APPENDIX

Intersectionality, Depression, and Voter Turnout

CHRISTOPHER OJEDA
University of Tennessee

CHRISTINE SLAUGHTER
University of California, Los Angeles

Contents

1 Variables by Dataset

This section of the appendix presents descriptions of the variables used in the analyses broken down by the dataset from which they come. For a breakdown by variable type, see the section "Variables by Variable Type."

1.1 General Social Survey

Voter turnout: Retrospective self-reported voter turnout. Specifically respondents are asked "In [YEAR], you remember that [CANDIDATE A] ran for President on the Democratic ticket against [CANDIDATE B] for the Republicans, and [CANDIDATE C] [as an Independent/for the POLITICAL PARTY]. Do you remember for sure whether or not you voted in that election?" with the response options of voted, did not vote, ineligible, and don't know/can't remember. Responses are dichotomized to distinguish respondents who voted from those who did not vote; respondents who were ineligible, didn't know/couldn't remember, refused to answer, or to whom the question did not apply were coded as missing.

Depression: Symptoms of depression based on a 9-question (1996) or 4-question (1998) scale. Specifically, respondents in the 1996 survey are asked "On how many days in the past seven days have you felt...that you couldn't shake the blues? Happy? Sad? Lonely? Worried? Excited about something? Content? Proud of something you'd done? Overjoyed about something?" with response options of 0-7 indicating the number of days each emotion was felt in the past week. Respondents in the 1998 survey are asked "In the past 30 days, how often did you feel...so sad nothing could cheer you up? Hopeless? That everything was an effort? Worthless?" with response options of none of the time, some of the time, most of the time, or all of the time. Responses are summed within year and then transformed into quintiles such that higher quintiles correspond to more depressive symptoms. The quintile transformation allows for cross-year comparison of depressive symptoms given the differing scales.

Income: Total family income is measured by asking respondents "In which of these groups did your total family income, from all sources, fall last year before taxes, that is?" with about 15-25 response options that change from year-to-year. In order to combine income categories across years, while accounting for inflation, we convert income the income categories into income quintiles that are comparable across years.

Education: Self-reported education level, measured as the highest grade of school completed. Specifically, respondents are asked four sets of questions: 1) "What is the highest grade in elementary school or high school that you finished and got credit for?" 2) [for those who finished 9-12 grade] "Did you ever get a high school diploma or a GED certificate?" 3) "Did you complete one or more years of college for credit—not including schooling such as business college, technical or vocational school? [IF YES:] How many years did you complete?" and 4) "Do you have any col-

lege degrees? [IF YES:] What degree or degrees?" Responses to these questions yielded a highest education level variable that ranges from 0 (no schooling) to 20 (8th year of college or more). See GSS Appendix D for additional details on variable construction.

Religious attendance: Self-reported attendance at religious service. Specifically, respondents are asked "How often do you attend religious service?" with the response options of never, less than once a year, once a year, several times a year, once a month, 2-3 times a month, nearly every week, every week, more than once a week, and don't know or not applicable. Responses are coded so that higher values correspond to more religious attendance.

Health: Self-reported health status. Specifically, respondents are asked "Would you say your own health, in general, is excellent, good, fair, or poor?" Responses are coded so that higher values correspond to better health.

Marital status: Dichotomous variable indicating whether the respondent is currently married. Specifically, respondents are asked "Are you currently—married, widowed, divorced, separated, or have you never been married?" Responses to this question are recoded to indicate whether the respondent is currently married or not (i.e., widowed, divorced, separated, or never married).

Partisan strength: Folded self-reported political party affiliation. Specifically, respondents are asked "Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or what?" with the response options of strong Democrat, not strong Democrat, Democratic-leaning Independent, Independent, Republican-leaning Independent, not strong Republican, strong Republican, other party, don't know, or no answer. Respondents giving a response of other party, don't know, or no answer are coded as missing. The variable is then "folded" at the midpoint to generate a measure of partisan strength, such that the lowest value corresponds to a pure Independent and the highest value corresponds to a strong partisan.

Health insurance: Not available in the GSS.

Group consciousness: Closeness to racial group that the respondent identifies with. Respondents were asked "In general, how close do you feel to Blacks/Whites?" with the response options arrayed along a nine-point scale ranging from not very close (1) to neither one or the other (5) to very close (9). Responses to the question about the race that matches the respondent's self-reported race were used.

1.2   Panel Study of Income Dynamics

Voter Turnout: Retrospective self-reported voter turnout. Specifically, in 2004 and 2006, respondents were asked "Did you vote in the national election for President last November, in [YEAR]?"

In 2008, respondents were asked "Did you vote in the national election last November 2008 that was held to elect the President?" In 2010, respondents were asked "Did you vote in the national elections last November 2010, that were held to elect U.S Senators and members of the House of Representatives?" All respondents were given response options of yes, no, and don't know. Responses are dichotomized to distinguish respondents who voted from those who did not vote; respondents who didn't know or refused to answer were coded as missing.

Depression: Symptoms of depression based on a 4-question scale. Specifically, respondents are asked "In the past 30 days, how often did you feel...so sad nothing could cheer you up? Hopeless? That everything was an effort? Worthless?" with response options of none of the time, some of the time, most of the time, or all of the time. Responses are code so that higher values correspond to more depressive symptoms and then summed aross questions to generate a final depressive symtpoms measure.

Income: Total family income divided by the Census Bureau's poverty needs standard for the equivalent year. This calculation generates a poverty ratio for each respondent which is then logged to account for the curvilinear effect of economic status on turnout. To avoid dropping respondents with a poverty ratio of 0, a value of 0.01 is added to each respondent's poverty ratio prior to logging.

Total family income is measured each interview by asking the head of household about the prior year's 1) taxable income of the head of household and wife, 2) total transfers of the head of household and wife, 3) taxable income of others in the house, and 4) transfer income of others in the house. These measures are then summed to generate a total family income (see PSID technical paper "2007 PSID Income and Wage Imputation Methodology" by Denise Duffy for more information on how these variables are calculated).

The poverty needs standard from the Census Bureau is matched to observations in the PSID by the PSID based on year total number of individuals in the household, total number of children in the household, and the age composition of the individuals in the household (see the PSID document "Guide to the 1993 Interviewing Process" for more information about the inclusion of poverty thresholds in the data).

Education: Self-reported education level, measured as the highest grade of school completed. Categories include less than a high school diploma, GED but no college, high school graduate but no college, GED plus some college, high school graduate plus some college, GED plus associate's degree, high school graduate plus associate's degree, GED plus bachelor's degree high school graduate plus bachelor's degree, GED plus master's degree, high school graduate plus master's degree, GED plus doctoral degree, high school graduate plus doctoral degree, GED plus medical degree, high school graduate plus doctoral degree, GED plus law degree, high school graduate plus law degree, GED plus other degree, and high school graduate plus other degree.

Religious attendance: Self-reported attendance at religious service. Specifically, respondents are asked "In the past 12 months, about how often did you attend religious service? Would you say: not at all, a few times a year, about once a month, two or three times a month, about once a week, or more than once a week?" Responses are coded so that higher values correspond to more religious attendance.

Health: Self-reported health status. Specifically, respondents are asked "Would you say your health in general is excellent, very good, good, fair, or poor?" Responses are coded so that higher values correspond to better health.

Marital status: Dichotomous variable indicating whether the respondent is currently married. Specifically, respondents are asked "What is your current marital status? Are you married, widowed, divorced, separated, or have you never been married?" Responses to this question are recoded to indicate whether the respondent is currently married or not (i.e., widowed, divorced, separated, or never married).

Partisan strength: Not available in the PSID.

Health insurance: Dichotomous variable indicating whether the respondent's family has health insurance coverage in the past two years. Specifically, respondents are asked "In 2003 or 2004, was anyone in the family covered by health insurance or some other kind of health care plan? (Including health insurance obtained through employment or purchased directly as well as government programs like Medicare and Medicaid that provide medical care or help pay medical bills.)" with response options of "yes, one or more persons covered" or "no, no one covered." Responses are coded so that higher values correspond to the presence of health insurance coverage.

Group consciousness: Importance of ethnic identity. Specifically, respondents are asked "On a scale of 1 to 7, where 1 is "Not Important At All" and 7 is "Very Important", how important to you is your ethnic group identity?" Responses are coded so that higher values correspond to very important.

