



You're probably recycling wrong. This quiz will help you sort it out.

By [Bonnie Berkowitz](#), [Artur Galocha](#) and [Adrian Blanco](#)

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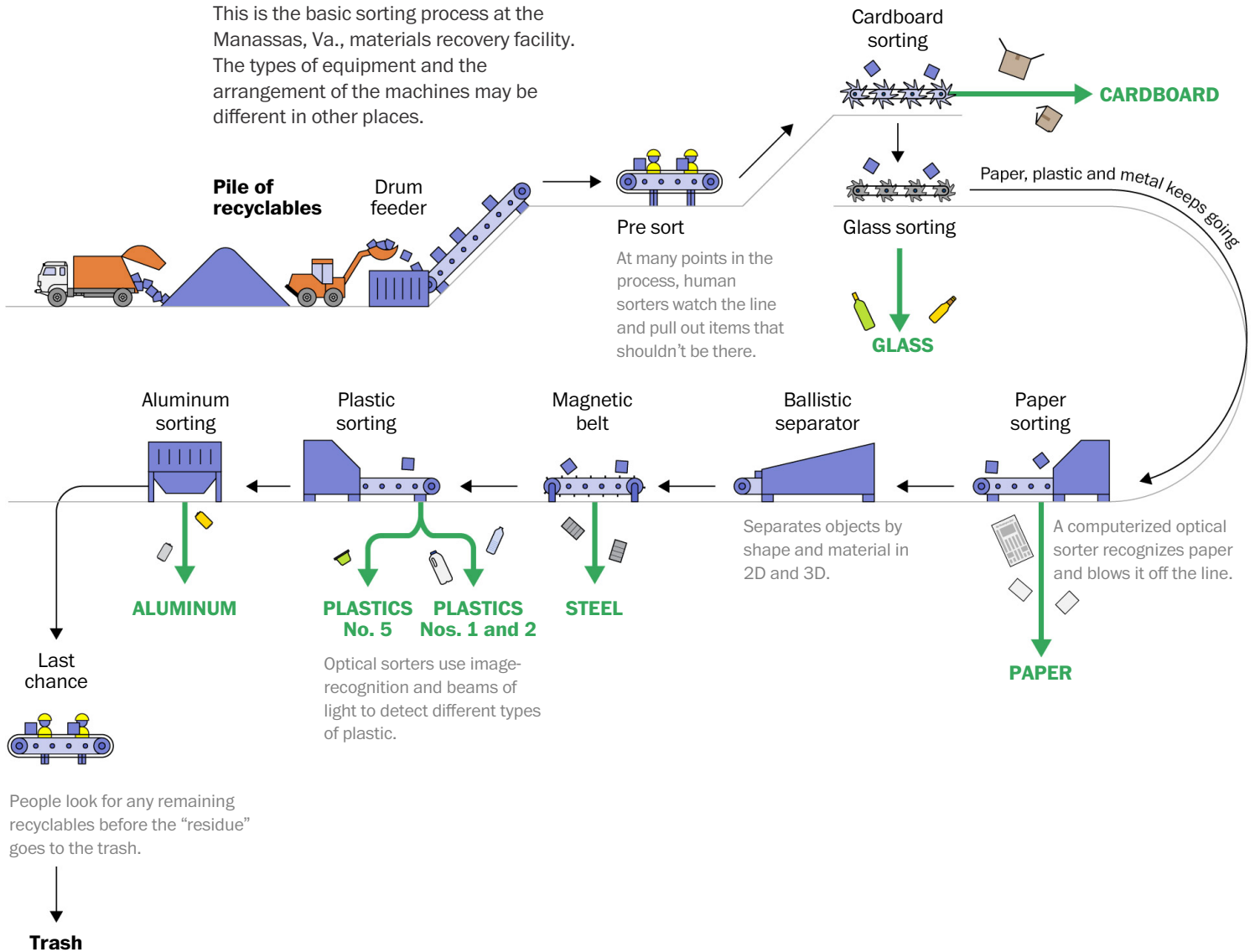
What can go in my blue bin? The answer — and even the bin color — can be different from one neighborhood to the next, so we'll try to help curb the confusion.

