045	.0397	.195	0	1
Dad: College Dropout	6045	.0794	.27	0	1
Dad: College	6045	.147	.354	0	1
Dad: College (+ Professional)	6045	.0842	.278	0	1
Dad: No School	6045	.00149	.0386	0	1
Dad: Educ. Unclear	6045	.039	.194	0	1
Mom: Professional 1	6044	.0172	.13	0	1
Mom: Professional 2	6044	.193	.395	0	1

	Obs.	Mean	SD	Min.	Max.
Mom: Manager	6044	.0496	.217	0	1
Mom: Technician	6044	.0298	.17	0	1
Mom: Worker (Office)	6044	.161	.368	0	1
Mom: Worker (Sales)	6044	.05	.218	0	1
Mom: Worker (Service)	6044	.0769	.267	0	1
Mom: Craftsperson	6044	.00662	.0811	0	1
Mom: Worker (Construction)	6044	.00232	.0481	0	1
Mom: Mechanic	6044	.00331	.0574	0	1
Mom: Worker (Factory)	6044	.05	.218	0	1
Mom: Worker (Transportation)	6044	.00728	.085	0	1
Mom: Military	6044	.0048	.0691	0	1
Mom: Agric./Fishery	6044	.00579	.0759	0	1
Mom: Other	6044	.155	.362	0	1
Mom: None	6044	.136	.343	0	1
Dad: Professional 1	6045	.0448	.207	0	1
Dad: Professional 2	6045	.0404	.197	0	1
Dad: Manager	6045	.0852	.279	0	1
Dad: Technician	6045	.0443	.206	0	1
Dad: Worker (Office)	6045	.0167	.128	0	1
Dad: Worker (Sales)	6045	.0316	.175	0	1
Dad: Worker (Service)	6045	.0109	.104	0	1
Dad: Craftsperson	6045	.0253	.157	0	1
Dad: Worker (Construction)	6045	.0653	.247	0	1
Dad: Mechanic	6045	.0658	.248	0	1
Dad: Worker (Factory)	6045	.0774	.267	0	1
Dad: Worker (Transportation)	6045	.0265	.161	0	1
Dad: Military	6045	.0275	.163	0	1
Dad: Agric./Fishery	6045	.0146	.12	0	1
Dad: Other	6045	.102	.303	0	1
Dad: None	6045	.0293	.169	0	1
No Father in HH	6051	.292	.455	0	1
No Mother in HH	6051	.0502	.218	0	1
Mom in HH: Not on Welfare	6046	.856	.351	0	1
Mom in HH: On Welfare	6046	.0939	.292	0	1
Dad in HH: Not on Welfare	6048	.687	.464	0	1
Dad in HH: On Welfare	6048	.021	.143	0	1
Picture Vocabulary Test Score	5815	64.9	10.8	0	87

Table 5: Demographics

	Obs.	Mean	SD	Min.	Max.
Male	6051	.48	.5	0	1
Race: Black	6049	.227	.419	0	1
Race: Native American	6049	.0104	.102	0	1
Race: Asian	6049	.0326	.178	0	1
Race: Other Non-White	6049	.107	.31	0	1
Born in US	6051	.942	.233	0	1
Birth/Month: Jan.	6051	.082	.274	0	1
Birth/Month: Feb.	6051	.0792	.27	0	1
Birth/Month: March	6051	.0884	.284	0	1
Birth/Month: April	6051	.0851	.279	0	1
Birth/Month: May	6051	.0892	.285	0	1
Birth/Month: June	6051	.0835	.277	0	1
Birth/Month: July	6051	.0921	.289	0	1
Birth/Month: Aug.	6051	.0848	.279	0	1
Birth/Month: Sep.	6051	.0889	.285	0	1
Birth/Month: Oct.	6051	.0851	.279	0	1
Birth/Month: Nov.	6051	.0722	.259	0	1
Birth/Year: '74	6051	0	0	0	0
Birth/Year: '75	6051	0	0	0	0
Birth/Year: '76	6051	0	0	0	0
Birth/Year: '77	6051	.19	.392	0	1
Birth/Year: '78	6051	.193	.395	0	1
Birth/Year: '79	6051	.192	.394	0	1
Birth/Year: '80	6051	.179	.383	0	1
Birth/Year: '81	6051	.149	.356	0	1
Birth/Year: '82	6051	.0957	.294	0	1
US Citizen	6049	.954	.209	0	1

