

More than a third of US voters have taxation without representation

The USA is only proto-democratic. A buddy-system of scientists and scholars from the humanities may clear up their mutual confusions

Thomas Colignatus
Econometrician and teacher of mathematics
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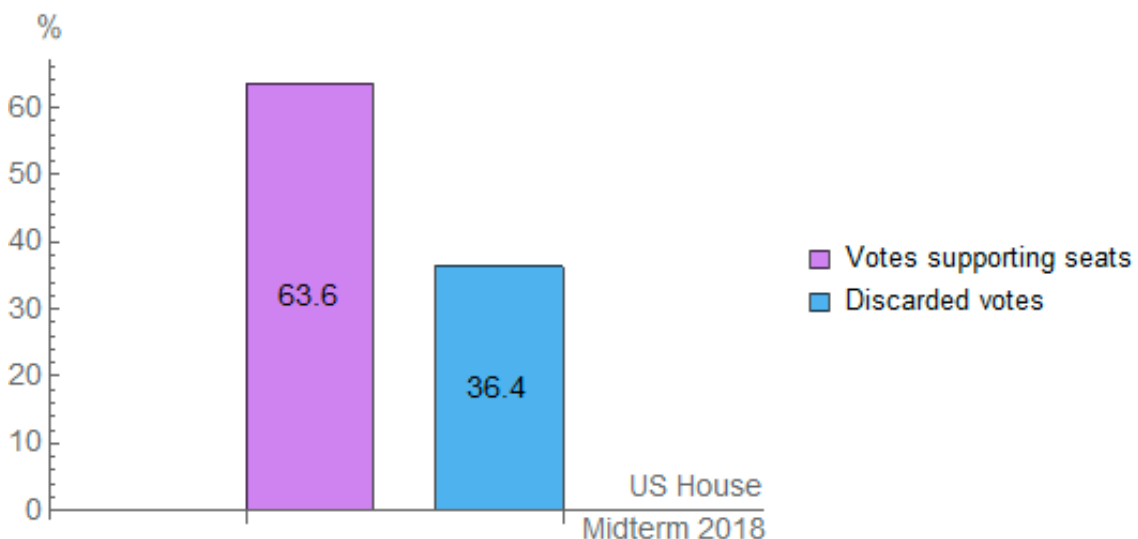
The US midterm election contests of November 6 2018 allow for an illustration of a new finding from August 2017. Readers will be familiar with the discussion about “district representation” (DR) versus “equal proportional representation” (EPR) but this new insight is a game changer, compare the news that the Earth is not flat but a globe. Policy makers might need more time to adapt US electoral laws but the new information can be passed on quickly.

Discovery in August 2017

Before August 2017 I thought that the properties of DR and EPR were well-known, and that the main reason why the USA, UK or France did not change from DR to EPR was that a party in power would not easily change the system that put it into power. Then however I discovered that the literature in the particular branch of “political science on electoral systems” (including referenda) did not discuss the properties with sufficient scientific clarity. Many statements by “political science on electoral systems” are still locked in the humanities and tradition, and they aren’t scientific when you look at them closely. For its relevance for empirical reality this branch of political science can only be compared to astrology, alchemy or homeopathy. The proof is in paper 84482 in the Munich archive MPRA. Thus the academia have been disinforming the world for the greater part of the last century. Americans express a preference for their own political system but they are also indoctrinated in their obligatory highschool Government classes that are disinformed by the academia. Let us now look at the US midterm of 2018 and apply clarity.

US House of Representatives 2018

In the election contest for the US House of Representatives, 63.6% of the votes were for winning candidates and 36.4% were for losing candidates, see the barchart. This chart is novel and is conventionally not shown even though it is crucial to understand what is happening. The US system of district representation (DR) has “winner take all”. The traditional view is that the losing votes are “wasted”. Part of the new insight is that the latter terminology is distractive, too soft, and falsely puts the blame on the voter, who should be wiser than to waste his or her vote. In truth we must look at the system, and it actually discards these votes. These votes no longer count. These voters essentially have taxation without representation.



