

U.S. Appliance Repair Affordability, Reliability & Seasonality 2019



Table of Contents

| Executive Summary | page 3 |
|--|---------|
| Consumers Count On Home Appliances | page 8 |
| Appliance Repair: Industry Overview | page 9 |
| Seasonality of Appliance Repairs | page 10 |
| Budgeting for Appliance Repair | page 13 |
| The Most Common Appliance Problems | page 14 |
| Appliance Repair vs. Replacement | page 17 |
| Cost of Appliance Repairs by Issue | page 18 |
| Cost of Appliance Repairs by City | page 20 |
| Cost of Appliance Repairs by City and Device | page 22 |
| Appliance Brand Reliability | page 25 |
| About the Company | page 32 |

Executive Summary

In this report, we analyze industry-wide data and proprietary data compiled from our own appliance repair jobs to share insights that we think will be valuable for consumers. We show that certain appliances are more likely to break down during the summer months, and we illustrate the average cost to repair each of the major appliances.

The report also includes our first ranking of appliance brand reliability. To create this ranking, we surveyed our nationwide network of appliance repair technicians and recorded their responses to questions about each appliance brand and the reliability, ease of use, and overall value of their products. Our ranking shows a clear advantage for certain brands that received positive feedback from our technicians.

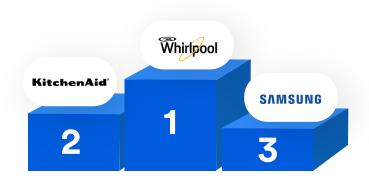
Puls Appliance Brand Reliability Winners

Overall Winners



Refrigerator Recommendation

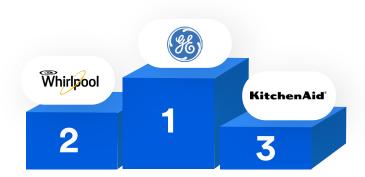
Dishwasher Recommendation





Stove + Range Recommendation

Dryer Recommendation





Washing Machine Recommendation



Consumers need to know which brands are more likely to be reliable when purchasing a completely new appliance. They also should know when an appliance is more likely to break down. Based on our data and confirmed by Google Trends data, we show that refrigerators in particular are most likely to break down during the summer months. For any homeowner

who wants to be prepared, it's a good idea to account for the cost of a refrigerator repair or replacement in his or her summer budget. When the temperature rises, it puts additional pressure on the refrigerator to keep your foods cool inside, and this sometimes results in a broken appliance or a refrigerator that is running warm.

Months with most refrigerator repairs and replacements

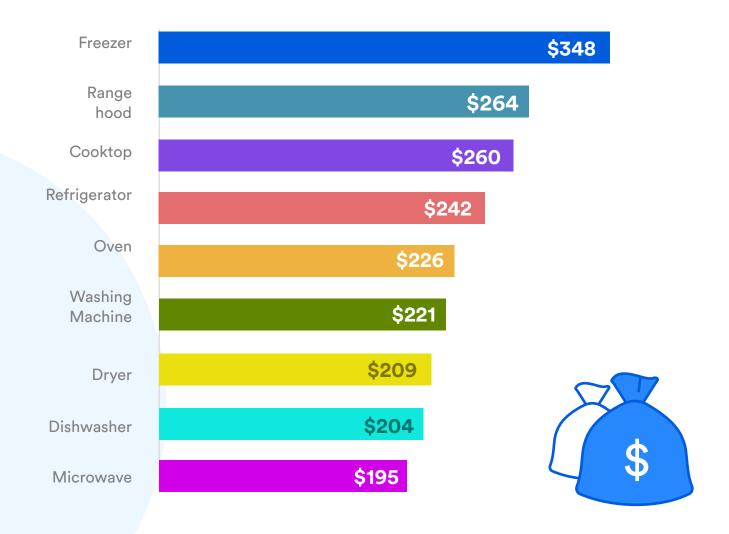


- 2. June
- 3. August
 - 4. May
- 5. September

Homeowners, and all consumers, also need to know how much appliance repairs cost, on average, so they can decide whether to proceed with a repair or to simply replace the machine. Our data shows the cost for an appliance repair can range from \$79 up to \$500. The average repair costs for each of the major appliances range from \$195 (microwave) to \$348 (freezer). Refrigerators typically cost about \$242 to repair,

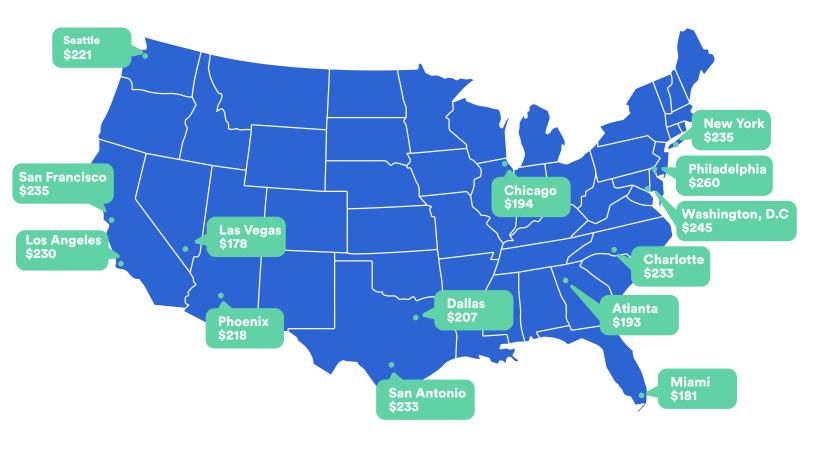
while ovens cost \$226. In the laundry room, a washing machine costs on average \$221 to repair while a dryer costs on average \$209 to repair. Consumers should keep in mind that their own appliance repair may be more or less costly than these numbers, depending on which parts and how much labor are required to fix it.