Table 6: Family Background

	Obs.	Mean	SD	Min.	Max.
Orphan (Mother)	6051	.0256	.158	0	1
Orphan (Father)	6051	.112	.315	0	1
No Father in HH	6051	.292	.455	0	1
No Mother in HH	6051	.0502	.218	0	1
HH-Size: 1	6051	.0542	.226	0	1
HH-Size: 2	6051	.196	.397	0	1
HH-Size: 3	6051	.333	.471	0	1
HH-Size: 4	6051	.224	.417	0	1
HH-Size: 5	6051	.105	.307	0	1
HH-Size: 6	6051	.0466	.211	0	1
HH-Size: 7	6051	.022	.147	0	1
HH-Size: 8	6051	.00892	.0941	0	1
HH-Size: 9	6051	.00347	.0588	0	1

	Obs.	Mean	SD	Min.	Max.
HH-Size: 10	6051	.00231	.048	0	1
HH-Size: 11	6051	.00116	.034	0	1
HH-Size: 12	6051	.00149	.0385	0	1
HH-Size: 13	6051	.000165	.0129	0	1
HH-Size: 14	6051	.000165	.0129	0	1
HH-Size: 16	6051	.000165	.0129	0	1
HH-Size: 20	6051	.000331	.0182	0	1
# Siblings: 1	6051	.391	.488	0	1
# Siblings: 2	6051	.238	.426	0	1
# Siblings: 3	6051	.0909	.287	0	1
# Siblings: 4	6051	.0326	.177	0	1
# Siblings: 5	6051	.0132	.114	0	1
# Siblings: 6	6051	.00397	.0629	0	1
# Siblings: 7	6051	.00149	.0385	0	1
# Siblings: 9	6051	.000331	.0182	0	1
# Siblings: 10	6051	.000165	.0129	0	1
# Siblings: 12	6051	.000165	.0129	0	1
# Birth Rank: 1	6043	.309	.462	0	1
# Birth Rank: 2	6043	.287	.452	0	1
# Birth Rank: 3	6043	.116	.321	0	1
# Birth Rank: 4	6043	.041	.198	0	1
# Birth Rank: 5	6043	.0142	.118	0	1
# Birth Rank: 6	6043	.00695	.0831	0	1
# Birth Rank: 7	6043	.00314	.056	0	1
# Birth Rank: 8	6043	.00149	.0386	0	1
# Birth Rank: 9	6043	.00215	.0463	0	1
# Birth Rank: 10	6043	.000331	.0182	0	1
# Birth Rank: 11	6043	.000331	.0182	0	1
# Birth Rank: 12	6043	.000165	.0129	0	1
# Birth Rank: 14	6043	.000165	.0129	0	1
English @ Home	6050	.933	.249	0	1
Mom: <9th grade	6047	.0377	.19	0	1
Mom: HS Dropout	6047	.0868	.282	0	1
Mom: Voc. School (No HS)	6047	.00612	.078	0	1
Mom: High School	6047	.279	.449	0	1
Mom: GED	6047	.0336	.18	0	1
Mom: Voc. School (+ HS)	6047	.067	.25	0	1
Mom: College Dropout	6047	.119	.324	0	1
Mom: College	6047	.197	.398	0	1
Mom: College (+ Professional)	6047	.0814	.273	0	1
Mom: No School	6047	.000992	.0315	0	1
Mom: Educ. Unclear	6047	.0412	.199	0	1
Dad: <9th grade	6045	.0331	.179	0	1
Dad: HS Dropout	6045	.0586	.235	0	1
Dad: Voc. School (No HS)	6045	.00364	.0602	0	1

