



DOWNLOADED SOFTWARE EXEMPTION

EVALUATION SUMMARY | APRIL 2022 | 2022-TE20

TAX TYPE	Sales	REVENUE IMPACT	At least \$83 million
YEAR ENACTED	2011	(CALENDAR YEAR 2020)	
REPEAL/EXPIRATION DATE	None	NUMBER OF TAXPAYERS	Could not determine

KEY CONCLUSION: The exemption effectively defines the tax treatment of downloaded software and is commonly applied by vendors to exempt purchases of downloaded software from sales tax.

WHAT DOES THE TAX EXPENDITURE DO?

The Downloaded Software Exemption [Section 39-26-102(15)(c)(I)(C), C.R.S.] exempts software that is downloaded at the time of purchase from sales tax. The exemption operates by excluding downloaded software from the definition of tangible personal property, which is generally subject to sales tax.

WHAT IS THE PURPOSE OF THE TAX EXPENDITURE?

Statute and the enacting legislation for the Downloaded Software Exemption do not state its purpose; therefore, we could not definitively determine the General Assembly's original intent. Based on our review of legislative history, Department of Revenue regulations, and testimony during the legislative hearings for the bill establishing the exemption, we considered a potential purpose: to define the State's sales tax base by establishing that downloaded software is not considered tangible personal property and, therefore, is exempt from sales tax.

WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

The General Assembly may want to consider amending statute to establish a statutory purpose and performance measures for the deduction.



DOWNLOADED SOFTWARE EXEMPTION

EVALUATION RESULTS

WHAT IS THE TAX EXPENDITURE?

The Downloaded Software Exemption [Section 36-26-102(15)(c)(I)(C), C.R.S.] exempts software that is downloaded at the time of purchase from sales tax. The exemption operates by excluding downloaded software from the definition of tangible personal property, which is generally subject to sales tax in Colorado.

Software is defined in statute as “a set of coded instructions designed to cause a computer or automatic data processing equipment to perform a task” [Section 39-26-102(15)(c)(II)(B), C.R.S.]. Downloaded software that qualifies for the exemption includes: 1) software that is delivered electronically via remote telecommunication to a user’s device; 2) software that is manually loaded to a purchaser’s device by a vendor, but does not result in the transfer of a physical medium to the purchaser (load and leave); and 3) software that is provided via an application service provider (ASP) that hosts software for use by third parties. For the purposes of this evaluation, we will refer to all of these methods as downloaded software. In contrast, software that meets the following criteria is considered tangible personal property and, therefore, subject to tax: 1) it is delivered on a physical medium, such as a disc; 2) it is governed by a tear open license agreement; 3) and it is canned and prewritten for repeated sale. Additionally, under statute, the internalized instruction code that controls the basic operations of a device and is not normally accessible or modifiable by the user, such as the device’s operating system, is considered part of the hardware and considered tangible personal property that is taxable, regardless of whether a vendor charges separately for that instruction code [Section 39-26-102(15)(c)(III), C.R.S.]. EXHIBIT 1 summarizes the tax treatment of commonly used software and other digital goods.

EXHIBIT 1. TAXATION OF SOFTWARE AND DIGITAL GOODS

Under statute, tangible personal property is generally subject to sales tax.¹
The definition of an item as tangible personal property, therefore, determines its taxability.

Item	Description	Delivery method	Tangible property subject to sales tax?
Operating system (Windows, OSX, Linux, etc.)	The internalized instruction code that controls the basic operations of the computer, acting as the intermediary between programs and the hardware and integral to the operation of the device.	Preinstalled on the device at purchase	Yes
		Downloaded as an upgrade	Yes
		Run from a physical medium (live disc, external drive, etc.)	Yes
Prepackaged, or “canned” software	A pre-written standardized software product for repeated sale or license with no modifications.	Physical medium	Yes
		Delivered Electronically	No
		Load and leave	No
		ASP	No
Custom software	A software product created or modified to fit the needs of the user.	Physical Medium	No
		Delivered Electronically	No
		Load and Leave	No
		ASP	No
Media streaming service	A media distribution platform allowing users stream audio or video content for a fee. Some platforms allows users to download and store media locally, but the user does not own the content.	Website or application.	Yes
Media download for purchase	Media files purchased by the user through a marketplace, such as iTunes.	Download to local device storage or cloud storage	Yes

SOURCE: Office of the State Auditor analysis of Colorado statute.

¹ All tangible personal property sold or used in Colorado is subject to Colorado sales and use tax unless a specific exemption applies.