Average Appliance Repair Cost



Appliance repair costs also vary somewhat by city and region. We examined all of our repair data to show which cities and regions have more expensive repairs and which ones have less expensive repairs. The East Coast has slightly higher repair costs than any other region. In Philadelphia, the average appliance repair costs \$260, in Washington, D.C. it costs \$245, and in New York it costs \$235. Boston is slightly less expensive, with the average repair costing \$223.

On the West Coast, repairs are slightly less expensive, but still higher cost than a typical U.S. city, especially in California. San Francisco has an average appliance cost of \$235, followed by \$234 for San Diego and \$230 for Los Angeles. Seattle is a bit less expensive, with an average cost of \$221.



Average cost of appliance repair by city

The information used in this report comes primarily from Puls' proprietary data. We have hundreds of skilled appliance repair technicians operating in over 25 major metro areas in the United States. These skilled technicians have performed tens of thousands of appliance repair jobs in 2019 alone. Our survey data is pulled from a thoroughly-reviewed survey that was

conducted using a 3rd-party survey tool in May, 2019. Approximately twenty percent of our technicians, from all regions of the U.S., completed the survey. Our appliance brand reliability rankings are based upon the responses to that survey.

Consumers Count On Home Appliances

Nearly every home in the U.S. has at least one appliance, and most homes have a full suite of appliances including a refrigerator, dishwasher, stove, washing machine, and dryer. According to a New York Times report, 80% of households have a washing machine and dryer while almost 90% have a refrigerator and stove.¹

These appliances tend to last 10-15 years, making them a good investment on a per-year basis. However, a typical appliance will need some maintenance and/or repairs during its lifetime to continue operating properly.

That is one reason appliance repair is such a

big business. By repairing, rather than replacing, their appliances, consumers often save hundreds of dollars -- and help the environment at the same time. Every appliance that is repaired means one more appliance that is saved from a landfill and one less appliance that must be manufactured.

Still, repairing an appliance is not inexpensive. Depending on the device, the brand, and the type of problem, a repair company may charge several hundred dollars to get it working again. That makes appliance repair a large industry that employes thousands of people year-round and creates billions of dollars in revenue per year.



¹New York Times Page 8 of 32

Appliance Repair: Industry Overview

The appliance repair business in the United States is a \$5 billion industry. There are more than 60,000 appliance repair businesses, many of which are independent and owner-operated, with fewer than 10 employees. The entire industry employs more than 75,000 people in part-time or full-time work. Workers in this field make an average salary of \$38,160 according to the Bureau of Labor Statistics.

While the appliance repair industry has not been disrupted by technological advancements the way other industries (taxis, newspapers) have, there is no doubt that changes are affecting this industry. Advertising dollars have shifted from offline to online, with Google and Facebook now

receiving a significant amount of appliance repair companies' marketing budgets.

Companies pay an average cost-per-click of about \$7.06 on Google for appliance repair ³ and about \$2.93 on Facebook.⁴

Local businesses and national businesses compete for customers in each market, and many are finding that in the long run, it is the companies that provide the best customer experience -- from booking an appointment to having a technician show up on time to getting a problem fixed quickly -- that are likely to be profitable and continue growing in the future.

\$5bn

Total Revenue in 2018

2.5%

Annual Growth 2013-2018

62,695

Number of Businesses

78,761

Industry Employment

5

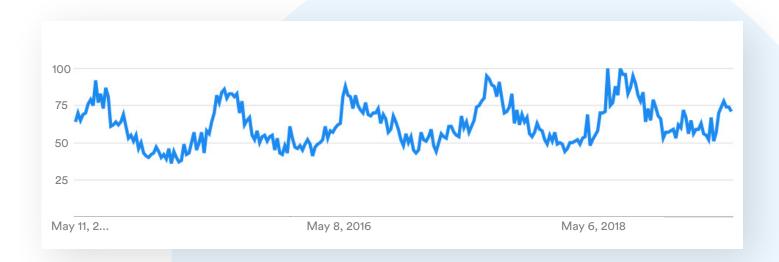
Seasonality of Appliance Repairs

As one might expect, there is a seasonality to appliance repairs. Certain types of repairs peak during the winter, while others peak during the summer months. In the graphs below, we use data from Google Trends, supported by our own proprietary data, to show just how much seasonality affects the demand for certain types of appliance repair.

