

# Clase 27: Evidencia en economía y el Experimento Ideal

## Haciendo Economía I

### Econ 2205

Ignacio Sarmiento-Barbieri

Universidad de los Andes

November 11, 2023

# Agenda

① Plan para hoy

② Literatura en Economía

③ Manipular para confundir

- Manipular las gráficas
- Manipular las muestras
- Manipular cifras

④ Mensaje Final y Próxima Clase

# Plan para hoy

## ► Hoy

- ▶ Evidencia en economía, journals y como aproximar calidad
- ▶ Leer criticamente, detectar manipulaciones estadísticas.
- ▶ El Experimento Ideal (Actividad Jueves)

# Plan para hoy

- ▶ Ser capaz de buscar buena literatura y leer críticamente es una habilidad clave para los economistas
- ▶ Nos vamos a centrar en la búsqueda de Literatura (Tarea 8)
- ▶ y en el manejo de datos
  - 1 Como se suelen manipular para confundir e inducir conclusiones erróneas
  - 2 La importancia de transparencia y reproducibilidad para la credibilidad en investigación
  - 3 El material de la clase viene de [www.callingbullshit.org](http://www.callingbullshit.org) de Carl T. Bergstrom and Jevin West
- ▶ Recomendación para el tiempo libre: "How to Lie with Statistics" de Darrell Huff (1954)
- ▶ Tangencial: The Signal and the Noise: Why So Many Predictions Fail de Nate Silver (2020)

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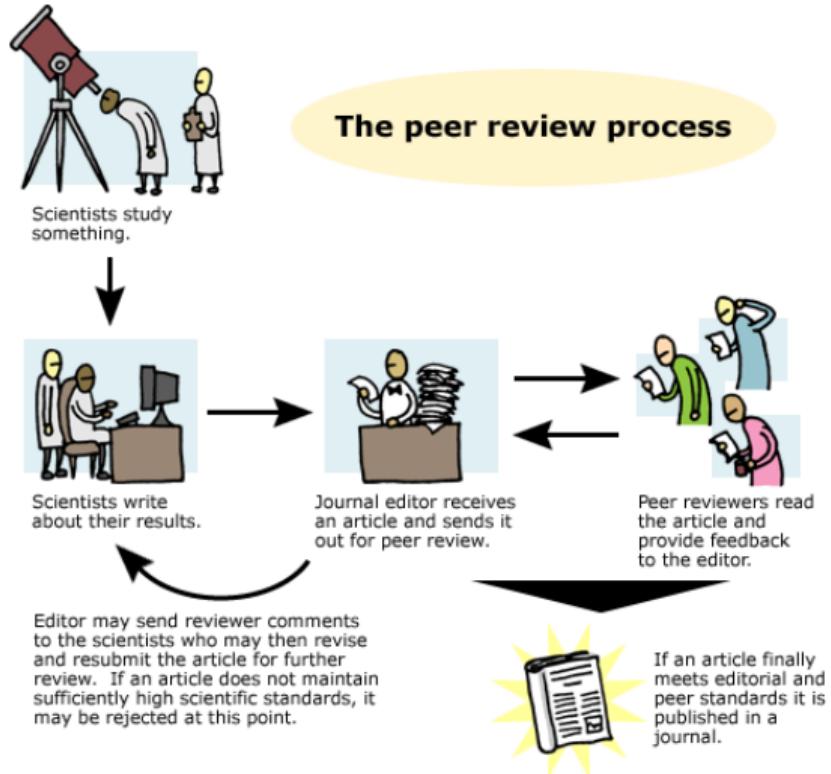
# Donde buscar literatura

## Revistas o Journals

- ▶ Como en muchas otras disciplinas, las nuevas investigaciones en economía suelen aparecer primero en revistas académicas.
- ▶ Los artículos enviados a revistas para su posible publicación generalmente son enviados por el editor a dos o tres árbitros (o revisores) para su evaluación.
- ▶ Los árbitros son expertos en el tema del trabajo.
- ▶ Para garantizar una evaluación imparcial, la mayoría de las revistas utilizan un proceso de evaluación "ciego", en el que no se informa al autor sobre la identidad de los evaluadores.
- ▶ El tiempo desde la presentación original hasta la publicación suele ser de al menos un año.

# Donde buscar literatura

## Revisión de pares



# Donde buscar literatura

## Revisión de pares

Dear Dr. Sarmiento Barbieri,

Last last year, I requested your assistance in reviewing a manuscript that I believe fell within your area of interested. Based on the reviews I received, I initially rejected the paper in its previous form and requested the authors undergo significant revisions. The authors have undertake those changes and submitted a substantially revised manuscript that addresses many of your concerns. I would like to invite you to review this revision again if you have the capacity.