Vendors are responsible for applying the exemption to eligible software purchases and have historically reported their tax exempt sales of downloaded software with other non-itemized exemptions on Line 9 of Schedule A of their Colorado Retail Sales Tax Return (Form DR 0100). However, since October 2019, Form DR 0100 has a separate line for reporting sales of downloaded software, which is found on Line 11 of Schedule A of Form DR 0100.

The exemption began as a special regulation promulgated by the Department of Revenue (Department) in 2006. Department Special Regulation 7 (SR-7) stated that software could only be taxed if it was delivered to a customer by tangible medium, the product was governed by a tear open license agreement, and it was prepackaged for repeated sale. In 2010, the adoption of House Bill 10-1192 repealed SR-7 and amended the statutory definition of tangible personal property to include all prewritten software, regardless of delivery method, subsequently imposing a tax on pre-written downloaded software products. In 2011, House Bill 11-1293 was adopted, establishing the Downloaded Software Exemption, repealing House Bill-10-1192, codifying SR-7 in statute, and clarifying that downloaded software was not considered tangible personal property under statute. The exemption has remained functionally unchanged since. In 2021, House Bill 21-1312 clarified that amounts charged for mainframe computer access for the purposes of electronic software delivery are also exempt from sales tax. The bill also modified the statutory definition of “digital goods” as a form of tangible personal property subject to sales tax, regardless of delivery method. Under statute, a digital good is distinct from software, and defined as “video, music, or electronic books” that are delivered and stored through electronic means, including both electronic download and streaming services.

WHO ARE THE INTENDED BENEFICIARIES OF THE TAX EXPENDITURE?

Statute does not directly state the intended beneficiaries of the Downloaded Software Exemption. Based on our review of the statutory language, enacting legislation, and legislative testimony, we considered the intended beneficiaries to be all Colorado taxpayers who purchase software. Software is purchased by many taxpayers, including business entities and private consumers. Based on data from the U.S. Census Bureau, we estimate that employer firms in Colorado spent about \$3.2 billion on software in Calendar Year 2020. We were unable to estimate the amount individuals spent on software in Colorado.

WHAT IS THE PURPOSE OF THE TAX EXPENDITURE?

Statute and the enacting legislation for the Downloaded Software Exemption do not state its purpose; therefore, we could not definitively determine the General Assembly's original intent. Based on our review of legislative history, Department regulations, and testimony during the legislative hearings for the bill establishing the exemption, we considered a potential purpose: to define the State's sales tax base by establishing that downloaded software is not considered tangible personal property, and, therefore, is exempt from sales tax.

As previously discussed, prior to 2010, software delivered electronically through an ASP, or through load and leave was exempt from sales and use tax under SR-7. However in 2010, House Bill 10-1192 amended statute to define all standardized pre-written software, regardless of delivery method, as tangible personal property, effectively imposing sales tax on those products and repealing SR-7. In 2011, House Bill 11-1293 effectively reversed this tax treatment, repealing House Bill 10-1192 and amending the statutory definition of tangible personal property to exclude software that was not delivered through the transfer of a physical medium. Sponsors for House Bill 11-1293 claimed that House Bill 10-1192 had resulted in confusion for taxpayers and increased administrative burden to businesses in trying to apply tax to software, but the exact source of the confusion was not clear from the testimony. Overall, it seems the underlying purpose of the enacting legislation was to provide an administrative convenience to taxpayers by clarifying the definition of tangible personal property and, therefore, what is taxable.

IS THE TAX EXPENDITURE MEETING ITS PURPOSE AND WHAT PERFORMANCE MEASURES WERE USED TO MAKE THIS DETERMINATION?

We could not definitively determine whether the Downloaded Software Exemption is meeting its purpose because no purpose is provided for it in statute or its enacting legislation. However, we found that the exemption is likely meeting the potential purpose that we identified in

order to conduct this evaluation because stakeholders are aware of the exemption and most vendors apply the exemption to eligible purchases.

Statute does not provide quantifiable performance measures for this deduction. Therefore, we created and applied the following performance measure to determine the extent to which the exemption is meeting its potential purpose.

PERFORMANCE MEASURE: *To what extent do vendors apply the sales tax exemption to purchases of downloaded software?*

RESULT: Based on feedback from stakeholders and our review of e-commerce platforms for a sample of vendors offering downloadable software products, we found that vendors are generally applying the exemption to sales of downloaded software. However, we could not quantify the extent to which the exemption is being applied because, prior to October 2019, the Department did not require vendors to report exempt sales on a separate reporting line and, at the time of our review, it had not compiled information reported by vendors for Calendar Years 2020 and 2021 and could not provide data on its use.

