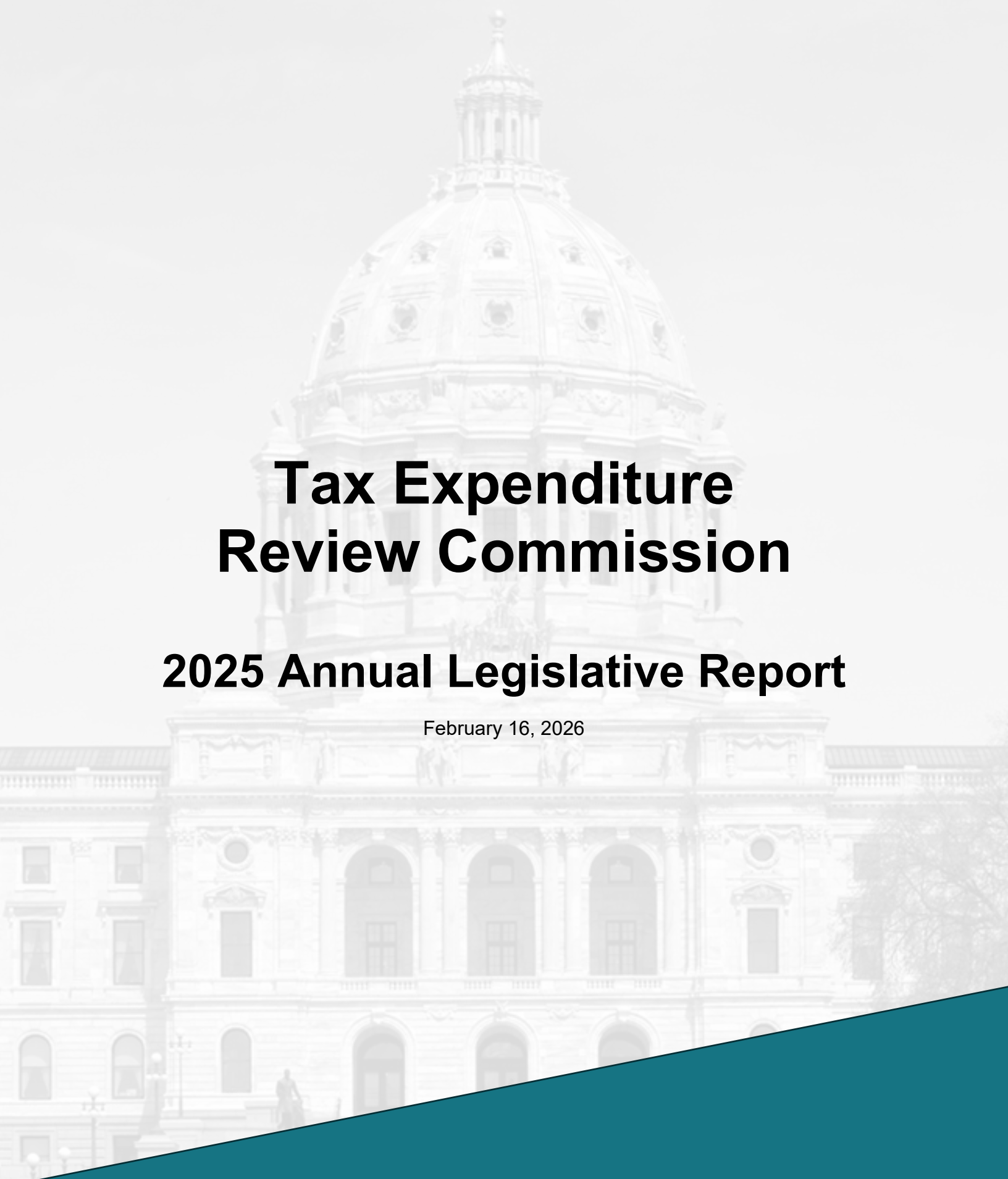


Tax Expenditure Review Commission

2025 Annual Legislative Report

February 16, 2026

Prepared by the Legislative Budget Office on behalf of the Tax Expenditure Review Commission.