	Obs.	Mean	SD	Min.	Max.
Dad: High School	6045	.202	.401	0	1
Dad: GED	6045	.0202	.141	0	1
Dad: Voc. School (+ HS)	6045	.0397	.195	0	1
Dad: College Dropout	6045	.0794	.27	0	1
Dad: College	6045	.147	.354	0	1
Dad: College (+ Professional)	6045	.0842	.278	0	1
Dad: No School	6045	.00149	.0386	0	1
Dad: Educ. Unclear	6045	.039	.194	0	1
Mom: Professional 1	6044	.0172	.13	0	1
Mom: Professional 2	6044	.193	.395	0	1
Mom: Manager	6044	.0496	.217	0	1
Mom: Technician	6044	.0298	.17	0	1
Mom: Worker (Office)	6044	.161	.368	0	1
Mom: Worker (Sales)	6044	.05	.218	0	1
Mom: Worker (Service)	6044	.0769	.267	0	1
Mom: Craftsperson	6044	.00662	.0811	0	1
Mom: Worker (Construction)	6044	.00232	.0481	0	1
Mom: Mechanic	6044	.00331	.0574	0	1
Mom: Worker (Factory)	6044	.05	.218	0	1
Mom: Worker (Transportation)	6044	.00728	.085	0	1
Mom: Military	6044	.0048	.0691	0	1
Mom: Agric./Fishery	6044	.00579	.0759	0	1
Mom: Other	6044	.155	.362	0	1
Mom: None	6044	.136	.343	0	1
Dad: Professional 1	6045	.0448	.207	0	1
Dad: Professional 2	6045	.0404	.197	0	1
Dad: Manager	6045	.0852	.279	0	1
Dad: Technician	6045	.0443	.206	0	1
Dad: Worker (Office)	6045	.0167	.128	0	1
Dad: Worker (Sales)	6045	.0316	.175	0	1
Dad: Worker (Service)	6045	.0109	.104	0	1
Dad: Craftsperson	6045	.0253	.157	0	1
Dad: Worker (Construction)	6045	.0653	.247	0	1
Dad: Mechanic	6045	.0658	.248	0	1
Dad: Worker (Factory)	6045	.0774	.267	0	1
Dad: Worker (Transportation)	6045	.0265	.161	0	1
Dad: Military	6045	.0275	.163	0	1
Dad: Agric./Fishery	6045	.0146	.12	0	1
Dad: Other	6045	.102	.303	0	1
Dad: None	6045	.0293	.169	0	1
Mom in HH: Not on Welfare	6046	.856	.351	0	1
Mom in HH: On Welfare	6046	.0939	.292	0	1
Dad in HH: Not on Welfare	6048	.687	.464	0	1
Dad in HH: On Welfare	6048	.021	.143	0	1
Home State: Fairly Well	6048	.283	.451	0	1

	Obs.	Mean	SD	Min.	Max.
Home State: Poor	6048	.089	.285	0	1
Home State: Very Poor	6048	.0468	.211	0	1
Home State: Other	6048	.0112	.105	0	1
Trailer	6050	.0646	.246	0	1
Single Row House	6050	.0521	.222	0	1
Divided House	6050	.0119	.108	0	1
Small Appt. Bldg.	6050	.036	.186	0	1
Appt. Bldg. Free Access	6050	.0438	.205	0	1
Appt. Bldg. Locked	6050	.0137	.116	0	1
Other House Type	6050	.0193	.138	0	1
Gun in HH	6019	.24	.427	0	1
Parent Disabl.	6051	.106	.308	0	1
Meals w/ Mom or Dad? 0 Days	6048	.107	.31	0	1
Meals w/ Mom or Dad? 1 Day	6048	.0465	.211	0	1
Meals w/ Mom or Dad? 2 Days	6048	.0709	.257	0	1
Meals w/ Mom or Dad? 3 Days	6048	.0886	.284	0	1
Meals w/ Mom or Dad? 4 Days	6048	.0875	.283	0	1
Meals w/ Mom or Dad? 5 Days	6048	.116	.32	0	1
Meals w/ Mom or Dad? 6 Days	6048	.0688	.253	0	1
Meals w/ Mom or Dad? 7 Days	6048	.398	.49	0	1
Meals w/ Mom or Dad? Don't know	6048	.00298	.0545	0	1
Close to Mom? Not at all	6050	.00364	.0602	0	1
Close to Mom? Very Little	6050	.0235	.151	0	1
Close to Mom? Somewhat	6050	.0742	.262	0	1
Close to Mom? Quite a bit	6050	.189	.391	0	1
Close to Mom? Very Much	6050	.659	.474	0	1
Close to Mom? Don't know	6050	.000496	.0223	0	1
Caring Mom? Not at all	6051	.00231	.048	0	1
Caring Mom? Very Little	6051	.00595	.0769	0	1
Caring Mom? Somewhat	6051	.019	.137	0	1
Caring Mom? Quite a bit	6051	.0684	.252	0	1
Caring Mom? Very Much	6051	.854	.354	0	1
Caring Mom? Don't know	6051	.000496	.0223	0	1
Satisfied w/ Mom? Strongly Agree	6048	.476	.499	0	1
Satisfied w/ Mom? Agree	6048	.361	.48	0	1
Satisfied w/ Mom? Don't know	6048	.0564	.231	0	1
Satisfied w/ Mom? Disagree	6048	.0413	.199	0	1
Satisfied w/ Mom? Strongly Disagree	6048	.015	.122	0	1
Close to Dad? Not at all	6050	.0112	.105	0	1
Close to Dad? Very Little	6050	.0283	.166	0	1
Close to Dad? Somewhat	6050	.0926	.29	0	1
Close to Dad? Quite a bit	6050	.19	.392	0	1
Close to Dad? Very Much	6050	.386	.487	0	1
Close to Dad? Don't know	6050	.000165	.0129	0	1
Caring Dad? Not at all	6050	.00231	.0481	0	1