The abstract for this manuscript is included below. You should treat this invitation, the manuscript and your review as confidential. You must not share your review or information about the review process with anyone without the agreement of the editors and authors involved, even after publication. This also applies to other reviewers' "comments to author" which are shared with you on decision (and vice versa).

Please respond to this invitation at your earliest opportunity.

# Donde buscar literatura

## Working Papers

- Dados los tiempos largos de publicación algunos autores publican lo que se conoce como Working Papers o Documentos de Trabajo.
- Estos son trabajos que todavía no han sido evaluados por pares expertos. Por lo tanto hay que tener cuidado y leerlos criticamente.

## Working Papers

New research by NBER affiliates, circulated for discussion and comment. The NBER distributes more than 1,200 working papers each year. These papers have not been peer reviewed. Papers issued more than 18 months ago are open access. More recent papers are available without charge to affiliates of subscribing academic institutions, employees of NBER Corporate Associates, government employees in the US, journalists, and residents of low-income countries. The NBER is working to make its web content accessible to all. Please address any concerns or requests for assistance to [webaccessibility@nber.org](mailto:webaccessibility@nber.org).

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## Recent Submissions



"Un nuevo comienzo": El impacto del Programa Vivienda Gratuita sobre la calidad de vida de los hogares beneficiarios

Camacho-González, Adriana; Caputo-Leyva, Jorge Enrique; Sánchez-Torres Fabio (2022-04)

# Rankings e indicadores

Ranking H5	Journal	h5-index	h5-median	Score CLm
1	American Economic Review	158	246	98.1
2	The Quarterly Journal of Economics	110	226	100
3	The Review of Financial Studies	108	167	80.6
4	Journal of Political Economy	102	180	96.2
5	The Journal of Finance	99	182	72.2
6	Journal of Economic Perspectives	86	157	30.5
7	Econometrica	83	140	95.7
8	The Review of Economic Studies	81	125	81
9	Review of Economics and Statistics	74	110	74.1
10	The Economic Journal	71	112	64.5
11	Journal of Public Economics	69	99	62
12	Journal of Development Economics	69	94	42.7
13	Journal of International Economics	68	105	61.5
14	Journal of Monetary Economics	63	100	75.8
15	Economic Modelling	61	80	11.3
16	Journal of Economic Literature	60	144	28.3
17	European Economic Review	60	92	55.2
18	Journal of Labor Economics	59	119	55.1
19	Journal of the European Economic Association	58	82	57
20	Journal of International Money and Finance	56	84	NA

# Rankings e indicadores

- ▶ The h-index: It is the largest number h such that h articles published in 2015-2019 have at least h citations each. E.g. the h5-index of a journal is 158 means that 158 articles published in the journal in 2015-2019 have received at least 185 citations each article.
- ▶ Combes and Linnemer (2010) Score: This index combines (sophisticated) citation indexes, field of specialization normalized indexes, and a h-index based on Google Scholar citations.
- ▶ The Scimago Journal Rank (SJR) is based on the transfer of prestige from a journal to another one; such prestige is transferred through the references that a journal do to the rest of the journals and to itself.