To assess the extent to which the exemption is being used, we spoke to a Certified Public Accountant (CPA) who was knowledgeable of software vendors' typical practices for administering sales taxes. The CPA reported that the exemption is well known among both businesses purchasing software and tax professionals, and is frequently used. The CPA further reported that the exemption is easy to understand and easy for vendors to apply, as most vendors use some type of software application to automatically apply appropriate local and state sales tax to their sales of software. Finally, the CPA also told us that the exemption offered significant tax savings for businesses purchasing software.

We also reviewed the e-commerce platforms for a sample of 21 vendors that offer downloadable software products to determine if they applied the sales tax exemption to eligible purchases. We found that 18 of the 21 vendors (86 percent) correctly applied the state sales tax exemption

to downloaded software products offered through their e-commerce platforms. Therefore, it appears that the exemption is typically being applied to eligible sales. However, three of the 21 vendors (14 percent) charged state sales tax and did not apply the exemption to downloaded software purchases. We were unable to determine why the exemption was not applied by these vendors from the available information. However, if a vendor improperly applies sales tax to an exempt sale, the purchaser is able to request a refund from the Department by filing the Claim for Refund of Tax Paid to Vendors (Form DR 0137B).

WHAT ARE THE ECONOMIC COSTS AND BENEFITS OF THE TAX EXPENDITURE?

We estimate that the Downloadable Software Exemption had a revenue impact to the State of at least \$83 million in Calendar Year 2020, and provided a corresponding benefit to taxpayers. Because we lacked information from the Department necessary to quantify the revenue impact to the State for the exemption, we used data from the U.S. Census Bureau's 2020 Service Annual Survey and 2019 Annual Business Survey to estimate its potential revenue impact. Specifically, the 2020 Service Annual Survey reported that U.S. employer firms, which includes firms whose primary business or operation is to provide services to individuals, businesses, and governments, expended about \$133 billion on software in 2020. To estimate the portion of software expenditures that came from Colorado firms, we used 2019 Annual Business Survey data which indicates that there are approximately 138,000 employer firms in Colorado, about 2.39 percent of all employer firms in the United States. Therefore, assuming that Colorado's share of software expenditures is equivalent to its share of U.S. employer firms, we multiplied this percentage by the reported \$133 billion in software expenses to estimate that Colorado employer firms spent about \$3.2 billion on software in 2020. Based on industry research, we estimated that 90 percent of all software purchases met the definition of downloaded software and were, therefore, exempt. We multiplied this percentage by the estimated \$3.2 billion expended on software by Colorado employer firms to arrive at a total of \$2.9 billion

spent on downloaded software. Finally, we multiplied this amount by the state sales tax rate of 2.9 percent to estimate the potential state revenue impact.

Although our estimate provides a general indication of the relative scale of the exemption, it likely does not represent the actual value of the revenue impact due to several data constraints, which likely result in an underestimate. First, our estimate does not include purchases made by individuals because we lacked a reliable data source to estimate the value of these purchases. Because individuals commonly purchase downloadable software, their purchases likely result in a significant additional revenue impact to the State. Second, the U.S. Census Bureau's 2020 Service Annual Survey only collects data from employer firms and does not reflect all industries or non-employer firms. Although employer firms likely make the majority of business software purchases, purchases by non-employer firms likely also contribute to the exemption's revenue impact. Third, because the available datasets did not include data disaggregated by state, our estimate assumes that Colorado employer firms purchase software at the same rate as all U.S. employer firms. Finally, the available datasets did not distinguish the delivery method of the software. Although our research indicates that a large majority of software purchases are downloaded and would qualify for the exemption, we lacked a data source to quantify this and based our estimate on the assumption that 90 percent of software sales would qualify for the exemption.

In addition to its revenue impact to the State, statute [Section 29-2-105(1)(d)(I), C.R.S.] requires that statutory and home rule municipalities and counties that have their sales taxes collected by the State apply most of the State's sales tax exemptions, including the Downloaded Software Exemption. Therefore, the exemption likely reduces local sales and use tax revenue to some extent. However, we lacked the necessary data to estimate the impact of the exemption. Home rule cities and counties established under Article XX, Section 6 of the Colorado Constitution that collect their own sales taxes have the authority to set their own tax policies independent from the State and

are not required to exempt downloaded software from their local sales and use tax. We examined the municipal codes of the five most populated home rule cities in 2020, according to Colorado State Demography Office data—Aurora, Denver, Colorado Springs, Fort Collins, and Lakewood—and found that all impose a sales tax on software, regardless of delivery method.

