Fairness and merit in social preferences: Experimental evidence

Bertil Tungodden

NHH Norwegian School of Economics and The Choice Lab

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Inequality and Social Welfare Theory
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Plan for the presentation

- Social preferences: some general remarks

- Paper: Are Americans more meritocratic and efficiency-seeking than Scandinavians?

- Fairness and meritocracy: Further important research questions.

- Collaborative work!

The New York Times

September 25, 2008, 6:16 pm | 28 Comments

Economists of the World, Unite!

As economists, we want to express to Congress our great concern for the plan proposed by Treasury Secretary Paulson to deal with the financial crisis. We are well aware of the difficulty of the current financial situation and we agree with the need for bold action to ensure that the financial system continues to function. We see three fatal pitfalls in the currently proposed plan:

1) Its fairness. The plan is a subsidy to investors at taxpayers' expense. Investors who took risks to earn profits must also bear the losses. Not every business failure carries systemic risk. The government can ensure a well-functioning financial industry, able to make new loans to creditworthy borrowers, without bailing out particular investors and institutions whose choices proved unwise.

2) Its ambiguity. Neither the mission of the new agency nor its oversight are clear. If taxpayers are to buy illiquid and opaque assets from troubled sellers, the terms, occasions and methods of such purchases must be crystal clear ahead of time and carefully monitored afterwards.

3) Its long-term effects. If the plan is enacted, its effects will be with us for a generation. For all their recent troubles, America's dynamic and innovative private capital markets have brought the nation unparalleled prosperity. Fundamentally weakening those markets in order to calm short-run disruptions is desperately short-sighted.

Inequality
The rich and the rest
What to do (and not do) about inequality
Jan 20th 2011 | from the print edition

- "It seems unfair that footballers, bankers, and tycoons earn more money than they know what to do with whereas jobless folk and single parents struggle to pay the rent...Yet it also seems unfair to take money from those who have worked hard and give it to those who have not, or to take away the profits of those who have risked their life savings to bring a new intervention to market in order to help those who have risked nothing. Different societies choose to deal with this conflict in different ways."

Social preferences: What motivates individual distributive behavior?

- First generation of social preference models: Focus on how people trade off selfish concerns and a dislike for inequalities (Fehr and Schmidt, QJE, 1998; Bolton and Ockenfels, AER, 2000; Charness and Rabin, QJE, 2002).

- **Approach**: Study distributive behavior in a dictator game, where the money to be distributed is "manna from heaven".

- **Main finding**: There is substantial heterogeneity in the importance attached to avoiding inequality, where a large share deviates from the standard model of selfish individuals.

Social preferences and responsibility

- In a series of papers, we have studied the role of responsibility in shaping distributive behavior (Cappelen, Hole, Sørensen, and Tungodden, AER, 2007; Cappelen, Sørensen, and Tungodden, EER, 2010; Almaas, Cappelen, Sørensen, and Tungodden, Science, 2010; Cappelen, Moene, Sørensen, and Tungodden, JEEA, 2013; Cappelen, Konow, Sørensen, and Tungodden, AER, 2013).

- **Background**: Motivated by the normative literature on fairness and responsibility in political philosophy and economics (Roemer, Fleurbaey, and others).

- **Approach**: Study distributive behavior in real-effort dictator games, where the money to be distributed is created in a production phase. We thus create distributive situations where pre-redistribution inequality reflects differences in choices, talent, and luck.

- **Main finding**: There is substantial heterogeneity in what people consider fair in any particular situation, where the majority of individuals typically seem to find find *fair inequalities* reflecting differences in *choices*. We also show that with this approach, we get distributive behavior in the lab aligned with distributive behavior outside the lab.
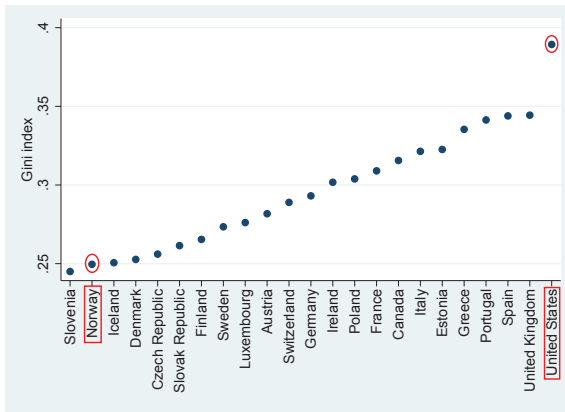
Our framework

$$U(y; \cdot) = y - \beta(y - m)^2/2X,$$

$$y^* = m + X/\beta,$$

US versus Scandinavia: Very different societies in terms of inequality, redistribution and welfare policies

- More poverty and inequality in the US than in Scandinavia (World Bank, 2013).
    - Huge difference in overall income inequality and relative poverty.
    - Top 1% of earners capturing almost 18-19% of total national income in the US, around 5-8% in Scandinavia (Atkinson, Piketty and Saez, 2011, www.knoema.com).

- Scandinavian countries have "much stronger safety nets, more elaborate welfare states, and more egalitarian income distributions" (Acemoglu, Robinson, Verdier, 2013).

Income inequality: Two extremes in the OECD

Gini inequality measure (disposable income) for countries in Europe and North America. The data are from the *OECD stat extract* webpage.

Poverty rates much higher in the US than in Scandinavia

Figure 5.1. **Relative poverty rates for different income thresholds, mid-2000s**
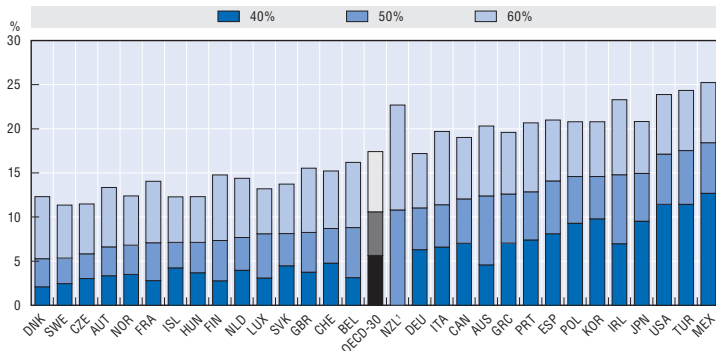Relative poverty rates at 40, 50 and 60% of median income thresholds

Figure from OECD (2008): *Growing Unequal? Income Distribution and Poverty in OECD Countries.*

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A puzzle for economists

The New York Times

The Opinion Pages

The Conscience of a Liberal
PAUL KRUGMAN

Notes on the Political Economy of Redistribution

SEPTEMBER 21, 2012 10:09 AM   235 Comments

more redistribution. What we see in practice, however, is that European countries with relatively low inequality of market income do much more redistribution than the United States, with its high inequality – and that as America has gotten more unequal, its tax and transfer system has grown less, not more redistributive.

