
PREACHING TO THE CHOIR?

Measuring the Impact of
Waiting for “Superman”

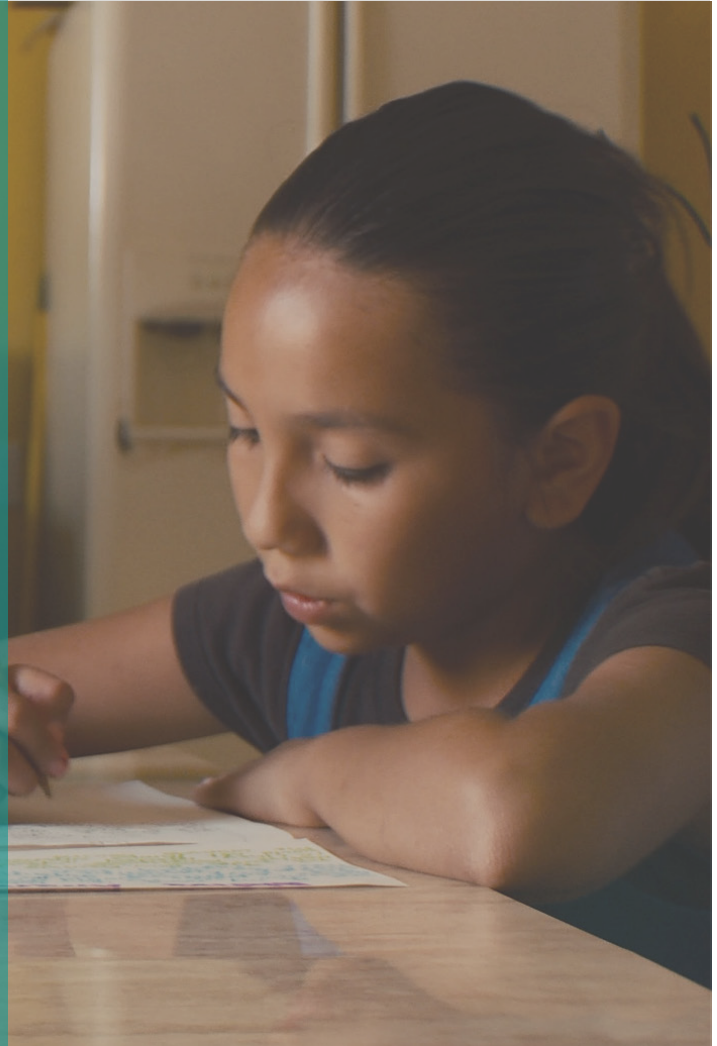
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THE USC ANNEBERG NORMAN LEAR CENTER

MEDIA IMPACT PROJECT



ABOUT



MEDIA IMPACT PROJECT

The Media Impact Project is a hub for collecting, developing and sharing approaches for measuring the impact of media. Based at the USC Annenberg Norman Lear Center, we seek to better understand the role that media plays in changing knowledge, attitudes and behavior among individuals and communities, large and small, around the world. The Media Impact Project brings together a unique team of researchers including social and behavioral scientists, journalists, analytics experts and other specialists to collaborate to test and create new ways to measure the impact of media. Content creators, distributors and media funders can ultimately apply these techniques to improve their work and strengthen engagement. The Lear Center's Media Impact Project is funded by a grant from the Bill & Melinda Gates Foundation, with additional funding from the John S. and James L. Knight Foundation and the Open Society Foundation. For more information, please visit www.mediaimpactproject.org.

THE NORMAN LEAR CENTER

The Norman Lear Center is a nonpartisan research and public policy center that studies the social, political, economic and cultural impact of entertainment on the world. The Lear Center translates its findings into action through testimony, journalism, strategic research and innovative public outreach campaigns. On campus, from its base in the USC Annenberg School for Communication and Journalism, the Lear Center builds bridges between schools and disciplines whose faculty study aspects of entertainment, media and culture. Beyond campus, it helps bridge the gap between the entertainment industry and academia, and between them and the public. Through scholarship and research; through its conferences, public events and publications; through its role in the formulation of the academic field of entertainment studies; and in its attempts to illuminate and repair the world, the Norman Lear Center works to be at the forefront of discussion and practice in the field. For more information, visit www.learcenter.org.

The Norman Lear
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PARTICIPANT MEDIA

Participant Media (www.participantmedia.com) is a leading media company dedicated to entertainment that inspires and compels social change. Founded in 2004 by Jeff Skoll, Participant combines the power of a good story well told with opportunities for viewers to get involved. Participant's more than 70 films include *Spotlight*, *Contagion*, *Lincoln*, *The Help*, *He Named Me Malala*, *The Look of Silence*, *CITIZENFOUR*, *Food, Inc.*, and *An Inconvenient Truth*. Participant has also launched more than a dozen original series, including "Please Like Me," "Hit Record On TV with Joseph Gordon-Levitt," and "Fortitude," for its television network, Pivot (www.pivot.tv). Participant's digital hub, TakePart (www.TakePart.com), serves millions of socially conscious consumers each month with daily articles, videos and opportunities to take action. Follow Participant Media on Twitter at @Participant and on Facebook.



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INTRODUCTION

CAN MOVIES REALLY CHANGE PEOPLE?

For media researchers, it is really hard to determine the impact of a television show, a song, a film, a game. There is a general feeling that media has an impact on our lives, but it can seem like an impossible thing to measure. In this research study, we sought to understand which variables influence someone's likelihood of watching a particular film or TV show and whether that media exposure had any impact on viewers' knowledge, attitudes and behavior.

Participant Media approached the USC Annenberg Norman Lear Center to help them answer these questions about their film, *Waiting for "Superman"* (WFS). Participant Media is a production company whose goal is to make films that change society and they have made dozens of critically acclaimed films, both documentaries and fictional feature films that deal with serious social issues in entertaining and engaging ways. Participant Media wanted the Lear Center's help figuring out whether their films were having the impact they had hoped for.

Lear Center researchers began to answer these questions by developing an online survey methodology that could evaluate the impact of Participant Media's films and associated social action campaigns on the general public. The Lear Center looked at three of Participant Media's films — *Food, Inc.*, *Waiting for "Superman"* and *Contagion*. This report is part of a series of impact evaluations of those films.

Our research questions included:

- What did people learn about issues depicted in a film?
- Can films encourage someone to take action?
- Which elements of Participant Media's social action campaigns were most likely to encourage people to take action?
- Was there a relationship between emotional engagement with a film and taking action?
- Can we associate enjoyment or appreciation of a film with taking action?
- Was there a relationship between people's inclination to take action and their beliefs about the potential impact that a film can have on individuals, the media, public opinion and public policy?
- What did survey respondents believe Participant Media should do to motivate people to take social action?

Each of these three reports provides highlights from our findings. Please contact the Norman Lear Center at enter@usc.edu to inquire about additional results.

WHY STUDY WAITING FOR “SUPERMAN”?

Waiting for “Superman” is a 2010 documentary directed by Davis Guggenheim, who also directed *An Inconvenient Truth*. The film looks at the failures of the American public education system through the stories of students and their families who strive for better educational opportunities. The film received the Audience Award for best documentary at the 2010 Sundance Film Festival and, since its release, has directed donations to over 2.8 million children. The film’s release ignited a heated debate about the challenges facing public education to provide adequate education and opportunities for students, parents and teachers.

Two questions guided our study of this film:

- Which variables influenced someone’s likelihood of watching *Waiting for “Superman”*?
- What was the impact of *Waiting for “Superman”* on knowledge, attitudes and behavior?

Funding for this study, which was independently designed, conducted and released by the Norman Lear Center, was provided by Participant Media, who also co-financed the making of *Waiting for “Superman.”*



HOW CAN IMPACT ON VIEWERS BE MEASURED?

Although *Waiting for “Superman”* was quite successful for a documentary, a very small proportion of Americans saw it. Therefore, answering questions about the impact of the film on a nationally-representative sample of viewers would be very expensive to do and probably ill-advised. The main problem is that people who decide to see a social-issue documentary are highly “self-selected” — that is, the vast majority of the film’s viewers are probably biased toward the perspective of the film, and probably more likely than an average non-viewer to take the actions recommended in the film. In short, niche films attract niche audiences and so trying to construct national representative samples is neither cost-effective nor helpful if the goal is to understand what kind of impact a documentary has had on its viewers.

