



Eating Healthy on a Budget

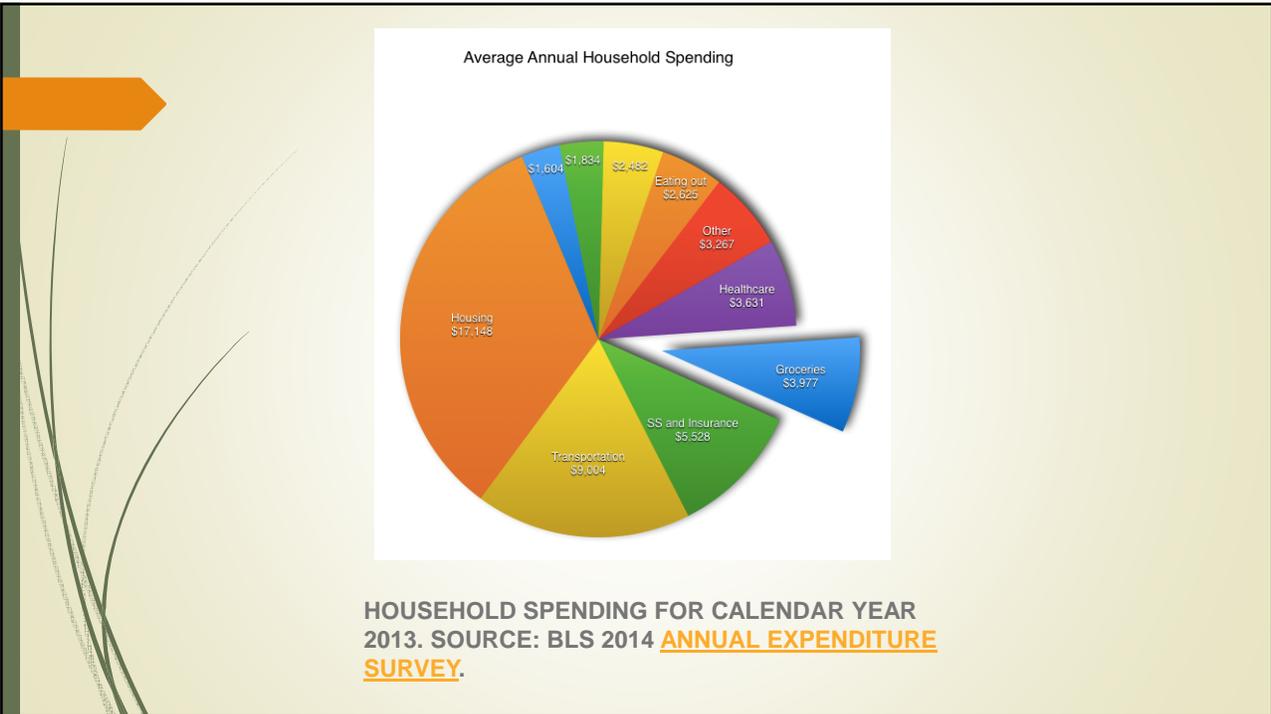
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Grocery Spending

- ▶ According to the U.S. Bureau of Labor Statistics, the average American family spent **\$4,000 per year on groceries** in 2013, or about \$330 each month or \$82.50 per week
- ▶ That's up 2% from the prior year, and makes **food the fourth biggest budget priority** behind housing (rent or mortgage), transportation (car payments, gas), and personal insurance and pensions (including Social Security taxes).
- ▶ Americans report spending \$151 **on food per week** (restaurants, take out, etc) on average.
- ▶ One in 10 Americans say they spend \$300 or more per week and, at the other extreme, 8% spend less than \$50.