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1 Plan para hoy

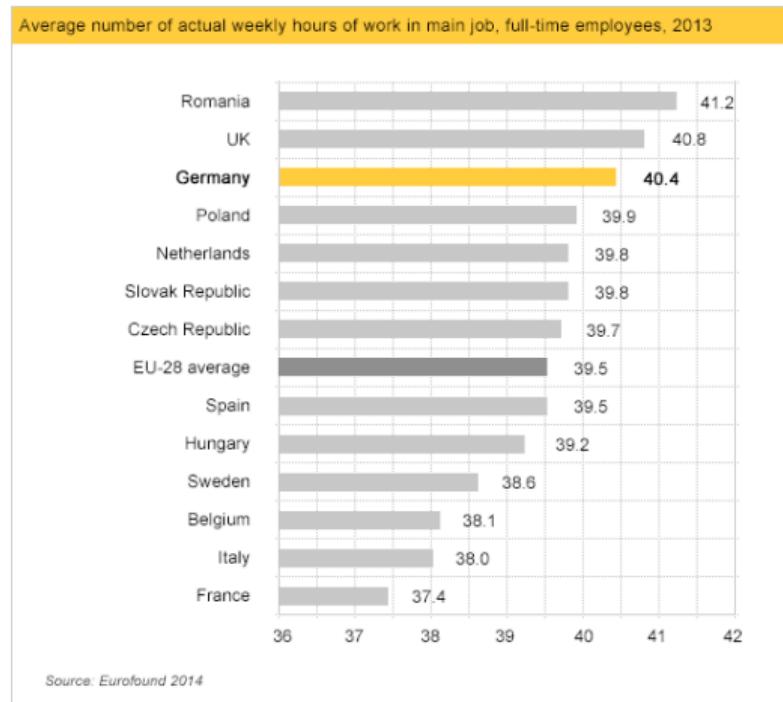
2 Literatura en Economía

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# Manipular las gráficas

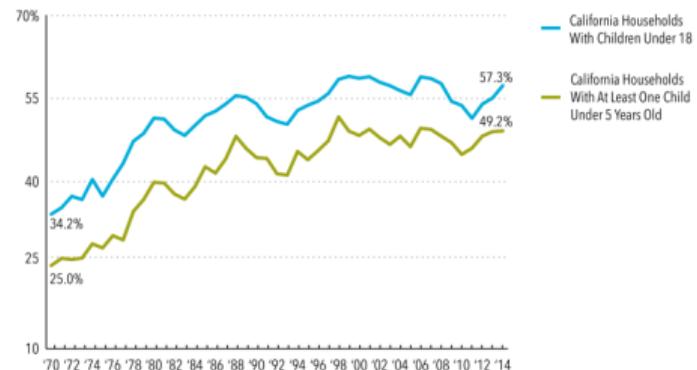


# Manipular las gráficas



# Manipular las gráficas

## More California Households Have All Parents Working, Making Access to Child Care an Important Priority Percentage of California Households Where All Parents Work, 1970 to 2014

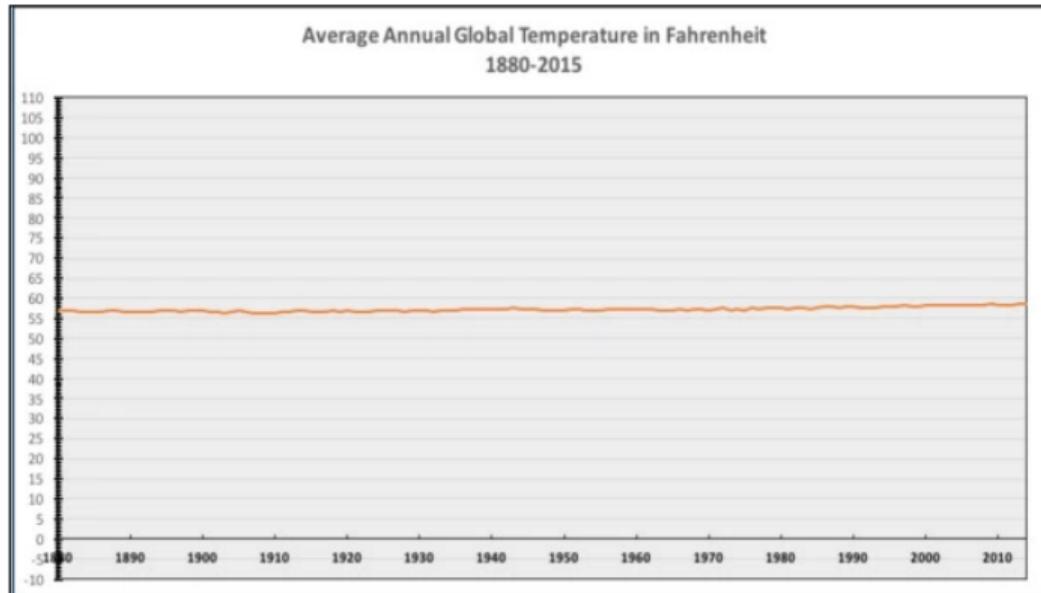


Note: A "household where all parents work" includes single-parent households and dual-earner households. Parents include stepparents and adoptive parents.  
Source: Budget Center analysis of US Census Bureau data



California Budget  
& Policy Center  
Independent Analysis. Shared Prosperity.