1.3   National Longitudinal Study of Adolescent to Adult Health

Voter turnout: Retrospective self-reported voter turnout. Specifically respondents [who are "18 or older on November 7, 2000"] are asked "Did you vote in the most recent presidential election?" with the response options yes, no, and don't know. Responses are dichotomized to distinguish respondents who voted from those who did not vote; respondents who were ineligible, didn't know/couldn't remember, refused to answer, or to whom the question did not apply were coded as missing.

Depression: Symptoms of depression based on a 4-question scale. Specifically, respondents are asked "You were...during the past seven days—Sad? So sad nothing could cheer you up? Bothered by things that usually don't bother you? You felt that you were just as good as other people? Trouble keeping your mind on what you were doing? Depressed? Felt that people people disliked you?" with response options of never or rarely, sometimes, a lot of the time, and most or all of the time. Responses are code so that higher values correspond to more depressive symptoms and then summed aross questions to generate a final depressive symtpoms measure.

Income: Self-reported total family income from prior year. Specifically, respondents are asked "Including all the income sources you reported above, what was your total personal income before taxes in 2000/ 2001*? Please include all of the income sources you identified in the previous question." Responses are then logged to account for the curvilinear effect of economic status on turnout. To avoid dropping respondents with an income of 0, a value of 0.01 is added to each respondent's income prior to logging. Respondents who refused to respondent, didn't know their income, or to whom the question did not apply were coded as missing.

Education: Self-reported education level, measured as the highest grade of school completed. Specifically, respondents are asked "What is the highest grade or year of regular school you have completed?" Responses range from 6 (6th grade) to 22 (5 or more years of graduate school). Responses are coded so higher values correspond to higher grades. Respondents who didn't know or to whom the question didn't apply were coded as missing.

Religious attendance: Self-reported attendance at religious service. Specifically, respondents are asked "How often have you attended CHURCH / SYNAGOGUE/ TEMPLE/MOSQUE/ RELIGIOUS services in the past 12 months?" with the response options of never, a few times, several times, once a month, 2-3 times a month, once a week, more than once a week, and don't know or not applicable. Responses are coded so that higher values correspond to more religious attendance. Respondents who didn't know, refused to answer, or to whom the question didn't apply were coded as missing.

Health: Self-reported health status. Specifically, respondents are asked "In general, how is your health?" with response options of excellent, very good, good, fair, and poor. Responses are coded so that higher values correspond to better health.

Marital status: Dichotomous variable indicating whether the respondent has ever been married. Specifically, respondents are asked "How many times have you been married ?" Responses to this question are recoded to indicate whether the respondent has been married before or has never been married. Higher values indicate at least one marriage. Respondents who didn't know or refused to answer the question were coded as missing.

Partisan strength: Self-reported political party affiliation. Specifically, respondents are asked "Do you identify with a specific political party?" with the response options of no, yes, and don't know. Responses are coded so that higher values correspond to identification with a political party. Respondents who didn't know or refused to answer were coded as missing.

Health insurance: Dichotomous self-reported health insurance coverage. Specifically, respondents are asked "Which of the following best describes your current health insurance situation?" with the response options of you have no health coverage, you are covered by your parent's insurance, you are covered by your husband's or wife's insurance, you get insurance through work, you get insurance through a union, you get insurance through school, you are covered because you are active-duty military, you buy private insurance yourself, you are on Medicaid, you are covered through Indian Health insurance, you don't know what your health insurance coverage is. Responses are collapsed into those without health insurance and those with health insurance with higher values corresponding to the presence of health insurance. Respondent who didn't know, refused to answer, or to whom the question didn't apply were coded as missing.

Group consciousness: Not available in the Add Health.

2 Variables by Variable Type

This section of the appendix presents descriptions of the variables used in the analyses broken down by the variable type. For a breakdown by dataset, see the section "Variables by Variable Type."

2.1 Voter Turnout

GSS: Retrospective self-reported voter turnout. Specifically respondents are asked "In [YEAR], you remember that [CANDIDATE A] ran for President on the Democratic ticket against [CANDIDATE B] for the Republicans, and [CANDIDATE C] [as an Independent/for the POLITICAL PARTY]. Do you remember for sure whether or not you voted in that election?" with the response options of voted, did not vote, ineligible, and don't know/can't remember. Responses are dichotomized to distinguish respondents who voted from those who did not vote; respondents who were ineligible, didn't know/couldn't remember, refused to answer, or to whom the question did not apply were coded as missing.

PSID: Retrospective self-reported voter turnout. Specifically, in 2004 and 2006, respondents were asked "Did you vote in the national election for President last November, in [YEAR]?" In 2008, respondents were asked "Did you vote in the national election last November 2008 that was held to elect the President?" In 2010, respondents were asked "Did you vote in the national elections last November 2010, that were held to elect U.S Senators and members of the House of Representatives?" All respondents were given response options of yes, no, and don't know. Responses are dichotomized to distinguish respondents who voted from those who did not vote; respondents who didn't know or refused to answer were coded as missing.

Add Health: Retrospective self-reported voter turnout. Specifically respondents [who are "18 or older on November 7, 2000"] are asked "Did you vote in the most recent presidential election?" with the response options yes, no, and don't know. Responses are dichotomized to distinguish respondents who voted from those who did not vote; respondents who were ineligible, didn't know/couldn't remember, refused to answer, or to whom the question did not apply were coded as missing.

2.2 Depression

GSS: Symptoms of depression based on a 9-question (1996) or 4-question (1998) scale. Specifically, respondents in the 1996 survey are asked "On how many days in the past seven days have you felt...that you couldn't shake the blues? Happy? Sad? Lonely? Worried? Excited about something? Content? Proud of something you'd done? Overjoyed about something?" with response options of 0-7 indicating the number of days each emotion was felt in the past week. Respondents in the 1998 survey are asked "In the past 30 days, how often did you feel...so sad nothing could cheer you up?

Hopeless? That everything was an effort? Worthless?" with response options of none of the time, some of the time, most of the time, or all of the time. Responses are summed within year and then transformed into quintiles such that higher quintiles correspond to more depressive symptoms. The quintile transformation allows for cross-year comparison of depressive symptoms given the differing scales.

PSID: Symptoms of depression based on a 4-question scale. Specifically, respondents are asked "In the past 30 days, how often did you feel...so sad nothing could cheer you up? Hopeless? That everything was an effort? Worthless?" with response options of none of the time, some of the time, most of the time, or all of the time. Responses are code so that higher values correspond to more depressive symptoms and then summed aross questions to generate a final depressive symtpoms measure.

Add Health: Symptoms of depression based on a 4-question scale. Specifically, respondents are asked "You were...during the past seven days—Sad? So sad nothing could cheer you up? Bothered by things that usually don't bother you? You felt that you were just as good as other people? Trouble keeping your mind on what you were doing? Depressed? Felt that people people disliked you?" with response options of never or rarely, sometimes, a lot of the time, and most or all of the time. Responses are code so that higher values correspond to more depressive symptoms and then summed aross questions to generate a final depressive symtpoms measure.

2.3   Income

GSS: Total family income is measured by asking respondents "In which of these groups did your total family income, from all sources, fall last year before taxes, that is?" with about 15-25 response options that change from year-to-year. In order to combine income categories across years, while accounting for inflation, we convert income the income categories into income quintiles that are comparable across years.

PSID: Total family income divided by the Census Bureau's poverty needs standard for the equivalent year. This calculation generates a poverty ratio for each respondent which is then logged to account for the curvilinear effect of economic status on turnout. To avoid dropping respondents with a poverty ratio of 0, a value of 0.01 is added to each respondent's poverty ratio prior to logging.

Total family income is measured each interview by asking the head of household about the prior year's 1) taxable income of the head of household and wife, 2) total transfers of the head of household and wife, 3) taxable income of others in the house, and 4) transfer income of others in the house. These measures are then summed to generate a total family income (see PSID technical paper "2007 PSID Income and Wage Imputation Methodology" by Denise Duffy for more information on how these variables are calculated).

The poverty needs standard from the Census Bureau is matched to observations in the PSID by the PSID based on year total number of individuals in the household, total number of children in the household, and the age composition of the individuals in the household (see the PSID document "Guide to the 1993 Interviewing Process" for more information about the inclusion of poverty thresholds in the data).