I don't think we have a full explanation of these awkward facts. But the model is

Bernie Sanders: US should be more like socialist Scandinavia

By Marisa Schultz   May 3, 2015 | 2:30pm

What can explain the huge difference between the US and Scandinavia in inequality and redistribution?

- The **source of inequality** may differ.
  - May reflect differences in **effort** in the US and differences in **luck** in Europe (Piketty, 1995; Alesina and Angeletos, 2005; Bènabou and Tirole, 2006).

- The **cost of redistribution** may differ.
  - The cost of redistribution may be greater in the US than in Scandinavia (Kuziemko, Norton, Saez, and Stantcheva, 2015; Acemoglu, Robinson, Verdier, 2013).

- People's social preferences may **affect** inequality and redistribution in at least two important ways:
  - The political support for redistribution.
  - The pre-redistribution income inequality.

- People's social preferences may clearly be **shaped** by the redistributive institutions that are present in a society.

Research question I: Do Americans and Scandinavians differ in their social preferences?

- **Approach:** We study the distributive behavior of Americans and Scandinavians in **identical economic environments**, where they face **the same source of inequality** and **the same cost of redistribution**?
    - Do we observe more inequality acceptance in the US than in Scandinavia?
    - Do Americans and Scandinavians differ in what they consider to be a fair inequality and in how much they care about fairness?

- Different social preferences in the US and Scandinavia may contribute to explain the observed differences in inequality and redistribution.

Research question II: What causes inequality acceptance?

- How important are **the source of inequality** and **the cost of redistribution** for inequality acceptance?
- A growing experimental literature has considered each of these dimensions separately, but **few studies have looked at them in combination** (Konow, 2000, Andreoni and Miller, 2002; Charness and Rabin, 2002; Engelmann and Strobel, 2004; Fehr, Naef, and Schmidt, 2006; Fisman, Kariv, and Markovits, 2007; Cappelen, Hole, Sørensen, and Tungodden, 2007; Bellemare, Kröger, and van Soest, 2008; Fehr, Bernhard, and Rockenbach, 2008; Cappelen, Sørensen, and Tungodden, 2010; Almås, Cappelen, Sørensen, and Tungodden, 2010; Cappelen, Konow, Sørensen, and Tungodden, 2013; Fehr, Glätzle-Rützler, and Sutter, 2013; Fisman, Jakiela and Kariv, 2014, Durante, Putterman, and van der Weele, 2014).

Pre-analysis plan

- Describes the main research questions and formulates the main hypotheses to be tested.

- Describes the design in detail.

- Describes the identification strategy.

- The plan is publicly available and was posted on AEA RCT registry before we opened any data for analysis.

- The analysis I present today was described in the pre-analysis plan.

Contributions of the paper

- Provides a **novel comparison** of social preferences in the US and Scandinavia (Norway).

- Provides **causal evidence** of the importance of the source of inequality and the cost of redistribution for inequality acceptance in the general population.

- Introduces a **new approach** to conducting nationally representative economic experiments.

Plan for the rest of the presentation of this paper

- The design of the experiment.

- Simple theoretical framework.

- Causal evidence on inequality acceptance.

- Comparison of US and Norway.

- Heterogeneity analysis within countries.

- External validity.

- **Experimental design: Spectators** decide how to pay **workers** for a job they have conducted.

- **Workers** recruited through an international online market place (mturk).
  - Same pool used in the US and Norway.

- **Spectators** recruited and participating through an international data-collection agency (Norstat/Research Now).
  - Representative samples of the populations in the US and Norway.

Design: workers

- When recruited, the workers were promised a participation fee of 2 USD and told that they could earn additional money.

- The workers worked on three different assignments, altogether it took them approximately 20 minutes to finish.
  - Two sentence unscrambling tasks (where there is no measure of productivity).
  - One code recognition task (productivity measured).

- After completing the assignments, they were told how their earnings would be decided.

- We recruited 1334 workers (each worked on 3 assignments giving us 2000 unique pairs of assignments/workers).

Design: spectators

- In each country, we recruited 1000 participants who are nationally representative (+ 18 years old) on observable characteristics.

- The participants acted as spectators (Cappelen, Konow, Sørensen, and Tungodden, 2013) and determined the distribution of earnings between a pair of workers.

- Three treatments, between-individual design.
    - Luck (L).
    - Merit (M).
    - Efficiency (E), introducing a cost of redistribution.

Table 2: Descriptive statistics - background variables for the spectator sample

	United States	*Norway*
Share female	0.51	0.48
Age		
Median	44	53
p10	23	27
p90	67	72
Eduction shares		
High school or less	0.32	0.38
College	0.38	0.29
Higher education	0.30	0.33
Income (USD)		
Median	5500	5385
p10	1500	2071
p90	16250	8700
Share conservative	0.31	0.33
Number of participants	1000	1000

Treatment 1: Luck

In contrast to traditional survey questions that are about hypothetical situations, we now ask you to make a choice that has consequences for a real life situation. A few days ago two individuals, let us call them worker A and worker B, were recruited via an international online market place to conduct an assignment.

They were each offered a participation compensation of 2 USD regardless of what they were paid for the assignment. After completing the assignment, they were told that their earnings from the assignment would be determined by a lottery. The worker winning the lottery would earn 6 USD for the assignment and the other worker would earn nothing for the assignment. They were not informed about the outcome of the lottery. However, they were told that a third person would be informed about the assignment and the outcome of the lottery, and would be given the opportunity to redistribute the earnings and thus determine how much they were paid for the assignment.

You are the third person and we now want you to choose whether to redistribute the earnings for the assignment between worker A and worker B. Your decision is completely anonymous. The workers will receive the payment that you choose for the assignment within a few days, but will not receive any further information.

Treatment 1: Luck

Worker A won the lottery and earned 6 USD for the assignment, thus worker B earned nothing for the assignment.