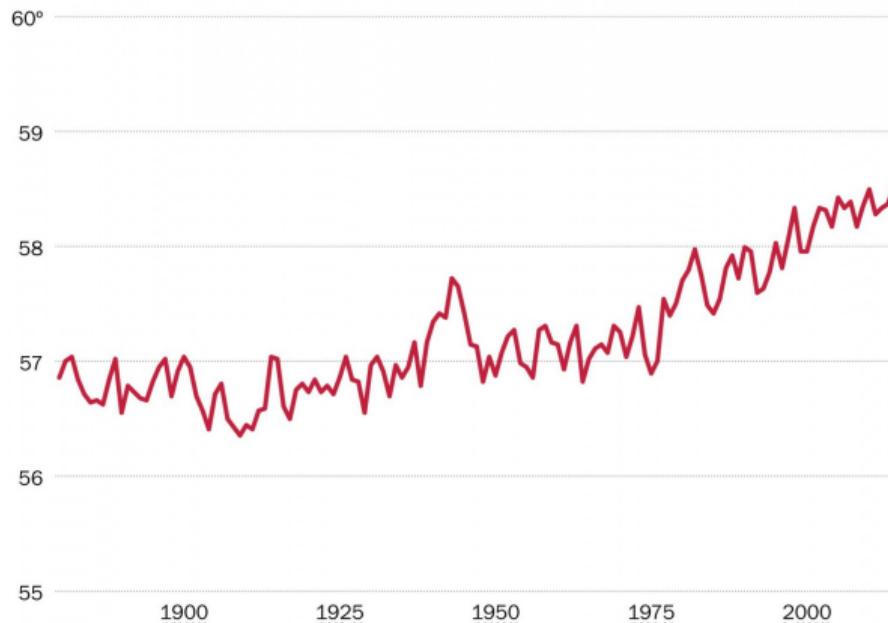
# Manipular las gráficas



# Manipular las gráficas

Average global temperature by year

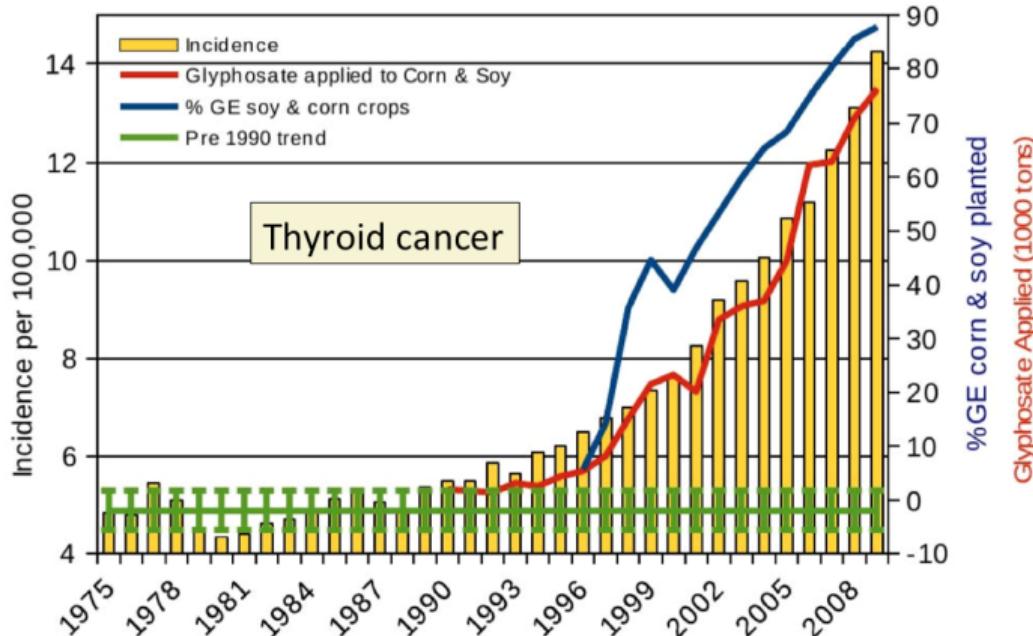
Data from NASA/GISS.



# Manipular las gráficas

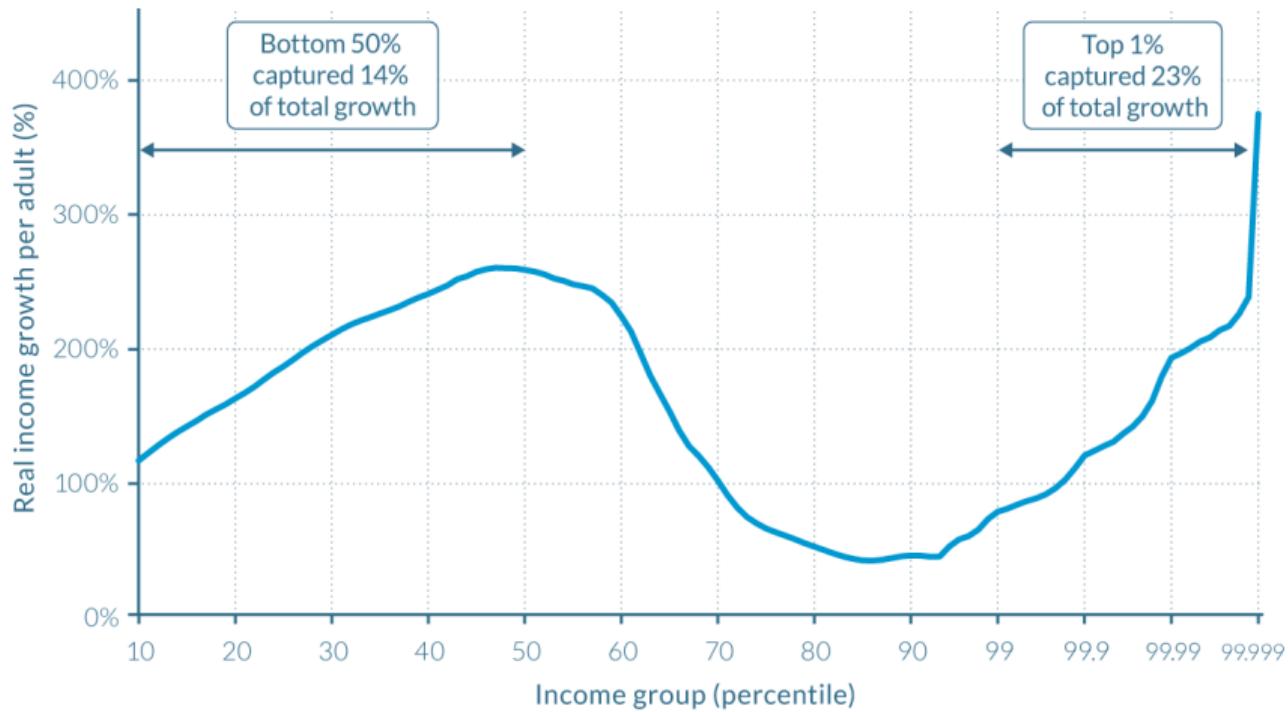
## Thyroid Cancer Incidence Rate (age adjusted)