Legal tradition in the humanities versus empirical science

Economic theory has the Principal – Agent Theory (PAT). A losing voter as principal will hardly regard a winning candidate as his or her agent. The legal storyline is that winning candidates are supposed to represent their district and thus also those who did not vote for them, but empirical science and hardnosed political analysts know that this is make-believe with fairy tales in cloud cuckoo land. In practice those voters in a district deliberately did not vote for this winning candidate and most commonly will not regard this winner as their proper representative but perhaps even as an adversary. A textbook by Taylor et al. (2014) refers to PAT but applies it wrongly as if formality suffices. Under the legal framing of “representation” these House winners actually appropriate the votes of those who did not vote for them. Rather than a US House of Representatives we have a US House of District Winners, but we might also call it the US House of Vote Thieves.

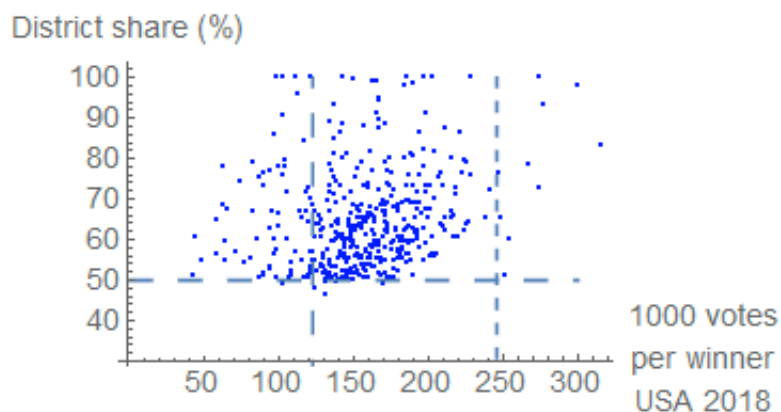
These voting outcomes are also highly contaminated by the political dynamics of district representation (DR). While Holland with EPR allows for the dynamic competition by new parties, the USA concentrates on bickering between two parties, with internal strife and hostile takeovers in the primaries. Many voters only voted strategically in an effort to block what they considered a worse alternative, and originally had another first preference. In a system of equal proportional representation (EPR) like in Holland, there is electoral justice, and voters would be at ease in choosing their first preference and thus proper representatives. They might also employ some strategy but this would be in luxury by free will. In the USA voters fear that their vote is lost, and the outcome is also distorted by their gambling about the odds. Thus we can safely conclude that even more than a third of US voters in 2018 are robbed from their democratic right of electing their representative.

Legal tradition versus the Universal Declaration of Human Rights

Article 21 of the Universal Declaration of Human Rights (UDHR) of 1948 states: “Everyone has the right to take part in the government of his country, directly or through freely chosen representatives.” When votes are not translated into representation of choice, and no longer used to allocate them to a particular seat, then they are essentially discarded, in violation of this human right. The USA helped drafting and then ratified the UDHR but apparently did not realise that its own electoral system violates it. The USA has been saved by the workings of the Median Voter Theorem and by parties defending their voters in losing districts (which runs against the principle of representing your own district), but the loss of welfare must be great, e.g. compare Sweden and Holland (that switched from DR to EPR in 1907 resp. 1917) that are among the happiest countries.

Confirmation by a scatter plot

We see this diagnosis confirmed by the district results, see the scatter chart with horizontally the number of votes per winner and vertically the share of that winning vote in the district. Some districts are uncontested with 100% of the share. The key number is the *electoral quota*, defined as the total number of votes divided by the 435 seats in the House. This is about 246 thousand votes, given by a vertical dashed line.