	Obs.	Mean	SD	Min.	Max.
Caring Dad? Very Little	6050	.00942	.0966	0	1
Caring Dad? Somewhat	6050	.0269	.162	0	1
Caring Dad? Quite a bit	6050	.0833	.276	0	1
Caring Dad? Very Much	6050	.586	.493	0	1
Caring Dad? Don't know	6050	.000165	.0129	0	1
Satisfied w/ Dad? Strongly Agree	6043	.284	.451	0	1
Satisfied w/ Dad? Agree	6043	.301	.459	0	1
Satisfied w/ Dad? Don't know	6043	.0621	.241	0	1
Satisfied w/ Dad? Disagree	6043	.046	.21	0	1
Satisfied w/ Dad? Strongly Disagree	6043	.0149	.121	0	1
Family w/ Suicide Attempt? Yes	6016	.0487	.215	0	1
Family w/ Suicide Attempt? Don't Know	6016	.00482	.0693	0	1

Table 7: Social Life

	Obs.	Mean	SD	Min.	Max.
# Friend Contact: 1-2	6051	.231	.421	0	1
# Friend Contact: 3-4	6051	.271	.445	0	1
# Friend Contact: >5	6051	.402	.49	0	1
# Friend Contact: Other	6051	.000165	.0129	0	1
Close to Ppl. @ School? Strongly Agree	6049	.196	.397	0	1
Close to Ppl. @ School? Agree	6049	.473	.499	0	1
Close to Ppl. @ School? Don't know	6049	.187	.39	0	1
Close to Ppl. @ School? Disagree	6049	.0941	.292	0	1
Close to Ppl. @ School? Strongly Disagree	6049	.035	.184	0	1
Socially Accepted? Agree	6045	.564	.496	0	1
Socially Accepted? Don't know	6045	.103	.304	0	1
Socially Accepted? Disagree	6045	.0379	.191	0	1
Socially Accepted? Strongly Disagree	6045	.00562	.0748	0	1
Loved and Wanted? Agree	6045	.479	.5	0	1
Loved and Wanted? Don't know	6045	.0754	.264	0	1
Loved and Wanted? Disagree	6045	.0174	.131	0	1
Loved and Wanted? Strongly Disagree	6045	.00281	.053	0	1
Friend w/ Suicide Attempt? Yes	6017	.176	.381	0	1
Friend w/ Suicide Attempt? Don't Know	6017	.00565	.075	0	1
Caring Friends? Very Little	6042	.0194	.138	0	1
Caring Friends? Somewhat	6042	.125	.331	0	1
Caring Friends? Quite a bit	6042	.416	.493	0	1
Caring Friends? Very much	6042	.431	.495	0	1
Caring Friends? Other	6042	.00215	.0463	0	1
Romantic Relation? Yes	6032	.544	.498	0	1
Romantic Relation? Don't Know	6032	.00166	.0407	0	1
First sex (Age): 1	6002	0	0	0	0
First sex (Age): 3	6002	.000333	.0183	0	1
First sex (Age): 4	6002	.0005	.0224	0	1
First sex (Age): 5	6002	.00117	.0341	0	1
First sex (Age): 6	6002	.00167	.0408	0	1
First sex (Age): 7	6002	.001	.0316	0	1
First sex (Age): 8	6002	.00283	.0531	0	1
First sex (Age): 9	6002	.0065	.0804	0	1
First sex (Age): 10	6002	.00816	.09	0	1
First sex (Age): 11	6002	.0102	.1	0	1
First sex (Age): 12	6002	.0205	.142	0	1
First sex (Age): 13	6002	.035	.184	0	1
First sex (Age): 14	6002	.0578	.233	0	1
First sex (Age): 15	6002	.0713	.257	0	1
First sex (Age): 16	6002	.0723	.259	0	1
First sex (Age): 17	6002	.0483	.214	0	1
First sex (Age): 18	6002	.014	.117	0	1
First sex (Age): 19	6002	0	0	0	0
First sex (Age): 20	6002	0	0	0	0
First sex (Age): Don't Know	6002	.0172	.13	0	1
Homosexual Attraction	6051	.0347	.183	0	1