Please state which of the following alternatives you choose:

I do not redistribute:

- worker A is paid 6 USD and worker B is paid 0 USD.

I do redistribute:

- worker A is paid 5 USD and worker B is paid 1 USD.

- worker A is paid 4 USD and worker B is paid 2 USD.

- worker A is paid 3 USD and worker B is paid 3 USD.

- worker A is paid 2 USD and worker B is paid 4 USD.

- worker A is paid 1 USD and worker B is paid 5 USD.

- worker A is paid 0 USD and worker B is paid 6 USD.

Treatment 2: Merit

In contrast to traditional survey questions that are about hypothetical situations, we now ask you to make a choice that has consequences for a real life situation. A few days ago two individuals, let us call them worker A and worker B, were recruited via an international online market place to conduct an assignment.

They were each offered a participation compensation of 2 USD regardless of what they were paid for the assignment. **After completing the assignment, they were told that their earnings from the assignment would be determined by their productivity. The most productive worker would earn 6 USD for the assignment and the other worker would earn nothing for the assignment. They were not informed about who was the most productive worker.** However, they were told that a third person would be informed about the assignment and who was most productive, and would be given the opportunity to redistribute the earnings and thus determine how much they were paid for the assignment.

You are the third person and we now want you to choose whether to redistribute the earnings for the assignment between worker A and worker B. Your decision is completely anonymous. The workers will receive the payment that you choose for the assignment within a few days, but will not receive any further information.

Treatment 2: Merit

Worker A was more productive and earned 6 USD for the assignment, thus worker B earned nothing for the assignment.

Please state which of the following alternatives you choose:

I do not redistribute:

- worker A is paid 6 USD and worker B is paid 0 USD.

I do redistribute:

- worker A is paid 5 USD and worker B is paid 1 USD.

- worker A is paid 4 USD and worker B is paid 2 USD.

- worker A is paid 3 USD and worker B is paid 3 USD.

- worker A is paid 2 USD and worker B is paid 4 USD.

- worker A is paid 1 USD and worker B is paid 5 USD.

- worker A is paid 0 USD and worker B is paid 6 USD.

In contrast to traditional survey questions that are about hypothetical situations, we now ask you to make a choice that has consequences for a real life situation. A few days ago two individuals, let us call them worker A and worker B, were recruited via an international online market place to conduct an assignment.

They were each offered a participation compensation of 2 USD regardless of what they were paid for the assignment. After completing the assignment, they were told that their earnings from the assignment would be determined by a lottery. The worker winning the lottery would earn 6 USD for the assignment and the other worker would earn nothing for the assignment. They were not informed about the outcome of the lottery. However, they were told that a third person ...

You are the third person and we now want you to choose whether to redistribute the earnings for the assignment between worker A and worker B. Your decision is completely anonymous. The workers will receive the payment that you choose for the assignment within a few days, but will not receive any further information.

Worker A won the lottery and earned 6 USD for the assignment, thus worker B earned nothing for the assignment. **There is a cost of redistribution. If you choose to redistribute, increasing worker B's payment by 1 USD will decrease worker A's payment by 2 USD.**

Treatment 3: Efficiency

Worker A won the lottery and earned 6 USD for the assignment, thus worker B earned nothing for the assignment.

Please state which of the following alternatives you choose:

I do not redistribute:

- worker A is paid 6 USD and worker B is paid 0 USD.

I do redistribute:

- worker A is paid 4 USD and worker B is paid 1 USD.

- worker A is paid 2 USD and worker B is paid 2 USD.

- worker A is paid 0 USD and worker B is paid 3 USD.

- **Real choice**: The decision made by a spectator was matched with a unique pair of workers.

- **Same pre-redistribution earnings in all situations**: All spectators faced the pre-redistribution earnings of (6 USD, 0 USD).

- **Complete information**: Spectators had complete information about the source of the inequality and the cost of redistribution.

Theoretical framework

- We provide a simple social preference model to guide the interpretation of the results.

- We assume that the spectators care about **fairness** and **efficiency**:

$$V(y;\cdot) = -\beta(y - m(j))^2 - (c(j)y)^2, \tag{1}$$

- where $\beta > 0$ is the weight attached to fairness relative to efficiency, y is the share of total income to the worker with no pre-redistribution earnings. $m(j)$ is what the spectator perceives as the fair share to the worker with no pre-redistribution earnings in treatment j, and $c(j)$ is the cost of redistribution in treatment j, $j = L, M, E$.

Optimal behavior (interior solution)

$$y = \beta\, m(j)/(\beta - c(j)). \qquad (2)$$

- We observe that:
    - $\beta \to c(j)$ implies that $y(j) \to 0$.
    - $\beta \to \infty$ implies that $y(j) \to m(j)$.

All treatments: Earnings of (6 USD, 0 USD).

- Only difference: Source of inequality or cost of redistribution.

The three treatments enable us to identify:

- General inequality acceptance.
- Causal effect of the source of inequality.
- Causal effect of a cost of redistribution.
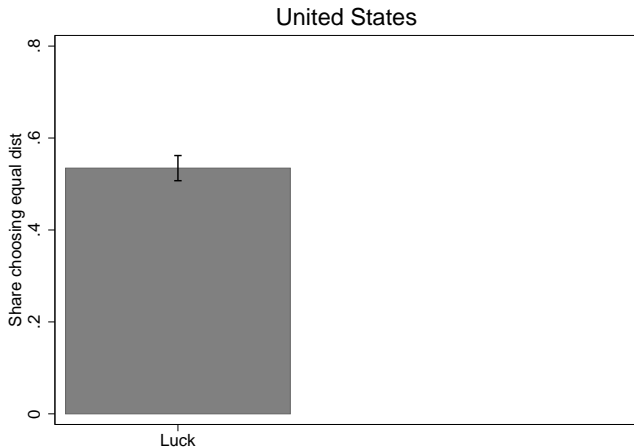
United States