- ▶ The lowest-income families, those who make less than \$10,000 per year, spend about \$200 per month on groceries.
- ▶ That accounts for a disproportionate 11% of their budget.
- ▶ At the highest income levels, those with an average salary above \$150,000, spend roughly \$500 per month on groceries, or 6% of their total spending.
- ▶ There are companies that focus on serving each of these grocery-shopping demographics.
- ▶ At the high end of the income scale is **Costco**, the warehouse giant that is leading all national retailers in sales growth.
- ▶ At the low end stores like Dollar Tree sell very cheap food

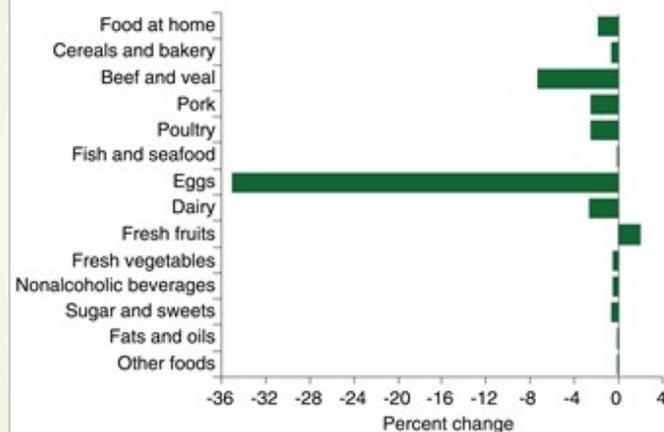
Grocery Prices

- ▶ Retail food prices partially reflect farm-level commodity prices, but packaging, processing, transportation, and other marketing costs, have a greater role in determining prices on supermarket shelves and restaurant menus.
- ▶ Monthly price swings in grocery stores for individual food categories, as measured by the **Consumer Price Index (CPI)**, tend to smooth out into modest yearly increases for food in general.

Grocery Prices

- ▶ The food-at-home CPI for the third quarter of 2016 was 1.9 percent **lower** than the food-at-home CPI for third quarter 2015.
- ▶ **Grocery store prices decreased on average**, as many at-home food categories decreased in price, with eggs, beef and veal, dairy, pork, and poultry posting the largest decreases.
- ▶ Egg prices saw the largest decrease, falling 35%, reflecting the recovery in the industry after the 2015 supply shock caused by the Highly Pathogenic Avian Influenza.

Price changes for selected at-home food categories, July-September 2015 to July-September 2016



Source: USDA, Economic Research Service using data from the U.S. Bureau of Labor Statistics.

Food Dollars

- For a typical dollar spent in 2014 by U.S. consumers on domestically produced food, including both grocery store and eating out purchases, **32.7 cents went to pay for services provided by foodservice establishments, 15.3 cents to food processors, and 12.9 cents to food retailers.**
- At 5.1 cents, energy costs per food dollar are up 16% since 2009, but still below the 6.8 cents that energy costs contributed in 2008.

2014 Food dollar (nominal): Industry Group



Note: "Other" includes two industry groups: Agribusiness plus Legal & Accounting.
Source: USDA, Economic Research Service, Food Dollar Series.



Eating Healthy on a Budget

- ▶ Getting the most nutrition for your food budget starts with a little **extra planning before you shop**.
- ▶ There are many ways to save money on the foods that you eat.
- ▶ Here are some budget-friendly tips for eating right.



DON'T GO TO THE STORE HUNGRY!

- ▶ Brian Wansink from Cornell University (Mindless Eating)
- ▶ Researchers found that people who hadn't eaten all afternoon **chose more high-calorie foods** in a simulated supermarket than those who were given a snack just before online food shopping.
- ▶ And in a real grocery store, shoppers bought a **higher ratio of high-calorie foods to low-calorie** ones in the hours leading up to dinnertime compared to earlier in the day, the study team observed.
- ▶ "Even short-term fasts can lead people to make unhealthy food choices," said Amy Yaroch, head of the Gretchen Swanson Center for Nutrition in Omaha, Nebraska.
- ▶ "**Don't go shopping when you're hungry and you don't have a list**, because you're just going to buy all sorts of junk food," advised Yaroch



Plan what you're going to eat

- ▶ Before you head for the grocery store, plan your meals and snacks for the week.
- ▶ Review recipes for what ingredients are needed.
- ▶ Check to see what foods you already have and make a list of what you need to buy.
- ▶ When you shop with a list, you will be less likely to buy extra items that are not on it.