Homeowners and other consumers need to be aware that certain appliances have a greater likelihood of breaking down during the summer months so they can be prepared for the additional expenses that come with it.

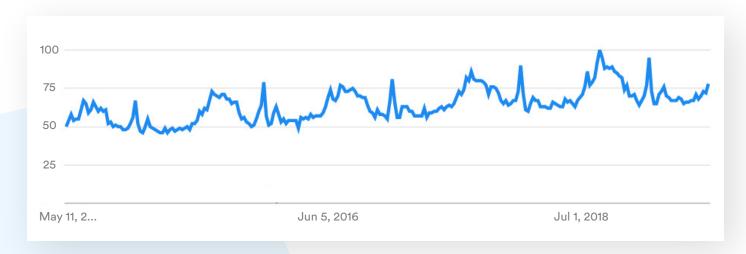
Refrigerator Repair

When summer arrives, refrigerators struggle to keep up with the rising temperatures, and many of them break down. At least, that's what the data shows. The appliance repair industry sees a dramatic increase in demand for refrigerator repair services during these months, with the peak occurring in July every year.



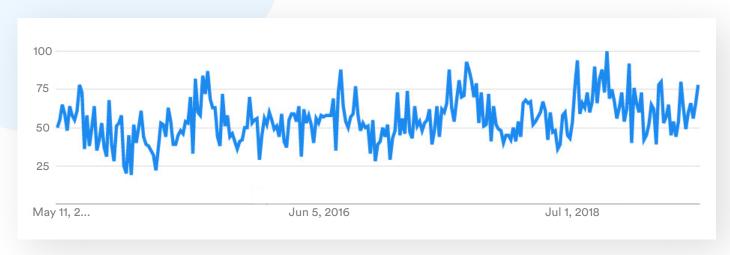
Five-year search volume for "refrigerator repair" 2

Not only are people more likely to search for refrigerator repair in the summer, they are also more likely to search for queries related to purchasing a new refrigerator, such as "refrigerator + brand name", "best refrigerators", etc. The total volume of refrigerator-related searches peaks two times per year: in July and during Black Friday.

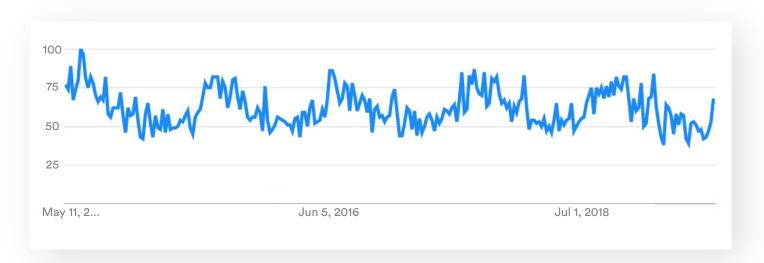


Refrigerator related searches peak in July and during Black Friday sales¹

With so many refrigerators breaking down at this time of year, it's no wonder that people are replacing them. Many consumers begin to search for "refrigerator replacement" and other buying-related queries like "maytag refrigerator" in the summer months.



Searches for "replace refrigerator" typically peak in the summer months²



Searches for "maytag refrigerator" usually peak in July

While it makes sense that refrigerators need to be replaced or repaired during the hottest months, many people are not prepared for this additional expense and have not budgeted for it. Consumers with older refrigerators should include this expense when planning their budget for the year.



Budgeting for Appliance Repair

With summer coming up, consumers need to be prepared to budget for an unexpected appliance repair. But how much is enough to cover the expected costs?

The most likely appliance to break down during the summer is the refrigerator, and those repairs could cost anywhere from \$100-\$500. If a brand new refrigerator is needed, the cost could be \$1,000 or more.

Most people do not have \$1,000 ready for such a purchase, which means they would

likely need to pull from their emergency fund or retirement funds. It's a good idea for consumers to include an "appliance repair/replacement fund" separate from their other emergency savings.

It's important for consumers to be aware of the potential costs of appliance repair or replacement, especially as summer months approach.

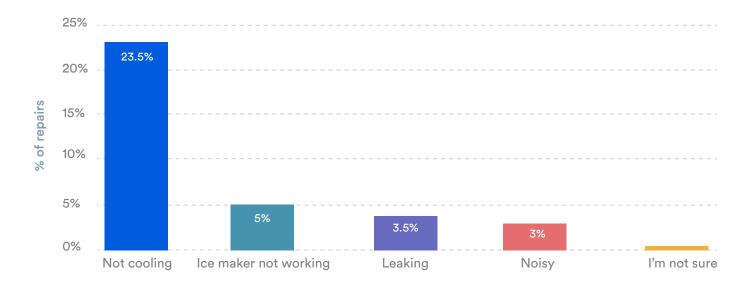


The Most Common Appliance Problems

Is your refrigerator more likely to run hot or start leaking? Is it more common for a dryer to stop heating properly or refuse to turn on? These are the kinds of questions most consumers don't know the answer to. However, based on our data and what we've seen with our appliance repair customers, we can say which type of problem is most likely to occur for each appliance.