plotted against glyphosate applied to U.S. corn & soy ( $R = 0.988$ ,  $p \leq 7.612e-09$ )  
along with %GE corn & soy crops  $R = 0.9377$ ,  $p \leq 2.152e-05$   
sources: USDA:NASS; SEER



\*Figure 10, Swanson et al. Journal of Organic Systems 2014; 9(2):6-37.

# Manipular las gráficas

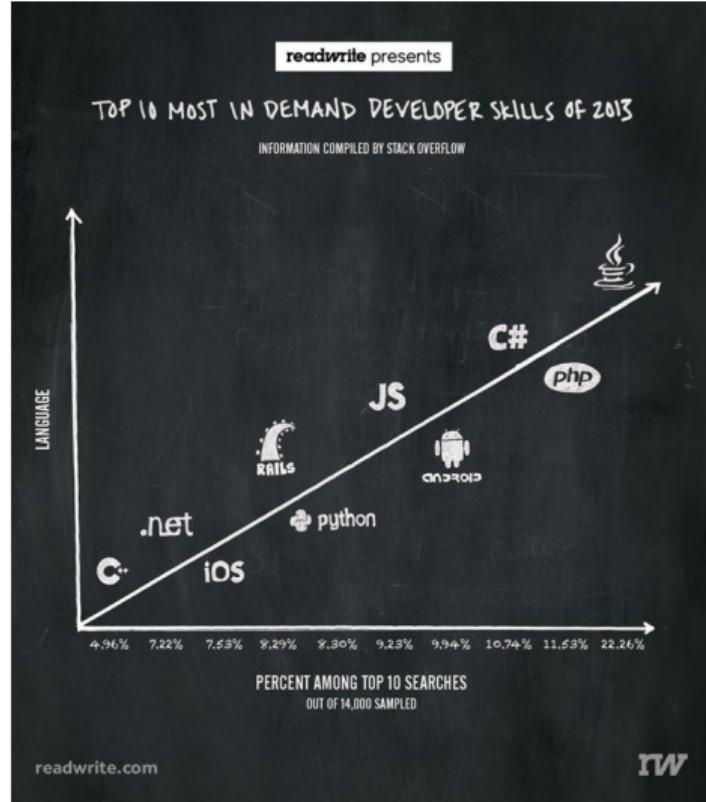


Source: WID.world (2017). See [wir2018.wid.world/methodology.html](http://wir2018.wid.world/methodology.html) for data series and notes.

On the horizontal axis, the world population is divided into a hundred groups of equal population size and sorted in ascending order from left to right, according to each group's income level. The Top 1% group is divided into ten groups, the richest of these groups is also divided into ten groups, and the very top group is again divided into ten groups of equal population size. The vertical axis shows the total income growth of an average individual in each group between 1980 and 2016. For percentile group p99p99.1 (the poorest 10% among the world's richest 1%), growth was 77% between 1980 and 2016. The Top 1% captured 23% of total growth over this period. Income estimates account for differences in the cost of living between countries. Values are net of inflation.