Most U.S. residents who have recycling at home can toss items such as cans, bottles, cardboard and old editions of *The Washington Post* together into one container.

That's called single-stream recycling, and while it is convenient for us, it means all those different materials have to be trucked away and sorted before they can

go to a paper mill, a plastics recycler and so on. So far, so good.

This is the basic sorting process at the Manassas, Va., materials recovery facility. The types of equipment and the arrangement of the machines may be different in other places.



The puzzling geographical differences between what can and can't go into a bin arise because not all sorting technology is identical, and not all local markets for recycling materials are the same.

The result is that a lot of people mean well but recycle wrong.

Fortunately, if you know some key information, you can improve your recycling no matter where you live.

QUESTION 1 OF 8

Plastic bags are recyclable, so they just go in the bin, right?

Yes, anything that is recyclable can go in the bin.

No, take plastic bags to the grocery store. ✓

Correct!

Not everything that is technically recyclable can go into your household bin because of how the sorting system works.

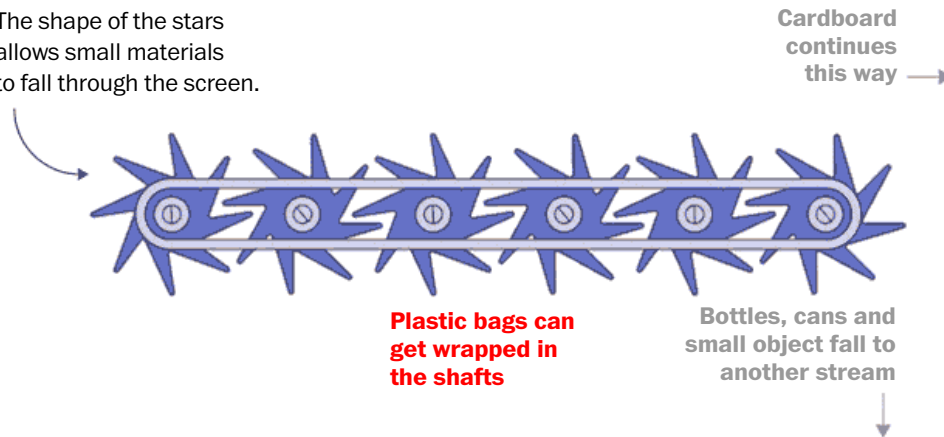
A conveyor belt carries the jumble of items through several machines that separate out typical household items into various bunkers: cardboard, paper, plastic, aluminum, steel and, in some places, glass. There's a lot of tumbling, spinning, whirling and flinging.

Because of plastic bags and other rogue machine-snaggers, such as wire hangers, hoses and holiday light strings, there's also a lot of tangling.

At the Republic Services materials recovery facility in Manassas, Va., where a large portion of Northern Virginia's single-stream recycling is sorted, plastic bags are a perpetual problem, said operations manager Kenny Rich. They wrap around machinery and are especially menacing to star screens, which use rotating rubber star-shaped disks to move cardboard to its bunker.

The star screen is made of **rubber or plastic stars** rapidly rotating.

The shape of the stars allows small materials to fall through the screen.



Rich said the line at his plant has to shut down an average of half an hour a day for people to disentangle bags from the machines. Before new anti-wrap screens were installed in March, the average was 90 minutes a day.

This is also why you shouldn't bag your recycling in plastic, unless you live in one of the very few jurisdictions that requires it.

Many grocery stores have collection containers at their entrances for bags, which then bypass the sorting plant and go directly to a mill.

QUESTION 2 OF 8

Do recyclables have to be totally clean and dry, or more like my-dog-licked-out-all-the-peanut-butter clean and dry?

Squeaky clean and completely dry.

Rinsed – even Spot-cleaned – is usually good enough. ✓

Doesn't matter. Gunk will boil off in the process.

Correct!

The cleaner the better, but items don't have to be immaculate to be recyclable. If you rinse well, shake out the water, and leave less than a teaspoon of residual goo – roughly a bottle cap full – it's fine, Rich said.