In equal proportional representation (EPR) a seat in the House would be fully covered by this electoral quota, and practically all dots would lie on this line except for some remainder seats. In

the USA in 2018 only some 11 dots manage to reach this quota, helped by having large districts. Gerrymandering can help to create such districts, so that there can be more districts with fewer voters in which the gerrymandering party hopes to have an easier win, remarkably often with even less than half the electoral quota at 123 thousand.

Another aspect to see is that the winners tend to gain more than 50% of the votes in their districts, which plays into the storyline that they gain a majority in their district, but this still is a make-believe fairy tale because they fall brutally short of the electoral quota for proper representation. While some people speak out against gerrymandering, it is the very point of having districts itself that disenfranchises voters.

Ordinary language instead of scientific precision

Above observation on taxation without representation could be an eye-opener for many. Perhaps two eyes may be opened. This unscientific branch of political science relies upon ordinary language instead of definitions with scientific precision. Physics also borrowed common words like “force” and “mass”, yet it provided precise definitions, and gravity in Holland has the same meaning as gravity in the USA. The “political science on electoral systems” uses the same words “election” and “representative” but their meaning in Holland with EPR is entirely different from the USA with DR. We find that the USA, UK and France are locked into confusion by their vocabulary. The discussion above translates into the following deconstruction of terminology.

- In EPR, we have proper elections and proper representatives. Votes are bundled to go to their representative of choice (commonly of first preference), except for a small fraction (in Holland 2%) for tiny parties that fail to get the electoral quota. Those votes are wasted in the proper sense that the technique of equal proportionality on integer seats cannot handle such tiny fractions. A solution approach to such waste is to allow alliances (apparentement) or at least to require qualified majority voting in the House.
- In DR, what is called an “election” is actually a contest. A compromise term is “election contest”. What is called a “representative” is rather a local winner, often with no first preferences. The legal terminology doesn’t fit political reality and Principal – Agent Theory.

An analogy is the following. Consider the medieval trial by combat or the “judgement of God”, that persisted into the phenomenon of dueling to settle conflicts. A duel was once seriously seen as befitting of the words “judgement” and “trial”. Eventually civilisation gave the application of law with procedures in court. Using the same words “judgement” and “trial” for both a duel and a court decision confuses what is really involved, though the outward appearance may look the same, that only one party passes the gate. It is better to use words that enhance clarity. The system of DR is proto-democratic while proper democracy uses EPR.

Shaun Lawson (2015) laments how elementary democratic rights are taken away but still doesn’t understand how. Now we know. The problem lies first of all with the academia.

Blame also the unscientific cowardice of R.A. Dahl and C.E. Lindblom

Both eyes might be opened even further by a glance at the US presidency, that currently occupies the USA so much, and that creates such needless national division. Arthur M. Schlesinger, “*The Imperial Presidency*”, 1973, was concerned that the US presidency exceeded its constitutional boundaries and was getting uncontrollable. Robert A. Dahl & Charles E. Lindblom, “*Politics, Economics, and Welfare*”, 1976, page 349, take this into account and provide their answer:

“Given the consequences of bargaining just described, what are the prerequisites of increasing the capacity of Americans for rational social action through their national government? (...) Certainly the adoption of a parliamentary system along British lines, or some version of it, may be ruled out, not only because no one knows enough to predict how it would work in the United States, but also because support for the idea is nonexistent. Although incremental change provides better opportunity for rational calculation than comprehensive alternations like substitution of the British system, there is little evidence even of a desire for incremental change, at least in a direction that would increase opportunities for rational calculation and yet maintain or strengthen polyarchal controls.”

This is a statement of unscientific cowardice. A scientist who observes climate change provides model, data and conclusion. Dahl & Lindblom show themselves as being afraid of stepping out

of the line of tradition in the humanities. They fear the reactions by their colleagues. They want to keep saying that the US is a democracy rather than conclude that it is only proto-democratic. They resort to word-magic and present “polyarchy” as a great insight rather than a cover-up for this (p276). The phrase about predicting how a parliamentary system would work out in the USA is silly when the prediction and the experience elsewhere is that it would be an improvement. The US House of Vote Thieves can still appoint a prime minister, if the US president decides to adopt a ceremonial role, which is quite possible within the US constitution. For the checks and balances it would also be better that the president doesn’t interfere with the election of the legislature, but we saw such meddling in 2018. See also Juan Linz, “*The perils of presidentialism*”, 1990. The reference to Britain partly fails because it also has DR while the step towards proper democracy includes the switch to EPR too.