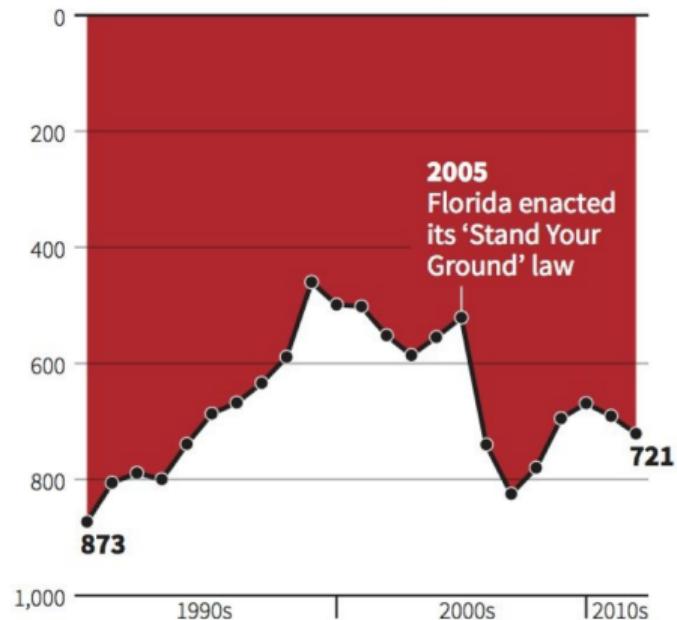
# Manipular las gráficas



# Manipular las gráficas

## Gun deaths in Florida

Number of murders committed using firearms



Source: Florida Department of Law Enforcement

C. Chan 16/02/2014

REUTERS



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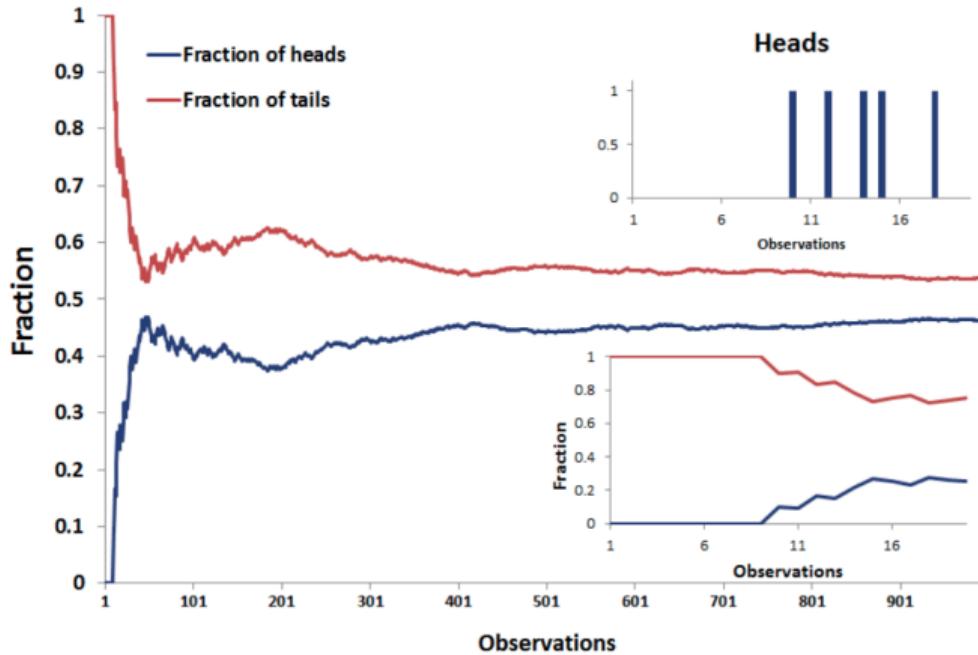
# Podemos identificar el problema

Cierta ciudad cuenta con dos hospitales. En el hospital más grande, nacen alrededor de 45 bebés cada día, y en el hospital más pequeño, nacen alrededor de 15 bebés cada día. Como saben, alrededor del 50% de todos los bebés son varones. Sin embargo, el porcentaje exacto varía de un día a otro. A veces puede ser superior al 50%, a veces inferior.

Durante un período de 1 año, cada hospital registró los días en los que más del 60% de los bebés nacidos eran varones. ¿Qué hospital crees que registró más días de este tipo?

- 1 El hospital más grande
- 2 El hospital más pequeño
- 3 Más o menos iguales (es decir, dentro del 5% entre sí)

# Muestras Pequeñas



Source: <https://towardsdatascience.com/lessons-from-how-to-lie-with-statistics-57060c0d2f19>