Eating Healthy on a Budget

- ▶ The most important thing when you are on any kind of budget is to **plan ahead**.
- ▶ Write up a menu each week, shop with a list, and keep your budget in mind.
- ▶ **Clip coupons and make recipes from those items**
- ▶ Prioritize your purchases based on the things that were the most important to buy **organic**.
- ▶ You may not be able to buy 100% organic to begin with, but every little bit helps.
- ▶ **Environmental Working Group**



Determine where to shop

- ▶ Check the local newspaper, online and at the store for sales and coupons, especially when it comes to more expensive ingredients, such as meat and seafood.
- ▶ While at the store, compare prices of different brands and different sizes of the same brand to see which has a lower unit price.
- ▶ The unit price is usually located on the shelf directly below the product



Focus on nutritious, low-cost foods

- ▶ Certain foods tend to be less expensive, so you can make the most of your food dollars by finding recipes that use the following ingredients: beans, peas, and lentils; sweet or white potatoes; eggs; peanut butter; canned salmon, tuna or crabmeat; grains such as oats, brown rice, barley or quinoa; and frozen or canned fruits and vegetables



Watch portion sizes

- ▶ Eating too much of even lower cost foods and beverages can add up to **extra dollars and calories**.
- ▶ Use smaller plates, bowls and glasses to help keep portions under control.
- ▶ **Fill half your plate with fruits and vegetables** and the other half with whole grains and lean meat, poultry, seafood or beans.
- ▶ This is an easy way to eat a balanced meal while controlling portions and cost.



Food Waste

- ▶ An estimated 25 – 40% of food grown, processed and transported in the US will never be consumed.
- ▶ When food is disposed in a landfill it rots and becomes a significant source of methane - a potent greenhouse gas with 21 times the global warming potential of carbon dioxide.
- ▶ More food reaches landfills and incinerators than any other single material in municipal solid waste (MSW).



Landfills are getting full because of waste

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- ▶ Getting food from the farm to our fork eats up 10% of the total U.S. energy budget, uses 50% of U.S. land, and swallows 80% of all freshwater consumed in the United States.
 - ▶ Yet, 40% of food in the United States today goes uneaten.
 - ▶ This not only means that Americans are throwing out the equivalent of \$165 billion each year, but also that the uneaten food ends up rotting in landfills as the single largest component of U.S. municipal solid waste where it accounts for a large portion of U.S. methane emissions.
 - ▶ Reducing **food losses by just 15%** would be enough food to feed more than 25 million Americans every year at a time when one in six Americans lack a secure supply of food to their tables.

The Natural Resources Defense Council (NRDC)



Food Waste

- ▶ The average American consumer discards 10 times as much food as the average Southeast Asian.
- ▶ A report out of the U.K. estimates that if food scraps were removed from landfills there, the level of greenhouse gas abatement would be equivalent to removing one fifth of all the cars in the country from the road.
- ▶ Source: WRAP, "New Estimates for Household Food and Drink Waste in the U.K.," 2011, www.wrap.org.U.K./downloads/New_estimates_for_household_food_and_drink_waste_in_the_U.K._FINAL_v2.110a9ba6.11460.pdf.



Make your own healthy snacks

- ▶ Convenience costs money, so many snacks, even healthy ones, usually cost more when sold individually.
- ▶ **Make your own snacks** by purchasing large tubs of low-fat yogurt or cottage cheese and dividing them into one-cup containers.
- ▶ For trail mix, combine nuts, dried fruit and whole grain pretzels or cereal; store small portions in airtight containers.
- ▶ Air-popped popcorn and whole fresh fruits in season also tend to cost less compared to pre-packaged items.

Cook more, eat out less

- ▶ Many foods prepared at home are cheaper and more nutritious.
- ▶ Also, convenience foods like frozen dinners, pre-cut vegetables and instant rice or oatmeal will cost you more than if you make them from scratch.
- ▶ Go back to basics and find a few simple and healthy recipes that your family enjoys
- ▶ Bulk cook/prepare on weekends or choose one day of the week

Meat

- ▶ Well-sourced meat can often be the most intimidating part of a limited food budget, but you don't have to compromise on the quality of the meat you are buying.
- ▶ Look for the cheapest cuts of meat, and don't waste anything. Bone-in cuts are often the best deals and more flavorful than other cuts. They can take a bit longer to cook, but are worth it for the taste.
- ▶ The bones can also be saved to make bone broth – healing by itself or a great base for a soup.
- ▶ Find out when your grocery store marks down the meat close to the sell-by date, because often you can get high quality meat and a variety of cuts for a fraction of the regular price.
- ▶ That meat can either be cooked the day you buy it or safely frozen for up to three months.