In his obituary of Dahl, Ian Shapiro stated in 2014: “He might well have been the most important political scientist of the last century, and he was certainly one of its preeminent social scientists”, but the truth rather is, obviously with all respect, that Dahl was still locked in the humanities and tradition, that he lacked the mathematical competence to debunk Kenneth Arrow’s interpretation of his “Impossibility Theorem”, and that Dahl’s unscientific cowardice has led “political science on electoral systems” astray, though all remain individually responsible of course even today. Teorell et al. in 2016 e.g. follow Dahl’s misguided analysis and their index puts the USA, UK and France above Holland, even while e.g. at least a third of US voters is being robbed from representation because of this US House of Vote Thieves.

A buddy-system of scientists and scholars from the humanities

If the world of political science would not answer to this criticism and burke it, then this would constitute a white collar crime. The US has a high degree of litigation that might turn this into a paradise for lawyers. Yet in science we follow Leibniz and Tinbergen, and we sit down and look at the formulas and data. Empirical scientists tend to be interested in other things than democracy, and when they haven’t studied the topic then they may have been indoctrinated in highschool like any other voter. Scholars interested in democracy apparently have inadequate training in empirics. The scholars have started since 1903 studying statistics and the distinction between causation and correlation, but a key feature of empirics is also observation, and when it still is tradition that dictates your frame of mind and what you see and understand, then you are still locked in the humanities, without the ability to actually observe what you intend to study. It is crucial to observe in DR that votes are discarded and are not used for representation of first preferences, unhinging the principal-agent relationship. Also FairVote USA is part of the problem, who do not clearly present this analysis and who misrepresent equal proportionality. The obvious first step is that real scientists check the evidence (at MPRA 84482), which would require that scientists develop an interest in the theory of democracy, and that scholars in “political science on electoral systems” overcome their potential incomprehension about this criticism on their performance. A good solution approach is to set up a buddy-system, so that pairs of scientists and scholars can assist each other in clearing up confusions. Some may fear what they might discover and have to explain to US voters, but as someone already said: there is nothing to fear but fear itself.

Thomas Colignatus is the scientific name of Thomas Cool, Econometrician (Groningen 1982) and teacher of mathematics (Leiden 2008), Scheveningen, Holland. <http://thomascool.eu>, ORCID 0000-0002-2724-6647.

The data in the charts are from the Cook Political Report of November 12, with still 7 seats too close to call but presumed called here. I thank Stephen Wolfram for the programme *Mathematica* used here.

For the consequences on the UK and Brexit, see my Comment in the October 2018 Newsletter of the Royal Economic Society.

Evidence

(2018a), “One woman, one vote. Though not in the USA, UK and France”, <https://mpr.ub.uni-muenchen.de/84482/>

PM. Political scientists may be unaware about the econometric approach to Hume’s divide between Is and Ought, see (2018g), p6-7.

Supplementary evidence on inequality / disproportionality of votes and seats

Political science on electoral systems uses measures of inequality or disproportionality (ID) of votes and seats, to provide a summary overview of the situation. Relevant measures are the sum of the absolute differences corrected for double counting, as proposed by Loosemore & Hanby (ALHID), the Euclidean distance proposed by Gallagher (EGID), and the sine as the opposite of R-squared, as proposed by me (SDID). For two parties, or when only one party gets a seat so that the others can be collected under the zero seat, then Euclid reduces to the absolute difference.

