

Impacts of HB 2509 (2019) Prohibitions on Checkout Bags

Report to the Legislature

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Executive summary

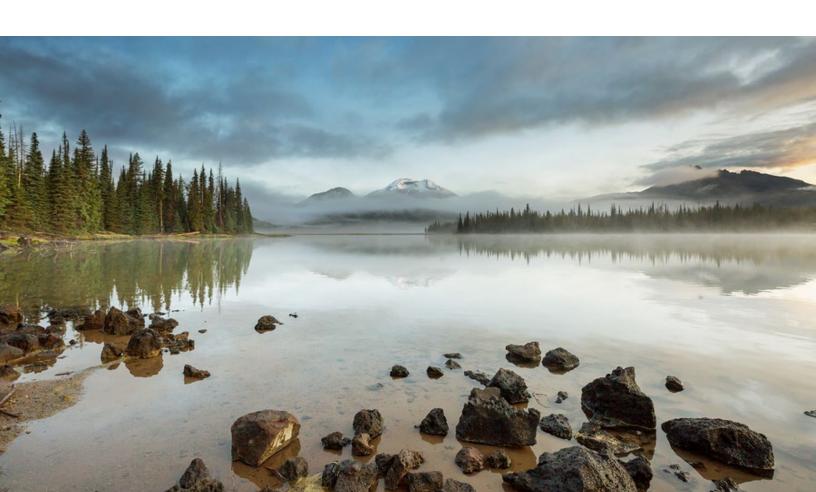
This report describes the impacts of 2019 <u>House Bill 2509</u> (ORS 459A.755-459A.759) in grocery establishments regarding the collection of fees and customers' use of recycled paper checkout bags, reusable fabric checkout bags or reusable plastic checkout bags.

A limited survey of grocery retailers from the Northwest Grocery Retail Association provided the background information for the estimates below. NWGRA provided information about the fees collected by grocery establishments from consumers for checkout bags and the number of bags the grocery establishments purchased annually per-store, represented below as annual averages from 2021 through 2023. DEQ did not participate in NWGRA's data collection, and DEQ did not receive detailed information on the survey questions or process. The source information, which can be found in Appendix C, aggregates and summarizes survey data.

DEQ used several assumptions in this analysis, which are further detailed along with calculations and discussion of data uncertainty in the "impacts of the law" section and Appendix A. This report does not include impacts of reusable fabric checkout bags due to lack of data and inconsistencies in the data provided.

Collection of fees

Grocery establishments charge a lower fee for recycled paper bags than for reusable plastic bags and likely collect more money in fees for recycled paper bags each year due to the higher overall use these bags in the establishments.



| Checkout bag material | Per bag (USD) | Per capita*, per year (USD) | Per store, per year (USD) | Total annual average, Oregon statewide (USD) |
|-----------------------|---------------|--------------------------------|------------------------------|--|
| Recycled paper | \$0.06 | \$2.01 | \$12,910 | \$8,494,516.80 |
| Reusable plastic | \$0.09 | \$1.40 | \$9,019 | \$5,934,344.08 |

Table 1. Average annual checkout bag fees collected in Oregon by bag type, based on annual averages from 2021-2023.

Customers' use of checkout bags

Grocery establishments purchase more than twice as many recycled paper bags as reusable plastic bags.

| Checkout bag material | Per capita, per year (#) | , , , , , , , , , , , , , , , , , , , | Total annual average, Oregon statewide (#) |
|-----------------------|--------------------------|---------------------------------------|---|
| Recycled paper | 36 | 230,529 | 151,687,766 |
| Reusable plastic | 16 | 100,209 | 65,937,206 |

Table 2. Average annual number of checkout bags used in Oregon by bag type, based on annual averages from 2021-2023.



^{*} The per-capita data calculations represent every person in Oregon, not necessarily every consumer or checkout bag user. See the Per-capita data section in Appendix A for more information.

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Overview

<u>House Bill 2509</u> (ORS 459A.755- 459A.759) directs DEQ to create a legislative report on the impacts of this law in grocery establishments by September 15, 2025. The law requires grocery establishments to provide the following information by September 15, 2024:

- Fee collected for:
 - o recycled paper checkout bags,
 - o reusable fabric checkout bags or
 - reusable plastic checkout bags.
- Use of:
 - recycled paper checkout bags
 - o reusable fabric checkout bags and
 - o reusable plastic checkout bags

This report uses the checkout bag type definitions in 459A.755, summarized below:

| Recycled paper | Reusable plastic | Reusable fabric |
|--------------------------|---------------------------------|---|
| | | |
| o Paper bag | ○ Bag with handles | ○ Bag with handles |
| o 40% post-consumer | Specifically designed and | Specifically designed and |
| recycled fiber (minimum) | manufactured for multiple reuse | manufactured for multiple reuse |
| | Durable plastic that is at | Cloth or other machine- |
| | least four mils thick | washable fabric |

Northwest Grocery Retail Association surveyed their members (small independent, medium independent, and large chain grocery retailers in Oregon and Washington), and provided the data to DEQ. NWGRA provided information about the fees collected by grocery establishments from consumers for checkout bags and the number of bags the grocery establishments purchased annually per-store, represented in this report as annual averages from 2021 through 2023. DEQ did not participate in NWGRA's data collection, and DEQ did not receive detailed information on the survey questions or process.