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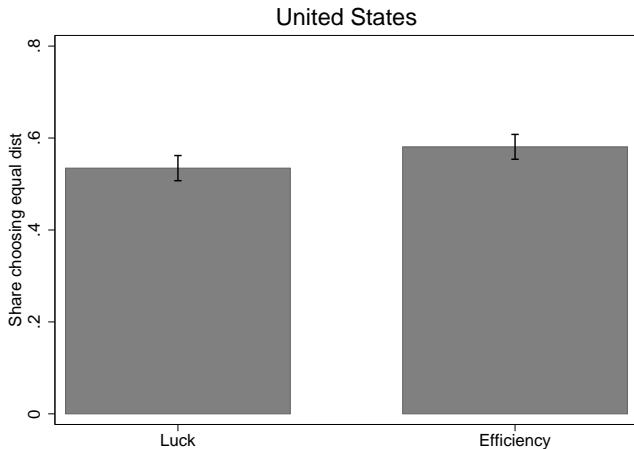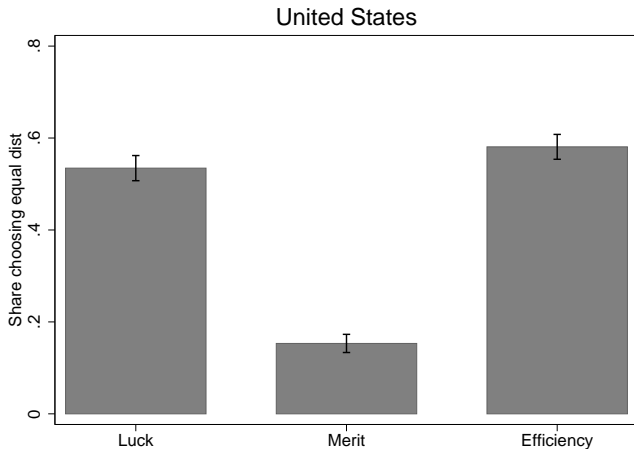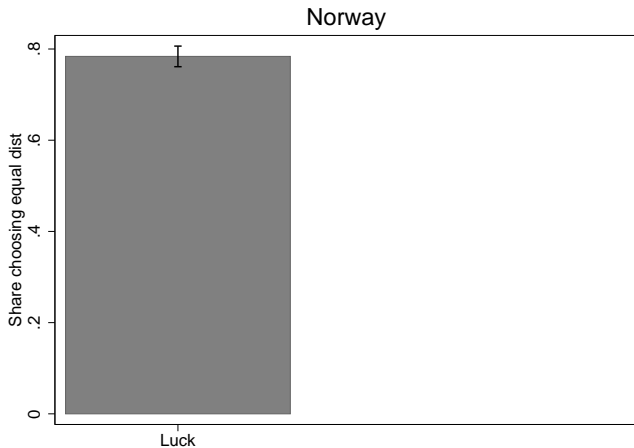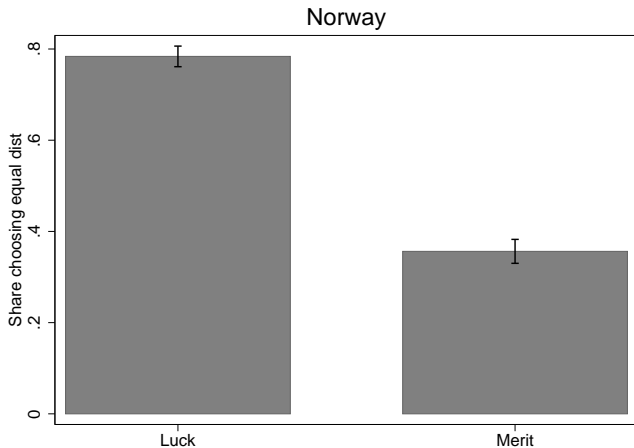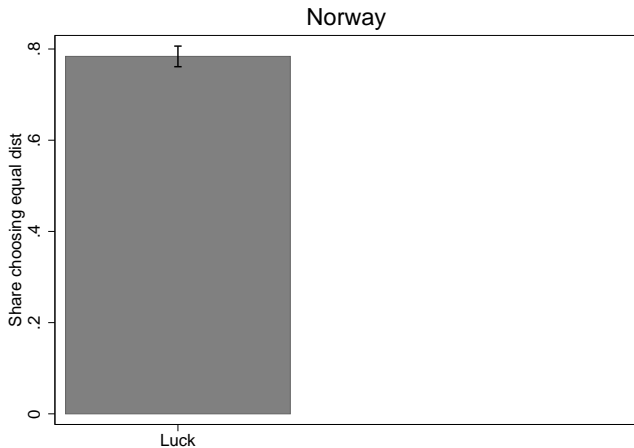
Share implementing equality (Norway): **Luck**

Norway

Share implementing equality (Norway): **Luck**
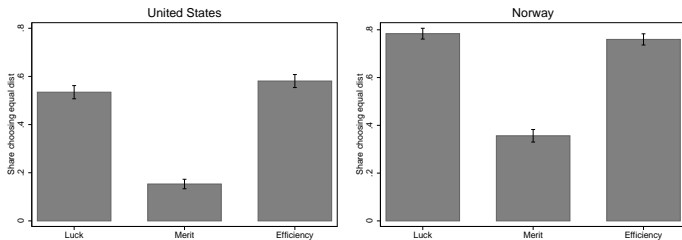
- Inequality implemented by spectator:

$$e = \frac{|x - y|}{x + y}. \tag{3}$$

- Equivalent to the Gini coefficient in this economic environment.
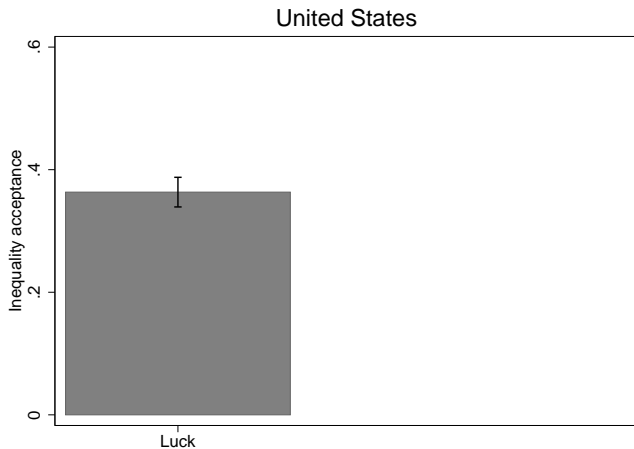
Inequality acceptance (US): **Luck**