For refrigerators, the most common problem we encounter -- by far -- is that the machine is not cooling properly (23%). After that, the most common problems are that the ice maker is not working (5%) or the machine is leaking (3%).

Most common refrigerator issues¹

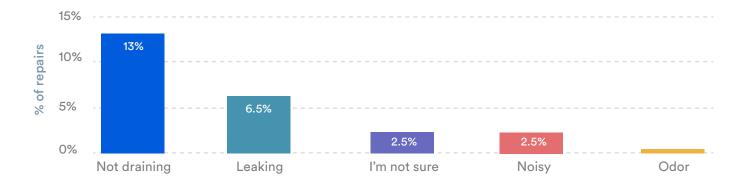


When it comes to dishwashers, the most common problem is that it will not drain -- in other words, the machine is flooded with water (13%). The second most common

problem is that the machine is leaking (6%). The third-most common problem is that the machine is making too much noise (2%).

¹ Puls Data Page 14 of 32

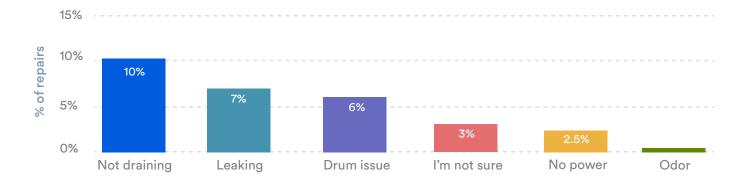
Most common dishwasher issues 1



Similar to dishwashers, the most common problem with washing machines is that they will not drain (11%). After that, leaking (7%) and issues with the drum (6%) are the next-most

common problems. A washing machine that won't start is a relatively uncommon problem (3%).

Most common washing machine issues²

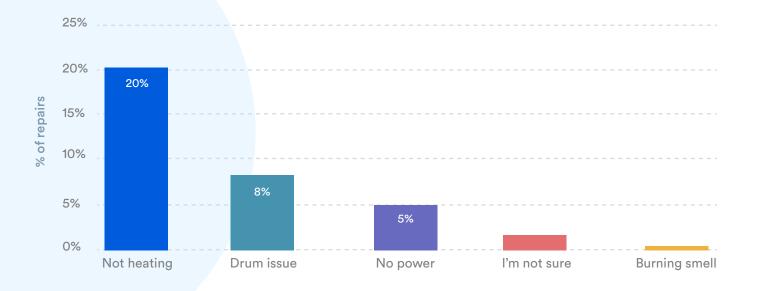


¹ Puls Data, ² Puls Data Page 15 of 32

For dryers, the most common problem is that it is not heating properly (20%). After that the next-most common problems are issues with

the drum (8%) or the machine not starting properly (5%).

Most common dryer issues





¹ Puls Data Page 16 of 32

Appliance Repair vs. Replacement¹

One of the most pressing questions when an appliance breaks is whether to repair the machine or replace it entirely. The answer depends on several factors, including the age of the appliance, the cost of the repair needed, and

how much the appliance originally cost (brand new). The graphics below show a few comparisons of common appliance issues, and which choice is preferrable, based on these factors:

Example 1

Let's say you have a stove that is 3 years old and requires a repair of some internal part. Replacing your stove would cost approximately \$1,000 plus \$200 or more in fees, taxes, and installation costs. Your new stove would last on average about 12 years. Repairing your stove would cost approximately \$179-\$279. If your stove is 3 years old, we would recommend repair instead of replacement. Your stove should last another 9 years, which means your true repair cost would be between \$22-\$30 per additional year of use.



Example 2

You have a stove that is 12 years old and requires a repair of some internal part.

Replacing vour stove would cost approximately \$1,000 plus \$200 or more in fees, taxes, and installation costs. Your new stove would last on average about 12 years. If your stove is 10+ years old, we recommend replacement instead of repair. In this case, your stove is only expected to last another 2 years, which means your repair would cost between \$100-\$200 per additional year of use. If you choose to replace it, your new stove should last about 12 years, which means it would cost you about \$83-\$95 per year of use.

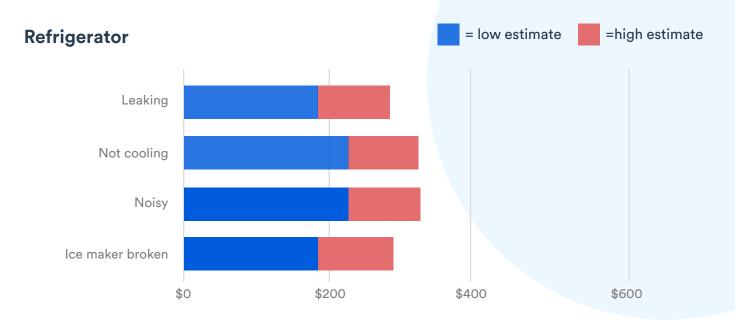


¹ Puls Data Page 17 of 32

Cost of Appliance Repairs by Issue

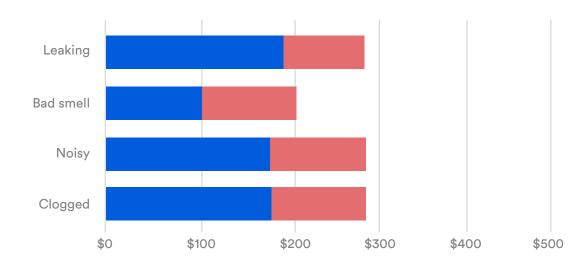
The cost of appliance repair varies widely depending on the type of appliance, what is wrong with the machine, and the specific parts and labor needed to fix the issue. Some minor appliance repairs can be

completed for \$79 or less, while major repairs can cost up to \$2,000 or more. The charts below show the most common symptoms for each type of appliance along with an expected price range for the repair, based upon our proprietary data.