The source information aggregates and summarizes survey data and can be found in Appendix C. DEQ used the information submitted to create this legislative report on the impacts of the law in grocery establishments. This report uses consumer costs to estimate fees collected for checkout bags, and the number of bags purchased by grocery establishments to estimate the use of checkout bags. This report does not include impacts of reusable fabric checkout bags due to lack of data and inconsistencies in the data provided.

Impacts of the law

Collection of fees

On average, grocery establishments in Oregon charged customers \$0.09 per reusable plastic bag and \$0.06 per recycled paper bag from 2021 to 2023. Despite the higher cost per bag for reusable plastic bags, DEQ estimates that grocery establishments collected 43% more in total annual fees for recycled paper bags than for reusable plastic bags, due to higher recycled paper bag use. Table 3 details average annual checkout bag fees collected in Oregon for reusable plastic and recycled paper bags.

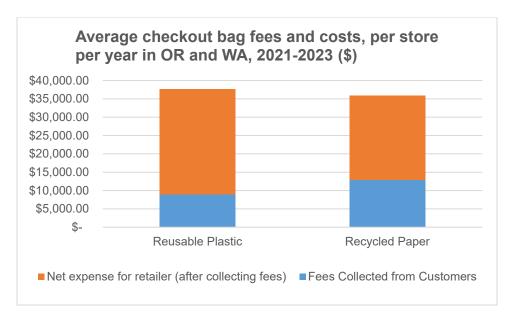


Figure 1. Average annual fees collected from customers and net expenses for grocery establishments from 2021-2023 per store, showing the total grocery establishment expenses.

Grocery establishments reported their total checkout bag expenses and net monthly checkout bag expenses (after accounting for collected fees). DEQ subtracted grocery establishment net expenses from total reported expenses to estimate the fees collected, as shown below:

total expenses - net expenses = fees collected

Total expenses. Reported total expenses for grocery stores to purchase bags (per store per year):

Recycled paper: \$35,962Reusable plastic: \$37,678

Net expenses. Reported net annual expenses for grocery stores to purchase bags, after accounting for fees collected from customers (per store per year):

Recycled paper: \$23,053Reusable plastic: \$28,660

Fees Collected. Calculated annual fees collected (shown in Figure 1 and Table 3):

Recycled paper: \$12,910Reusable plastic: \$9,019

| Checkout bag material | Per bag (USD) | Per capita, per year (USD) | Per store, per year (USD) | Total annual average, Oregon statewide (USD) |
|-----------------------|------------------|----------------------------------|------------------------------|--|
| Recycled paper | \$0.06 | \$2.01 | \$12,910 | \$8,494,516.80 |
| Reusable plastic | \$0.09 | \$1.40 | \$9,019 | \$5,934,344.08 |

Table 3. Average annual checkout bag fees collected by grocery establishments from consumers in Oregon by bag type, based on annual averages from 2021-2023.

DEQ then multiplied the average collection of checkout bag fees by the number of Oregon grocery establishments with more than twenty employees, to estimate the total fees collected by Oregon grocery establishments for recycled paper and reusable plastic bags, as shown in Figure 1. The per-capita costs represent the total annual average divided by the estimated Oregon population.

Customers' use of checkout bags

Recycled paper and reusable plastic bags made up 70% and 30% of the average annual number of bags used in Oregon, respectively.

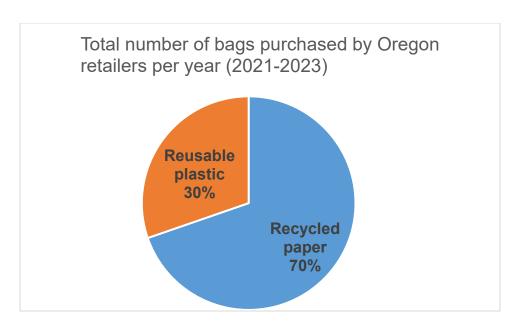


Figure 2. Total number of reusable plastic and recycled paper checkout bags purchased by Oregon retailers from 2021 to 2023.