Table 8: Neighborhood Characteristics

	Obs.	Mean	SD	Min.	Max.
Witnessed Shootings? Once	6021	.0882	.284	0	1
Witnessed Shootings? > Once	6021	.0332	.179	0	1
Witnessed Shootings? Don't Know	6021	.00183	.0427	0	1
Knife pulled on you? Once	6024	.0974	.297	0	1
Knife pulled on you? > Once	6024	.0254	.157	0	1
Knife pulled on you? Don't Know	6024	.00166	.0407	0	1
Know most neighbors? No	6042	.263	.44	0	1
Know most neighbors? Don't Know	6042	.00166	.0407	0	1
Feel safe in n'hood? No	6043	.896	.305	0	1
Feel safe in n'hood? Don't Know	6043	.00232	.0481	0	1
Feel happy in n'hood? Very little	6043	.0559	.23	0	1
Feel happy in n'hood? Somewhat	6043	.211	.408	0	1
Feel happy in n'hood? Quite a bit	6043	.359	.48	0	1
Feel happy in n'hood? Very much	6043	.344	.475	0	1
Feel happy in n'hood? Don't Know	6043	.00165	.0406	0	1
Suburban	6049	.366	.482	0	1
Urban: Residential Only	6049	.314	.464	0	1
Commercial Prop: Mostly retail	6049	.0195	.138	0	1
Commercial Prop: Wholesale/Industr.	6049	.00678	.0821	0	1
Other Residential Area	6049	.017	.129	0	1
Very well kept	6050	.373	.484	0	1
Fairly well kept	6050	.253	.435	0	1
Poorly kept	6050	.0656	.248	0	1
Very poorly kept	6050	.0221	.147	0	1
Don't Know	6050	.00893	.0941	0	1

Table 9: School Characteristics

	Obs.	Mean	SD	Min.	Max.
Caring Teachers? Not at all	6043	.0344	.182	0	1
Caring Teachers? Very little	6043	.0925	.29	0	1
Caring Teachers? Somewhat	6043	.342	.474	0	1
Caring Teachers? Quite a bit	6043	.352	.478	0	1
Caring Teachers? Very much	6043	.173	.379	0	1
Caring Teachers? Don't know	6043	.00132	.0364	0	1

Table 10: Religious Attitudes

	Obs.	Mean	SD	Min.	Max.
# Religious services: 1/week	6044	.402	.49	0	1
# Religious services: 1/month	6044	.197	.398	0	1
# Religious services: <1/month	6044	.168	.374	0	1
# Religious services: Never	6044	.102	.302	0	1
# Religious services: Don't Know	6044	.00116	.034	0	1
Religion? Very important	6049	.435	.496	0	1
Religion? Fairly important	6049	.343	.475	0	1
Religion? Fairly unimportant	6049	.0605	.238	0	1
Religion? Not important	6049	.0303	.171	0	1
Religion? Don't know	6049	.00116	.034	0	1