The Lear Center developed an innovative survey instrument that could assess the impact of *Waiting for “Superman”* on its viewers by comparing their responses to very similar people who had not seen the film. We used propensity score matching (PSM) to help determine whether the different results that we see between viewers and non-viewers are associated with watching *Waiting for “Superman,”* rather

We used propensity score matching (PSM) to help determine whether the different results that we see between viewers and non-viewers are associated with viewing *Waiting for “Superman,”* rather than pre-existing differences between these two groups.

than pre-existing differences between these two groups. This method controls for some of the self-selection bias that leads different people to watch (or not watch) a given film in the first place, thus increasing the validity of subsequent comparison statistics. More details on our approach and an explanation of how we used propensity score matching, as well as latent class analysis, can be found in our Methodology section.

This research began with a link to a survey about Participant Media films that was posted on various Participant Media sites and an email newsletter over a year after the film was released. We did not mention the survey was specifically for *Waiting for “Superman”* because our goal was to attract respondents who had not seen the film as well as those who had. Over 2,700 people took the survey, which contained many traditional questions: demographic questions, questions about their political affiliations and their attitudes toward the issues depicted in the film. However, we also asked survey respondents how likely it was that they would take specific actions recommended in the film — *whether they had seen the film or not.*

This report describes the findings of this survey. It is our hope that these findings will be useful for filmmakers, funders, activists and media researchers who are eager to more accurately measure the impact of media content on viewers, listeners, readers or players.

KEY FINDINGS

PROFILING WAITING FOR 'SUPERMAN' VIEWERS

Demographics

- The majority of *Waiting for "Superman"* viewers were female (73%), white (68%) and, surprisingly, did not have children (52%).
- Viewers were highly educated: 26% completed some college; 36% were college graduates and 28% attended graduate school.
- About one-third of viewers (36%) reported working in the field of education.
- Reported income was evenly distributed across income categories, with the largest group of viewers (30%) reporting an income of \$75k or more.
- The majority of viewers (56%) were over the age of 30.

WAITING FOR "SUPERMAN" VIEWERS

Do you work in any of the following?*

68%
Caucasian

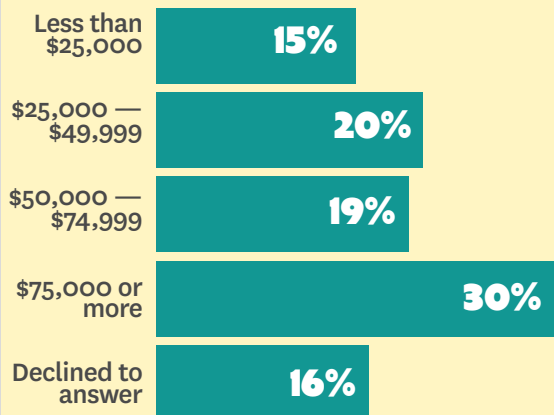


73%
female



52%
no children

What is your approximate household income?



What is your highest level of education completed?

4% some high school or less

5% completed high school

26% some college/trade school

36% college graduate

28% graduate school

2% declined to answer

(Due to rounding, total does not equal 100%.)



36%
education



15%
non-profit



11%
health



7%
media/advertising



6%
food industry

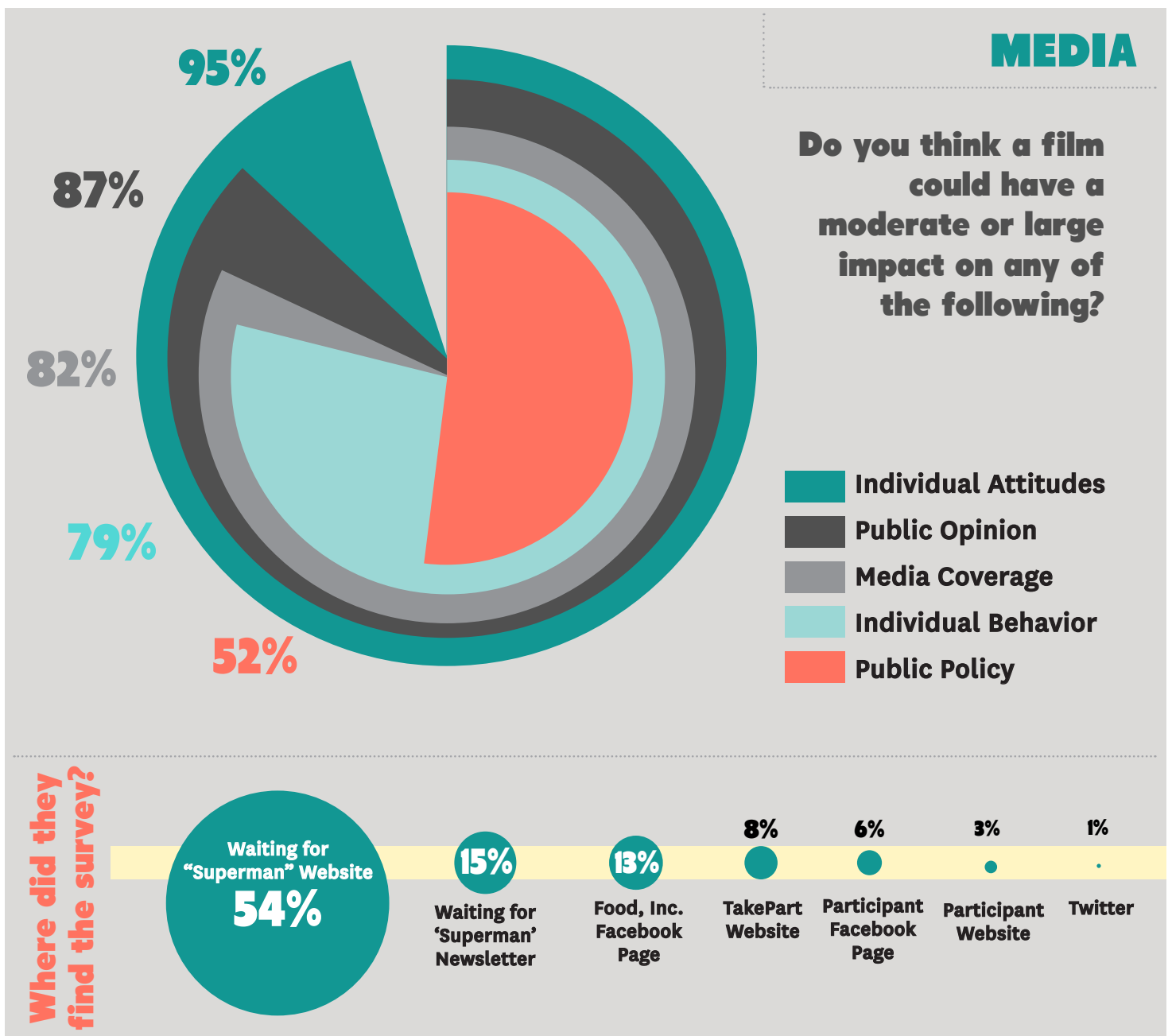


5%
government

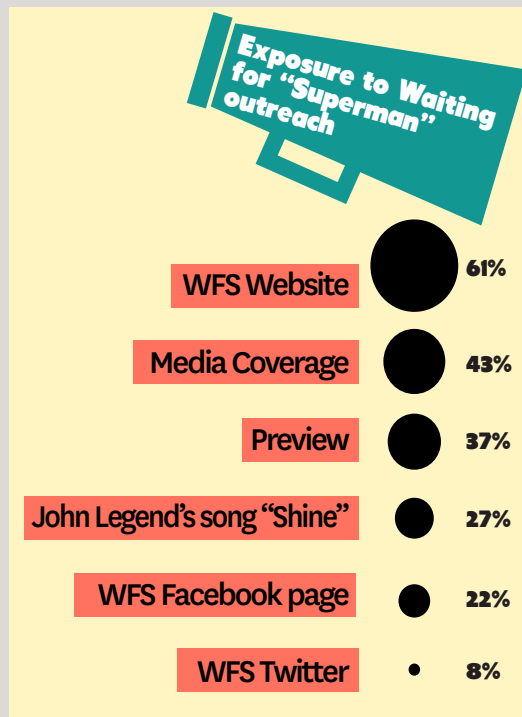
*Does not equal 100% because respondents were only asked about the industries listed.

