



Survey and Interview Methodology¹

Teaching About Economic Inequality Survey

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The Inequality Project, housed at UCLA and the University of Ottawa, examines whether, what, and how high school teachers in North America teach students about economic inequality and related issues. For more information, please visit www.theinequalityproject.com.

U.S. High School Teacher Survey

In May and June of 2015, The Inequality Project at UCLA and the University of Ottawa conducted an online survey of nearly 2000 high school social studies, English/language arts, and mathematics teachers in the United States that examined whether and how these teachers address issues of inequality in their classrooms, with a particular focus on economic inequality.² The survey addressed the following areas: teachers' practices in civic education generally; whether and how frequently teachers address issues of economic inequality (and other forms of inequality) with their students; what and how teachers teach about economic inequality; teacher training and professional development; sources of teacher information about civics and issues of inequality; school and community climate and curricular autonomy; other individual teacher characteristics. At the end of the survey, teachers were asked if they would be willing to participate in a follow-up phone interview.

The survey included two samples of schools. First, we surveyed social studies teachers, English/language arts teachers, and mathematics teachers nested in 344 public high schools that are representative of public high schools in the United States generally in terms of student demographics and geographic location. Second, we surveyed social studies, English/language arts, and math teachers nested in 38 elite independent high schools across the United States.

U.S. Public School Survey Sample

The sample of U.S. public high schools was drawn using data from the National Center for Educational Statistics (NCES). We sorted the roughly 17,000 public high schools in the NCES database into deciles according to the percentage of students: a) receiving free or reduced price lunch; b) designated as English Learners; c) categorized as white. We also divided the universe of public high schools into deciles by school size and designated schools according to states and regions (according to NCES definitions).

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² We report here on our survey of U.S. teachers. We also simultaneously conducted a survey with a representative sample of public school and private school teachers in Canada.

We used these deciles to create an initial list of 1000 public high schools that were representative of the student demographics and geography of the entire universe of U.S. public high schools. Our research group then sought to determine which of these 1000 schools posted their teachers' email lists on the internet, and did so by subject area. 745 of the 1000 schools met this criterion.

We selected 250 schools from this list of 745 schools that were representative of the broader universe of U.S. public high schools as our primary sample. The remaining schools served as potential replacements.

Because it would be difficult to draw a sample of teachers in very small schools (which employ fewer teachers), we excluded high schools enrolling less than 500 students from our initial sample. To compensate for this decision, we doubled the number of schools in our sample from the second decile of school size. We also took two other steps to make sure that schools enrolling small numbers of students would be represented in the survey. First, we added 35 additional schools that enrolled less than 500 students with the understanding that these schools might only yield 1 or 2 teachers in a given subject area. Second, we added 25 schools in the 2nd decile of school size, 10 schools in the 3rd decile by school size, and 5 schools in the 4th decile of school size to compensate for what we expected would be lower numbers of survey participants from the smaller schools. We selected small schools with low, middle, and high proportions of students receiving free or reduced priced lunch.

After the initial release of the survey and a reminder email, there were 35 high schools that had no respondents in any subject. It is likely that the district servers blocked our email invitations to these schools. We identified 35 supplemental schools that matched the non-responsive schools from the original list of the 1000 schools. Four schools did not have a suitable replacement from the original list of 1000 schools. Because there were no replacements, four schools were randomly selected from the NCES database to match the characteristics of the four schools.

Further, after the initial release of the survey, we added 19 new schools from the original sample of 1000 to compensate for the initial lower response rate from large, high poverty schools.

U.S. Elite Independent School Sample

Our sample of 38 independent schools is drawn from lists of elite private schools that are available on the internet.³ These schools charge tuition of at least \$20,000. After we created a list of schools that met the tuition threshold, we selected 38 that covered the broadest range of states. Some of our initial choices did not publicize their teacher contact information, so we replaced them with other schools in the same states.

³ We used the following three lists:

<http://apps.washingtonpost.com/local/highschoolchallenge/schools/2014/list/private/>

<http://www.thebestschools.org/blog/2013/04/30/50-private-day-schools-united-states/>

<http://www.businessinsider.com/most-expensive-private-schools-in-the-us-2014-8?op=1>

Nesting Teachers in Schools

We sought to survey 4-5 social studies teachers and 2-3 English/language arts teachers and mathematics teachers from each school across the two samples. Nesting teachers within schools allows us to examine variance both across and within schools.