Add Health: Self-reported total family income from prior year. Specifically, respondents are asked "Including all the income sources you reported above, what was your total personal income before taxes in 2000/ 2001*? Please include all of the income sources you identified in the previous question." Responses are then logged to account for the curvilinear effect of economic status on turnout. To avoid dropping respondents with an income of 0, a value of 0.01 is added to each respondent's income prior to logging. Respondents who refused to respondent, didn't know their income, or to whom the question did not apply were coded as missing.

2.4   Education

GSS: Self-reported education level, measured as the highest grade of school completed. Specifically, respondents are asked four sets of questions: 1) "What is the highest grade in elementary school or high school that you finished and got credit for?" 2) [for those who finished 9-12 grade] "Did you ever get a high school diploma or a GED certificate?" 3) "Did you complete one or more years of college for credit—not including schooling such as business college, technical or vocational school? [IF YES:] How many years did you complete?" and 4) "Do you have any college degrees? [IF YES:] What degree or degrees?" Responses to these questions yielded a highest education level variable that ranges from 0 (no schooling) to 20 (8th year of college or more). See GSS Appendix D for additional details on variable construction.

PSID: Self-reported education level, measured as the highest grade of school completed. Categories include less than a high school diploma, GED but no college, high school graduate but no college, GED plus some college, high school graduate plus some college, GED plus associate's degree, high school graduate plus associate's degree, GED plus bachelor's degree high school graduate plus bachelor's degree, GED plus master's degree, high school graduate plus master's degree, GED plus doctoral degree, high school graduate plus doctoral degree, GED plus medical degree, high school graduate plus doctoral degree, GED plus law degree, high school graduate plus law degree, GED plus other degree, and high school graduate plus other degree.

Add Health: Self-reported education level, measured as the highest grade of school completed. Specifically, respondents are asked "What is the highest grade or year of regular school you have completed?" Responses range from 6 (6th grade) to 22 (5 or more years of graduate school). Responses are coded so higher values correspond to higher grades. Respondents who didn't know or

to whom the question didn't apply were coded as missing.

2.5 Religious Attendance

GSS: Self-reported attendance at religious service. Specifically, respondents are asked "How often do you attend religious service?" with the response options of never, less than once a year, once a year, several times a year, once a month, 2-3 times a month, nearly every week, every week, more than once a week, and don't know or not applicable. Responses are coded so that higher values correspond to more religious attendance.

PSID: Self-reported attendance at religious service. Specifically, respondents are asked "In the past 12 months, about how often did you attend religious service? Would you say: not at all, a few times a year, about once a month, two or three times a month, about once a week, or more than once a week?" Responses are coded so that higher values correspond to more religious attendance.

Add Health: Self-reported attendance at religious service. Specifically, respondents are asked "How often have you attended CHURCH / SYNAGOGUE/ TEMPLE/MOSQUE/ RELIGIOUS services in the past 12 months?" with the response options of never, a few times, several times, once a month, 2-3 times a month, once a week, more than once a week, and don't know or not applicable. Responses are coded so that higher values correspond to more religious attendance. Respondents who didn't know, refused to answer, or to whom the question didn't apply were coded as missing.

2.6 Health

GSS: Self-reported health status. Specifically, respondents are asked "Would you say your own health, in general, is excellent, good, fair, or poor?" Responses are coded so that higher values correspond to better health.

PSID: Self-reported health status. Specifically, respondents are asked "Would you say your health in general is excellent, very good, good, fair, or poor?" Responses are coded so that higher values correspond to better health.

Add Health: Self-reported health status. Specifically, respondents are asked "In general, how is your health?" with response options of excellent, very good, good, fair, and poor. Responses are coded so that higher values correspond to better health.

2.7 Marital Status

GSS: Dichotomous variable indicating whether the respondent is currently married. Specifically, respondents are asked "Are you currently—married, widowed, divorced, separated, or have you never been married?" Responses to this question are recoded to indicate whether the respondent is currently married or not (i.e., widowed, divorced, separated, or never married).

PSID: Dichotomous variable indicating whether the respondent is currently married. Specifically, respondents are asked "What is your current marital status? Are you married, widowed, divorced, separated, or have you never been married?" Responses to this question are recoded to indicate whether the respondent is currently married or not (i.e., widowed, divorced, separated, or never married).

Add Health: Dichotomous variable indicating whether the respondent has ever been married. Specifically, respondents are asked "How many times have you been married ?" Responses to this question are recoded to indicate whether the respondent has been married before or has never been married. Higher values indicate at least one marriage. Respondents who didn't know or refused to answer the question were coded as missing.

2.8 Partisan Strength

GSS: Folded self-reported political party affiliation. Specifically, respondents are asked "Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or what?" with the response options of strong Democrat, not strong Democrat, Democratic-leaning Independent, Independent, Republican-leaning Independent, not strong Republican, strong Republican, other party, don't know, or no answer. Respondents giving a response of other party, don't know, or no answer are coded as missing. The variable is then "folded" at the midpoint to generate a measure of partisan strength, such that the lowest value corresponds to a pure Independent and the highest value corresponds to a strong partisan.

PSID: Not available in the PSID.

Add Health: Self-reported political party affiliation. Specifically, respondents are asked "Do you identify with a specific political party?" with the response options of no, yes, and don't know. Responses are coded so that higher values correspond to identification with a political party. Respondents who didn't know or refused to answer were coded as missing.

2.9 Health Insurance

GSS: Not available in the GSS.

PSID: Dichotomous variable indicating whether the respondent's family has health insurance coverage in the past two years. Specifically, respondents are asked "In 2003 or 2004, was anyone in the family covered by health insurance or some other kind of health care plan? (Including health insurance obtained through employment or purchased directly as well as government programs like Medicare and Medicaid that provide medical care or help pay medical bills.)" with response options of "yes, one or more persons covered" or "no, no one covered." Responses are coded so that higher values correspond to the presence of health insurance coverage.

Add Health: Dichotomous self-reported health insurance coverage. Specifically, respondents are asked "Which of the following best describes your current health insurance situation?" with the response options of you have no health coverage, you are covered by your parent's insurance, you are covered by your husband's or wife's insurance, you get insurance through work, you get insurance through a union, you get insurance through school, you are covered because you are active-duty military, you buy private insurance yourself, you are on Medicaid, you are covered through Indian Health insurance, you don't know what your health insurance coverage is. Responses are collapsed into those without health insurance and those with health insurance with higher values corresponding to the presence of health insurance. Respondent who didn't know, refused to answer, or to whom the question didn't apply were coded as missing. e

2.10 Group Consciousness

GSS: Closeness to racial group that the respondent identifies with. Respondents were asked "In general, how close do you feel to Blacks/Whites?" with the response options arrayed along a nine-point scale ranging from not very close (1) to neither one or the other (5) to very close (9). Responses to the question about the race that matches the respondent's self-reported race were used.

PSID: Importance of ethnic identity. Specifically, respondents are asked "On a scale of 1 to 7, where 1 is "Not Important At All" and 7 is "Very Important", how important to you is your ethnic group identity?" Responses are coded so that higher values correspond to very important.

Add Health: Not available in the Add Health.

3 Variable Descriptive Statistics

The mean, standard deviation (SD), minimum (min), and maximum (max) for each of the variables in the analyses are reported in the tables below by study.