Refrigerator repair cost for common issues 1

Dishwasher



Dishwasher repair cost for common issues²

¹Puls Data, ²Puls Data Page 18 of 32

Oven/Range



Range & oven repair cost for common issues

Dryer



Dryer repair cost for common issues¹

Washing Machine



Washing machine repair cost for common issues ²

¹Puls Data, ²Puls Data Page 19 of 32

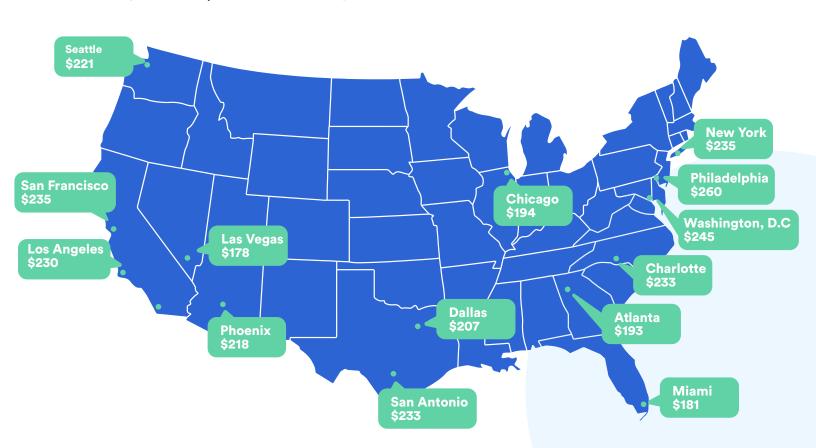
Cost of Appliance Repairs by City

The cost of getting your appliance repaired depends on several factors, including the cost of labor, the cost of parts, and the cost of shipping plus transportation. While the actual cost of appliance parts does not vary wildly from one city to the next, the cost of labor, shipping, and transportation can and does vary significantly between cities.

It's important to note that there are other differences that can shape these results, from the different types of appliances in one region of the country versus another region, the age of the homes, the severity of the local climate, and

other conditions outside of a homeowner's control.

With that said, our data shows a clear pattern: appliance repair is more expensive along the two coasts. This is not entirely surprising, given that many goods and services follow the same pattern. The East Coast has slightly higher repair costs than any other region. In Philadelphia, the average appliance repair costs \$260, in Washington, D.C. it costs \$245, and in New York it costs \$235. Boston is slightly less expensive, with the average repair costing \$223.

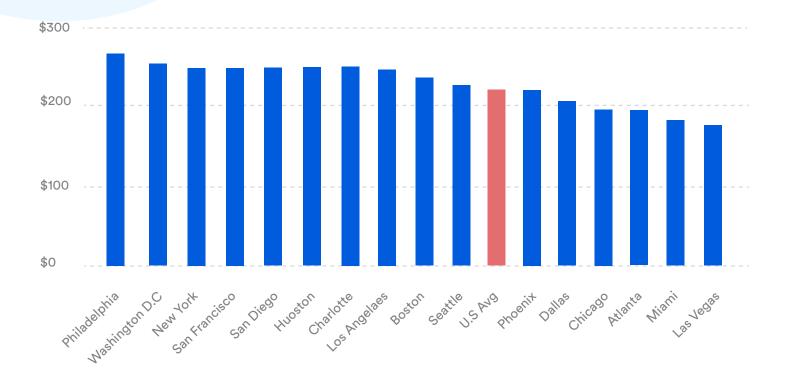


Average cost of appliance repair by city 1

On the West Coast, repairs are slightly less expensive, but still higher cost than a typical U.S. city, especially in California. San Francisco has an average appliance cost of \$235, followed by \$234 for San Diego and \$230 for Los Angeles. Seattle is a bit less expensive, with an average cost of \$221.

In the rest of the country, the average repair cost varies. Residents of Chicago and Atlanta can be happy to know that their average repair comes in at a lower cost of just \$194 and \$193, respectively. Las Vegas has the lowest average repair cost, at just \$178. See the complete range of costs in the graph below:

Avg. Appliance Repair Cost 1



¹Puls Data Page 21 of 32

Cost of Appliance Repairs by City and Device

You are likely to pay more to repair certain appliances and less for others. This has to do with the complexities of each machine and the most common reasons for them to stop working. Refrigerators typically require the most costly repairs. Our data shows that the average cost of a refrigerator repair is \$242 nationwide.