Media Exposure & Preferences

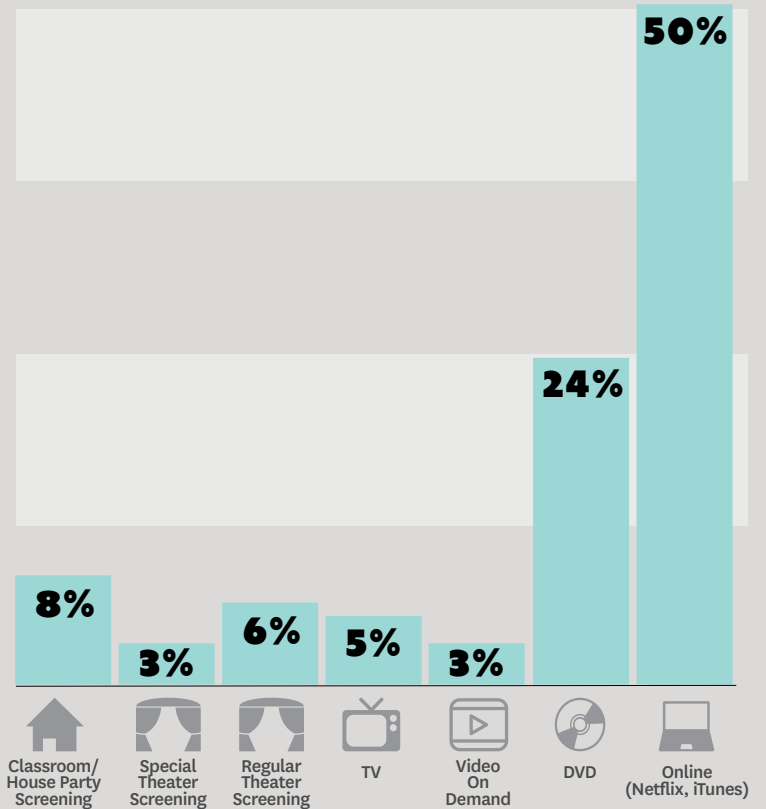
- Many *Waiting for “Superman”* viewers had been exposed to other Participant Media films — 67% watched *Food, Inc.* and 59% watched *An Inconvenient Truth*.
- Viewers frequently watched social issue documentaries and feature films:
 - 62% watch social issue documentaries at least three times a year.
 - 72% watch social issue scripted films at least three times a year.
- Viewers were exposed to the film’s outreach primarily through the WFS website (61%), related media coverage (43%) or film previews (37%).
- 50% of viewers first saw the film through online streaming or download.
- A large majority of viewers believe that a film can have an impact on individual attitudes, public opinion and media coverage:
 - 95% of viewers said a film can impact individual attitudes.
 - 87% of viewers said a film can impact public opinion.
 - 82% of viewers said a film can impact media coverage.
 - 79% of viewers said a film can impact individual behavior.
 - 52% of viewers said a film can impact public policy.



MEDIA

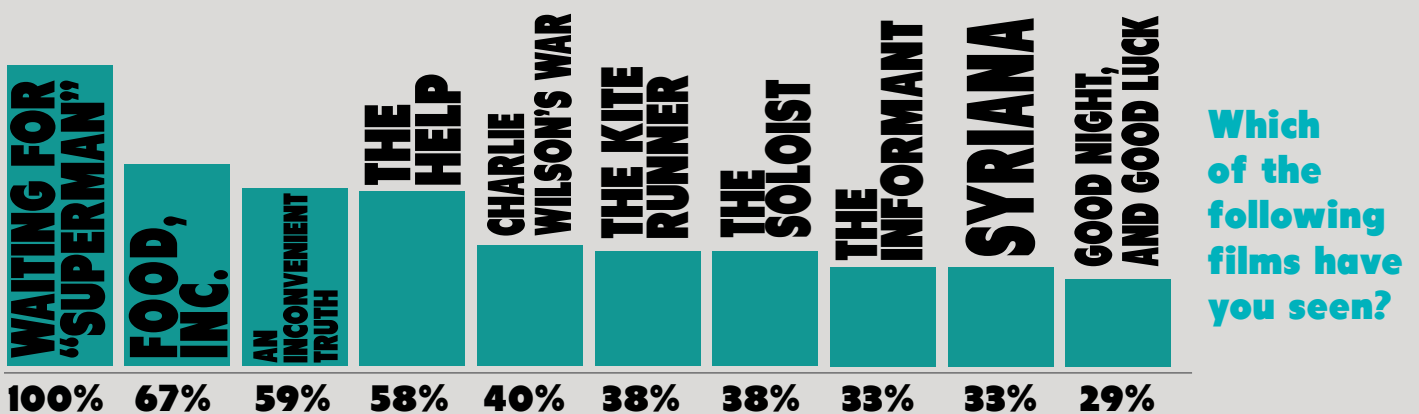
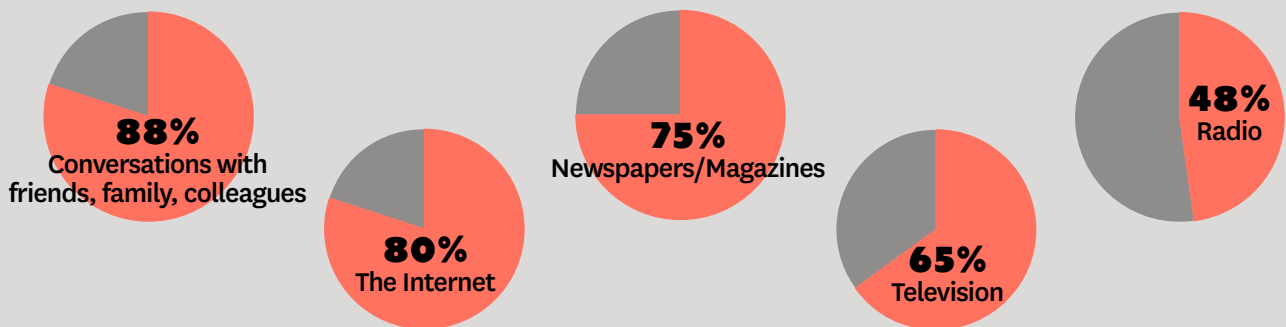


Where did you watch "Superman"?



(Due to rounding, total does not equal 100%.)

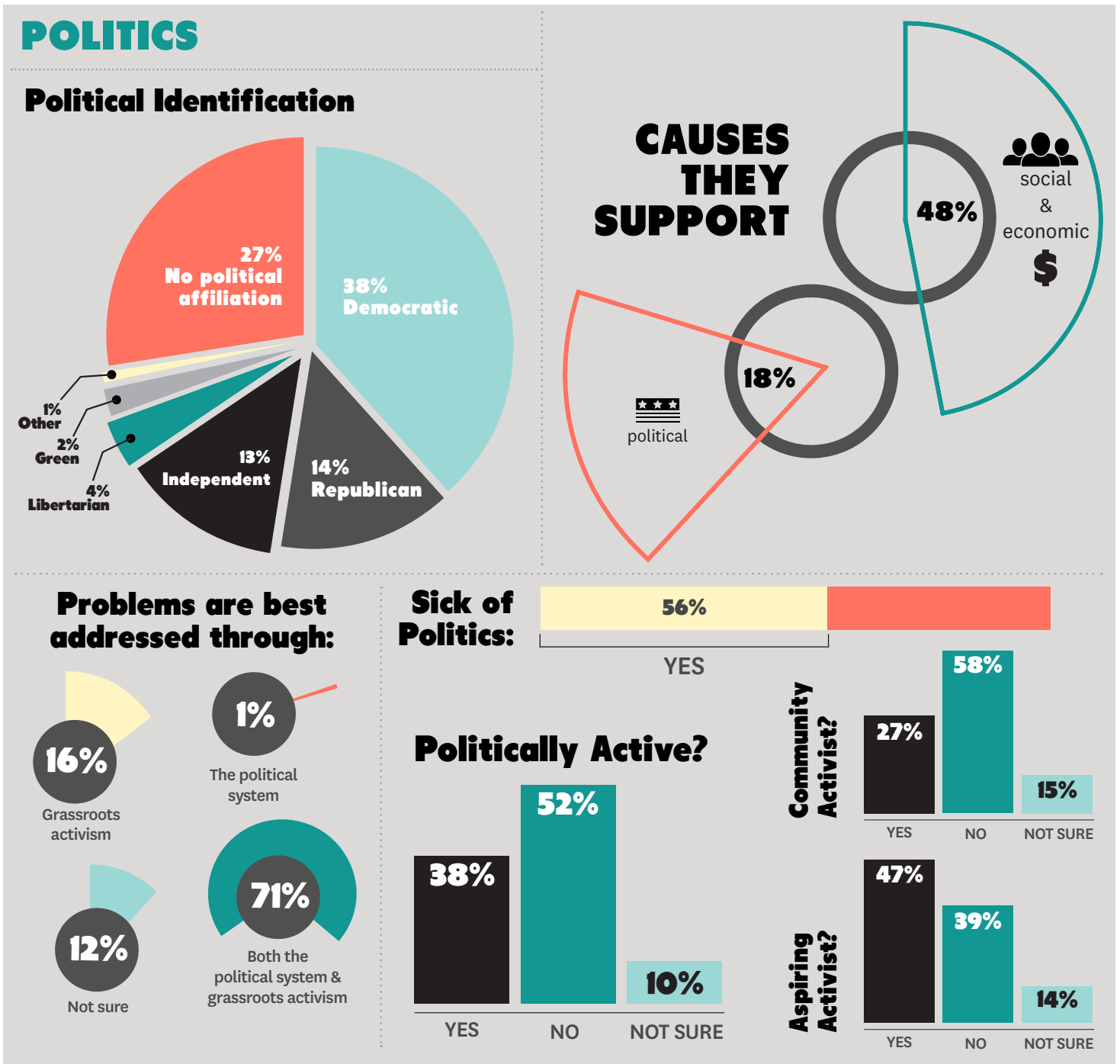
In the last year, do you recall seeing or hearing anything about the crisis in public education?