Table 11: Physiological Characteristics

	Obs.	Mean	SD	Min.	Max.
Height (inch)	5971	66.2	4.12	48	81
Weight (pound)	5914	140	33.6	50	360
Perm. Phys. Cond.	6051	6.85	.989	0	7
Looks: Unattractive	6048	.044	.205	0	1
Looks: Avrg. Attractive	6048	.43	.495	0	1
Looks: Attractive	6048	.355	.478	0	1
Looks: Very Attractive	6048	.152	.359	0	1
Looks: Other	6048	.000992	.0315	0	1
Pers.: Unattractive	6050	.0408	.198	0	1
Pers.: Avrg. Attractive	6050	.439	.496	0	1
Pers.: Attractive	6050	.351	.477	0	1
Pers.: Very Attractive	6050	.154	.361	0	1
Pers.: Other	6050	.000496	.0223	0	1
Dev.: Immature	6050	.0821	.275	0	1
Dev.: Average	6050	.503	.5	0	1
Dev.: Mature	6050	.299	.458	0	1
Dev.: Very Mature	6050	.0942	.292	0	1
Dev.: Other	6050	.000992	.0315	0	1
Health: Very Good	6051	.404	.491	0	1
Health: Good	6051	.245	.43	0	1
Health: Fair	6051	.0618	.241	0	1
Health: Poor	6051	.00413	.0641	0	1
Health: Other	6051	.000331	.0182	0	1
Perm. Phys. Cond.	6051	6.85	.989	0	7
Sickness Index	6051	19.5	8.25	0	72
School Abs.: Few Times	6037	.301	.459	0	1
School Abs.: Once/Week	6037	.0345	.182	0	1
School Abs.: Almost Every Day	6037	.00547	.0737	0	1
School Abs.: Every Day	6037	.00282	.053	0	1
School Abs.: Other	6037	.00199	.0445	0	1
Activity Abs.: Few Times	6050	.228	.419	0	1
Activity Abs.: Once/Week	6050	.014	.118	0	1
Activity Abs.: Almost Every Day	6050	.00364	.0602	0	1
Activity Abs.: Every Day	6050	.00215	.0463	0	1
Activity Abs.: Other	6050	.00149	.0385	0	1
Use Mobility Dev.	6049	.0266	.161	0	1
Physical Diff./No Aid	6050	.04	.196	0	1
Physical Diff./Aid	6050	.00248	.0497	0	1
Psych. Counseling	6047	.127	.333	0	1

Table 12: Psychological Dispositions

	Obs.	Mean	SD	Min.	Max.
Intelligence? Slightly below avrg.	6049	.0498	.217	0	1
Intelligence? About avrg.	6049	.38	.485	0	1
Intelligence? Slightly above avrg.	6049	.22	.414	0	1
Intelligence? Moderately above avrg.	6049	.272	.445	0	1
Intelligence? Extremely above avrg.	6049	.0643	.245	0	1
Intelligence? Don't Know	6049	.00231	.0481	0	1
Hard work pays? Agree	6048	.499	.5	0	1
Hard work pays? Don't Know	6048	.181	.385	0	1
Hard work pays? Disagree	6048	.0675	.251	0	1
Hard work pays? Strongly Disagree	6048	.0107	.103	0	1
Lots of qualities? Agree	6045	.54	.498	0	1
Lots of qualities? Don't Know	6045	.0736	.261	0	1
Lots of qualities? Disagree	6045	.00976	.0983	0	1
Lots of qualities? Strongly Disagree	6045	.00132	.0364	0	1
Proud? Agree	6046	.48	.5	0	1
Proud? Don't Know	6046	.0711	.257	0	1
Proud? Disagree	6046	.019	.137	0	1
Proud? Strongly Disagree	6046	.00215	.0463	0	1
Like yourself? Agree	6045	.427	.495	0	1
Like yourself? Don't Know	6045	.136	.343	0	1
Like yourself? Disagree	6045	.0824	.275	0	1
Like yourself? Strongly Disagree	6045	.00794	.0888	0	1
Never sad? Agree	6048	.111	.314	0	1
Never sad? Don't Know	6048	.174	.379	0	1
Never sad? Disagree	6048	.546	.498	0	1
Never sad? Strongly Disagree	6048	.136	.343	0	1
Never criticize? Agree	6047	.18	.385	0	1
Never criticize? Don't Know	6047	.276	.447	0	1
Never criticize? Disagree	6047	.427	.495	0	1
Never criticize? Strongly Disagree	6047	.0575	.233	0	1
Avoid problems? Agree	6041	.32	.466	0	1
Avoid problems? Don't Know	6041	.271	.444	0	1
Avoid problems? Disagree	6041	.275	.446	0	1
Avoid problems? Strongly Disagree	6041	.0409	.198	0	1
Go with gut feeling? Agree	6040	.294	.455	0	1
Go with gut feeling? Don't Know	6040	.207	.405	0	1
Go with gut feeling? Disagree	6040	.337	.473	0	1
Go with gut feeling? Strongly Disagree	6040	.0737	.261	0	1
Systematic problem solver? Agree	6039	.486	.5	0	1
Systematic problem solver? Don't Know	6039	.27	.444	0	1
Systematic problem solver? Disagree	6039	.104	.305	0	1
Systematic problem solver? Strongly Disagree	6039	.0106	.102	0	1
Well coordinated? Agree	6045	.517	.5	0	1
Well coordinated? Don't Know	6045	.104	.305	0	1