The following table gives the US data for 2016 and preliminary 2018. Conveniently we use data and indices in the [0, 10] range, like an inverted report card (Bart Simpson: the lower the better). The ALHID of 2016 gives a low value of 0.63 in a range of 10, but SDID provides a magnifying glass and finds 3.24 on a scale of 10. In 2018 the inequality / disproportionality seems much reduced. Observe that the votes are not for first preferences due to strategic voting, and outcomes thus cannot be compared to those of countries with EPR.

	Parties	Votes	Seats	Differences		
USA[2016] → {Table →	Rep	4.91	5.54	0.63	, ID →	AbsLoosemoreHanbyID → 0.63
	Dem	4.8	4.46	-0.34		SineDiagonalID → 3.24
	Other	0.29	0.	-0.29		
USA[2018] → {Table →	Parties	Votes	Seats	Differences	, ID →	
	Rep	4.58	4.67	0.09		AbsLoosemoreHanbyID → 0.18
	Dem	5.24	5.33	0.09		SineDiagonalID → 1.61
	Other	0.18	0.	-0.18		

Taylor et al. (2014:145) table 5.6 give electoral disproportionalities in houses of representatives in 31 democracies over 1990-2010, using EGID. Proportional Holland has 0.1 on a scale of 10 (there is little need to measure something that has been defined as equal proportional), and disproportional France has 1.95 on a scale of 10. The USA has 0.39 on a scale of 10. Taylor et al. p147 explain the much better performance of the USA compared to France by referring to the US two party system, including the impact of the US primaries. This statement is curious because it doesn't include the mentioning of strategic voting and thus the basic invalidity of the measure. In 2018 more than a third of the votes in the USA are discarded, so their table 5.6 does some number crunching but misses the key distinction between EPR and DR.

Taylor et al. may be thanked for their mentioning of the primaries, because this highlights that the USA labels of "Republican" and "Democrat" are only loosely defined. District candidates have different origins and flavours. A Southern Republican in 2018 may rather derive from the Southern parties who supported slavery and thus be less rooted in the original Republicans of Lincoln 1863 who abolished slavery. Thus, above aggregate measures are dubious on the use of these labels too. In the aggregate we see that district winners are supposed to defend losers of the same party in other districts, but this runs against the notion that a representative ought to represent the own district, and this objection is stronger when the party labels over districts are only defined loosely.

Thus it is better to use the ALHID = EGID and SDID measures per district, and then use the (weighted) average for the aggregate. In each district there is only one winner, which means that the disproportionality is large, and we see more impact from the phenomenon that losing votes are not translated into seats. When we weigh by seats, or the value 1 per district, then we get the plain average. Alternatively we can weigh by the votes per district. We find that the 2018 aggregate ALHID of 0.18 rises to the average 3.50 or 3.64 on a scale of 10. SDID uses a magnifying glass. These outcomes are still distorted by strategic voting, of course, but much better present the dismal representation in the USA.

All in the [0, 10] range	ALHID	SDID
Using aggregate data only	0.18	1.61
Districts, weighted by seats	3.5	6.4
Districts, weighted by votes	3.64	6.57

Supplementary papers

(2001, 2014), "Voting Theory for Democracy", <http://thomascool.eu/Papers/VTFD/Index.html> and <https://zenodo.org/record/291985>

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(2017d), "The performance of four possible rules for selecting the Prime Minister after the Dutch Parliamentary elections of March 2017", March 17 2017, MPRA 77616, <https://mpra.ub.uni-muenchen.de/77616/>

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(2018c), "An overview of the elementary statistics of correlation, R-Squared, cosine, sine, Xur, Yur, and regression through the origin, with application to votes and seats for parliament", <https://doi.org/10.5281/zenodo.1227328>

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(2018j), "Voorstel tot een buddy-systeem van empirische wetenschap samen met nog in geesteswetenschap verkerende politicologie over kiesstelsels (inclusief referenda)", brief aan de KNAW, <http://thomascool.eu/Thomas/Nederlands/Wetenschap/Brieven/2018-11-07-KNAW-buddy-systeem.pdf>

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