Survey Administration

We sent out emails to teachers in our sample schools inviting them to participate in the survey through Qualtrics, an online survey software platform. The subject line of the email invited teachers to participate in a study from UCLA and the University of Ottawa. Those teachers who opened the email learned that we were inviting them to participate in an online survey examining how teachers engage students in social and political issues in their classroom teaching. We promised confidentiality and offered teachers a \$10 Amazon gift card as an incentive for participating, and we also agreed to place them in a lottery to win an additional \$250 Amazon gift card to spend on their classroom. Teachers who were interested in taking the survey then clicked on a link to enter the survey itself. Teachers who did not respond to the initial email (or who began the survey but did not complete it) received follow-up reminders every week for three weeks.

The survey included initial screening questions to determine eligibility. Teachers were asked whether they still taught at the same school, whether they taught at least two periods, and what subject matter they taught. We set the Qualtrics quota system to allow up to 5 social studies teachers and 3 math and 3 English teachers from each school to complete the survey. After these quotas were met, teachers who tried to respond to the survey were thanked for their interest and told that we would not be able to include them in the survey.

Survey Response Rates

We sent our first invitations to participate in the survey to U.S. teachers (from public and independent schools) on May 6, 2015. Additional invitations were sent on May 14th and May 20th and 21st to supplementary pools of teachers. The survey was closed on June 12, 2015. A relatively small number of emails we sent failed or bounced back.

Roughly 1/3 of the emails sent to teachers were opened. The email subject header invited teachers to participate in a UCLA teacher study. Teachers' decisions about whether or not to open the email were not influenced by the subject matter of our study since they did not have access to any substantive information about the topic or purpose of the study. Teachers who opened the email learned that we were inviting them to participate in a survey about how teachers address topics of social and political concern in their classrooms. 71% of social studies and English teachers chose to begin the survey, as did 61% of math teachers. More than 90% of all teachers who began the survey completed it. Some teachers who "completed" the survey, answered only the initial filter questions before being told that they did not qualify to take the rest of the survey because they no longer taught at the same school, they did not teach in the target subject areas, or too many teachers from their school had already finished the survey. 770 social studies teachers finished the entire survey, and another 66 social studies teachers were filtered out, primarily because their school had reached its quota. 614 English teachers finished the entire survey, with 240 filtered out. 485 math teachers finished the entire survey with 120 teachers filtered out. A higher proportion of English and math

than social studies teachers were excluded from the survey because the quota for these subject areas was set at 3 while the quota for social studies was set at 5.

U.S. TEACHER SURVEY RESPONSE RATES

U.S. Teacher Survey Responses	Social Studies	English	Math	All Subjects
Emails failed	208	295	287	790
Emails Bounced	3	3	5	11
Emails Duplicate	0	0	0	0
Emails Sent	3920	3872	3690	11482
Emails Opened	1303	1262	1046	3611
% Opened	33.2%	32.6%	28.3%	31.4%
Surveys Started	924	892	642	2458
%Started/opened	70.9%	70.7%	61.4%	
Surveys Completed	844	857	611	2312
%Completed/Started	91.3%	96.1%	95.2%	
%Completed/Opened	64.8%	67.9%	58.4%	
Completed Surveys	844	857	611	2312
Teachers choosing not to take	8	3	6	17
Ineligible--no longer at school	8	7	9	24
Ineligible--other subject matters	13	10	13	36
Ineligible--over quota for school	45	223	98	366
Public Finished All Survey Qs	686	548	422	1656
Private Finished All Survey Q	84	66	63	213
All Finished All Survey Q	770	614	485	1869
% Finished of Completers	91.2%	71.7%	79.4%	80.8%
Tried to complete	836	854	605	2295
"Tryers"/Opened	64.2%	67.7%	57.8%	63.6%

U.S. SCHOOLS RESPONDING TO SURVEY

U.S. Schools in Survey	Social Studies	English	Math	All Subjects
Public All	293	246	219	344
Solo respondents	102	65	106	
Multiple respondents	191	181	125	
Private All	34	33	32	38
Solo respondents	12	13	22	
Multiple respondents	22	20	10	
All Schools				382