Repairing an oven costs \$226 on average, while a dishwasher costs \$206 on average. The microwave is the least costly to repair, at an average cost of \$195. The laundry appliances are a bit more costly, with average dryer repairs running \$209 and average washing machine repairs running \$221.

\$348

Freezer

\$264

Range hood

\$260

Cooktop

\$242

Refrigerator

\$226

Oven

\$221

Washing Machine

\$209

Dryer

\$204

Dishwasher

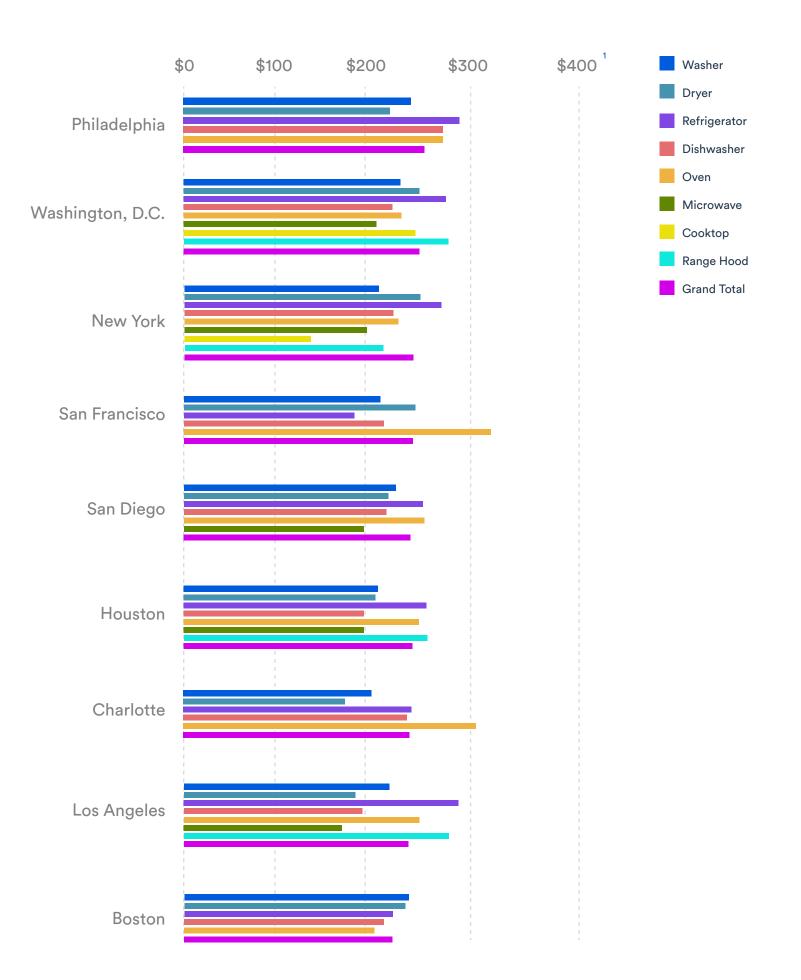
\$195

Microwave

\$220

All appliances

¹Puls Data Page 22 of 32





Appliance Brand Reliability

Puls is a home services company with a network of skilled technicians nationwide. We have hundreds of appliance repair technicians and we provide appliance repair in 22 cities, including the biggest cities in the U.S.

Many of our technicians have decades of experience repairing appliances and they have tremendous insight into the strengths and weaknesses of each appliance brand. This year, we are launching our first annual rankings of appliance brands on reliability, ease of use, and value for the money.

The rankings below are based on a nationwide survey of our technicians and reflect their views of each appliance brand. We included the following brands in our survey: Bosch, Frigidaire, Kenmore, KitchenAid, LG, Maytag, Samsung, Sears, and Whirlpool.

Reliability of appliances

One of the most important factors when considering a purchase of a new appliance is how reliable it will be. In other words, what are the odds that it will break down? And if it does break down, how likely is it to be easily fixed.

We asked our technicians, and here are the results: Whirlpool and Maytag tied for first place while KitchenAid came in second.

Whirlpool is one of the longest-standing and most well-known brands in the appliance repair industry, and Maytag is now owned by the Whirlpool Corporation, so it's not a surprise that these two familiar names come out on top for reliability.

But perhaps the bigger factor in their top ranking here is that their machines are simpler than some of the newer brands which are considered more modern by consumers.

Winners

Whirlpool & Maytag





Runner up

KitchenAid



Ease of use of appliances

Since our technicians work on appliances all day, every day, they have a good sense of which ones are easiest to use from a consumer point of view. This is a very important factor when purchasing a new appliance, because it determines how much you will enjoy your new refrigerator, dishwasher, etc.

For that reason, we asked our technicians to rate the brands on ease of use.

Whirlpool was a clear winner among our respondents while Maytag and KitchenAid came in second place.

As mentioned above, a common theme for these three brands is that their machines are simple and sturdy, without the fancier features that define some other brands. Because of this, they are straightforward to use and to repair.