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- ▶ Buying meat in bulk from local farms is often the cheapest way to get high quality meat per pound.
 - ▶ You do need a chunk of cash up front and enough freezer space to handle the purchase, but if you have these resources it's a great option.
 - ▶ You can also consider going in with a group of friends on a bulk purchase.
 - ▶ That means less money up front and less freezer space needed per person, but you still reap the financial rewards of bulk purchasing.



Picking and choosing your produce

- ▶ For produce, use the Environmental Working Group's "Dirty Dozen" and "Clean Fifteen" lists.
- ▶ Buy as much local and seasonal produce as possible.
- ▶ Seasonal produce is not only priced better, but it also tastes significantly better than out-of-season produce.
- ▶ Frozen fruits and vegetables can be a great option as well. Often you can get great prices, and some discount markets even sell organic frozen fruits and vegetables.
- ▶ Just like the meat, produce that needs to be used soon is often marked down.

Use by? Sell by?

- ▶ Two food industry groups, the Food Marketing Institute and the Grocery Manufacturers Association, push grocers and food makers across the industry to limit food expiration labels to two terms: "Best if used by" and "use by."
- ▶ The effort has the backing of Walmart, Dean Foods and Wakefern Food, which operates more than 250 ShopRite stores in six states.
- ▶ Harvard Law School's Food Law and Policy Clinic also stands by the idea.

Expiration Date Confusion

- ▶ "Best if used by," the groups said, will apply mostly to non-perishable foods. The groups define the term as describing **product quality, where the product may not taste as good as it would if it were fresher but is still safe to eat or drink.**
- ▶ The "use by" date will apply for perishable foods such as meat, fish and cheese on which **safety comes into play.**
- ▶ Foods with an expiration date should be consumed by the date listed on the package or thrown away.
- ▶ This is generally not how consumers interpret these dates.
- ▶ Many people believe the "best if used by" indicates a product's safety and discard food as soon as it reaches its expiration date.

Expiration Date Confusion

- ▶ “Best before” and “best if used by” dates relate to food quality, including taste, texture, and appearance, but **do not** indicate that eating product past that date will be harmful



Bulk Cooking

- ▶ Bulk cook from what you buy then prepare things like soups, sauces, and casseroles.
- ▶ Freeze the leftovers, or freeze portions for days when you're too busy to spend much time in the kitchen.
- ▶ Some vegetables and fruits can be sliced and frozen in a single layer on a cookie sheet, and then transferred to an airtight container in the freezer.
- ▶ Vegetables can be fermented, which not only gives them a longer shelf life but also provides you with gut-healing foods for the month.
- ▶ Canning and dehydrating are also great options for storing food if you have the necessary equipment.



Decide how much to make

- ▶ **Batch Cooking**
- ▶ Making a large batch by doubling (or more) a recipe will save time in the kitchen later on.
- ▶ Extra portions can be used for lunches or meals later in the week, or freeze leftovers in individual containers for future use.
- ▶ Plus, foods purchased in bulk are almost always cheaper.



Bulk Buying

- ▶ It pays to shop around if you have access to different stores, because you can get different deals at different places.
- ▶ Take advantage of bulk bins when you can find them. They are great sources for things like **spices, nuts, nut flours, sea salt, and quinoa**.
- ▶ Those items are often **cheaper per pound** than buying them prepackaged, and you have the advantage of only buying what you need.



Do it yourself

- ▶ Sometimes making your own staples can be beneficial (and cheaper) as well.
- ▶ You can make your own almond milk from bulk bin almonds.
- ▶ Make homemade granola, pancake mix, hummus, guacamole, salsa, yogurt, bread, soup, chili, burritos, salad dressing, tomato sauce, pesto, roasted chicken, BBQ sauce, smoothies, flavored water!