If you can't get a container that clean, it's better to throw it in the trash. That extra peanut butter in the jar or soda in the can can attract bugs or rodents to the sorting facility, and it can ooze all over other materials and cause problems for the mills.

That's why grease-soaked, cheese-encrusted pizza boxes shouldn't go into the recycling, but a basically clean pizza box with just a splotch or two of grease is fine.

Waterlogged paper and cardboard should go into the trash as well because wet paper falls apart too easily and clings to other items. Paper mills will reject bales that contain too much moisture.

But don't panic if your bin gets sprinkled on right before the truck comes. Rich said his plant slows down the line on rainy days and tumbles the loads around more to give damp items a chance to air-dry.

QUESTION 3 OF 8

Okay, no bags in the bin. Can all other plastics go in?

- Sure, why not?
- Doesn't matter. Plastics never get recycled anyway.
- No, but bottles and jugs are accepted in most places. ✓**


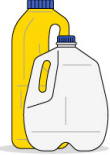












Correct!

There are many [thorny reasons](#) a lot of plastic is not recycled, and the issues are much too large for a quick quiz.

But two types of plastic bottles and jugs have the best chance of being recycled, and they are accepted in bins in more than 80 percent of the country. You can recognize them by the little 1 or 2 [inside the recycling symbols](#) that are stamped onto containers.

What the plastic numbers mean

Nos. 1 and 2 products are recyclable, while No. 5 products are sometimes recyclable. Very few places accept other types of plastics. Below are the different types of plastics and some examples.

						
						
Polyethylene terephthalate	High-density polyethylene	Polyvinyl chloride	Low-density polyethylene	Polypropylene	Polystyrene	Other
Clear water and soda bottles.	Milk jugs or laundry detergent.	Plastic piping.	Plastic bags, food wrapping.	Yogurt containers and margarine tubs.	Foam egg cartons.	Water cooler jugs, baby bottles cups,

Check with your local community's recycling webpage to confirm whether you can put them in your bin.

Clear water and soda bottles are the best examples of No. 1s. Some No. 1 products that aren't bottles, such as clear produce containers, are made differently and are accepted in more than half of communities.

Jugs that contain milk or laundry detergent are common examples of No. 2s. No. 5 products, which include yogurt containers and margarine tubs, are accepted in 60 percent of the country.

Very few places accept other types of plastics. Your local community's recycling webpage or the Recycling Partnership's [chatbot](#) can help you figure out rules for your area.

If you can't stomach putting the rest in the trash, see if you can find a [way to reuse them](#).

QUESTION 4 OF 8

Plastic caps and bottles seem like different things, so should I leave the caps off?

Yes, that will help in the sorting.

Only if the cap is a different color than the bottle.

No, the caps are too small by themselves. ✓

Correct!

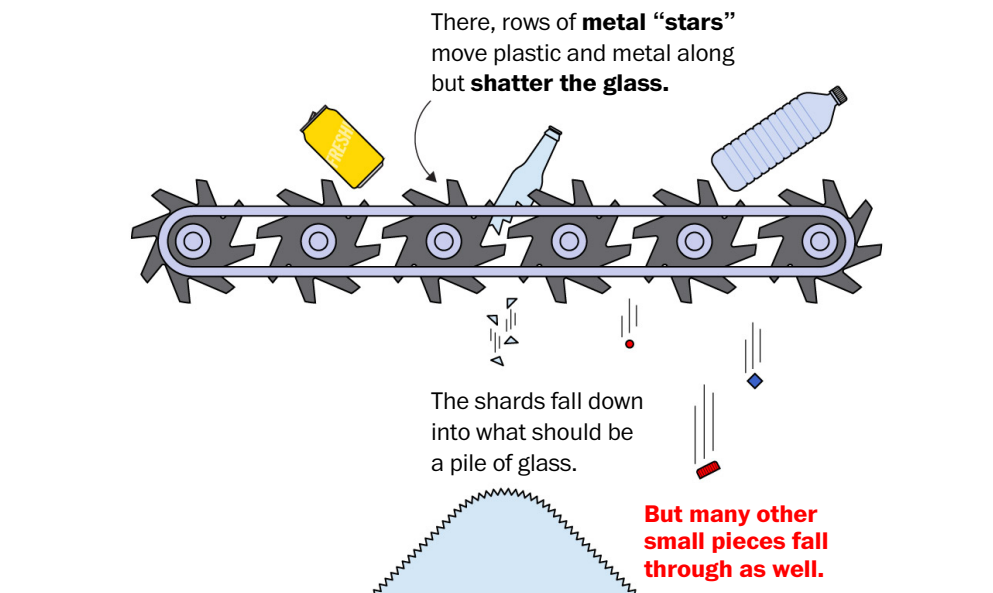
Recycle plastic caps on plastic bottles, even if they're made of different plastics. The bottles are fine without caps, but the caps shouldn't go in alone.