Winner

Whirlpool



Runners up

Maytag & KitchenAid



KitchenAid[®]

Value for the money

For most consumers, when purchasing an appliance, the decision ultimately comes down to what is the best use of their allocated budget. Whether you have \$500 or \$1,500 to spend on a new appliance, you want to get the best value for each dollar.

To understand which appliance brand ranks highly on value for the money, we asked our technicians to rate each one.

Whirlpool again finished first, according to our respondents, and Maytag again finished second.

This result sums up the previous two categories. Whirlpool machines, being both reliable and easy to use, have a head start in this category. And because their prices are typically in the same range as other brands in our survey, if not lower, they represent a good value.

Winner

Whirlpool



Runner up

Maytag



Refrigerator recommendation

Buying a good refrigerator is terribly important because you really don't want to wind up with a broken fridge and spoiled food in the middle of a busy day. We asked our appliance repair technicians which brand of refrigerator they usually recommend to their customers, and Whirlpool was the winner by quite a large margin. See the full results in the graph below.



Whirlpool

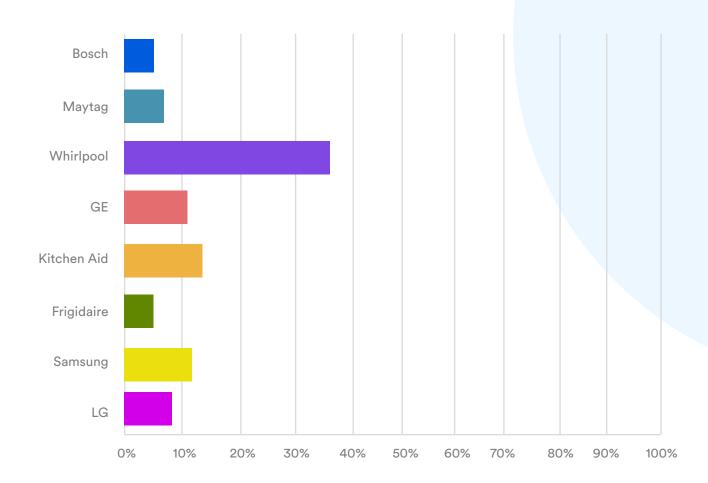


Runner up

KitchenAid

KitchenAid[®]

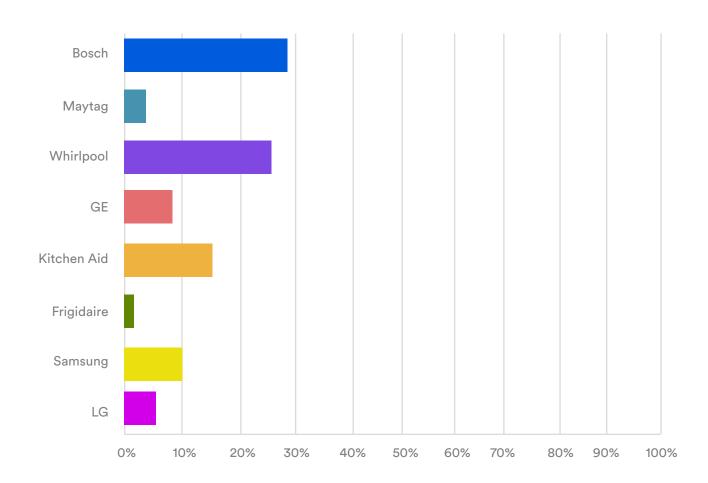
Which brand do you recommend when buying a new refrigerator?



Dishwasher recommendation

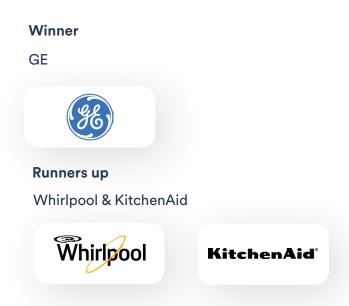
When buying a dishwasher, there are numerous things to think about: the features you want, the number of racks, the size, and of course, the brand. No one wants to wash dishes by hand due to a broken dishwasher, or see them pile up in the sink. So we asked our appliance repair technicians which brand they usually recommend to their customers. Bosch and Whirlpool were chosen more frequently than any other brand, making them the co-winners of this category. See the full results in the graph below.



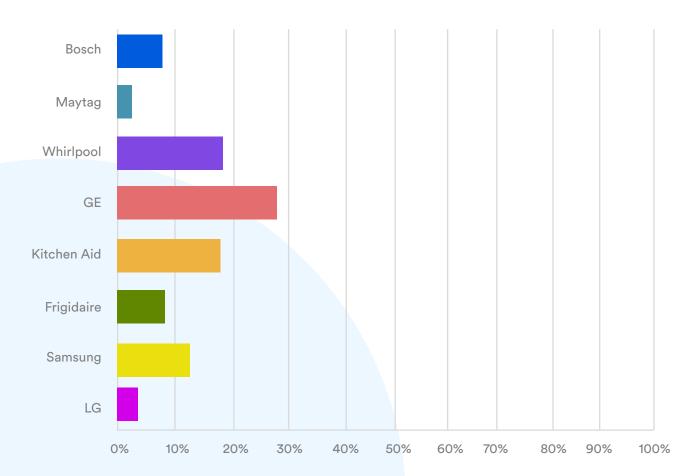


Range or stove recommendation

A range, oven, stove, or cooktop is a little different than other appliances. It requires heating food to extreme temperatures safely and consistently. For that reason, it's crucial to buy one that is reliable and high quality. We asked our appliance repair technicians which brand they usually recommend to their customers. GE was rated as the best brand in this category. The company makes ranges, stoves, and cooktops at various price points, giving consumers flexibility to choose one that would fit their budget. See the full results in the graph below.

