# - Upstream 

## How much money can food businesses in the U.S. save by switching to reusable?

- Costs. U.S. foodservice establishments spend $\$ 24$ billion each year purchasing nearly one trillion pieces of disposable foodware. This creates nearly 9 million tons of waste per year and costs businesses and local government $\$ 6$ billion to manage.
- Savings. $86 \%$ of disposables can be switched to reusable, reducing 7.5 million tons of waste and saving businesses $\$ 5$ billion per year. ${ }^{1}$


## - The Ellen MacArthur Foundation

reports that a $20 \%$ transition to reusable would mean U.S. businesses save $\$ 10$ billion per year. ${ }^{2}$

## How much money can the

 average food business operator save?- 166 case studies from ReThink Disposable demonstrate that a small business can save an average of $\$ 3,000$ to $\$ 22,000$ NET annually by transitioning some disposables to reusables. ${ }^{3}$ Check out Upstream's calculator to see how easy it is to save money with reusables.


## Reusable foodware saves businesses money

## Reuse saves money because reusables cost less over their lifetime

|  | Reusable | Disposable |  |
| :---: | :---: | :---: | :---: |
| Lifetime: 1000 uses $^{6}$ | 1 ceramic plate, white, 9 in. $\$ 1.39^{4}$ | 1,000 plates <br> Paper with plastic Paper Compostable Styrofoam | $\begin{aligned} & \$ 12.74 \\ & \$ 21.97 \\ & \$ 77.90 \\ & \$ 36.86 \end{aligned}$ |
|  | 1 metal fork \$0.12 <br> 1 metal knife \$0.29 <br> 1 metal spoon \$0.10 | 1,000 flatware <br> Plastic fork <br> Plastic knife <br> Plastic spoon <br> Set of 3 | $\begin{aligned} & \$ 6.29 \\ & \$ 6.29 \\ & \$ 6.29 \\ & \$ 32.98 \end{aligned}$ |
| Lifetime: 500 uses ${ }^{5}$ | 1 ceramic mug, 12 oz. $\$ 2.95$ | 500 hot cups <br> Paper with plastic Compostable | $\begin{aligned} & \$ 26.65 \\ & \$ 38.48 \end{aligned}$ |
| Lifetime: 1000 uses $^{8}$ | 1 glass cup, 12 oz. \$1.54 | 1,000 cold cups Plastic Compostable | $\begin{aligned} & \$ 47.70 \\ & \$ 96.94 \end{aligned}$ |
| Lifetime: 100 uses | 1 plastic basket, red \$0.27 | 100 baskets Clay-coated paper | \$1.21 |
| Cost of one meal's foodware |  |  |  |
| Order | Reusable | Disposable |  |
| Coffee Shop cup and plate | <\$0.01 | \$0.06 |  |
| Fast Food plate, basket, fork, knife, cold cup | ¢0, <0.01 | \$0.06 |  |
| Diner Meal fork, knife, spoon, plate, cold cup, hot cup, baske |   <br> e, $\$ 0.01$ | \$0.14 |  |

## Dishwashing and Labor Requirements to Transition to Reuse

The city of Alameda, California worked with Clean Water Fund's ReThink Disposable program to convert 80 of their restaurants to reusable foodware. Most businesses made the switch without adding dishwashing equipment or staff. Only three of these businesses needed to expand their dishwashing capacity. They rented dishwashers and added additional staff. Using reusable products saved Alameda businesses over $\mathbf{\$ 1 3 0 , 0 0 0}$ per year and reduced annual waste by 64,000 lbs.

## Hang Ten Boiler

## Used Existing Dishwashing Capacity, Added Labor

 The Hang Ten Boiler, a Hawaiian seafood restaurant in Alameda, CA, converted their serviceware to reusable products for their 50 seats of on-site dining. There was a one-time cost of $\$ 2,000$ to buy the reusable plates, bowls, cups, and utensils and an average $\$ 12,000$ to wash and replace broken or lost serviceware. They use their mechanized dishwasher and hired a part-time dishwasher who works 20 hours a week. Despite these costs, the Hang Ten Boiler nets an annual \$4,000 in savings from reduced costs of waste management and purchasing of single-use serviceware. ${ }^{9}$

## University of San Francisco's Market Cafe Existing Dishwashing Capacity, No Labor Added

This university dining hall serves three meals a day with a daily average of 5,000 transactions. Before switching to reusable products, they spent over \$340,000 annually on disposable foodware. There was an initial cost of $\$ 5,000$ to buy the necessary products, and an annual cost of $\$ 27,000$ in upkeep. They already had dishwashing capabilities, and the cost of upkeep covers additional washing supplies and replacing foodware when necessary. The Market Cafe achieved a net annual savings of over \$150,000 by using reusable products. ${ }^{10}$

## Endnotes

1 Upstream (June 2021), Reuse Wins: The environmental, economic and business case for transitioning from single-use to reuse in food service.
2 Ellen Macarthur Foundation (July 2019), Reuse: Rethinking Packaging
3 Personal communication with ReThink Disposable - a voluntary program that provides technical assistance to food business operators.

4 All prices from webstaurantstore.com
5 Woods, L., \& Bakshi, B. R. (2014). Reusable vs. disposable cups revisited guidance in life cycle comparisons addressing scenario, model, and parameter uncertainties for the


## Crispian Bakery <br> Added Dishwashing Capacity, No Labor Added

Crispian Bakery serves coffee and pastry for up to ten on-site diners. The cafe switched to using reusable serviceware for their on-site customers and instituted a discount for those who brought their own mugs for takeout. They now rent a dishwasher for $\$ 75$ a month, after an installation cost of $\$ 500$. Their water bill only increased by an average $\$ 30$ a month. By switching to reusable plates, cups, and silverware, the Crispian Bakery saves a net \$1,700 annually.

U.S. consumer. Int J Life Cycle Assess 19(4), 931-940

6 Pro.mo/Unionplast (2015) Comparative Life Cycle Assessment Study of Tableware for Alimentary Use, Milan, Italy
7 Sheehan, B. (2017) Literature Review and Inventory: Greenhouse Gas Impacts of Disposable vs. Reusable Foodservice Products, Clean Water Fund. www.rethinkdisposable. org
8 Pro.mo/Unionplast (2015) Comparative Life Cycle Assessment Study of Tableware for Alimentary Use, Milan, Italy
9 "Case Studies, Download Resources." Resources | ReThink Disposable. 10 ibid.