# The Literary Digest

NEW YORK

OCTOBER 31, 1936

## *Topics of the day*

**LANDON, 1,293,669; ROOSEVELT, 972,897**

Final Returns in The Digest's Poll of Ten Million Voters

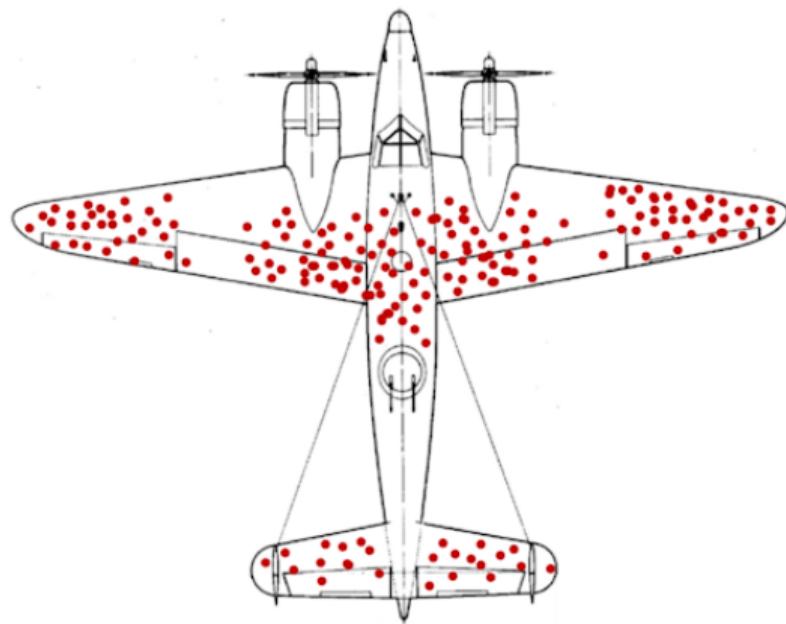
Well, the great battle of the ballots in the Poll of ten million voters, scattered throughout the forty-eight States of the

litan National Committee purchased THE LITERARY DIGEST?" And all types and varieties, including: "Have the Jews purchased

returned and let the people of the Nation draw their conclusions as to our accuracy. So far, we have been right in every Poll. Will we be right in the current Poll? That, as Mrs. Roosevelt said concerning the President's reelection, is in the 'lap of the gods.'

"We never make any claims before election but we respectfully refer you to the opinion of one of the most quoted citizens

# Muestras sesgadas



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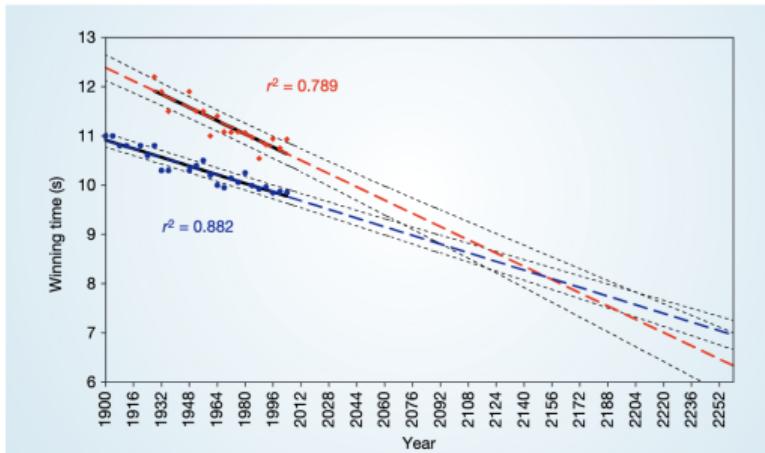
## Momentous sprint at the 2156 Olympics?

Women sprinters are closing the gap on men and may one day overtake them.

The 2004 Olympic women's 100-metre sprint champion, Yuliya Nesterenko, is assured of fame and fortune. But we show here that — if current trends continue — it is the winner of the event in the 2156 Olympics whose name will be etched in sporting history forever, because this may be the first occasion on which the race is won in a faster time than the men's event.

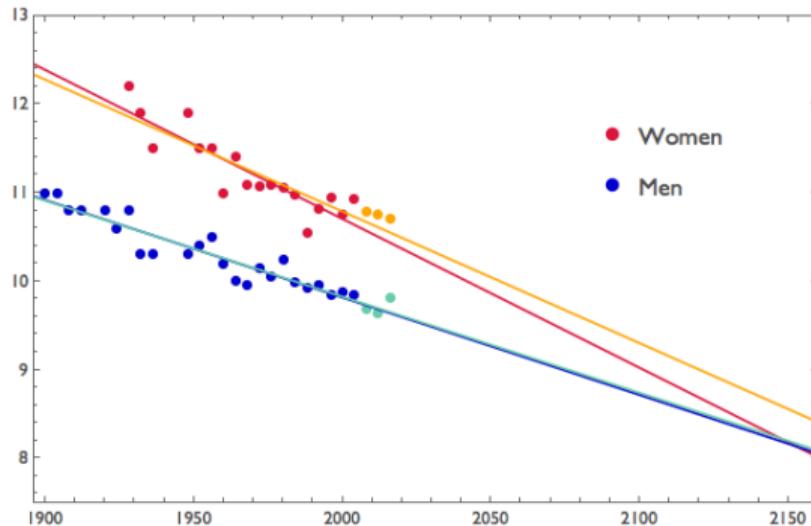
The Athens Olympic Games could be viewed as another giant experiment in human athletic achievement. Are women narrowing the gap with men, or falling further behind? Some argue that the gains made by women in running events between the 1930s and the 1980s are decreasing as the women's achievements plateau<sup>1</sup>. Others contend that there is no evidence that athletes, male or female, are reaching the limits of their potential<sup>1,2</sup>.