United States

Inequality acceptance (US): **Luck vs Efficiency**
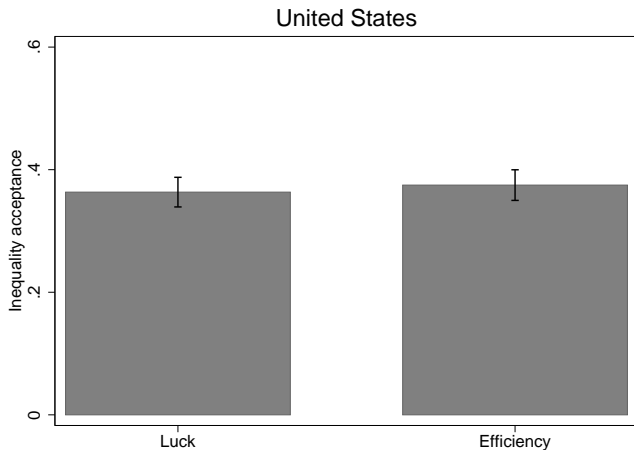
United States

United States
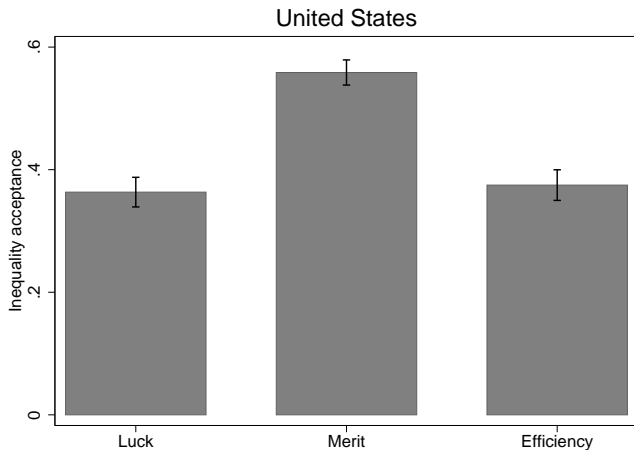
Inequality acceptance (Norway): **Luck**
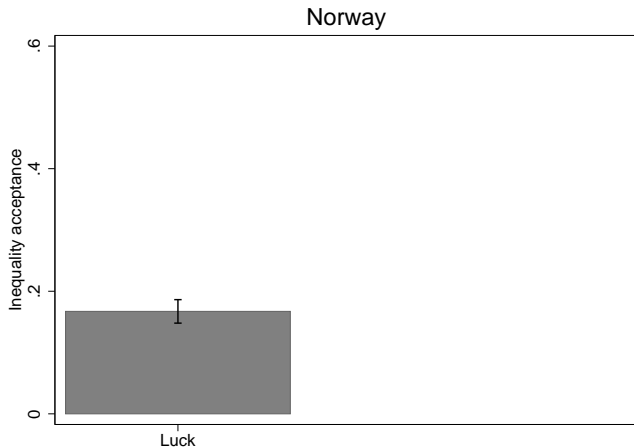
Norway

Inequality acceptance (Norway): **Luck vs Merit**
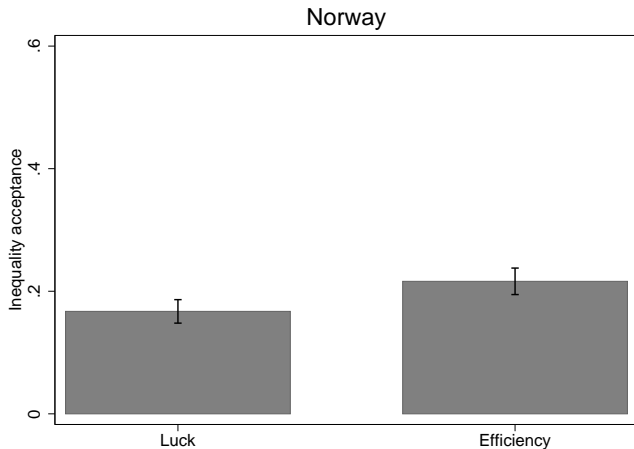
Norway

Norway

Inequality acceptance (Norway): **Overview**
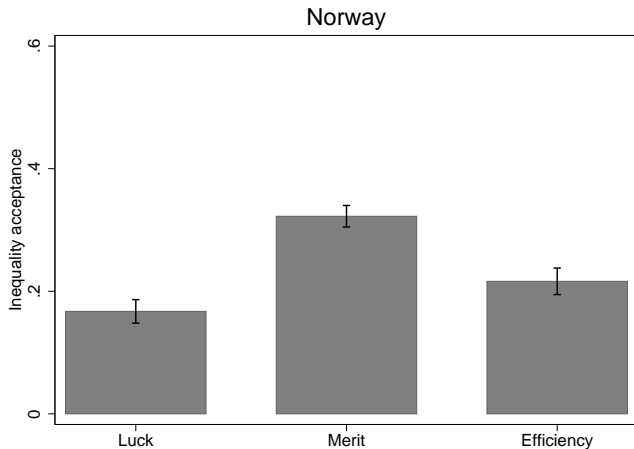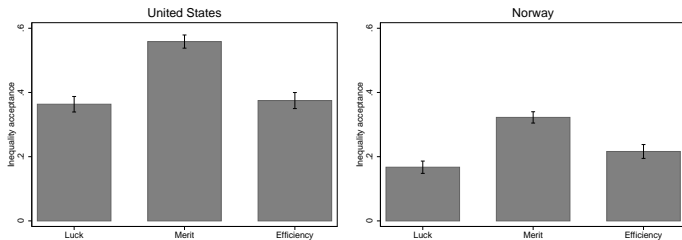
Norway

$$e_i = \alpha + \alpha_M M_i + \alpha_E E_i + \delta_M M_i N_i + \delta_E E_i N_i + \delta N_i + \varepsilon_i, \qquad (4)$$

$M_i = 1$ if in merit treatment.

$E_i = 1$ if in efficiency treatment.

$N_i = 1$ if from Norway.

Regression results

	(Coefficient)	(Standard error)
Merit (US)	0.195***	(0.032)
Efficiency (US)	0.011	(0.035)
Merit x Norway	-0.040	(0.041)
Efficiency x Norway	0.038	(0.045)
Norway	-0.196***	(0.031)
lincom:		
Merit (Norway)	0.155***	(0.026)
Efficiency (Norway)	0.049*	(0.029)

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Are Americans more inequality accepting than Norwegians?