Get friendly with your farmer

- ▶ Farmer's markets are amazing for so many reasons. Supporting local organic farmers is incredibly important, and there are often many deals to be had at the markets.
- ▶ **Go towards the end of the day.** Often farmers are eager to unload the last of their produce so they don't have to haul it back to the farm.
- ▶ They might be willing to negotiate on the price, especially if they know you are a regular at the market.
- ▶ Sometimes farmers will also put their prettiest produce on the table for display, but have some of the not-so-pretty produce behind the table to sell.
- ▶ It never hurts to ask if they have any cast-offs that might be a bit cheaper. They will still taste just as good and add some wonderful nutrients to your diet.



Community Supported Agriculture

- ▶ Community Supported Agriculture (CSA's) can be a great option for saving money as well.
- ▶ You purchase a share from a farm, and receive fresh produce each week of the growing season.
- ▶ <https://www.colorado.gov/pacific/agmarkets/community-supported-agriculture>



Local Farms

- ▶ Local farms often have sales too. Many local farms have email lists, and you can receive notifications when they have special offers available.
- ▶ You can get certain meats at much lower prices, and get amazing deals on bulk produce near the end of the season.
- ▶ Often farms have lower prices on U-pick items, or produce you pick yourself. Websites like [Local Harvest](#) can help you locate farmer's markets, CSA's, and U-pick produce in your area.
- ▶ It can also pay to know your neighbors. Backyard chickens are becoming more popular, and often the eggs from those backyard chickens can be significantly cheaper than the ones you find at farmer's markets.



Garden

- ▶ Growing some of your own produce, if you can, is also a great way to supplement your budget.
- ▶ Plant a vegetable garden
- ▶ Plant an herb garden
- ▶ Even a few potted plants or a hanging tomato basket on a back porch can be a nice addition.
- ▶ Great exercise!



Fruits and Vegetables

- ▶ Imperial College London researchers report that a **fruit and vegetable intake above five-a-day shows major benefit in reducing the chance of heart attack, stroke, cancer and early death.**
- ▶ Research, led by scientists from Imperial College London, analyzed 95 studies on fruit and vegetable intake.
- ▶ The team found that although even the recommended 5 portions of fruit and vegetables a day reduced disease risk, the **greatest benefit came from eating 800g a day (roughly equivalent to ten portions - one portion of fruit or vegetables if defined as 80g).**
- ▶ An 80g portion of fruit and vegetables equals approximately one small banana, apple, pear or large mandarin. Three heaped tablespoons of cooked vegetables such as spinach, peas, broccoli or cauliflower count as a portion.

Fruits and Vegetables

- ▶ The study, which was a meta-analysis of all available research in populations worldwide, included up to 2 million people, and assessed up to 43,000 cases of heart disease, 47,000 cases of stroke, 81,000 cases of cardiovascular disease, 112,000 cancer cases and 94,000 deaths.
- ▶ In the research, which is published in the International Journal of Epidemiology, the team estimate approximately **7.8 million premature deaths worldwide could be potentially prevented every year** if people ate 10 portions, or 800 g, of fruit and vegetables a day.

Fruits and Vegetables

- ▶ The team also analyzed which types of fruit and vegetables provided the greatest protection against disease.
- ▶ The results revealed that even a daily intake of 200g was associated with a 16% reduced risk of heart disease, an 18% reduced risk of stroke, and a 13% reduced risk of cardiovascular disease.
- ▶ This amount, which is equivalent to **two and a half portions**, was also associated with 4% reduced risk in cancer risk, and 15% reduction in the risk of premature death.

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- ▶ **Further benefits were observed with higher intakes.**
 - ▶ Eating up to 800g fruit and vegetables a day - or 10 portions - was associated with:
 - ▶ 24% reduced risk of heart disease
 - ▶ 33% reduced risk of stroke
 - ▶ 28% reduced risk of cardiovascular disease
 - ▶ 13% reduced risk of total cancer
 - ▶ 31% reduction in dying prematurely



What is a serving?

- ▶ In general, 1 cup of raw or $\frac{1}{2}$ cup cooked vegetables or 6 oz vegetable juice, or 2 cups of raw leafy greens can be considered as 1 cup from the Vegetable Group
- ▶ In general, 1 cup of fruit or 6 oz 100% fruit juice, or $\frac{1}{4}$ cup of dried fruit can be considered as 1 cup from the Fruit Group.