3.1 Table A.1: General Social Survey

	Mean	SD	Min	Max
Vote	0.71	0.46	0	1
Depression	2.86	1.42	1	5
Race: Black	0.15	0.35	0	1
Gender: Female	0.56	0.50	0	1
Income	2.84	1.42	1	5
Age	45.82	16.88	18	89
Education	13.33	2.94	0	20
Religious Attendance	3.68	2.72	0	8
Marital Status	0.47	0.50	0	1
Partisan Strength	1.72	0.99	0	3
Health Status	2.05	0.81	0	3
Group Consciousness	7.00	1.87	1	9

3.2 Table A.2: Panel Study of Income Dynamics

	Mean	SD	Min	Max
Vote	0.39	0.49	0	1
Depression	0.70	0.66	0	4
Gender: Female	0.53	0.50	0	1
Race: Black	0.46	0.50	0	1
Age	20.86	2.45	17	27
Income	0.89	1.21	-6.91	4.97
Education	12.55	1.77	1	17
Religious Attendance	2.81	1.68	1	6
Marital Status	0.08	0.27	0	1
Health Status	2.82	0.91	0	4
Health Insurance	0.89	0.31	0	1
Group Consciousness	4.50	2.28	1	7

3.3 Table A.3: National Longitudinal Study of Adolescent to Adult Health

	Mean	SD	Min	Max
Vote	0.48	0.50	0	1
Depression	0.49	0.45	0	2.78
Race: Black	0.28	0.45	0	1
Gender: Female	0.54	0.50	0	1
Age	22.94	1.78	19	28
Education	13.25	2.00	6	22
Income	7.95	3.47	-4.61	12.43
Religious Attendance	2.11	1.96	0	6
Marital Status	0.18	0.38	0	1
Partisan Strength	0.37	0.48	0	1
Health Status	3.03	0.86	0	4
Health Insurance	0.77	0.42	0	1

4 Variable Correlations

Pairwise correlations between each of the variables used in the analyses are reported in the tables below by study.

4.1 Table A.4: General Social Survey

		1	2	3	4	5	6	7	8	9	10	11	12
1	Vote	1.00											
2	Depression	-0.14	1.00										
3	Race: Black	-0.05	0.06	1.00									
4	Gender: Female	0.03	0.05	0.07	1.00								
5	Income	0.20	-0.17	-0.17	-0.13	1.00							
6	Age	0.21	-0.10	-0.08	0.03	-0.05	1.00						
7	Education	0.25	-0.15	-0.13	-0.03	0.38	-0.18	1.00					
8	Religious Attendance	0.22	-0.13	0.12	0.12	0.03	0.16	0.04	1.00				
9	Marital Status	0.12	-0.12	-0.14	-0.09	0.42	0.08	0.07	0.13	1.00			
10	Partisan Strength	0.29	-0.07	0.11	0.04	0.06	0.16	0.02	0.18	0.05	1.00		
11	Health Status	0.11	-0.24	-0.07	-0.01	0.28	-0.23	0.29	0.04	0.08	0.04	1.00	
12	Group Consciousness	0.06	-0.03	0.08	0.12	0.01	-0.05	0.03	0.10	0.00	0.11	0.08	1.00

4.2 Table A.5: Panel Study of Income Dynamics

		1	2	3	4	5	6	7	8	9	10	11	12
1	Vote	1.00											
2	Depression	-0.08	1.00										
3	Gender: Female	0.06	0.00	1.00									
4	Race: Black	0.07	0.12	-0.05	1.00								
5	Age	0.12	-0.07	0.01	0.02	1.00							
6	Income	0.10	-0.15	-0.02	-0.35	-0.10	1.00						
7	Education	0.21	-0.17	0.12	-0.15	0.43	0.18	1.00					
8	Religious Attendance	0.11	-0.04	0.12	0.22	-0.09	-0.02	0.00	1.00				
9	Marital Status	0.01	-0.04	0.05	-0.13	0.22	-0.01	0.09	0.03	1.00			
10	Health Status	0.05	-0.22	-0.07	-0.02	-0.05	0.06	0.08	0.07	0.00	1.00		
11	Health Insurance	0.06	-0.05	0.10	-0.12	-0.15	0.26	0.04	0.04	0.00	0.03	1.00	
12	Group Consciousness	0.05	0.08	0.00	0.58	-0.03	-0.22	-0.11	0.22	-0.13	0.02	-0.06	1.00

17

4.3 Table A.6: National Longitudinal Study of Adolescent to Adult Health

		1	2	3	4	5	6	7	8	9	10	11	12
1	Vote	1.00											
2	Depression	-0.09	1.00										
3	Race: Black	0.08	0.07	1.00									
4	Gender: Female	0.04	0.11	0.03	1.00								
5	Age	0.09	-0.02	0.00	-0.06	1.00							
6	Education	0.25	-0.16	-0.05	0.09	0.20	1.00						
7	Income	0.03	-0.06	-0.07	-0.10	0.07	0.05	1.00					
8	Religious Attendance	0.20	-0.08	0.18	0.16	-0.01	0.17	-0.06	1.00				
9	Marital Status	-0.03	-0.01	-0.13	0.10	0.25	-0.11	-0.03	0.10	1.00			
10	Partisan Strength	0.35	-0.07	0.09	0.04	0.04	0.21	-0.01	0.19	0.01	1.00		
11	Health Status	0.09	-0.30	0.00	-0.08	0.02	0.16	0.05	0.10	-0.03	0.07	1.00	
12	Health Insurance	0.11	-0.10	0.02	0.08	-0.02	0.25	0.03	0.12	-0.03	0.12	0.11	1.00

5 Full Results: The Depression-Participation Gap

5.1 Table A.7: General Social Survey

	All	White Men	White Women	Black Men	Black Women
Depression	-0.114 *	-0.126 †	-0.094	-0.041	-0.280 †
	(.044)	(.074)	(.066)	(.187)	(.145)
Gender: Female	0.080				
	(.119)				
Race: Black	-0.250				
	(.175)				
Age	0.038 *	0.051 *	0.035 *	0.028	0.020
	(.004)	(.008)	(.006)	(.018)	(.017)
Education	0.220 *	0.125 *	0.360 *	0.226 *	0.133
	(.028)	(.042)	(.043)	(.106)	(.087)
Income	0.127 *	0.222 *	0.058	-0.057	-0.085
	(.052)	(.078)	(.085)	(.211)	(.189)
Religious Attendance	0.121 *	0.148 *	0.098 *	0.274 *	0.170 *
	(.023)	(.040)	(.034)	(.100)	(.080)
Marital Status	0.217 †	0.131	0.447 *	-0.015	-0.578
	(.132)	(.210)	(.216)	(.637)	(.503)
Partisan Strength	0.633 *	0.462 *	0.721 *	0.901 *	0.924 *
	(.063)	(.102)	(.095)	(.311)	(.203)
Health Status	0.106	0.270 †	-0.032	0.040	0.210
	(.081)	(.143)	(.120)	(.304)	(.272)
Year Dummy	-0.166	0.051	-0.272	-0.205	-0.386
	(.119)	(.188)	(.181)	(.558)	(.407)
Constant	-5.409 *	-5.153 *	-6.774 *	-6.397 *	-3.036
	(.541)	(.876)	(.817)	(2.239)	(1.883)
Observations	2,134	857	976	110	191

$* p < 0.05$, $† p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a logistic regression; standard errors are reported in parentheses. Survey weights account for the unequal probability of selection. An year dummy for 1998 accounts for the pooled nature of the data.

5.2 Table A.8: Panel Study of Income Dynamics

	All	White Men	White Women	Black Men	Black Women
Depression	-0.326 *	-0.078	-0.459 *	-0.261	-0.393 *
	(.094)	(.230)	(.196)	(.177)	(.173)
Gender: Female	0.254 †				
	(.134)				
Race: Black	0.848 *				
	(.168)				
Age	0.183 *	0.185 *	0.069	0.245 *	0.198 *
	(.033)	(.078)	(.069)	(.067)	(.061)
Education	0.305 *	0.287 *	0.562 *	0.254 *	0.205 *
	(.040)	(.089)	(.090)	(.083)	(.073)
Income	0.212 *	0.500 *	0.189	0.172 †	0.177 †
	(.058)	(.162)	(.132)	(.102)	(.101)
Religious Attendance	0.177 *	0.236 *	0.157 *	0.138 †	0.175 *
	(.037)	(.091)	(.074)	(.072)	(.069)
Marital Status	-0.020	0.785 †	0.568	-1.514 *	-0.859
	(.216)	(.443)	(.346)	(.657)	(.553)
Health Status	0.026	0.012	-0.010	0.067	-0.062
	(.065)	(.153)	(.140)	(.124)	(.123)
Health Insurance	0.311 †	0.567	1.046 *	0.151	0.035
	(.185)	(.460)	(.499)	(.312)	(.344)
Group Consciousness	0.014	-0.015	0.000	0.130	-0.046
	(.032)	(.066)	(.059)	(.071) †	(.069)
Election	0.232 *	0.215	-0.003	0.171	0.527 *
	(.074)	(.166)	(.148)	(.149)	(.147)
Midterm	-2.673 *	-2.713 *	-2.584 *	-2.591 *	-3.024 *
	(.148)	(.325)	(.289)	(.294)	(.311)
Constant	-9.119 *	-9.633 *	-9.772 *	-9.452 *	-6.711 *
	(.749)	(1.716)	(1.500)	(1.580)	(1.436)
Observations	3,582	843	1,000	874	865
Individuals	1,723	419	477	424	403

...continued

	All	White Men	White Women	Black Men	Black Women

* $p < 0.05$, † $p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a mixed effects logistic regression; standard errors are reported in parentheses. Random effects are included for families and individuals to account for the clustering and non-independence of observations. An election counter and midterm dummy variable are included to account for the temporal nature of the panel data.