Anything smaller than a credit card may end up someplace it shouldn't be during the sorting process, and usually those little bits end up in the glass. That's "contamination" in recycling terms, when one material accidentally ends up in another.

A little bit of contamination is expected. Rich said it accounts for about 2 to 3 percent of every two-ton bale of metal, plastic, paper or cardboard that leaves his facility.

But contamination is a huge problem for the glass because of the way the sorting process works.

When the cardboard is skimmed off, everything else sinks below onto a **glass breaker**.



Rich said that the "glass" is about 70 percent shredded paper, bottle caps, candy wrappers and other detritus. That's much too contaminated to be of use. At many other sorting plants, the process may differ, but the result is largely the same.

New technologies can clean and separate the glass from the other small bits, but some places don't have that capability yet, said Cody Marshall, chief system optimization officer at [the Recycling Partnership](https://www.recyclingpartnership.org/), a national nonprofit organization dedicated to improving recycling.

So for now, the pile often ends up as alternate daily cover, a layer that is spread on top of active landfills every night to cut down on odors, blowing trash and vermin.

In part because of this problem, some communities no longer allow glass to go in curbside recycling. Check [here](#) or your community's recycling webpage to see what you should do with glass.

QUESTION 5 OF 8

Do I need to remove tape from boxes, staples from catalogues and windows from envelopes?

No, no, and no. ✓

Yes, yes and yes.

Correct!

You should empty and break down cardboard boxes, which will save space in the truck and will make the cardboard easier to sort. If you can, pull off the tape and throw it away, but you don't have to get it all.

Mills process paper and cardboard in pulping tanks with water and chemicals that break it down into fibers. Tape, staples, plastic windows, glue and any other non-fibery things are filtered out before the fibers are dried and pressed into something new.

Milk cartons and similar coated-paper products are different, however, and are not accepted in roughly a third of locations. [Check your address](#) with the Carton Council to see if you can put those in your bin.

QUESTION 6 OF 8

Cans and bottles get crushed anyway, so can I just do that myself to save space in my bin?

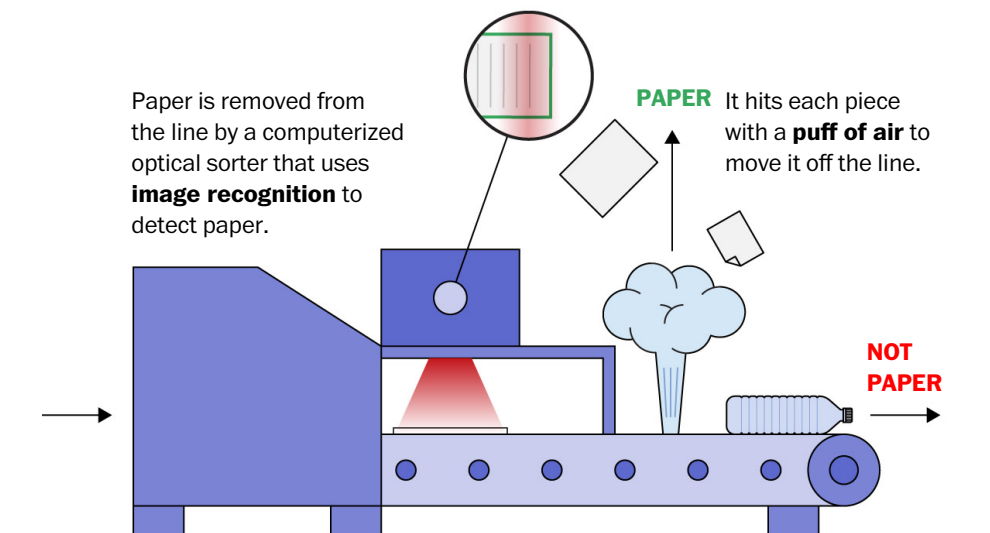
Yes, it's a fun party activity.