	Obs.	Mean	SD	Min.	Max.
Well coordinated? Disagree	6045	.0354	.185	0	1
Well coordinated? Strongly Disagree	6045	.0048	.0691	0	1
Suicidal thoughts? Yes	6051	.167	.587	0	9
# Suicide attempts: 0	6048	.0896	.286	0	1
# Suicide attempts: 1	6048	.021	.143	0	1
# Suicide attempts: 2-3	6048	.00976	.0983	0	1
# Suicide attempts: 4-5	6048	.00165	.0406	0	1
# Suicide attempts: >5	6048	.0038	.0616	0	1
Going to college? Some chance	6041	.0437	.204	0	1
Going to college? 50:50 chance	6041	.139	.346	0	1
Going to college? Good chance	6041	.21	.407	0	1
Going to college? Almost certain	6041	.554	.497	0	1
Going to college? Don't know	6041	.00315	.056	0	1
Live to 35? Some chance	6037	.0232	.151	0	1
Live to 35? 50:50 chance	6037	.104	.305	0	1
Live to 35? Good chance	6037	.299	.458	0	1
Live to 35? Almost certain	6037	.559	.497	0	1
Live to 35? Don't know	6037	.00248	.0498	0	1
Marry 'til 25? Some chance	6040	.141	.348	0	1
Marry 'til 25? 50:50 chance	6040	.347	.476	0	1
Marry 'til 25? Good chance	6040	.295	.456	0	1
Marry 'til 25? Almost certain	6040	.12	.325	0	1
Marry 'til 25? Don't know	6040	.00348	.0589	0	1
Killed by 21? Some chance	6037	.319	.466	0	1
Killed by 21? 50:50 chance	6037	.134	.34	0	1
Killed by 21? Good chance	6037	.0109	.104	0	1
Killed by 21? Almost certain	6037	.00629	.0791	0	1
Killed by 21? Don't know	6037	.00464	.068	0	1

Table 13: Risk Behaviour

	Obs.	Mean	SD	Min.	Max.
Abuse Treatment Program	6048	.0246	.155	0	1
Not smoked regularly	6048	.227	.419	0	1
Smoked regularly	6048	.193	.395	0	1
# Smoking Friends: 1	6010	.2	.4	0	1
# Smoking Friends: 2	6010	.117	.321	0	1
# Smoking Friends: 3	6010	.119	.323	0	1
# Smoking Friends: Don't Know	6010	.0121	.11	0	1
Drink: (Almost) Every Day	6044	.00877	.0932	0	1
Drink: 3-5/Week	6044	.0243	.154	0	1
Drink: 1-2/Week	6044	.0558	.229	0	1
Drink: 2-3/Month	6044	.0769	.267	0	1
Drink: <1/Month	6044	.113	.317	0	1
Drink: 1-2/Year	6044	.167	.373	0	1
Drink: Never	6044	.0907	.287	0	1
Drink: Don't Know	6044	.00116	.034	0	1
# Drinking Friends: 1	6003	.216	.412	0	1
# Drinking Friends: 2	6003	.136	.343	0	1
# Drinking Friends: 3	6003	.19	.393	0	1
# Drinking Friends: Don't Know	6003	.0138	.117	0	1
# Weed Smoking Friends: 1	5989	.158	.365	0	1
# Weed Smoking Friends: 2	5989	.0773	.267	0	1
# Weed Smoking Friends: 3	5989	.0855	.28	0	1
# Weed Smoking Friends: Don't Know	5989	.0127	.112	0	1
Ever Smoked Weed	6051	.27	.444	0	1
Ever Used Cocaine	6051	.0461	.21	0	1
Ever Used Inhalants	6051	.0725	.259	0	1
Ever Used Other Drugs	6051	.0914	.288	0	1
Criminal Offense	6051	.452	.498	0	1