Politics

One might assume that viewers of social issue films like *Waiting for “Superman”* would be politically engaged, but the results suggested that a majority of these viewers were skeptical about politics.

- Over half (56%) said they were “sick of politics” and 27% claimed no political affiliation.
- Almost half of viewers (49%) said they were not politically active, and another 10% said they were “not sure.”
- While 47% of viewers said that they were strong supporters of social and economic causes, only 18% reported strong support for political causes. Another 18% said they had never donated any money or time to a political cause.
- A meager 1% of viewers believed that “serious problems are best addressed through the political system.” Seventy-one percent said that grassroots activism must be a part of the political process in order to get results.



SOCIAL IMPACT: USING MATCHED PAIRS TO MEASURE CHANGES IN KNOWLEDGE & BEHAVIOR

Creating the Matched Pairs

To measure changes in knowledge, attitudes and behavior we created a survey about Participant Media films and posted it to a number of their web and social media sites, as well as distributing a link in their newsletter. Over 2,700 people took the survey.

Given that people choose which films they will see based on their personal taste and interests, it is difficult for media researchers to determine a film's impact without dealing with some degree of bias. In this study, propensity score matching (PSM) techniques were used to control for self-selection bias among survey respondents. PSM helped identify factors that predict the likelihood of a person seeing *Waiting for "Superman."* The Lear Center's research team performed a statistical analysis of survey responses from all the respondents who watched *Waiting for "Superman,"* and determined what personal characteristics increased their likelihood — or propensity — to see the film. We discovered that viewers with a high propensity to watch *Waiting for "Superman"* shared various combinations of 27 characteristics:

Demographics:

- 1 White
- 2 High income
- 3 Work in K-12 education
- 4 Have children

Media Exposure:

Heard about crisis in public education from:

- 5 Radio
- 6 Conversations with friends, family or colleagues

Exposure to *Waiting for "Superman"* through:

- 7 Preview
- 8 *Waiting for "Superman"* website
- 9 *Waiting for "Superman"* Facebook page
- 10 John Legend's song "Shine"
- 11 Media coverage
- 12 Invitation to house parties/special screenings
- 13 Discussion Guides

Film viewing:

- 14 Watches 3 or more social issue documentaries per year
- 15 Saw *Food, Inc.*
- 16 Saw *Countdown to Zero*
- 17 Saw *The Kite Runner*

Online engagement:

- 18 Joined *Waiting for "Superman"* mailing list
- 19 Signed up for Participant Media Newsletter
- 20 Joined TakePart Social Action Network
- 21 Took the pledge to see *Waiting for "Superman"*

Ideology & Taste:

Organizational affiliations:

- 22 America's Promise
- 23 Donors Choose
- 24 Get Schooled
- 25 Other organization
- 26 Republican party affiliation
- 27 Green party affiliation

We used these characteristics to generate a propensity score for survey respondents who had seen the film, and those who had not. People with most of these characteristics received the higher scores and those with the fewest received the lowest. However, just because someone has a high score does not mean that they have seen the film — it just makes it more likely that they have seen it. Therefore, a person with a very high score may not have seen the film yet, and a person with a very low score may have seen it despite themselves (for instance, a teacher may have screened the film in a class where students with low scores saw it).

Once scores were assigned, we created two groups: people who had watched *Waiting for “Superman”* and those who had not. Next, we compared the range of scores in each group and then performed “one-to-one matching,” which allowed us to use a statistical method to remove people from each group until both groups were composed of the same number of respondents with the same range of propensity scores (e.g., each person who saw the film was paired with a person who did not see the film, but was equally likely to see the film based on their propensity scores). The salient difference between the two groups was whether or not they had viewed *Waiting for “Superman.”*

This method allowed us to create something similar to an experimental study design where subjects are randomly assigned to a control group and a treatment group. Here, the “treatment” group is comprised of those who had seen *Waiting for “Superman,”* and the “control” group is comprised of those who had not seen the film but were equally likely to. By making these groups completely parallel, we were more able to examine whether differences in knowledge and behavior can be attributed to the film.

Comparing Outcomes

Knowledge

In order to find out whether WFS viewers learned anything from the film, we asked viewers and non-viewers four questions — one easy, two medium and one harder — about education topics covered in the film.

- WFS viewers demonstrated greater knowledge about education topics after watching the film. Subjects who watched the film were more likely to get all the questions correct while very similar non-viewers did not. It is worth noting that this survey was administered over a year after the film was released — not as people exited a screening of the film. This suggests that viewers retained what they learned from the film long after exposure.

Behaviors

In addition to increasing knowledge, Participant Media’s social action campaign hoped the film could instigate social change by encouraging people to take a range of actions. After performing the same comparison among parents, we found those who had seen the film had greater odds for taking three out of four additional actions.

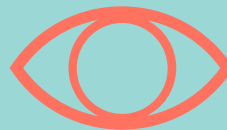
THE BOTTOM LINE: HOW DID WFS AFFECT PEOPLE?

After watching *Waiting for “Superman,”* people were:



MORE KNOWLEDGEABLE

about education topics covered in the film



MORE VIGILANT

- in looking for information about improving public education
- in looking up school ratings (parents)



MORE ENGAGED

- in encouraging friends, family & colleagues to demand better schools
- by participating in their PTA (parents)



MORE COMMITTED

- to donating books/classroom materials to schools
- to volunteering/mentoring a student
- to reading with their children 30 minutes/day (parents)

Individual action

Watching WFS increased the odds of taking the following actions, none of which required joining a group:

- Look for information about improving public education
- Encourage friends, family and colleagues to demand better schools
- Donate books or classroom material to schools
- Volunteer or mentor a student

Organized action

Watching WFS did not increase the odds that viewers would perform either of the following actions, which indicate political or organizational engagement:

- Ask elected officials to improve public education
- Join a local education organization

We also asked this more general question: “Have you supported any organized efforts to improve public education in your own community?” (“Supporting” an effort can include making a financial donation or volunteering time.)

- Watching the film did not increase the odds that viewers had supported any organized efforts to improve public education in their own communities. This finding may demonstrate the difficulty of encouraging individuals to join an organized effort through a documentary film intervention.

Activating the choir

Documentary filmmakers are often accused of “preaching to the choir,” that is, creating messages for people who already believe them. The Lear Center research team wanted to explore whether this film was effective at getting people who had been engaged in relevant activities in the past to engage again after they saw the film.