Only if you can get them to be very small and flat.

No, the sorting machines may not recognize them. ✓

Correct!

Even though everything will eventually be compressed into bales, pre-smashing won't help and may keep those items from getting recycled.



These sorters work best when **paper is flat and everything else is three-dimensional**, so super-flat things could be mistaken for paper.

But even not-that-flat items such as cans that were squashed top-to-bottom could literally fall through the cracks — or rather through the holes of a ballistic separator. That machine functions like a very bumpy sieve, tossing the plastic and metal on perforated paddles to shake out small debris.

Bottles or cans that have been crushed too small can fall out of the system before they get to the optical sorters that look for plastics or the magnets that pull out the metals.

QUESTION 7 OF 8

What's the worst thing I can put in my bin?

A bicycle.

A battery. ✓

A car bumper.

Correct!

Plenty of other potentially recyclable items shouldn't go in your bin, because they are too large, too sharp, too weirdly shaped or too dangerous for sorting machines to handle.

Batteries are the supervillains, especially lithium-ion ones.

They can explode when damaged and have caused fires that [burned down entire plants](#). Rich said his facility had to be temporarily shut down twice in one week recently because of fires started by lithium-ion batteries.

Batteries and the gadgets they power, such as cellphones, laptops and toys, should be taken to [e-waste collection centers](#) for recycling.

“No batteries in the bin” is one of the very few recycling rules that apply to every single person in the country, Marshall said.

As for the bike and the bumper, all large items and most metals besides food and beverage cans need to be taken to a scrap metal facility, transfer station or landfill for special recycling or disposal. The Environmental Protection Agency recommends checking [Earth911](#) and [RecycleNation](#) to find places you can take those kinds of things in your area.

Sometimes, some truly odd non-recyclables come into sorting centers. Rich said that every hunting season, he gets animal pelts and occasionally entire animals. He’s also seen guns, ammunition, knives, propane cylinders and even a bear spray canister, all of which endanger workers and some of which require police intervention.

Do not be the person who puts live ammo or a dead raccoon in a recycling bin.

QUESTION 8 OF 8

Which handy slogan helps consumers know whether something should go in their recycling bin?

If in doubt, throw it out! ✓

Want to win? Chuck it in!

Never stress, just take a guess!

Correct!

Can the no-longer-wanted thingamabob you're holding in your hand be recycled? Hmm, hard to say. So you drop it in just in case.

Don't do that.

One mistake won't doom your bin contents to the landfill. But regularly putting items in the bin because you hope they might be recyclable is called [wishcycling](#), and it is the cause of a lot of contamination that makes recycling more costly and less efficient.

About 17 percent of what arrives at sorting facilities is contamination and has to go to the landfill as trash, Marshall said. It is much better to throw out something you're not sure about than to risk adding more contamination to the mix.

When done correctly, recycling can be an important tool to preserve natural resources, reduce pollution and even fight climate change.

"Some people don't realize that natural resource extraction — basically the production of materials and products — accounts for almost 50 percent of total greenhouse gas emissions," said Nicole Villamizar, deputy director of the EPA's

resource conservation and sustainability division. "Recycling is worth it. It's important. But it really only works if you recycle right."

Marshall said that if he could convey only two things to people, it would be these: "Your participation genuinely matters and makes a difference. And don't throw the batteries in the recycling."

Ready to fill your bin?