DEMOGRAPHICS OF US *PUBLIC* SCHOOLS W/ TEACHER RESPONDENTS

	FREE AND REDUCED PRICE LUNCH BY DECILE (1 st is lowest, 10 th highest)									
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
English	11.3%	10.4%	10.2%	8.9%	10.9%	9.1%	10.8%	8.8%	9.3%	10.2%
Soc-Stud	9.6%	10.1%	11.1%	8.3%	10.8%	10.1%	11.1%	8.7%	11.2%	9.0%
Math	10.0%	11.6%	12.6%	8.3%	12.6%	7.1%	9.7%	9.0%	10.9%	8.3%
Total	10.3%	10.6%	11.2%	8.5%	11.3%	9.0%	10.6%	8.8%	10.5%	9.2%

DISTRIBUTION OF PARTICIPATING SCHOOLS BY RACIAL DEMOGRAPHICS

	% WHITE ENROLLMENT BY DECILE (1 st is lowest, 10 th highest)									
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
English	6.2%	12.0%	8.6%	10.0%	8.0%	13.7%	15.7%	8.6%	10.6%	6.6%
Soc-Stud	6.7%	11.7%	8.9%	12.2%	8.3%	10.1%	16.5%	8.5%	8.5%	8.7%
Math	4.7%	11.6%	10.4%	11.6%	10.0%	11.6%	14.5%	9.0%	10.0%	6.6%
Total	6.0%	11.8%	9.2%	11.4%	8.6%	11.7%	15.7%	8.6%	9.5%	7.5%

DISTRIBUTION OF PARTICIPATING SCHOOLS BY SCHOOL ENROLLMENT

	SCHOOL SIZE (ENROLLMENT) BY DECILE (1 st is lowest, 10 th highest)									
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
English	0.2%	15.7%	10.4%	11.3%	8.4%	9.9%	10.6%	11.1%	10.8%	11.7%
Soc-Stud	2.2%	10.9%	6.3%	10.5%	11.1%	12.7%	10.3%	11.2%	11.8%	13.0%
Math	0.0%	13.5%	10.4%	10.9%	7.3%	9.7%	12.6%	11.8%	10.4%	13.3%
Total	1.0%	13.2%	8.7%	10.9%	9.2%	11.0%	11.0%	11.4%	11.1%	12.6%

DISTRIBUTION OF PARTICIPATING SCHOOLS BY NCES GEOGRAPHIC REGION

	NCES Region 1	NCES Region 2	NCES Region 3	NCES Region 4
English	15.7%	22.8%	35.0%	26.5%
Soc-Stud	13.4%	19.7%	38.8%	28.1%
Math	13.7%	22.3%	39.6%	24.4%
Total	14.3%	21.4%	37.7%	26.6%
NCES	16.0%	19.9%	38.0%	26.1%

NCES Region 1 is Northeast

NCES Region 2 is Midwest

NCES Region 3 is South

NCES Region 4 is West

Variables Used in Survey Analysis

Teacher background characteristics are drawn from the following survey questions:

- What is your gender? (Male, Female, Other, Prefer not to answer.)
- What is your race? (White/Caucasian, African American, Hispanic, Asian, Native American, Pacific Islander, Other, Prefer not to answer.)
- If you were asked to use one of these commonly used names for the social class you belonged to when you were growing up, which would it be? (Upper class, Upper middle class, Middle class, Lower middle class, Lower class, Prefer not to answer.)

Teacher political ideology is drawn from the following survey question:

- How would you characterize yourself? (Very liberal, Somewhat liberal, Moderate, Somewhat conservative, Very conservative, Prefer not to answer.)
- 4% of teachers responded, "Prefer not to answer."

For the 4% of teachers who responded "Prefer not to answer," we used another question as a proxy for political ideology:

- Do you agree/disagree that: "A good way to reduce poverty is to raise taxes on wealthy people and corporations in order to expand programs for the poor"?
- Teachers who responded strongly agree or agree were coded as liberal; teachers who responded strongly disagree or disagree were coded as conservative.

Teacher civic and political engagement is a composite variable of the following questions:

- In the last month, how often (Never, Once or twice, Monthly, Weekly, A few times a week, Daily) have you ...
 - (Civic Item 1) Followed news by reading a newspaper or news magazine, or watching national news on TV, listening to news on the radio, or reading news online?
 - (Civic Item 2) Talked about politics or government with your family and friends?
 - (Civic Item 3) Participated in an organization that tries to make a difference in your community or broader society?

Answers were coded as follows:

Never=0; Once or twice = 1; Monthly = 2; Weekly = 4; A few times a week or Daily = 8.