When we compared viewers and non-viewers who had taken the following actions five or ten years ago, we found that viewers were more likely to take these actions after they saw the film:

- Look for information about improving public education
- Encourage friends, family and colleagues to demand better schools
- Donate books or classroom material to schools
- Volunteer or mentor a student

In other words, members of the choir who had not seen the film were less likely to be involved in these education-related activities by the time they took the survey. This suggests that WFS successfully re-activated choir members to take more action.

As with the rest of the survey sample, members of the choir who saw the film were no more likely than non-viewers to have taken actions that indicate political or organizational affiliation (*i.e.*, asking an elected official to improve public education or joining a local education organization).

Did parents take action?

The Participant Media social action team had hoped that parents who saw the film would take four specific actions.

For respondents who have one or more children, we found that watching WFS significantly increased the odds that they would take the following actions:

- Look up ratings for their schools
- Read with their children 30 minutes a day
- Participate in their PTA

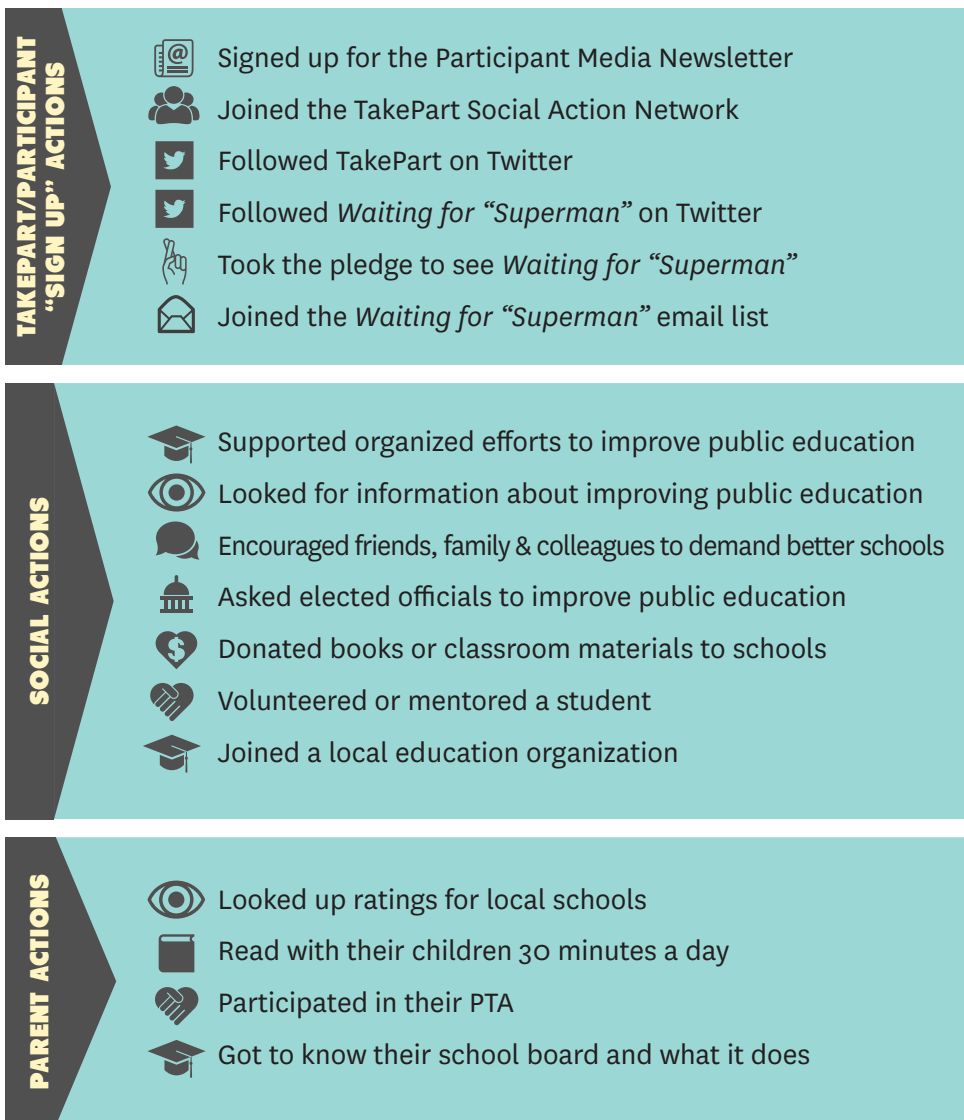
Parents were not more likely to “get to know their school board and what it does.” Parents’ increased involvement in their PTA

Waiting for “Superman” didn’t simply preach to the choir: it convinced the choir to perform again.

demonstrates this film’s ability to encourage viewers who may have much at stake in this arena to join an organized effort. The rest of the behavioral findings about all viewers — whether they have a history of supporting education reform or not — suggest that it might be easier for a documentary film campaign to increase individual engagement rather than organized action or political engagement.









PATTERNS OF ENGAGEMENT

Propensity score matching techniques helped us understand what actions were more likely to be taken if people watched *Waiting for “Superman.”* However, it did not reveal what combinations of actions people were most likely to take. Focusing on WFS viewers only, the Lear Center research team looked for statistically significant patterns of “sign-up actions” and social actions. The complete list of actions is provided in the infographic below:





We found the tightest correlations between the following social actions:

PATTERNS OF ACTION



-  +  Looking up ratings for local schools + reading with their child 30 minutes a day
 - Parents who demonstrated an interest in finding a competitive school for their child were likely to be taking action at home to improve their children’s reading skills.
-  +  Participating in PTA + getting to know local school board
 - Parents who participate in their PTA are more likely to be knowledgeable about their school board.
-  +  Looking for information about improving public education + encouraging people to demand better schools
 - Viewers who seek out information are more likely to engage in conversations about improving schools.
-  +  Volunteering or mentoring a student + joining a local education organization
 - It may be the case that viewers who are mentors or volunteers are more likely to belong to an organization that offers mentoring and volunteer opportunities.

We also looked for connections between all of the “sign-up” actions and specific social outcomes. Among the different statistically significant combinations we discovered, we found that the email list was effective at eliciting two different types of “communication” actions — speaking out in both the private and public sphere.

PRIVATE SPHERE

 +  Joining WFS email list + encouraging friends, family and colleagues to demand better schools

PUBLIC SPHERE

 +  Joining WFS email list + asking elected officials to improve public education

SOCIAL IMPACT: Self-reported changes in knowledge & attitudes

Some questions in the survey could only be asked of people who had seen the film. Therefore, these findings did not involve the use of a matched “non-viewer” group and only descriptive statistics (vs. comparisons) are provided.

Knowledge

- At least 60% of viewers said they learned “a lot” or “very much” about the following issues:
 - Public education in the U.S.
 - Charter schools
 - Teachers unions
 - Key factors in student achievement
 - The politics of education in the U.S.
- An overwhelming majority of viewers found the film’s factual accuracy (93%) and educational value (95%) to be above average.

Attitudes

WFS viewers reported very high levels of engagement with the film, which is often associated with shifts in attitudes:

- 91% of WFS viewers said the film affected them emotionally.

90% of WFS viewers said they could not get the film out of their minds after seeing it.