5.3 Table A.9: National Longitudinal Study of Adolescent to Adult Health

	All	White Men	White Women	Black Men	Black Women
Depression	-0.317 *	-0.432 *	-0.363 *	0.165	-0.349
	(.108)	(.205)	(.158)	(.380)	(.294)
Gender: Female	0.006				
	(.095)				
Race: Black	0.139				
	(.119)				
Age	0.058 *	0.040	0.107 *	0.009	-0.042
	(.028)	(.044)	(.045)	(.079)	(.076)
Education	0.201 *	0.238 *	0.169 *	0.167 †	0.156 *
	(.027)	(.044)	(.040)	(.088)	(.077)
Income	0.009	-0.011	0.019	0.067	-0.002
	(.013)	(.024)	(.020)	(.039)	(.034)
Religious Attendance	0.126 *	0.088 *	0.170 *	0.305 *	-0.029
	(.025)	(.043)	(.036)	(.086)	(.066)
Marital Status	-0.157	-0.145	-0.108	-0.494	-0.528
	(.121)	(.206)	(.182)	(.431)	(.384)
Partisan Strength	1.300 *	1.255 *	1.494 *	0.707 *	1.436 *
	(.096)	(.160)	(.150)	(.307)	(.264)
Health Status	0.096 †	0.204 *	0.083	-0.014	-0.182
	(.057)	(.095)	(.091)	(.179)	(.149)
Health Insurance	0.046	-0.124	0.184	0.177	0.059
	(.112)	(.168)	(.186)	(.410)	(.350)
Constant	-5.151 *	-5.087 *	-6.161 *	-4.183 †	-0.570
	(.693)	(1.127)	(1.060)	(2.214)	(2.057)
Observations	3,180	1,144	1,245	343	448

* $p < 0.05$, † $p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a logistic regression; standard errors are reported in parentheses. Post-stratification survey weights account for the unequal selection into the survey.

6 Full Results: Mitigating the Gap

6.1 General Social Survey

6.1.1 Table A.10: Income

	All	White Men	White Women	Black Men	Black Women
Depression	-0.229 *	-0.166	-0.241 †	-0.540	-0.480 †
	0.093	0.162	0.145	0.339	0.262
Income	0.007	0.182	-0.098	-0.602 †	-0.388
	(.105)	(.170)	(.168)	(.335)	(.347)
Depression X Income	0.041	0.014	0.053	0.204 †	0.089
	(.032)	(.052)	(.050)	(.114)	(.093)
Gender: Female	0.069				
	(.120)				
Race: Black	-0.248				
	(.175)				
Age	0.038 *	0.052 *	0.034 *	0.027	0.020
	(.004)	(.008)	(.006)	(.018)	(.017)
Education	0.220 *	0.125 *	0.361 *	0.211 *	0.139
	(.028)	(.042)	(.043)	(.102)	(.087)
Religious Attendance	0.122 *	0.148 *	0.102 *	0.285 *	0.162 *
	(.023)	(.040)	(.034)	(.101)	(.081)
Marital Status	0.215	0.132	0.440 *	-0.097	-0.544
	(.132)	(.209)	(.215)	(.658)	(.505)
Partisan Strength	0.633 *	0.463 *	0.715 *	0.926 *	0.944 *
	(.063)	(.102)	(.094)	(.321)	(.209)
Health Status	0.100	0.268 †	-0.037	-0.041	0.189
	(.082)	(.143)	(.121)	(.297)	(.271)
Year Dummy	-0.149	0.055	-0.239	-0.197	-0.361
	(.119)	(.189)	(.181)	(.577)	(.407)
Constant	-5.063 *	-5.036 *	-6.351 *	-4.652 *	-2.402
	(.601)	(.965)	(.888)	(2.219)	(1.937)
Observations	2,134	857	976	110	191

$* p < 0.05$, $† p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a logistic regression; standard errors are reported in parentheses. Survey weights account for the unequal probability of selection. An year dummy for 1998 accounts for the pooled nature of the data.

6.1.2 Table A.11: Church Attendance

	All	White Men	White Women	Black Men	Black Women
Depression	-0.193 *	-0.259 *	-0.166	-0.192	-0.230
	(.066)	(.105)	(.102)	(.330)	(.262)
Religious Attendance	0.047	0.001	0.035	0.174	0.213
	(.050)	(.082)	(.076)	(.191)	(.178)
Depression X Attendance	0.026	0.053 †	0.022	0.036	-0.013
	(.016)	(.028)	(.024)	(.062)	(.052)
Gender: Female	0.080				
	(.120)				
Race: Black	-0.263				
	(.175)				
Age	0.038 *	0.052 *	0.035 *	0.029	0.020
	(.004)	(.008)	(.006)	(.018)	(.017)
Education	0.221 *	0.123 *	0.362 *	0.238 *	0.130
	(.028)	(.042)	(.043)	(.108)	(.088)
Income	0.127 *	0.224 *	0.060	-0.061	-0.077
	(.052)	(.079)	(.086)	(.209)	(.188)
Marital Status	0.225 †	0.161	0.450 *	-0.080	-0.584
	(.132)	(.211)	(.217)	(.651)	(.501)
Partisan Strength	0.631 *	0.467 *	0.717	0.911 *	0.926 *
	(.063)	(.102)	(.095) *	(.312)	(.204)
Health Status	0.107	0.270 †	-0.028	0.046	0.198
	(.081)	(.143)	(.120)	(.300)	(.272)
Year Dummy	-0.177	0.030	-0.275	-0.218	-0.370
	(.119)	(.188)	(.182)	(.547)	(.410)
Constant	-5.188 *	-4.773 *	-6.584 *	-6.159 *	-3.160 *
	(.560)	(.899)	(.855)	(2.230)	(1.889)
Observations	2,134	857	976	110	191

$* \ p < 0.05$, $^{\dagger} \ p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a logistic regression; standard errors are reported in parentheses. Survey weights account for the unequal probability of selection. An year dummy for 1998 accounts for the pooled nature of the data.

6.1.3 Table A.12: Group Consciousness

	All	White Men	White Women	Black Men	Black Women
Depression	-0.313	0.125	-0.764 [†]	3.305 *	-0.710
	(.297)	(.512)	(.460)	(1.536)	(1.176)
Group Consciousness	-0.064	0.111	-0.229	1.626 *	-0.109
	(.136)	(.243)	(.195)	(.794)	(.560)
Depression X Group	0.036	-0.019	0.103 [†]	-0.398 *	0.049
	(.040)	(.072)	(.062)	(.189)	(.148)
Gender: Female	0.025				
	(.211)				
Race: Black	-0.339				
	(.293)				
Age	0.039 *	0.064 *	0.033 *	0.088 [†]	0.001
	(.008)	(.018)	(.011)	(.047)	(.024)
Education	0.268 *	0.270 *	0.297 *	0.976 *	0.299 *
	(.044)	(.076)	(.064)	(.372)	(.133)
Income	0.010	0.230	-0.115	-0.543	-0.152
	(.100)	(.182)	(.139)	(.802)	(.295)
Church Attendance	0.060	0.146 [†]	0.012	0.002	0.177
	(.041)	(.079)	(.055)	(.304)	(.135)
Marital Status	0.778 *	0.534	0.931 *	2.131	-0.454
	(.230)	(.393)	(.328)	(1.600)	(.762)
Partisan Strength	0.829 *	0.711 *	0.813 *	3.412 *	1.188 *
	(.115)	(.209)	(.158)	(1.024)	(.386)
Health Status	0.005	-0.180	-0.010	0.820	-0.355
	(.143)	(.259)	(.213)	(.682)	(.519)
Constant	-5.813 *	-8.407 *	-4.368 *	-38.053 *	-3.081
	(1.440)	(2.805)	(2.002)	(12.850)	(4.535)
Observations	698	279	320	35	64

* $p < 0.05$, [†] $p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a logistic regression; standard errors are reported in parentheses. Survey weights account for the unequal probability of selection. An year dummy for 1998 accounts for the pooled nature of the data.