WHAT IMPACT WOULD ELIMINATING THE TAX EXPENDITURE HAVE ON BENEFICIARIES?

Eliminating the expenditure would result in downloaded software being considered tangible personal property and, therefore, subject it to the State's 2.9 percent sales and use tax. Based on our estimated \$83 million value of the exemption, these costs would equate to about \$602 per year in additional state sales taxes per employer firm. However, a business' software expenditures are likely highly variable depending on the business' size and operations, so the impact would similarly vary. Additionally if the exemption were eliminated, custom software products would still be exempt from sales tax, so taxpayers whose expenditures are primarily made up of custom software would be minimally impacted.

Additionally, although we could not quantify its revenue impact for sales to individuals, eliminating the exemption would increase the after-tax cost of downloaded software sold to all consumers in the state. Vendors of software products would also be responsible for applying, collecting, and remitting state and local sales and use tax on relevant purchases, although according to the CPA we spoke with, the administrative impact to vendors as a result of the expenditure being eliminated would likely be minimal. Taxpayers would also pay additional local taxes for software purchases made in jurisdictions for which the State collects sales and use tax, although we lacked information to quantify the amount of additional taxes.

ARE THERE SIMILAR TAX EXPENDITURES IN OTHER STATES?

Of the 44 states (excluding Colorado) that levy a sales tax, we found that 10 have tax expenditures that appear to exempt sales of downloaded software products in some manner and exclude downloaded software from their definition of tangible personal property. Of those 10 states that exempt downloaded software, four states only exempt electronically-delivered software and software delivered via ASP, while the other six states additionally exempt sales of all software delivered via load and leave. In contrast, 28 states define all pre-written software, regardless of delivery method, as tangible personal property, and apply sales tax to software purchases, but do exempt custom software, including products delivered electronically. Some states, such as Maryland and Iowa, do not include some or all software products in their definition of tangible personal property, but still apply sales tax to downloaded software products, distinguishing them as a type of “digital product” that is taxable.

ARE THERE OTHER TAX EXPENDITURES OR PROGRAMS WITH A SIMILAR PURPOSE AVAILABLE IN THE STATE?

We did not identify other state tax expenditures or programs with a similar purpose.

WHAT DATA CONSTRAINTS IMPACTED OUR ABILITY TO EVALUATE THE TAX EXPENDITURE?

The Department was not able to provide data on the amount of exempt software sales claimed or the number of entities that made applicable sales. Therefore, we estimated the revenue impact of the exemption using other sources of data. As a result, our estimates may vary from the actual revenue impact of the Downloaded Software Sales Tax Exemption, and we could not determine how many taxpayers claimed it. Prior to October 2019, the Department’s Retail Sales Tax Return (Form DR 0100) did not have a separate line where vendors could report exempt sales of software. Vendors reported sales of exempt software on line 9 of Form DR 0100 for “Other deductions,” which aggregated several unrelated exemptions and deductions, which could

not be disaggregated for analysis. Starting in October 2019, the Department created a separate line on the form for vendors to report exempt downloaded software sales so it should have data on the usage of the exemption for future evaluations; however, it had not compiled data on the exemption at the time of our review.

WHAT POLICY CONSIDERATIONS DID THE EVALUATION IDENTIFY?

THE GENERAL ASSEMBLY MAY WANT TO CONSIDER AMENDING STATUTE TO ESTABLISH A STATUTORY PURPOSE AND PERFORMANCE MEASURES FOR THE DOWNLOADED SOFTWARE EXEMPTION. As discussed, statute and the enacting legislation for the exemption do not state the exemption's purpose. Therefore, for the purposes of our evaluation, we considered the following potential purpose: to define the State's sales tax base by establishing that downloaded software is not considered tangible personal property and, therefore, is exempt from sales tax. We developed this potential purpose based on the legislative history and operation of the exemption. We also developed a performance measure to assess the extent to which the exemption is meeting its potential purpose. However, the General Assembly may want to clarify its intent for the exemption by providing a purpose statement and corresponding performance measure(s) in statute. This would eliminate potential uncertainty regarding the exemption's purpose and allow our office to more definitively assess the extent to which the exemption is accomplishing its intended goal.