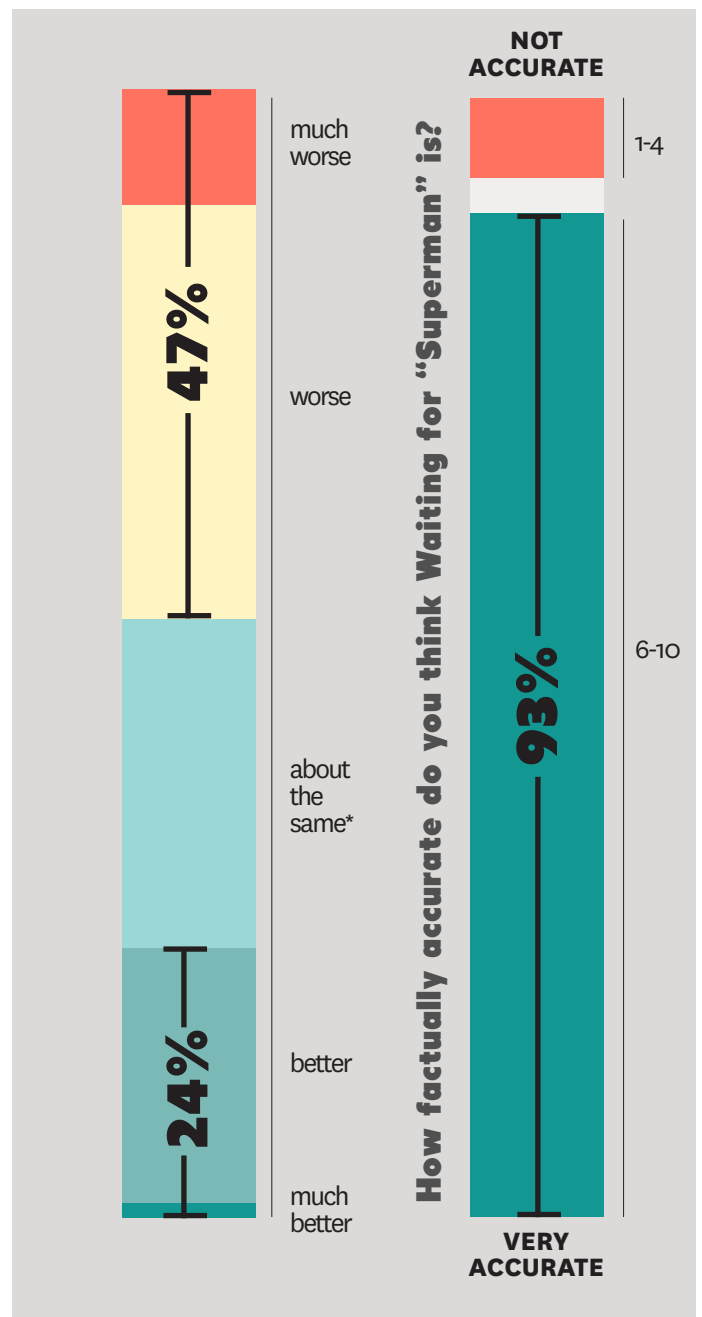
- 90% of WFS viewers said they could not get the film out of their minds after seeing it.
- 49% of WFS viewers said the film changed their lives.

The survey included questions about their attitudes toward education in the U.S.:

- Many WFS viewers did not leave the film feeling optimistic about the future of U.S. public education: 47% felt like U.S. public education was going to get “worse” or “much worse,” compared to 24% who thought it would get “better” or “much better.”
- 64% of viewers said they believed it is possible for every child in the U.S. to get a great education. Sixteen percent of viewers credit the film with influencing this belief.

A very high proportion of viewers expressed attitudes that suggested they were well-positioned to take action after seeing the film:

- 77% of WFS viewers said they could be part of a social movement to improve public education.
- 43% of viewers felt that the film explained what they could do to help solve the problems addressed.



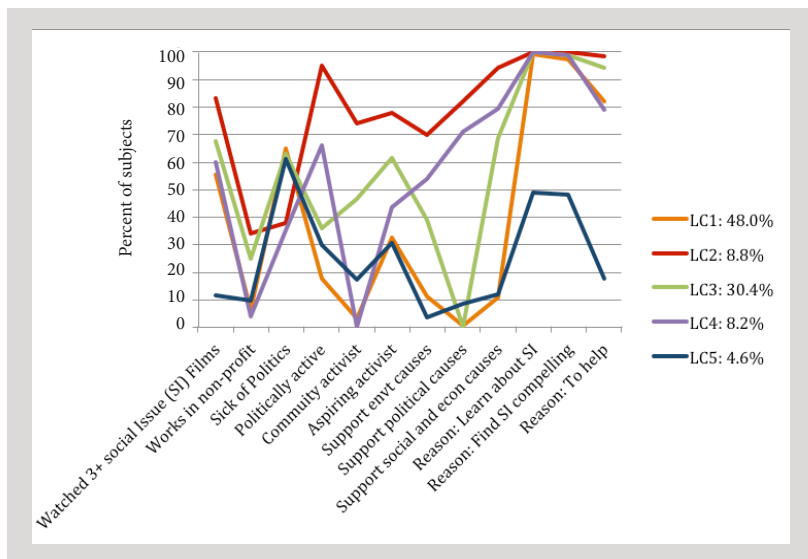
ENCOURAGING SOCIAL ACTION: Who is the Participant Media audience?

Cluster analysis is a method that is often used to discover whether subgroups with shared traits exist within a survey population. A more reliable statistical method for locating these subgroups — one that accounts for measurement error — is latent class analysis (LCA). The Lear Center research team used LCA in order to learn more about the population we surveyed. Specifically, we wanted to find out whether certain subgroups (*i.e.*, latent classes) existed among the people who chose to take this survey on Participant Media websites, social media sites and its email newsletter on *Waiting for “Superman.”* (More details on latent class analysis can be found in our Methodology section.)

Ultimately, the purpose of Participant Media’s outreach mechanisms is to encourage people to take social action, and so we focused on this aspect of the population by identifying the variables that might be predictive of taking the social actions recommended in the WFS campaign. LCA indicators can include any survey data that assesses attitudes, beliefs or past behavior. We selected the following 12:

Predictors for Taking Social Action:

- 1 Watches 3+ social issue (SI) films a year
- 2 Watches SI films to learn about social issues
- 3 Watches SI films in order to help
- 4 Finds SI films compelling
- 5 Politically active
- 6 Community activist
- 7 Aspiring activist
- 8 Sick of politics
- 9 Supports environmental causes
- 10 Supports political causes
- 11 Supports social & economic causes
- 12 Works in non-profit



Five subgroups emerged when we looked for latent classes within the WFS survey population, which included viewers of WFS and non-viewers.

**LATENT CLASS #1:
ACTIVISTS WHO HATE POLITICS
(48%)**

ATTITUDES & BEHAVIORS: Not politically involved
Low support for causes
Motivated to be involved in social issues

DEMOGRAPHICS:



Less likely to have children



More likely to be female



Less likely to be white



Less likely to be highly educated

TAKEAWAYS: This group may seek out social issue entertainment because they feel politically disenfranchised. The existence and size of this group supports our hypothesis in a previous survey on *Food, Inc.* that being politically involved is not necessarily related to taking social action.

**LATENT CLASS #2:
SOCIAL ISSUE FILM FANS
(9%)**

ATTITUDES & BEHAVIORS: Frequent viewers of social issue films
Political and community activists who support various causes
Involved in social issues

DEMOGRAPHICS:



Likely to have children



More likely to be female



Less likely to be white



Less likely to be highly educated

TAKEAWAYS: We were surprised that this group was so small since its characteristics seem to typify the Participant Media target audience: socially engaged people who like to watch social issue films.

**LATENT CLASS #3:
ASPIRING ACTIVISTS
(30%)**

ATTITUDES & BEHAVIORS: Moderately political
Support environmental causes
Low support for political causes despite being motivated to be involved

DEMOGRAPHICS:



Likely to have children



More likely to be female



More likely to be white



More likely to be highly educated

TAKEAWAYS: Almost a third of the survey population fell into this group, which has the potential to be activated — particularly through engagement on environmental issues.

**LATENT CLASS #4:
MODERATES
(8%)**

ATTITUDES & BEHAVIORS: Low probability of being “sick of politics”
Do not work in non-profits
Not community activists
Moderately support various causes
Motivated to help

DEMOGRAPHICS:



Less likely to have children



More likely to be female



More likely to be white



More likely to be highly educated

TAKEAWAYS: This small but motivated group has the potential to be activated through low-level calls to action, such as looking for more information or talking to friends, family and colleagues about issues.

**LATENT CLASS #5:
NPA OR NOT PARTICIPANT'S
AUDIENCE (5%)***

ATTITUDES & BEHAVIORS: Infrequent viewers of social issue films
Non-activists offering low support for causes
Low willingness to learn about social issues or to help

TAKEAWAYS: The smallest group is also the least likely to be activated because of their lack of interest in social issues and social issue films. In short, Participant Media should not use resources to target this group for engagement activities.

*No demographic information about this group was gathered since it was the reference group used to determine the demographics of all other groups.

WHICH GROUPS TOOK ACTION?

After identifying these five groups, we wanted to determine which groups were more likely to take any of the 11 social actions recommended in the WFS campaign, from seeking more information to volunteering. After analyzing all of the possibilities, only one action emerged: supporting organized efforts to improve public education. This was the most general social action goal, which may help to explain why it was the only one that was highly significantly related to all four classes, which were compared to the reference group, Latent Class #5 (Not Participant's Audience). The association between taking this action and membership in one of the LCA groups was even stronger for Social Issue Film Fans (group 2) and Aspiring Activists (group 3).