In a limited test, we plot the winning times of the men's and women's Olympic finals over the past 100 years (ref. 3; for data set, see supplementary information) against the compe-



**Figure 1** The winning Olympic 100-metre sprint times for men (blue points) and women (red points), with superimposed best-fit linear regression lines (solid black lines) and coefficients of determination. The regression lines are extrapolated (broken blue and red lines for men and women, respectively) and 95% confidence intervals (dotted black lines) based on the available points are superimposed. The projections intersect just before the 2156 Olympics, when the winning women's 100-metre sprint time of 8.079 s will be faster than the men's at 8.098 s.

# Extrapolaciones fuera de muestra



# Cifras absolutas para manipular importancia

## Food Stamp Fraud at All-Time High: Is It Time to End the Program?

f share this

e email



Dec 27, 2016 // 3:08pm ♥ As seen on **Fox & Friends**

**REACTION: Actress Carrie Fisher Dies at Age 60 After Heart Attack**

**Should Japanese PM Shinzo Abe Apologize for Pearl Harbor Attack?**

**Cop Whose House Burned Down Gets Christmas Surprise From Randy Travis**

Food stamp fraud is at an all-time high, with cases this year including a state lawmaker and even a millionaire.

According to the USDA, \$70 million of taxpayer money was wasted in 2016 due to food stamp fraud.



# El Experimento Ideal

- ▶ **Mi PRR: Libertad de expresión y política.** (Cliente: Comisión de Regulación de Comunicaciones - CRC)
- ▶ La gente aprende sobre política y gobierno principalmente a través de la televisión y los periódicos. Estos medios de comunicación pueden influir en los votantes no solo a través del sesgo de un informe en particular, sino también simplemente eligiendo qué historias cubrir.

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- ▶ Para evaluar, podría ver quienes compran los periódicos o ver que canales de televisión miran. Y ver que conductas tienen.

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- ▶ Problema: la tendencia de las personas a buscar información que esté de acuerdo con sus puntos de vista preexistentes.
- ▶ Experimento Ideal: Aleatorizar las noticias que ve la gente, y a partir de ello evaluar su conducta.

## Does the Media Matter? A Field Experiment Measuring the Effect of Newspapers on Voting Behavior and Political Opinions<sup>†</sup>

By ALAN S. GERBER, DEAN KARLAN, AND DANIEL BERGAN\*

*We conducted a field experiment to measure the effect of exposure to newspapers on political behavior and opinion. Before the 2005 Virginia gubernatorial election, we randomly assigned individuals to a Washington Post free subscription treatment, a Washington Times free subscription treatment, or a control treatment. We find no effect of either paper on political knowledge, stated opinions, or turnout in post-election survey and voter data. However, receiving either paper led to more support for the Democratic candidate, suggesting that media slant mattered less in this case than media exposure. Some evidence from voting records also suggests that receiving either paper led to increased 2006 voter turnout. (JEL D72, L82)*

# El Experimento Ideal

*American Economic Review* 2017, 107(9): 2565–2599  
<https://doi.org/10.1257/aer.20160812>

## Bias in Cable News: Persuasion and Polarization<sup>†</sup>

By GREGORY J. MARTIN AND ALI YURUKOGLU\*

*We measure the persuasive effects of slanted news and tastes for like-minded news, exploiting cable channel positions as exogenous shifters of cable news viewership. Channel positions do not correlate with demographics that predict viewership and voting, nor with local satellite viewership. We estimate that Fox News increases Republican vote shares by 0.3 points among viewers induced into watching 2.5 additional minutes per week by variation in position. We then estimate a model of voters who select into watching slanted news, and whose ideologies evolve as a result. We use the model to assess the growth over time of Fox News influence, to quantitatively assess media-driven polarization, and to simulate alternative ideological slanting of news channels. (JEL D72, L82)*

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# Mensaje Final y Próxima Clase

- ▶ Es importante saber donde buscar literatura, y aproximar su calidad
- ▶ Ser capaz de leer críticamente es una habilidad clave para los economistas
  - ▶ Importante conocer las manipulaciones/sesgos (importante para no caer en ellas, **NO** para que ustedes las usen!!)
- ▶ Actividad 6

# Mensaje Final y Próxima Clase

**Instrucciones:** Los equipos deberán hacer una presentación en clase sobre el experimento ideal. La presentación tiene una duración de 10 minutos y deben subir la presentación a Bloque Neón.

- 1 (# diapositivas: 1) Descripción corta del PPR.
- 2 (# diapositivas: 1) Describa su PPR en términos del experimento ideal. Es decir, ¿cuál es el experimento que le permitiría responder causalmente su PPR?
- 3 (# diapositivas: 1) ¿Por qué utilizar datos observacionales no le permitirían responder su PPR?
- 4 (# diapositivas: 1) ¿Cuáles son las consideraciones éticas de implementar su experimento ideal?