Grocery establishments reported the average number of bags purchased by the establishments each month, which DEQ converted to annual estimates and multiplied by the number of Oregon grocery establishments with more than 20 employees to estimate the total number of bags used annually in Oregon. The per-capita numbers represent the total average number of bags purchased by establishments in Oregon annually divided by the estimated Oregon population.

| Checkout bag material | Per capita, per year (#) | Per Store, per year (#) | Total annual average, Oregon statewide (#) |
|-----------------------|-----------------------------|----------------------------|--|
| Recycled paper | 36 | 230,529 | 151,687,766 |
| Reusable plastic | 16 | 100,209 | 65,937,206 |

Table 4. Average annual number of checkout bags used in Oregon by bag type, based on annual averages from 2021-2023.

Conclusion

Despite higher per-bag fees that grocery establishments charged for reusable plastic bags, consumers spent more in total fees for paper bags than reusable plastic bags from 2021 to 2023, which is due to consumers using more than twice as many recycled paper bags as reusable plastic bags throughout that period. Higher use of recycled paper bags may be due to lower consumer fees charged for each paper bag, however, the reported information does not include details on how the checkout bag options are presented to customers or if they are given a choice. The impacts of the use and fees collected for reusable fabric checkout bags could not be determined in this report based on the information available. Reusing checkout bags, either

the reusable plastic bags included in this report or other reusable bags consumers bring to grocery establishments, may help to reduce the number of new bags used, avoiding the environmental impacts of producing new bags while also reducing the fees collected for new checkout bags. A new bill passed in 2025 (SB 551), changing the existing law to prohibit both retail establishments and restaurants from providing reusable plastic or fabric checkout bags to customers as of Jan. 1, 2027.

Appendix

Appendix A: Assumptions

This report makes the following assumptions to create estimates from the available data.

Accuracy of available data:

This report assumes that the NWGRA survey data used to calculate estimates is accurate. DEQ found inconsistencies in the reported fees collected for paper bags and chose not to use the reported data for recycled paper bag fees collected. DEQ instead calculated an estimate using alternate information provided in the report, as detailed in the "collection of fees" section and below.

Data discrepancies for recycled paper bag fees collected

The NWGRA survey provided the following information related to recycled paper checkout fees and use, per store per year (DEQ converted the number of bags purchased to annual estimates from the monthly data provided):

a) total average annual retailer costs: \$35,962.45

b) total fees collected: \$6,012.51

c) net costs to the retailer after subtracting the fees collected: \$23,052.85

d) average fee charged per bag: \$ 0.06

e) total bags purchased: 230,529

The net costs should be able to be calculated by subtracting the fees collected from the total costs, such that:

$$a - b = c$$

However, the net costs do not equal total costs minus the fees collected as reported, resulting in \$6,897.09 that was unaccounted for. Similarly, the total bags purchased should be able to be calculated by dividing the fees collected by the fee charged per bag, such that:

$$b \div d = e$$

However, the total bags purchased do not equal the fees collected divided by the fee charged per bag as reported. The inconsistencies in the paper bag category could mean that any of the reported values above were incorrectly reported in the documentation provided to DEQ. NWGRA did not provide additional clarifications or information to determine the source of the discrepancies. The data reported for reusable plastic bags did not have these inconsistencies.

DEQ determined that the total fees collected for recycled paper bags were most likely incorrectly reported to DEQ, and this report attempts to correct that error and attributes the

unreported \$6,897.09 to the total fees collected, resulting in the following updated total annual fees collected per store per year for recycled paper bags:

• total fees collected: \$12,909.60

Data discrepancies for the number of reusable fabric bags used

The NWGRA survey provided the following information related to reusable fabric bags purchased per store per year (DEQ converted the number of bags purchased to annual estimates from the monthly data provided):

2021: 376,127.762023: 222,848.04

DEQ averaged the 2021 and 2023 values to find the average annual reusable fabric bags purchased by grocery establishments to sell to consumers. The average of reported annual purchases of reusable fabric bags (299,488) would be larger than the reported average annual purchases of both recycled paper (230,529) and reusable plastic (100,209) bags by grocery establishments. It is unlikely that more reusable fabric bags are purchased by consumers each year than other options due to the higher costs for a more durable bag, so there may be errors in the data for reusable fabric bags purchases limiting the data's representativeness of actual usage. DEQ received limited data points on reusable fabric bag use, preventing DEQ from determining potential error sources or calculating alternative estimates. Please note, the information above does not represent reusable bags brought into grocery establishments by consumers to be reused.

Corrections and clarifications to NWGRA survey provided

NWGRA provided DEQ with the following corrections and clarifications to the survey data provided in Appendix C:

- Annual averages use data from 2021 2023, unless otherwise specified.
- "Bags purchased", as used in numbers one through three of the data provided, means the number of bags that a retail establishment purchased.
- The reusable bags referenced in number three of the data provided, was incorrectly defined to mean cloth and plastic. "Reusable bags" in this data point means only cloth bags, not reusable plastic checkout bags.