RECOMMENDATIONS FROM RESPONDENTS

Almost 700 survey respondents answered the following open-ended question: “Do you have any suggestions about what Participant Media or TakePart could do to help people get involved in efforts to improve public education in the U.S.?”

Many respondents felt that Participant Media or TakePart could help by

- working more closely with teachers
- targeting high school and college students
- using social media

“I am a poor, lazy, internet-obsessed young person. Make me concise, informative, accessible and entertaining videos which can be spread via Facebook and Twitter.”

Several respondents wanted Participant Media or TakePart to provide a “to-do” list:

“Give us tangible things to do.”

“The documentary was heavy on broad-based needs but very limited on the specific steps a parent, teacher or general activist could or should do to get involved.”

“Give us clear, concise lists of things to do.”

“Specifically list out steps to fix the current school system and list out steps to find a great school.”

Additionally, survey respondents wanted to see success stories:

“...provid(e) more research and real stories of success and relate the stories of change to everyday people, communities, teachers, parents.”

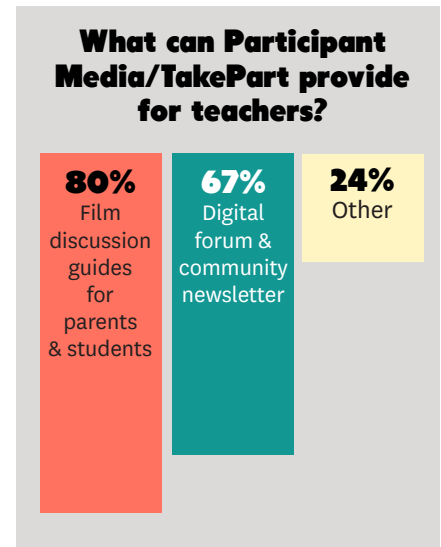
“Try taking a look at schools and students that are successful and find out what is missing from those that are not.”

“Provide examples of local individuals making tangible changes.”

K-12 professionals

Over 300 people who work in pre-K through 12 institutions in the U.S. took the survey. They were asked what kinds of materials Participant Media or TakePart should provide to teachers.

- Eighty percent of K-12 professionals believed film discussion guides should be provided for parents and students. Almost 70% thought that a digital forum and a community newsletter would be helpful to teachers, as well. This multiple-choice question allowed respondents to answer “Other” and write in their own responses. Although the question was intended to solicit suggestions for tools and ancillary materials that would assist teachers, most of the 51 responses focused on the kinds of messages and information that they would like Participant Media to circulate.



“Waiting for ‘Superman’ was one sided and did not address the real issues as to why education is not working in America.”

“Charter schools are not the answer to all the problems schools are facing. There are plenty of public schools that are functioning and functioning well.”

“I would love to see more honest, unbiased information about our local government and what we can do to push for change. I have no interest in politically motivated pamphlets or flyers promoting ulterior agendas.”

From a “new teacher”

Many felt that the film could have better addressed the crucial role that parents play:

“...add more a[b]out parental involvement and how the basics and prepping kids to be successful in school starts at home.”

Several respondents wanted Participant Media to provide “[a]dvice on how to counter-organize against the unions:”

“We need more information about what it is that Unions are doing to our system and ways to start a movement to ammend [sic] what the unions are doing.”

Suggestions for tools for teachers included:

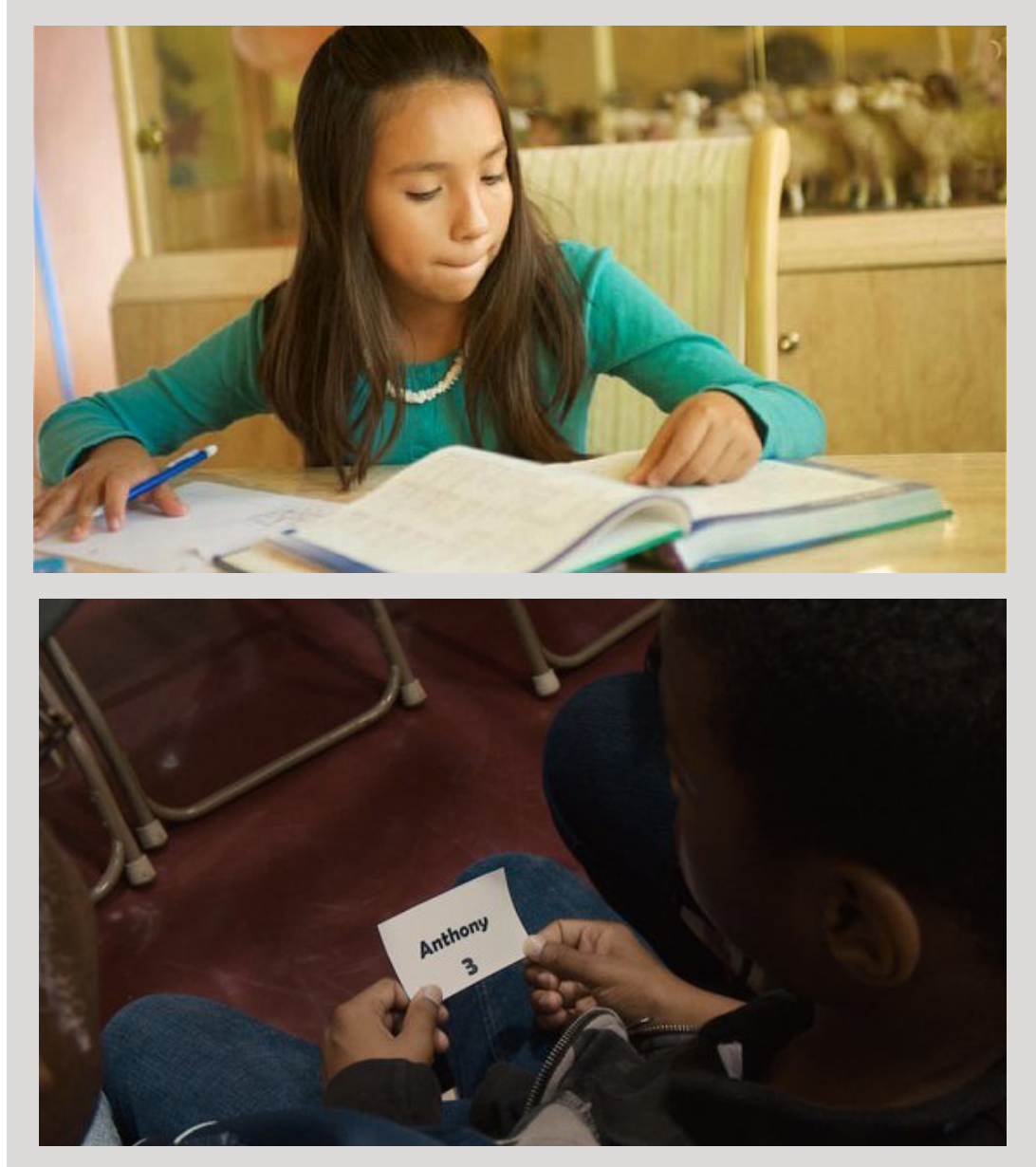
- Teacher development programs
- An instructional video on how to become a better teacher
- Bringing speakers to schools
- Curriculum ideas
- Moral support

METHODOLOGY

OVERVIEW

The Lear Center’s impact evaluation of *Waiting for “Superman”* and its campaign began over a year after its release — beginning in November 2011 and concluding in September 2012. The year between the release of the film and data collection allowed for the population of viewers to grow well beyond moviegoers to those who were exposed to the film through television, video/DVD rental, or online media in their homes, classrooms and communities. Additionally, waiting a year made it possible to capture sustained changes in knowledge, attitudes and behavior, as opposed to the short-lived or aspirational changes that might register in a survey taken immediately after a screening of a film.

The research was comprised of a 5-10-minute online survey that was disseminated through a link placed in a Participant Media email blast. The survey was also posted on the film’s promotional website and newsletter, the Participant Media website, the TakePart website and the Facebook and Twitter accounts associated with the film. A total of 2,726 surveys were started and 78% were completed. All surveys were completed online; participation was voluntary and all survey items were in English.