Yes – we find systematically more inequality acceptance in the US than in Norway.

- Significantly more inequality implemented in all treatments in the US than in Norway.

No – the merit treatment effect is not significantly different in the two countries.

- There are not more Americans than Norwegians that accept inequalities due to merit but not inequalities due to luck.

Are Americans more efficiency-seeking than Norwegians?

No – the efficiency treatment effect is not significantly different in the two countries.

- In both countries efficiency considerations seem to play a marginal role, even though the cost of redistribution is huge in our experiment.

What causes inequality acceptance?

- We show causally that **the source of inequality** is of great importance.

  - When the source of inequality is merit instead of luck, inequality acceptance increases significantly in both the US and Norway.

- We do not find systematic evidence for **efficiency considerations** increasing inequality acceptance.

  - A cost of redistribution slightly increases inequality acceptance in Norway but not (statistically significantly so) in the US.
  - May reflect our between-individual design.

- **Main observation**: We find that the source of inequality is much more important than the cost of redistribution in making people accept inequality.

  - The treatment effect difference is huge and highly statistically signficant ($p < 0.01$).

Back to the theoretical framework

- How can we interpret the findings in light of our model

$$V(y; \cdot) = -\beta(y - m(j))^2 - (c(j)y)^2. \tag{5}$$

- **Main message**: The difference between the US and Scandinavia is related to differences in fairness view (m). No difference in the relative importance of fairness and efficiency (β); fairness much more important than efficiency in both countries.

- Let us now introduce the following three fairness views:
  - **Libertarians:** Accept some inequality when there are differences in luck or merit.
  - **Meritocrats:** Accept some inequality when there are differences in merit, but not inequalities reflecting differences in luck.
  - **Egalitarians:** Find all inequalities unfair.
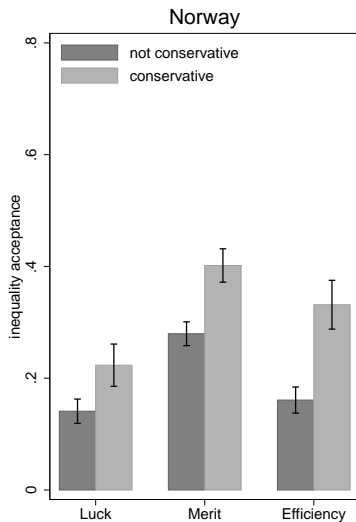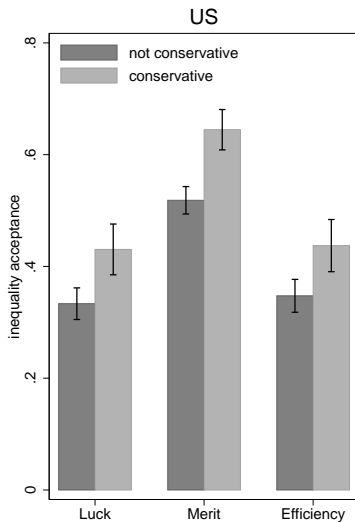
Fairness views in the experiment

- We can **identify the share of each fairness type** in the experiment:
  - Libertarians: By the share of individuals not equalizing in the Luck treatment.
  - Egalitarians: By the share of individuals equalizing in the Merit treatment.
  - Meritocrats: By the difference in the share of individuals who divide equally in the Luck treatment and in the Merit treatment.

- We find that there is a **huge difference in the distribution of fairness types** between the US and Norway:
  - Much larger share of libertarians in the US than in Norway (46.5% versus 21.5%).
  - Much smaller share of egalitarians in the US than in Norway (15.3% versus 35.6%).
  - Almost same share of meritocrats in the US and in Norway (38.2% versus 42.8%).

Heterogeneity analysis

Also pre-specified in the pre-analysis plan.

- Are conservatives:

    - Generally accepting more inequalities?

    - Accepting more inequalities if they are caused by differences in merits?

    - Accepting more inequalities if redistribution is costly?

- Is there a socioeconomic gradient in social preferences?

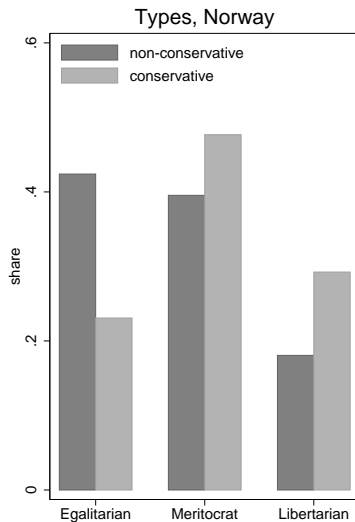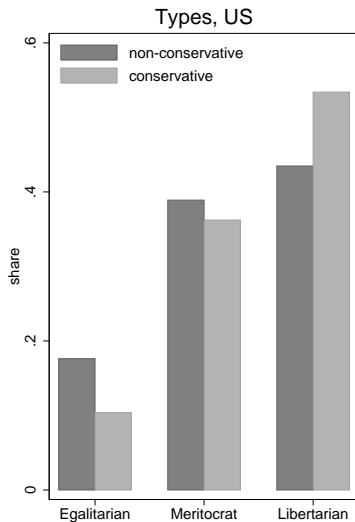- Is there a gender difference in social preferences?

Heterogeneity in inequality acceptance: **Political**

- Conservatives accept more inequality in general.

- Conservatives are not more sensitive to the source of inequality.

- Only in Norway are conservatives more sensitive to the cost of redistribution (but diff-in-diff not significant).

# Heterogeneity in fairness views: **Political**
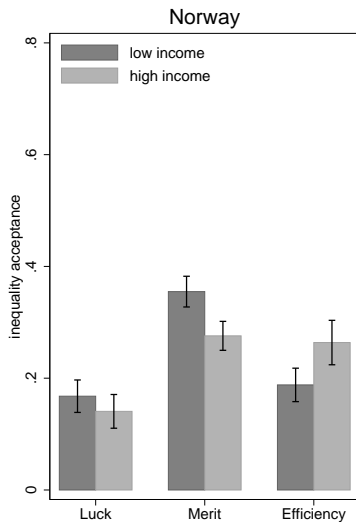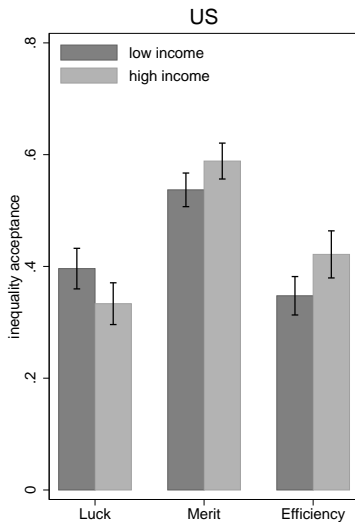
- There is no socioeconomic gradient in the acceptance of inequality in general.