6.2 Panel Study of Income Dynamics

6.2.1 Table A.13: Income

	All	White Men	White Women	Black Men	Black Women
Depression	-0.307 *	0.197	-0.573 †	-0.275	-0.361 *
	(.104)	(.398)	(.304)	(.181)	(.176)
Income	0.233 *	0.629 *	0.129	0.127	0.286 †
	(.076)	(.227)	(.179)	(.133)	(.147)
Depression X Income	-0.030	-0.219	0.099	0.063	-0.153
	(.071)	(.262)	(.201)	(.125)	(.146)
Gender: Female	0.254 †				
	(.134)				
Race: Black	0.849 *				
	(.168)				
Age	0.183 *	0.184 *	0.069	0.246 *	0.197 *
	(.033)	(.078)	(.069)	(.067)	(.061)
Education	0.306 *	0.291 *	0.563 *	0.253 *	0.205 *
	(.040)	(.089)	(.090)	(.083)	(.073)
Religious Attendance	0.177 *	0.240 *	0.155 *	0.140 †	0.177 *
	(.037)	(.092)	(.074)	(.072)	(.070)
Marital Status	-0.020	0.803 †	0.576 †	-1.514 *	-0.872
	(.216)	(.445)	(.347)	(.658)	(.556)
Health Status	0.025	0.021	-0.011	0.073	-0.066
	(.065)	(.154)	(.140)	(.124)	(.124)
Health Insurance	0.311 †	0.579	1.045 *	0.142	0.017
	(.185)	(.461)	(.500)	(.312)	(.346)
Group Consciousness	0.014	-0.015	0.002	0.129 †	-0.047
	(.032)	(.066)	(.060)	(.071)	(.069)
Election	0.232 *	0.216	-0.002	0.167	0.534 *
	(.074)	(.167)	(.148)	(.149)	(.148)
Midterm	-2.673 *	-2.726 *	-2.591 *	-2.588 *	-3.041 *
	(.148)	(.328)	(.290)	(.294)	(.314)
Constant	-9.127 *	-9.875 *	-9.724 *	-9.461 *	-6.696 *
	(.749)	(1.757)	(1.506)	(1.581)	(1.445)
Observations	3,582	843	1,000	874	865
Individuals	1,723	419	477	424	403

...continued

	All	White Men	White Women	Black Men	Black Women

* $p < 0.05$, † $p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a mixed effects logistic regression; standard errors are reported in parenthesses. Random effects are included for families and individuals to account for the clustering and non-independence of observations. An election counter and midterm dummy variable are included to account for the temporal nature of the panel data.

6.2.2 Table A.14: Health Insurance

	All	White Men	White Women	Black Men	Black Women
Depression	-0.753 *	-1.119	-0.561	-0.520	-0.879 *
	(.250)	(.732)	(.693)	(.401)	(.425)
Health Insurance	-0.059	-0.164	0.951	-0.080	-0.454
	(.269)	(.641)	(.797)	(.443)	(.508)
Depression X Insurance	0.493 †	1.155	0.107	0.323	0.586
	(.264)	(.756)	(.701)	(.443)	(.455)
Gender: Female	0.261 †				
	(.135)				
Race: Black	0.835 *				
	(.169)				
Age	0.185 *	0.190 *	0.069	0.245 *	0.201 *
	(.033)	(.077)	(.069)	(.067)	(.061)
Education	0.305 *	0.283 *	0.562 *	0.254 *	0.200 *
	(.040)	(.088)	(.090)	(.083)	(.073)
Income	0.215 *	0.500 *	0.190	0.169 †	0.190 †
	(.058)	(.160)	(.132)	(.102)	(.102)
Religious Attendance	0.177 *	0.234 *	0.157 *	0.140 †	0.175 *
	(.037)	(.091)	(.074)	(.072)	(.069)
Marital Status	-0.025	0.763 †	0.566	-1.528 *	-0.845
	(.216)	(.441)	(.346)	(.660)	(.553)
Health Status	0.028	-0.011	-0.011	0.073	-0.845
	(.065)	(.154)	(.140)	(.124)	(.553)
Group Consciousness	0.016	-0.014	0.000	0.129 †	-0.036
	(.032)	(.066)	(.059)	(.071)	(.069)
Election	0.231 *	0.215	-0.004	0.170	0.527 *
	(.075)	(.165)	(.148)	(.150)	(.146)
Midterm	-2.679 *	-2.700 *	-2.586 *	-2.587 *	-3.036 *
	(.149)	(.324)	(.289)	(.294)	(.312)
Constant	-8.837 *	-8.956 *	-9.693 *	-9.291 *	-6.350 *
	(.761)	(1.729)	(1.583)	(1.595)	(1.454)
Observations	3,582	843	1,000	874	865
Individuals	1,723	419	477	424	403

28

... continued

	All	White Men	White Women	Black Men	Black Women

* $p < 0.05$, † $p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a mixed effects logistic regression; standard errors are reported in parentheses. Random effects are included for families and individuals to account for the clustering and non-independence of observations. An election counter and midterm dummy variable are included to account for the temporal nature of the panel data.

6.2.3 Table A.15: Church Attendance

	All	White Men	White Women	Black Men	Black Women
Depression	-0.162	-0.325	0.199	-0.071	-0.511
	(.170)	(.400)	(.329)	(.347)	(.347)
Church Attendance	0.217 *	0.175	0.316 *	0.190 †	0.148
	(.051)	(.121)	(.100)	(.110)	(.098)
Depression X Attendance	-0.060	0.109	-0.271 *	-0.065	0.038
	(.052)	(.142)	(.114)	(.103)	(.095)
Gender: Female	0.251 †				
	(.135)				
Race: Black	0.849 *				
	(.169)				
Age	0.184 *	0.185 *	0.070	0.249 *	0.199 *
	(.033)	(.078)	(.069)	(.068)	(.061)
Education	0.306 *	0.288 *	0.565 *	0.256 *	0.205 *
	(.040)	(.089)	(.091)	(.084)	(.073)
Income	0.213 *	0.495 *	0.209	0.171 †	0.177 †
	(.058)	(.162)	(.133)	(.102)	(.101)
Marital Status	-0.023	0.788 †	0.555	-1.543 *	-0.856
	(.217)	(.443)	(.348)	(.665)	(.552)
Health Status	0.027	0.012	-0.010	0.066	-0.063
	(.065)	(.154)	(.141)	(.124)	(.123)
Health Insurance	0.315 †	0.551	1.088 *	0.153	0.036
	(.185)	(.461)	(.502)	(.313)	(.344)
Group Consciousness	0.015	-0.017	0.008	0.128 †	-0.047
	(.032)	(.066)	(.060)	(.071)	(.069)
Election	0.234 *	0.211	0.004	0.171	0.524 *
	(.075)	(.167)	(.149)	(.150)	(.147)
Midterm	-2.683 *	-2.707 *	-2.588 *	-2.605 *	-3.014 *
	(.149)	(.326)	(.291)	(.296)	(.311)
Constant	-9.266 *	-9.460 *	-10.356 *	-9.699 *	-6.627 *
	(.764)	(1.729)	(1.546)	(1.644)	(1.448)
Observations	3,582	843	1,000	874	865
Individuals	1,723	419	477	424	403

...continued

	All	White Men	White Women	Black Men	Black Women

* $p < 0.05$, † $p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a mixed effects logistic regression; standard errors are reported in parentheses. Random effects are included for families and individuals to account for the clustering and non-independence of observations. An election counter and midterm dummy variable are included to account for the temporal nature of the panel data.