NOTES ON PROPENSITY SCORE MATCHING

The survey methodology in this study of *Waiting for “Superman”* adapts propensity score matching (PSM) techniques often used in clinical research as well as communication and education studies. PSM specifically addresses the key problem of “selection bias” among movie viewers: only certain people choose to see certain films, making it very difficult for researchers to expose people randomly to a movie and to determine the actual impact of the film.

Propensity score matching is a method of statistical analysis that controls for simple selection bias in studying the effect of exposure to a treatment or intervention: in the case of a media campaign, the “intervention” may be a feature film, a song, a TV episode, a billboard, a game, a pamphlet, a PSA or a news report.

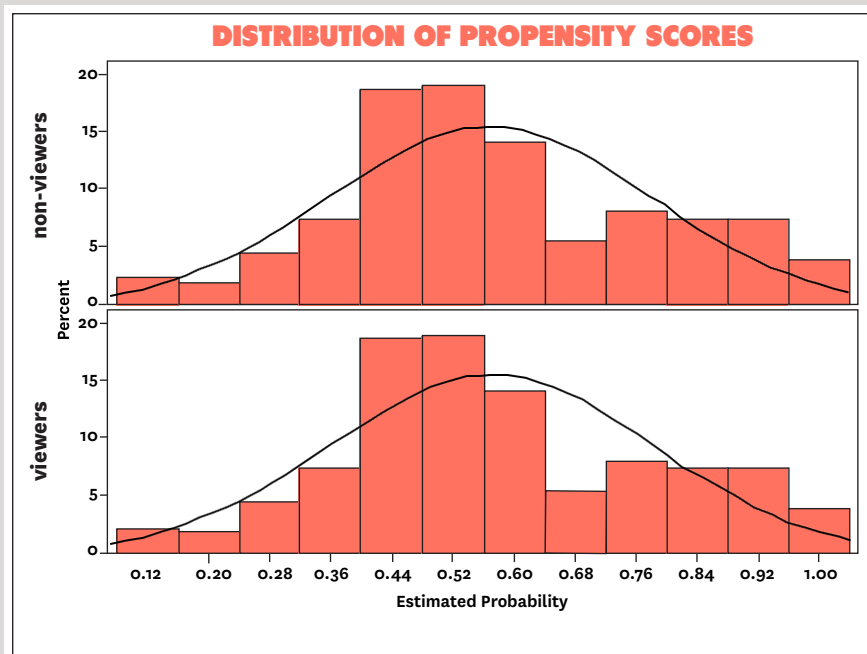
In this research, the first phase of PSM entailed finding the factors that would predict the likelihood of a subject being exposed to the film, *Waiting for “Superman.”* these factors might include some combination of personal taste, ideology, media preferences, past behavior patterns and demographics. Using logistic regression, we created a model based upon those predictors which included 27 variables.

In the second phase, subjects were assigned propensity scores: subjects who did not view *Waiting for “Superman”* were matched and compared with subjects with the nearest propensity score who did view *Waiting for “Superman.”* In studies of this type, we are typically looking for differences in awareness, knowledge, attitudes and behavior based upon exposure to the film.

Using this methodology allowed the Lear Center’s researchers to create a detailed profile of likely viewers of the film and to compare viewers who saw the film with very similar people who did not.

Using this methodology allowed the Lear Center’s researchers to create a detailed profile of likely viewers of the film and to compare viewers who saw the film with very similar people who did not. Unlike typical survey research, this method allows researchers to construct something similar to a classic study design where individuals are randomly assigned to a treatment group and a control group.

- Total survey respondents: **2,726**
- *Waiting for “Superman”* viewers (exposed/treatment group): **1,527**
- Did not see *Waiting for “Superman”* (control group): **596** (Not all respondents completed every question on the survey.)



The PSM results are based on a subset of 1,568 respondents who answered all of the propensity questions. All of these survey respondents were assigned a propensity score indicating the likelihood that they would view *Waiting for “Superman.”* The scores were based on 27 variables such as demographics, prior viewership of social issue films, and exposure to WFS promotional materials. After performing one-to-one matching, both the exposed and the control groups were composed of respondents with the same range of propensity scores. There were 311 people in each of these groups and their scores were relatively normally distributed. The salient difference between the two groups was whether or not they had viewed *Waiting for “Superman.”*

Advantages of PSM

- It reduces bias in comparing treatment to non-treatment groups when random assignment is not possible by creating two statistically equivalent groups from a self-selected survey sample.
- In multimedia evaluations, there are often many variables influencing outcomes, making simple weighting schemes difficult to determine. PSM allows for control of multiple variables so that the impact of the campaign can be examined more specifically.
- Pre-post testing can be problematic in that the survey is administered in two different time periods. Subjects will inevitably be exposed to a variety of other media messages between the pre- and post-test, which could contribute to altered outcomes in the post-test. PSM is an alternative to a pre-test/post-test design that avoids these pitfalls.

Unexposed PSM respondents = pre-intervention respondents
Exposed PSM respondents = post-intervention respondents

Disadvantages of PSM

- It is still a correlational method, thus does not allow for causal inferences.
- It relies on a relatively large sample size that contains enough variety for an exposed cohort to have a comparable non-exposed cohort. We have successfully performed a PSM analysis with as few as 1,000 respondents.

NOTES ON LATENT CLASS ANALYSIS

The methodology also employed latent class analysis (LCA) to identify unobserved heterogeneity in the survey population, which included viewers of WFS and those who did not watch the film. For our LCA we used a range of variables which may include survey items that assess attitudes, beliefs or prior behaviors. The number and size of latent classes cannot be determined before analysis but depend upon conditional probabilities of class membership estimated from statistical modeling. Considered more statistical than cluster analysis, LCA allows researchers to account for measurement error and evaluate how well a statistical model fits or is representative of the data.¹

We identified and measured 12 variables that were likely indicators for taking the social actions recommended by the WFS campaign. When LCA was conducted on these 12 variables, the model identified five latent classes of respondents. Subsequent attribute analysis of these five groups identified descriptive information for each one.

After identifying the ideal number of latent classes, LCA allows for inclusion of additional predictors in the same model. In order to assess the association between demographic characteristics and class membership, we included these variables and re-ran the LCA model. Each new predictor requires re-running the LCA because each additional variable can affect the composition of any group, potentially changing the optimal number of latent classes. In short, all the predictors in the model operate in tandem with one another, predicting the probability of a subject belonging to a certain class relative to another class. This process also requires utilizing a reference group to which all the resulting classes would be compared. The obvious choice was Group 5, which we labeled “Not Participant’s Audience.” This class appeared to contain all the survey respondents who were the least likely to take the social actions recommended by the WFS campaign.

After adding the demographic covariates to the existing model, we ended up with the same 5-class structure with similar probability for individual indicators. This additional analysis did not allow us to cite specific demographic percentages; we can only say that one group has relatively more or less likelihood than another group to include certain demographics traits.

¹ Cohen, S. (2003, April). Maximum difference scaling: improved measures of importance and preference for segmentation. In *Sawtooth Software Conference Proceedings*, Sawtooth Software, Inc (Vol. 530, pp. 61-74).

Muthén, B., & Muthén, L. K. (2000). Integrating person-centered and variable-centered analyses: Growth mixture modeling with latent trajectory classes. *Alcoholism: Clinical and experimental research*, 24(6), 882-891.

Advantages of LCA

- LCA uses a person-centered approach that detects sub-groups in a population using variations of response patterns among individuals.
- Advantages over Cluster Analysis are well known. LCA assigns individuals with probability of group membership, while Cluster Analysis only uses certainty. This yields measurement fit that quantifies the likelihood of belonging to a class membership.
- Missing data is well handled in LCA.

Disadvantages of LCA

- Results of LCA are data-driven. Thus, the latent class structure of this analysis is only specific to our recruited sample. Future studies can be conducted on similar populations for generalizability of the findings.

ACKNOWLEDGMENTS

The research team included principal investigator Johanna Blakley, PhD, who is the managing director at the Norman Lear Center; chief research consultant Sheena Nahm, PhD, MPH; USC doctoral student, Heesung Shin, PhD, MPH, and Jimi Huh, Professor of Research in the Department of Preventive Medicine at USC's Keck Medical School. Special thanks to the Norman Lear Center's Beth Karlin and Erica Rosenthal; to Veronica Jauriqui for report design and layout, as well as the Media Impact Project's Nandi Jordan, PhD.