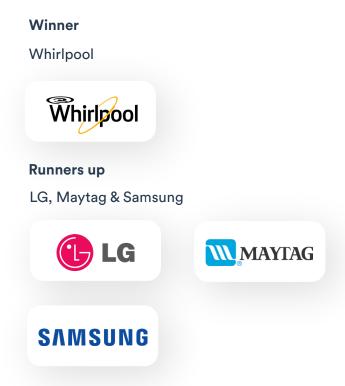


Which brand do you recommend when buying a new Range or stove?

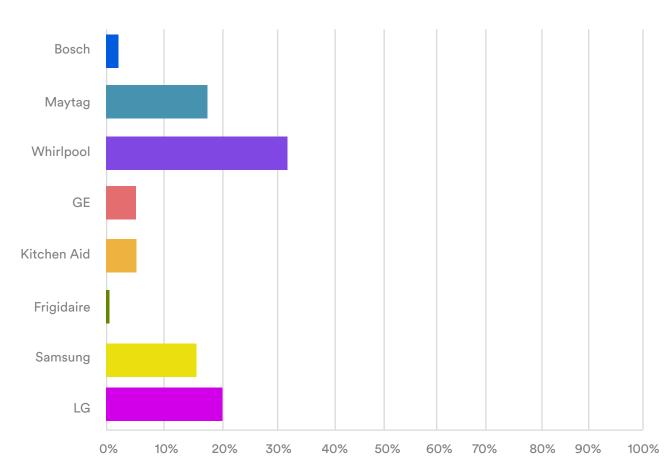


Dryer recommendation

A dryer is something we often take for granted these days. We throw our clothes in, set the timer, and walk away. But having the reliability of a working dryer depends on choosing the right one. We asked our appliance repair technicians which brand they usually recommend to their customers. Whirlpool was chosen more frequently than any other brand, followed closely by LG, Maytag, and Samsung. See the full results in the graph below.



Which brand do you recommend when buying a new Dryer?



Washing machine recommendation

Your washing machine might be one of your most prized possessions, simply for the of getting clothes convenience cleaned efficiently and effortlessly. To avoid making trips to the laundromat when a washing machine breaks down, you definitely want to purchase one that will last a long time without needing repairs. We asked our appliance repair technicians which brand they usually recommend to their customers. Once again, Whirlpool was rated higher than any other brand, making them the winner of this category. See the full results in the graph below.

Winner

Whirlpool



Runners up

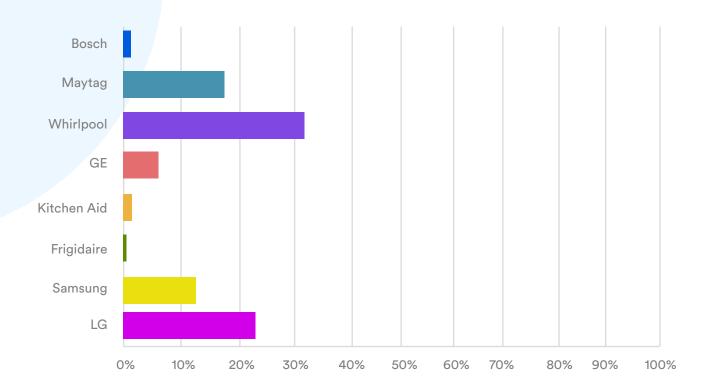
LG, Maytag & Samsung







Which brand do you recommend when buying a new Washing machine?



About the Company

Puls is a San Francisco based company with more than 4,000 fully vetted technicians across the nation - from Los Angeles, CA, to Raleigh, NC, and hundreds of cities in between. Whether you have a brand new TV that needs mounting, an old refrigerator that needs repair, or a garage door that won't open, in today's fast-moving world it should be easy to get it fixed so you can get on with your life. That's where we come in. Our strength is in our people and our



technology. We have engineered a powerful platform that matches our trusted technicians with customers like you. At the click of a button, we spring into action and send a qualified professional to your doorstep. Go to www.puls.com to learn more.

Authors

Benjamin Feldman Head of Content



Benjamin has a decade of experience creating content for startup companies, large businesses, and public sector organizations. As Head of Content at Puls, he oversees the company's content strategy, which is focused on educating consumers about topics appliance repair. He eniovs providing information that helps people have more peace of mind.

Roshik GanesanData Analyst



Roshik is an experienced data analyst who has provided strategic guidance to many different startups and large firms. As a Data Analyst at Puls, he provides valuable insights to a cross-section of teams within the company. He enjoys using data to identify and solve problems.