The composite ascribed greater weight to Civic Item 3 (participation in organizations) than to Civic Item 1 (following the news) or Civic Item 2 (discussing politics). We used the following formula: $((\text{Civic Item 1} + \text{Civic Item 2}) + ((2x) \text{Civic Item 3}))/4$

Low Engagement Teachers had a composite score of 0-3.5

Moderate Engagement Teachers had a composite score of 4.0-5.5

High Engagement Teachers had a composite score of 6-8.

Class characteristics are drawn from the following survey questions:

- Do you currently teach (Economics, U.S. History, U.S. Government/Civics, World History, Other)?
- Which of the following best describes the academic achievement of the students in this class relative to other students in the school? (Low, Average or mixed achievement, High.)

School demographics is a composite of data drawn from NCES when we created our sample.

- Free and/or reduced price lunch. Students are eligible for the free and reduced price lunch program if their family income is less than 185% of the Federal Poverty line. Schools were placed in deciles based on the percentage of students receiving free or reduced lunch. We compare schools in Decile 1-3 (lowest percentage of students from low-income families), Deciles 4-7 (moderate percentage) and Deciles 8-10 (highest percentage).
- Race. Schools were placed in deciles based on the percentage of white students enrolled. We compare schools in Decile 1-3 (lowest percentage of white students enrolled), Deciles 4-7 (moderate percentage) and Deciles 8-10 (highest percentage).
- School Size. Schools were placed in deciles based on the total number of students enrolled. We compare schools in Deciles 1-3 (smallest enrollment), Deciles 4-7 (mid-size) and Deciles 8-10 (largest).

Community Demographics.

- NCES places schools in 4 regions: Northeast (1), Midwest (2), South (3), and West (4).
- % Obama Vote. We placed all of our schools in unique congressional districts and then used a compilation of the 2012 presidential vote by congressional district (created by Daily Kos Elections) to assign each school a % Obama Vote. “Low” Obama vote schools are located in congressional districts in which less than 45% of voters supported President Obama; “Moderate” Obama vote schools are located in congressional districts in which 45%-55% of voters supported President Obama; “High” Obama vote schools are located in congressional districts in which more than 55% of voters supported President Obama.

INTERVIEW METHODS

At the close of the survey, teachers were asked if they would be willing to participate in a follow-up phone interview (and receive an additional Amazon Card). 398 social studies teachers, 306 English teachers, and 141 math teachers agreed to participate in an interview. (This represented almost exactly half of the social studies and English teachers who completed the survey and just over $\frac{1}{4}$ of the math teachers.) We filtered this pool of willing candidates with two additional criteria: (1) teachers had to have reported teaching about economic inequality at least once; and (2) they had to do so in relation to a class that primarily enrolled 11th and/or 12th grade students. These filters yielded an initial pool of 245 social studies teachers, 225 English teachers, and 74 math teachers.

U.S. TEACHERS IN INTERVIEW POOL

U.S. Teachers in Interview Pool	Social Studies	English	Math	All Subjects
Finished All Survey Q	770	614	485	1869
Agreed to be interviewed	398	306	141	845
Met criteria for interview	245	225	74	544
Participated in interview	56	19	20	95

From this initial list, we used maximum variability sampling on the following variables in order of importance: school type (private/public), school SES, expressed political ideology and unconscious ideology about economic inequality, size of the school, geographic area, and race. Using these criteria, we selected 50 social studies teachers, 25 English teachers, and 25 math teachers. We sent invitations to this group of 100 teachers in July 2015 and received a 56% response rate. A second round of interview invitations were sent out two weeks later to the same number of teachers as the first round with a 44% response rate. Finally, a third round of interviews were sent two weeks after the second round to 25 English teachers, 23 math teachers, and 44 social studies teachers with a 36% response rate. Our efforts to reach teachers were certainly hampered by the fact that our invitations were sent during their summer vacation. Many teachers did not regularly check their professional email during this period.

Teachers who agreed to be interviewed were asked to schedule a 30-40-minute video/ phone interview using videoconference software at a time of their convenience. We also requested that they send us, in advance of the interview, a plan for a lesson they had taught in the last year on economic inequality. During the interviews, we asked teachers to describe their lessons and to relate the lesson to how they introduced issues of economic inequality more generally. Follow-up questions probed for detailed description of content, pedagogy, interesting and compelling moments, and challenges. We also asked teachers about their school context, their goals, and their backgrounds.

Of the 134 U.S. teachers that responded and scheduled time, 95 participated and completed the interview process. Interviews were conducted from July to early September of 2015.