6.2.4   Table A.16: Group Consciousness

	All	White Men	White Women	Black Men	Black Women
Depression	0.021	0.384	-0.367	0.764	0.614
	(.196)	(.408)	(.337)	(.521)	(.544)
Group Consciousness	0.066	0.067	0.019	0.288 *	0.082
	(.041)	(.089)	(.082)	(.107)	(.095)
Depression X Group	-0.075 *	-0.142	-0.030	-0.180 *	-0.172 †
	(.038)	(.104)	(.090)	(.087)	(.089)
Gender: Female	0.249 †				
	(.135)				
Race: Black	0.847 *				
	(.169)				
Age	0.184 *	0.185 *	0.069	0.249 *	0.200 *
	(.033)	(.078)	(.069)	(.068)	(.060)
Education	0.308 *	0.290 *	0.565 *	0.260 *	0.197 *
	(.040)	(.089)	(.091)	(.084)	(.072)
Income	0.210 *	0.503 *	0.186	0.175 †	0.183 †
	(.058)	(.162)	(.132)	(.103)	(.101)
Church Attendance	0.179 *	0.239 *	0.159 *	0.133 †	0.181 *
	(.037)	(.091)	(.074)	(.073)	(.069)
Marital Status	-0.013	0.807 †	0.570 †	-1.533 *	-0.891
	(.217)	(.445)	(.347)	(.667)	(.555)
Health Status	0.027	0.007	-0.012	0.049	-0.063
	(.065)	(.153)	(.140)	(.125)	(.123)
Health Insurance	0.318 †	0.578	1.052 *	0.164	-0.040
	(.186)	(.463)	(.501)	(.316)	(.345)
Election	0.239 *	0.217	-0.002	0.179	0.534 *
	(.075)	(.166)	(.148)	(.151)	(.147)
Midterm	-2.697 *	-2.731 *	-2.596 *	-2.650 *	-3.029 *
	(.150)	(.327)	(.292)	(.301)	(.312)
Constant	-9.408 *	-9.929 *	-9.869 *	-10.484 *	-7.353 *
	(.770)	(1.740)	(1.536)	(1.711)	(1.482)
Observations	3582	843	1000	874	865
Individuals	1723	419	477	424	403

continued . . .

... continued

	All	White Men	White Women	Black Men	Black Women

* $p < 0.05$, † $p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a mixed effects logistic regression; standard errors are reported in parentheses. Random effects are included for families and individuals to account for the clustering and non-independence of observations. An election counter and midterm dummy variable are included to account for the temporal nature of the panel data.

6.3 National Longitudinal Study of Adolescent to Adult Health

6.3.1 Table A.17: Income

	All	White Men	White Women	Black Men	Black Women
Depression	-0.396 †	-0.761	-0.185	-0.403	-1.465 *
	(.204)	(.707)	(.238)	(.598)	(.606)
Income	0.005	-0.026	0.032	0.030	-0.086
	(.018)	(.038)	(.026)	(.060)	(.053)
Depression X Income	0.010	0.038	-0.024	0.075	0.146 *
	(.024)	(.080)	(.028)	(.071)	(.072)
Gender: Female	0.005				
	(.095)				
Race: Black	0.139				
	(.119)				
Age	0.058 *	0.040	0.106 *	0.003	-0.049
	(.028)	(.044)	(.045)	(.080)	(.077)
Education	0.201 *	0.238 *	0.169 *	0.169 †	0.158 *
	(.027)	(.044)	(.040)	(.089)	(.077)
Religious Attendance	0.126 *	0.088 *	0.169 *	0.299 *	-0.031
	(.025)	(.043)	(.036)	(.087)	(.066)
Marital Status	-0.158	-0.144	-0.102	-0.477	-0.532
	(.121)	(.205)	(.181)	(.435)	(.380)
Partisan Strength	1.300 *	1.257 *	1.498 *	0.700 *	1.464 *
	(.096)	(.160)	(.150)	(.306)	(.263)
Health Status	0.095 †	0.202 *	0.088	-0.019	-0.202
	(.057)	(.095)	(.091)	(.177)	(.147)
Health Insurance	0.046	-0.127	0.178	0.157	0.071
	(.112)	(.168)	(.186)	(.412)	(.350)
Constant	-5.107 *	-4.953 *	-6.237 *	-3.762 †	0.259
	(.695)	(1.136)	(1.058)	(2.221)	(2.104)
Observations	3180	1144	1245	343	448

* $p < 0.05$, † $p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a logistic regression; standard errors are reported in parentheses. Post-stratification survey weights account for the unequal selection into the survey.

6.3.2 Table A.18: Health Insurance

	All	White Men	White Women	Black Men	Black Women
Depression	-0.484 *	-0.524	-0.549 *	0.093	-0.111
	(.187)	(.342)	(.270)	(.805)	(.711)
Health Insurance	-0.070	-0.176	0.045	0.112	0.230
	(.163)	(.245)	(.258)	(.770)	(.537)
Depression X Insurance	0.233	0.134	0.247	0.104	-0.288
	(.223)	(.425)	(.323)	(.876)	(.753)
Gender: Female	0.007				
	(.095)				
Race: Black	0.138				
	(.118)				
Age	0.059 *	0.040	0.108 *	0.008	-0.042
	(.028)	(.044)	(.045)	(.079)	(.076)
Education	0.202 *	0.238 *	0.170 *	0.167 [†]	0.156 *
	(.027)	(.044)	(.040)	(.088)	(.077)
Income	0.009	-0.011	0.019	0.067 [†]	-0.003
	(.013)	(.025)	(.020)	(.038)	(.034)
Religious Attendance	0.127 *	0.088 *	0.171 *	0.306 *	-0.029
	(.025)	(.043)	(.037)	(.086)	(.066)
Marital Status	-0.161	-0.146	-0.115	-0.490	-0.523
	(.121)	(.205)	(.182)	(.433)	(.386)
Partisan Strength	1.301 *	1.254 *	1.493 *	0.708 *	1.434 *
	(.096)	(.160)	(.150)	(.306)	(.264)
Health Status	0.096 [†]	0.205 *	0.079	-0.013	-0.183
	(.057)	(.095)	(.091)	(.180)	(.149)
Constant	-5.081 *	-5.047 *	-6.082 *	-4.128 [†]	-0.693
	(.695)	(1.131)	(1.059)	(2.331)	(2.109)
Observations	3180	1144	1245	343	448

* $p < 0.05$, [†] $p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a logistic regression; standard errors are reported in parentheses. Post-stratification survey weights account for the unequal selection into the survey.

6.3.3 Table A.19: Church Attendance

	All	White Men	White Women	Black Men	Black Women
Depression	-0.234	-0.264	-0.205	0.576	-0.854 [†]
	(.148)	(.277)	(.215)	(.480)	(.437)
Church Attendance	0.147 *	0.129 *	0.208 *	0.443 *	-0.145
	(.035)	(.064)	(.052)	(.132)	(.101)
Depression X Attendance	-0.044	-0.107	-0.076	-0.256	0.190
	(.052)	(.128)	(.070)	(.168)	(.134)
Gender: Female	0.004				
	(.095)				
Race: Black	0.135				
	(.119)				
Age	0.059 *	0.041	0.109 *	0.012	-0.037
	(.028)	(.044)	(.045)	(.079)	(.076)
Education	0.201 *	0.238 *	0.170 *	0.161 [†]	0.161 *
	(.027)	(.044)	(.040)	(.086)	(.078)
Income	0.009	-0.011	0.018	0.077 [†]	-0.005
	(.013)	(.024)	(.020)	(.040)	(.035)
Marital Status	-0.160	-0.158	-0.108	-0.553	-0.501
	(.121)	(.207)	(.181)	(.436)	(.380)
Partisan Strength	1.300 *	1.256 *	1.492 *	0.707 *	1.433 *
	(.096)	(.160)	(.150)	(.309)	(.265)
Health Status	0.096 [†]	0.209 *	0.083	-0.012	-0.177
	(.057)	(.094)	(.091)	(.181)	(.149)
Health Insurance	0.045	-0.129	0.187	0.145	0.058
	(.112)	(.168)	(.186)	(.410)	(.353)
Constant	-5.198 *	-5.175	-6.296 *	-4.513 *	-0.378
	(.698)	(1.137) *	(1.064)	(2.251)	(2.057)
Observations	3,180	1,144	1,245	343	448

* $p < 0.05$, [†] $p < 0.10$ (two-tailed)

Note: Dependent variable is self-reported voter turnout. Cell entries are coefficients from a logistic regression; standard errors are reported in parentheses. Post-stratification survey weights account for the unequal selection into the survey.