- Only in the US are high income earners more sensitive to the source of inequality.

  - The socioeconomic gradient is more important to understand meritocracism in the US than in Norway.

- High income earners more sensitive to the cost of redistribution in both countries.

Heterogeneity in fairness view: **Socioec**
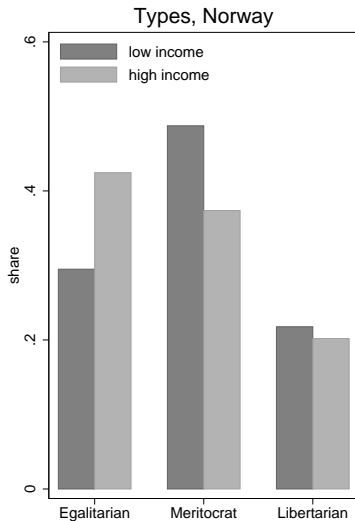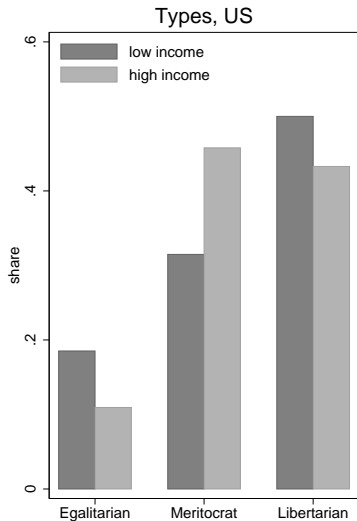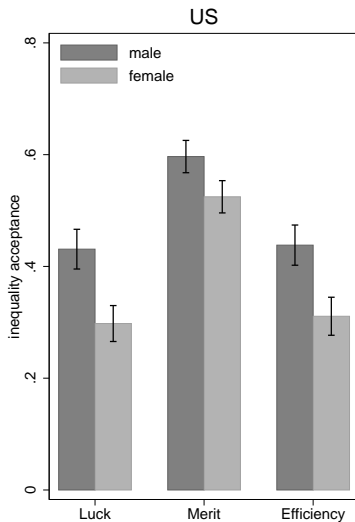
Heterogeneity in inequality acceptance: **Gender**

- Only in the US do males accept more inequality in general.

- There is no gender difference in the sensitivity to the source of inequality.

- Males are more sensitive to the cost of redistribution in Norway.

Heterogeneity in fairness view: **Gender**
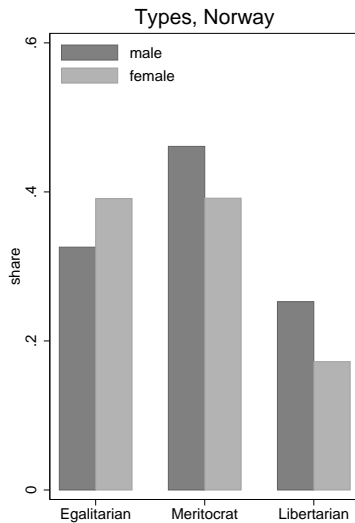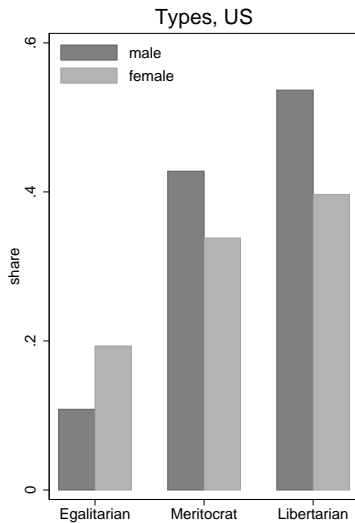
External validity: Experimental behavior related to inequality acceptance in society?

"A society should aim to equalize incomes" – share that agrees:
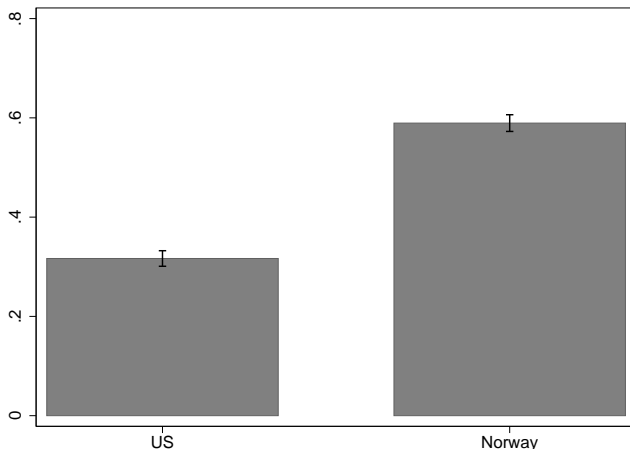
External validity: Inequality acceptance in the experiment strongly associated with inequality acceptance in society
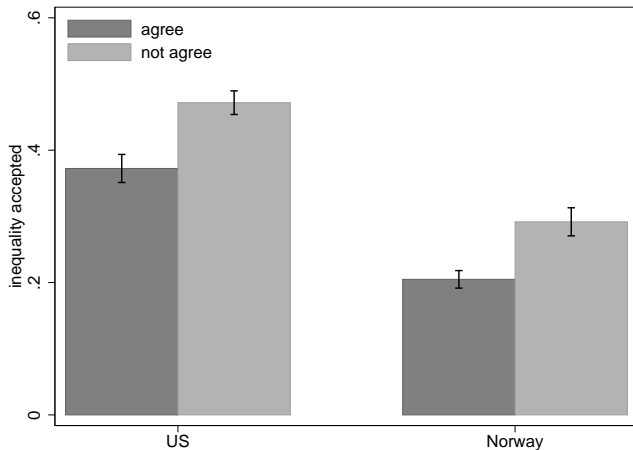
External validity: Inequality levels in the lab very close to inequality levels in society
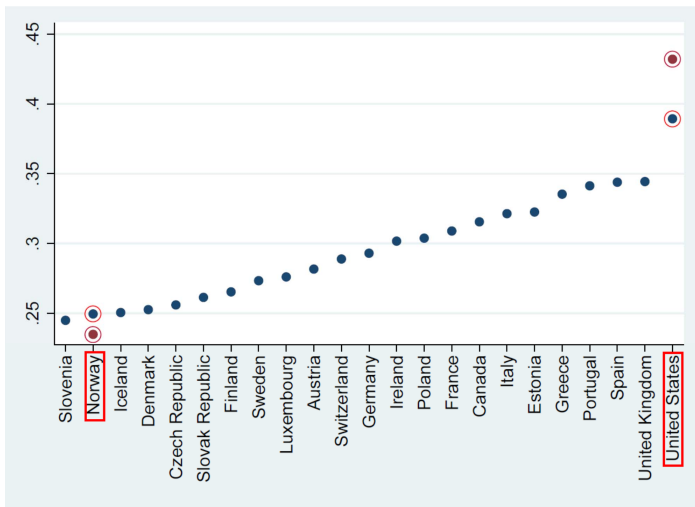
Conclusions