Grocery establishment representation

This report assumes that the NWGRA survey is representative, on average, of grocery establishments with 20 or more employees in Oregon. The survey was answered by 483 NWGRA member stores, noted as small independent, medium independent, and large chain grocery retailers in Oregon and Washington. 208 of the stores that responded to the survey are in Oregon. NWGRA did not include definitions for those retailer types, and there is not information on how the different retailer types are distributed amongst the survey respondents.

Oregon grocery establishments with 20 or more employees make up 39% of the number of establishments, and 87% of grocery store employment (United States Census Bureau, 2023). The calculated estimates in this report do not include Oregon grocery establishments with fewer than 20 employees, which represent 61% of the number of grocery establishments in Oregon, and 13% of Oregon's grocery establishment employment.

Per-capita data

This report uses a calculated average of the Oregon population in 2020 and the estimated Oregon population in 2023 as reported by the US Census (United States census Bureau, 2025) that the US census provides and assumes that average (shown below is representative of the population between 2021-2023.

- Population, Census, April 1, 2020: 4,237,256
- Population estimates, July 1, 2023: 4,233,358
- Calculated Average (2020, 2023): 4,235,307

The per-capita data calculations represent every person in Oregon, not necessarily every consumer or checkout bag user. There are likely fewer consumers or users of checkout bags than Oregon's population, resulting in a per-capita value that underestimates the number of bags per user of bags.

Checkout bags purchased by stores represents bags used

This report assumes that the number of bags purchased by stores are equal to the number of bags used by consumers. The only data available to DEQ regarding quantity of bags used were the number of bags purchased by grocery store establishments each year. The assumption presumes that establishments purchase bags at the same rate that consumers use store-provided bags and does not account for bags purchased by retailers that remain unused within the same reporting year.

Appendix B: References

United States Census Bureau (2023). 2021 County Business Patterns.

United States Census Bureau (2025). QuickFacts Oregon.

Appendix C: Data provided to DEQ by NWGRA



Data Collection - Plastic and Paper Bag Utilization and Cost

In response to data requests the Northwest Grocery Retail Association queried our members in May of 2024. The survey went to large chain and medium/small independent grocery retailers operating in Oregon and Washington. The below data is representative of 208 stores in Oregon and 275 stores in Washington and encompasses the majority the counties in both states. Members were asked about customer utilization and costs of reusable plastic and paper bags. The data results have been aggregated and averaged where appropriate.

Retailer data demonstrates the fees collected for bags in Oregon and Washington are significantly lower than the costs they incur to source and supply paper, cloth, and polypropylene bags for customer use.

Retail data displays the following:

- Average \$28,659.63: Retailers' expense per store/per year for providing reusable plastic bags beyond the pass-through fee collections
- Average \$23,052.85: Retailers' expense per store/per year for providing reusable paper bags beyond the pass-through fee collections
- **Supply Chain Issues:** The majority of small and medium sized retailers also report difficulties in sourcing bags, further increasing expenses for independent and family-owned retailers.



DataBreakdown:

- 1. Average number of paper bags purchased per month/per store:
 - o 2023: 19,210.71
- 2. Average number of reusable plastic bags purchased per month/per store:
 - o 2023: 8.350.71
- 3. Averagenumber ofreusablebagspurchased for saleper month/per store(clothand plastic):
 - o 2023: 18,570.67 (222,848 yearly average)



- 2021: 31,343.98 (376,127.83 yearly average)
- 2019: 367.68 (4,412.2 yearly average)
- 4. Average number of free reusable fabric checkout bags and SNAP bags provided: Based on the available data, some large chain retailers estimate to spend \$2,619 per store per year in Oregon and \$4,076 per store per year in Washington to provide free bags to SNAP users. Some large chain retailers report an estimated cost of \$398,127 per chain per year in Oregon and \$1,116,943 per chain per year in Washington.

Additional data:

- 5. Average amount charged as a pass-through fee per plastic bag in Washington: \$0.09
- 6. Average amount charged as a pass-through fee per paper bag in Washington: \$0.06
- 7. Average amount charged as a pass-through fee per plastic bag in Oregon: \$0.09
- 8. Average amount charged as a pass-through fee per paper bag in Oregon: \$0.06
- 9. Average amount paid to supplier per paper bag:
 - o 2023: \$0.16
 - o 2022: \$0.16
 - o 2021: \$0.15
- 10. Average amount paid to supplier per plastic bag:
 - o 2023: \$0.39
 - o 2022: \$0.38
 - o 2021: \$0.36