7 Depressive Symptoms and the Mitigating Factors

What effect does depression have on the mitigating factors examined in the main text? Table A.20 reports the estimated coefficient of the effect of depression on each mitigating factor (income, health insurance, church attendance, and group consciousness) across each of the studies. The results show that depression consistently predicts church attendance and income, but not health insurance or group consciousness (even after controlling for race, gender, age, education, income, church attendance, marital status, partisan strength, overall health status, health insurance, and group consciousness, consistent with the models reported in earlier sections of the appendix). Sociological research shows that, at least in the case of income, the association between depression and income is driven more by the effect of income on depression than vice versa, but the important point here is that the two are correlated with one another even after controlling for other important factors. It is this correlation, irrespective of the direction of the effect, that is of concern to the analyses in the main text.

7.0.1 Table A.20: Estimating the Effect of Depressive Symptoms

	GSS	PSID	Add Health
Income	$-0.057^{\dagger}$	-0.078*	-1368*
	(.032)	(.026)	(563)
Health Insurance		-0.043	-0.127
		(.107)	(.117)
Church Attendance	-0.117*	-0.093*	-0.236*
	(.029)	(.038)	(.099)
Group Consciousness	0.027	-0.013	
	(.060)	(.045)	

$* p < 0.05$, $^{\dagger} p < 0.10$ (two-tailed)

Note: Cell entries are estimated coefficients from regression (OLS, logistic, or ordinal logistic) indicating the effect of depressive symptoms on each of the mitigating factors; standard errors are reported in parentheses.

37

8   Vote Validation and the Cooperative Congressional Election Study

One issue plaguing research on health and political participation is the self-reporting of voter turnout. Surveys that use self-report as a measurement strategy consistently over-estimate turnout because many respondents who do not vote report voting out of feelings of social desirability. If depression is negatively correlated with social desirability then the association between depression and turnout may itself be spurious. Here, we attempt to parse the degree to which over-reporting could account for the results we report in the main text.

We use data from the 2012 wave of the Cooperative Congressional Study (CCES). This wave contained self-reported voter turnout, three measures of validated voter turnout, and a measure of depression. Self-reported turnout is measured by asking respondents "Which of the following best describes you?" and were given the response options of 1) I did not vote in the election this November, 2) I thought about voting this time, but didn't, 3) I usually vote, but didn't this time, 4) I attempted to vote but did not or could not, 4) I definitely voted in the General Election on November 6. Responses were collapsed into a binary vote (1) or did not vote (0) variable. Validated voter turnout is based on data from Catalist. Since only 90% of respondents are successfully matched to the Catalist data, the question then becomes how to treat the portion of respondents who are not matched. It is in the treatment of these non-matched respondents that three measures of validated turnout are generated. The first treats the unmatched respondents as non-voters. The second treats unmatched respondents as missing. The third treats unmatched respondents who self-reported as a voter as missing and self-reported as a non-voter as not voting.

Depression is measured by asking respondents "Have you been told by a health care professional that you have depression and/or anxiety?" with response options of yes or no. Approximately 18% of respondents said yes to this question. The issue here is that depression and anxiety are different mental health conditions with potentially different relationships to voting. The theory for why depression reduces participation is that it reduces interest in the political process and makes participation more physically demand through its psychosomatic consequences. Anxiety, however, is not characterized by a loss of interest in social activity or by fatigue, loss of energy, and a feeling of heavy limbs. Nor there is another obvious reason to think that anxiety would reduce political participation. I return to this issue below after describing our analytic strategy.

If social desirability accounts for the association between depression and turnout then we should expect that the magnitude of effect of depression on turnout will be reduced or completely eliminated when using a validated turnout measure. We therefore estimate four models of voter turnout—one for each of the fours measures of turnout (self-report and the three validated measures)—and compare the magnitude of the coefficient for the depression variable in each model. This strategy should reveal the degree to which social desirability in self-reported turnout is a threat to our findings. The issue, however, is the possibility that any discrepancy between the coefficients across the four models could also be attributed to anxiety. Thus, the results of this analysis are

38

suggestive but not conclusive.

We begin by examining the level of voting and the prevalence of depression and/or anxiety across racial and gender groups in the sample. Table A.21 reports these statistics. Depending on which vote validated measure is used, turnout is over-reported anywhere from 6.7% to 31.2%. Although the first measure of validated turnout may seem the most appropriate because its numbers come closest to actual levels of turnout, this measure could under-report turnout if the *sample* is disproportionately comprised of voters. Across all measures, White men vote the most and Black men vote the least. The prevalence of depression and/or anxiety hovers around 14-15% for White men, Black men, and Black women, but is a much higher 23% for White women. This distribution differs from those in the main text insofar it suggests a smaller prevalence for Black women. This may be the consequence of inadequate distribution of healthcare that prohibits Black women with depression and/or anxiety from receiving a diagnosis from a medical professional.

8.0.1   Table A.21: Distribution of Turnout and Depression Across Groups

	White Men	White Women	Black Men	Black Women
Self-Reported Turnout	91.7%	87.0%	88.5%	88.8%
Validated Turnout #1	72.7%	68.8%	57.3%	61.3%
Validated Turnout #2	84.8%	80.3%	74.0%	78.2%
Validated Turnout #3	82.5%	77.4%	71.8%	76.2%
Depression and/or Anxiety	14.8%	23.0%	13.9%	14.5%

Next, we turn to the effect of depression and/or anxiety on voter turnout. Table A.22 reports the estimated coefficients and standard errors of the effect of depression on each measure of voter turnout across three different model specifications. In the models that include only depression as an independent variable, all of the estimated coefficients are negative and statistically significant. There is some attenuation of the effect size when using the second and third validated turnout measures and a lot of attenuation when using the first validated turnout measure. All of the coefficients shrink a small amount when controlling for race and gender, but the overall pattern remains the same. Depression and/or anxiety is negatively and significantly associated with voter turnout. Once the full set of controls are added to the model (i.e., race, gender, age, education, income, religious attendance, marital status, partisan strength, overall health, and health insurance), the effect goes away in the self-reported turnout model and the third validated turnout model. The effect is marginally statistically significant in the expected direction in the second validated turnout model and positive and statistically significant in the first validated model.

8.0.2 Table A.22: Effect of Depression on Voter Turnout

	Self-Reported	Validated #1	Validated #2	Validated #3
No controls	-0.428*	-0.103*	-0.343*	-0.312*
	(.034)	(.026)	(.032)	(.030)
Race and gender	-0.379*	-0.089*	-0.319*	-0.287*
	(.035)	(.026)	(.032)	(.030)
Full controls	-0.038	0.073*	-0.064†	-0.032
	(.044)	(.031)	(.038)	(.036)

* $p < 0.05$, † $p < 0.10$ (two-tailed)

Note: Dependent variable is voter turnout. Cell entries are coefficients from a logistic regression; standard errors are reported in parentheses.

The results are mixed but suggest that social desirability bias cannot account for the effect of depression on turnout. On the one hand, the models with full controls fail to reproduce the effect of depression on voter turnout as reported in the main text, raising questions about the validity of the findings. In one instance, the results even suggest that depression has a *positive* effect on turnout. Not only does this finding fail to reproduce our main finding, but it contradicts our claims entirely! On the other hand, the inclusion of anxiety in the measurement of the main independent variable as well as the idiosyncrasies of the sample could account for the null effects. Overall, this finding weighs against our claim that depression affects turnout, but it must also be put in the context of a large body of research that finds depression affects turnout.

The purpose of these analyses, however, was not to litigate whether depression has an effect on turnout once controlling for other known predictors of turnout. Rather, the goal was to assess the degree to which social desirability accounts for the effect of depression on turnout. Here the results are fairly straightforward: social desirability attenuates but does not totally account for the effect of depression on turnout. In the models without controls or controlling for only race and gender, the effect of depression is smaller in the validated turnout models than in the self-reported turnout model; nevertheless, the effect is still statistically different from zero. In the model with full controls, the effect of depression in the self-reported turnout and the second and third turnout models are all the same, reaffirming the idea that social desirability is only a small problem. The one exception to this evidence is the second first validated turnout model, which substantially departs from the self-reported model. These results would suggest that social desirability is a larger problem. Given that that this results stands in opposition to the rest of the analyses and the possibility for an error of the first kind, more research is required before this result can be investigated. Overall, the results are mixed, but point to a small social desirability effect.