Click on the items you'd put into your recycling bin, and we'll tell you if you're right according to what's accepted in most places.

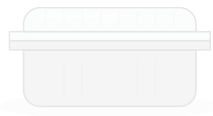
Select items you'd put into your recycling bin. You found **10 out of 10** recyclable items.

YES
... if you put them in the cans and pinch the sides.



Soup can lids

MAYBE
60 percent of places accept 5s. [Check](#) to see.



Plastic takeout containers

YES
Just don't shred it.



Printer paper

YES
... in most places. But not the pumps.



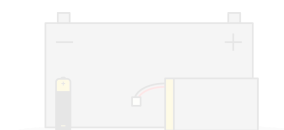
Plastic shampoo bottles

MAYBE
[Check](#) to see.



Glass jars

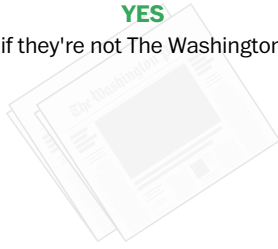
NO
They are Bin Enemy No. 1.



Batteries

YES

Even if they're not The Washington Post.



Newspapers

MAYBE

Not in a majority of places. [Check to see.](#)



To-go paper coffee cups or lids

NO

Take to an e-waste or transfer station.



Small electronics

MAYBE

[Check to see.](#)



Milk cartons

NO

But cardboard ones are fine.



Styrofoam egg cartons

NO

Donate the good stuff.



Clothing

YES

Make sure they're empty.



Beverage cans

NO

Too small.



Creamer cups

NO

They seem like glass, but they aren't.



Ceramics

NO

But a dry cleaner may take them.



Wire hangers

NO

But shipping stores may take them.



Packing peanuts

YES

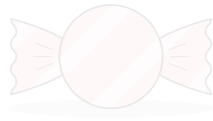
Paper bags are good, too.



Brown packing paper

NO

Too small, too plastic-y.



Candy wrappers

NO

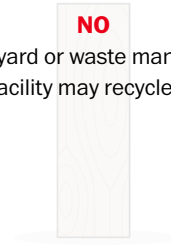
But they can go with grocery bags.



Plastic inflated packing bags and plastic envelopes

NO

A scrapyard or waste management facility may recycle it.



Wood

NO

About 16 percent of places accept it if it's bagged.



Loose shredded paper

YES

But not plastic-padded ones.



Paper envelopes

MAYBE

But not in a majority of the country. [Check to see.](#)



Foil

YES

They're considered mixed paper.



Cereal boxes

YES

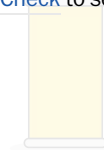
Paper towels aren't recyclable but the rolls are.



Empty paper towel and TP rolls

MAYBE

About half of places accept these. [Check to see.](#)



Aerosol cans

NO

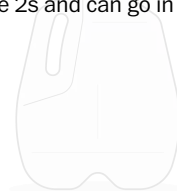
Compost or trash them.



Compostable utensils

YES

These are 2s and can go in most bins.



Milk jugs

NO

Also, eww.



Animal pelts

About this story

Data on how much of the country accepts certain types of recyclables comes from the Recycling Partnership. Additional information from Jack DeBell, Republic Services general manager for the Northern Virginia market, and Marjory Appel, chief marketing and communications officer for the Recycling Partnership.

Story editing by [Tim Meko](#). Copy editing by [Jordan Melendrez](#).

By [Bonnie Berkowitz](#)

Bonnie Berkowitz is a reporter in the Graphics department at The Washington Post who often focuses on Health & Science topics. [Twitter](#)

By [Artur Galocha](#)

Artur Galocha is a graphics reporter focusing on Sports. Before joining The Washington Post in December 2020, he was a graphics editor at El País (Spain). [Twitter](#)

By [Adrian Blanco](#)

Adrián Blanco Ramos is a graphic reporter in the graphics department at The Washington Post. He previously worked at Spanish newspaper El Confidencial focusing on data visualization, data analysis and investigative journalism. He participated in the International Consortium of Investigative Journalist's Paradise Papers investigation. [Twitter](#)

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