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- ▶ The researchers also examined the types of fruit and vegetables that may reduce the risk of specific diseases.
 - ▶ They found the following fruits and vegetables may help prevent heart disease, stroke, cardiovascular disease, and early death:
apples and pears, citrus fruits, salads and green leafy vegetables such as spinach, lettuce and chicory, and cruciferous vegetables such as broccoli, cabbage and cauliflower.
 - ▶ They also found the following may reduce cancer risk: **green vegetables, such as spinach or green beans, yellow vegetables, such as peppers and carrots, and cruciferous vegetables.**



Fruits and Vegetables

- ▶ Similar associations were observed for raw and cooked vegetables in relation to early death, however, additional studies are needed on specific types of fruits and vegetables and preparation methods.
- ▶ The team say the number of studies was more limited for these analyses, and the possibility that other specific fruits and vegetables may also reduce risk cannot be excluded.



Fruits and Vegetables

- ▶ Dr Aune said that several potential mechanisms could explain why fruit and vegetables have such profound health benefits: "Fruit and vegetables have been shown to reduce cholesterol levels, blood pressure, and to boost the health of our blood vessels and immune system.
- ▶ This may be due to the complex network of nutrients they hold. For instance they contain many antioxidants, which may reduce DNA damage, and lead to a reduction in cancer risk."



Fruits and Vegetables

- ▶ He added that compounds called glucosinolates in cruciferous vegetables, such as broccoli, activate enzymes that may help **prevent cancer**.
- ▶ Fruit and vegetables also have a beneficial effect on the naturally-occurring bacteria in our gut.
- ▶ The vast array of beneficial compounds cannot be easily replicated in a pill, he said: "Most likely it is the whole package of beneficial nutrients you obtain by eating fruits and vegetables that is crucial to health. This is why it is important to eat whole plant foods to get the benefit, instead of taking antioxidant or vitamin supplements (which have not been shown to reduce disease risk)."



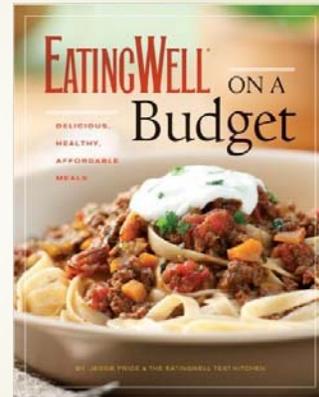
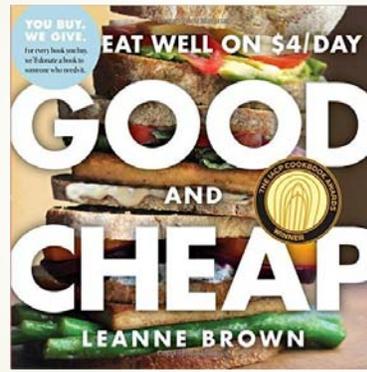
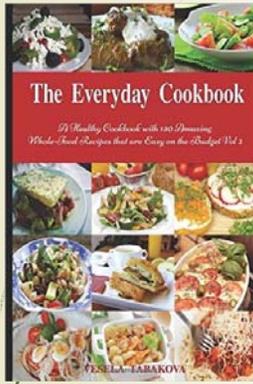
Fruits and Vegetables

- In the analysis, the team took into account other factors, such as a person's weight, smoking, physical activity levels, and overall diet, but **still found that fruit and vegetables were beneficial in preventing disease.**



Try canned or frozen produce

- At certain times of the year, frozen and canned fruits and vegetables may be less expensive than fresh.
- For canned items, choose fruit canned in 100% fruit juice and vegetables with "low sodium" or "no salt added" on the label.



Summary

- ▶ **PLAN AHEAD!** If you fail to plan then plan to fail!
- ▶ Plan menus, plan where to shop
- ▶ Shop with a LIST!
- ▶ Don't go to the store HUNGRY!
- ▶ Visit Farmer's Markets
- ▶ Check out Environmental Working Groups
- ▶ Join a CSA
- ▶ Plant a Garden
- ▶ Buy/Cook in bulk
- ▶ Check the Unit Price
- ▶ Focus on UNPROCESSED, whole foods
- ▶ Make your own snacks
- ▶ Buy local/seasonal
- ▶ Plan a trip with all the \$\$\$ you save!!