- We have conducted the first economic experiment on social preferences using nationally representative samples in two countries.

  - The two countries are very different both when it comes to the level of inequality and the support for redistributive policies.

  - The participants made real distributive choices in identical situations that enable us to identify social preferences.

Conclusions: The US versus Scandinavia

Main findings I:

- Americans are systematically more inequality accepting than Scandinavians.

- We do not find that Americans are more meritocratic than Scandinavians.
    - We find the same share of meritocrats in the US and Sandinavia, but many more libertarians in the US and many more egalitarians in Scandinavia.

- We do not find that Americans are more efficiency seeking than Scandinavians.

Less support for redistribution in the US than in Scandinavia does not reflect a greater concern for efficiency, but rather differences in fairness views.

Main findings II:

- Merit systematically causes increased inequality acceptance.

- The cost of redistribution does not systematically cause increased inequality acceptance.

Our study suggests that the source of inequality is more important than efficiency considerations for understanding inequality acceptance.

Robustness of main findings – looking at groups in the society (conservatives, males, high income earners)

- **Main findings I:**
  - Inequality acceptance is greater in the US than Norway for all subgroups.

  - There is no subgroup for which merit or efficiency considerations are more important in the US than in Norway.

- **Main findings II:**
  - Merit causes increased inequality acceptance for all subgroups.

  - The cost of redistribution has little effect for most subgroups.

Fairness and meritocracy: Further important research questions I

- Do we attach too much importance to responsibility: What is a morally relevant choice (Cappelen, Fest, Sørensen, and Tungodden, 2016)? What do people consider the right principle of reward (Roemer)?
- What shapes our views on personal responsibility (Cappelen, List, Samek, and Tungodden, 2016 and Cappelen, Eiche, Hughdahl, Specht, Sørensen, and Tungodden, PNAS, 2015). We are planning a comparative study of fairness views on personal responsibility in 60 countries, including a study of how it develops in childhood and adolescence.
- Why do people reward talent, but not other types of luck? Do people really draw the responsibility cut between choice and circumstance or is it rather between personal and impersonal factors?

Fairness and meritocracy: Further important research questions II

- How do people handle personal responsibility when there is imperfect information about the source of the inequality?

- How are ideas of personal responsibility affected by people having an unlevel playing field, the consequences of choices partly being determined by the choices of others, and choices being intentionally influenced by others (nudging policies).

- Many more important issues - the philosophical literature contains a number of important ideas that potentially may be important for understanding distributive behavior!

Interested in fairness research?

- You are most welcome to visit The Choice Lab!

- A number of PhD activities - PhD course with Armin Falk in October.

General instructions:

The results from this experiment will be used in a research project. It is therefore important that you carefully read and follow all instructions. Note that you will remain anonymous throughout the experiment. We will only use your Worker ID to assign payments and check that you have not participated in this experiment before.

You will be paid a fixed participation fee of 2 USD and you may, depending on the actions you and others take, earn additional money.

You will be given detailed instructions on your screen before each part of the experiment. Please read the instructions to each part carefully.

The workers, Part 1 – Production phase

The first part of the experiment is a production phase where you are given three assignments to work on.

Go on to the next page to receive instructions for the first assignment.

Assignment 1:
In the first assignment you are asked to work on a sentence unscrambling task for 5 minutes. Your performance will not be measured as there is no right or wrong answer, but we do ask you to work continuously on this assignment.

Description of the assignment:
You will be shown five English words and are asked to form a sentence or an expression by using four of these words. This means that each sentence or expression must only contain four words.

For example, if the words given to you are "sky, blue, is, the, old", then you can construct the sentence:

the sky is blue

The workers, assignments

Assignment 2:

In the second assignment you are once again asked to work on a sentence unscrambling task for 5 minutes.

Assignment 3

In the third assignment you are asked to work on a code recognition task for 5 minutes. For this assignment we will measure your performance by the number of points you receive. You will be informed about your score at the end of the assignment.

The assignment was to tick off each appearance of a specific three digit number given to them from a table with many different three digit numbers.

First stage:

Assignment 1: For this assignment, your earnings are determined by a lottery where each of you with equal probability earns 6 USD or 0 USD.

Assignment 2: For this assignment, your earnings are determined in the same way as for assignment 1.

Assignment 3: For this assignment, your earnings are determined by how productive you are. The participant with the highest score earns 6 USD and the other participant earns 0 USD. If you both have the same score, you will be matched with another participant.

Second stage:

A third person could redistribute the earnings.

Survey question about general attitudes to redistribution

The Norstat sample was also asked the following (unincentivized) question:

We now want you to indicate to what extent you agree with the following statement. 1 means that you agree completely with the statement on the left, 10 means that you agree completely with the statement on the right, and the numbers in between indicate the extent to which you agree or disagree with the statements.

A society should aim to equalize incomes.									A society should not aim to equalize incomes.
1	2	3	4	5	6	7	8	9	10

- Please indicate your gender.

- Please indicate your age.

- Where do you live? (States in the United States , Regions in Norway)

- What is your household's monthly pre-tax income?

- Which political party would you vote for if there was an election tomorrow?

- What is your highest completed level of education?