For comments, questions, or concerns please contact the Legislative Budget Office:

658 Cedar St.
Centennial Building, 1st floor
St. Paul, MN 55155

E-mail: lbo@lbo.mn.gov

Phone: 651-297-7146

Cover photograph courtesy of Minnesota Senate Photography.

Letter to Legislative Committees

February 16, 2026

The Honorable Greg Davids,
Co-Chair Taxes Committee
Minnesota House of Representatives
2nd Floor Centennial Office Building
658 Cedar Street
St. Paul, MN 55155

The Honorable Ann H. Rest,
Chair Taxes Committee
Minnesota Senate
Capitol Room 328
St. Paul, MN 55155

The Honorable Aisha Gomez,
Co-Chair Taxes Committee
Minnesota House of Representatives
5th Floor Centennial Office Building
658 Cedar Street
St. Paul, MN 55155

The Honorable Bill Weber,
Ranking Minority Member
Taxes Committee
Minnesota Senate
Minnesota Senate Building, Room 2211
St. Paul, MN 55155

To the Honorable Chairs,

This report is submitted on behalf of the Tax Expenditure Review Commission pursuant to Minnesota Statutes 2025, section 3.8855, subdivision 7.

The Tax Expenditure Review Commission was created to review Minnesota's tax expenditures and evaluate their effectiveness and fiscal impact. The Tax Expenditure Review Commission must submit an annual report by February 15th to the legislative committees with jurisdiction over tax policy to detail the results of the Commission's reviews of tax expenditures in the previous year.

In the past year, the Commission reviewed 15 tax expenditure evaluations and established a process to facilitate Commission discussion on a recommendation to continue, repeal, or modify tax expenditures evaluated by the Commission.

More detail of the Commission's work in the past year is provided within this report.

Sincerely,

Representative Esther Agbaje, Co-Chair

Representative Greg Davids, Co-Chair

Senator Doron Clark, Vice Chair

This page is left intentionally blank

TABLE OF CONTENTS

This page is left intentionally blank

Executive Summary

This report is submitted on behalf of the Tax Expenditure Review Commission (Commission) pursuant to Minnesota Statutes 2025, section 3.8855, subdivision 7.

The Commission met on three separate occasions in 2025. The Commission was presented with five evaluations, consisting of 15 different tax expenditures, performed by the Legislative Budget Office (LBO).

The Commission established a formal procedure for making official recommendations to the legislature to either continue, repeal, or modify a tax expenditure; as required under Minnesota Statutes 2025, section 3.8855, subdivision 5(a)(9). The procedure adopted by the Commission can be referenced in Appendix E, along with a scoring template that commission members fill out as part of the adopted procedure.

The Commission did not make official recommendations to the legislature on any tax expenditures presented in 2025.

This report provides additional details on the activities of the Commission in 2025.

This page is left intentionally blank

Introduction

The Tax Expenditure Review Commission (Commission or TERC) was established under Laws of Minnesota 2021, 1st Special Session, chapter 14, article 11, section 4, to review Minnesota's tax expenditures and evaluate their effectiveness and fiscal impact. Details on the establishment of the Commission, its membership, duties, review requirements, staff support, and reporting requirements are codified under Minnesota Statutes 2025, section 3.8855.

This report provides an overview of the Commission and its activities in calendar year 2025. The overview covers the Commission's membership; the Commission's duties and responsibilities; and a summary of the three meetings convened in 2025. A more detailed account of each meeting is provided in Appendices B-D.

The Commission is allowed to conduct evaluations of tax expenditures concurrently with the completion of initial reviews. In 2025, the Legislative Budget Office (LBO) presented five evaluation reports including 15 tax expenditures to the Commission.

This report also includes an overview of the tax expenditure evaluation landscape at the national and international levels.

A note of gratitude is extended to Commission members for their participation on the Commission. A special thank you goes out to legislative staff and the DOR for their engagement and feedback that informed the work throughout the calendar year. Additionally, the participation and assistance of executive branch agency staff that administer many of the programs impacted by these tax exemptions was vital and much appreciated through the evaluations performed in 2025.

2025 Tax Expenditure Review Commission

The structure, duties, and work of the Commission during 2025 are outlined below.

Commission Members

Minnesota Statutes 2025, section 3.8855, subdivision 3 governs the nine-member commission, plus two ex officio, nonvoting members. Membership, as defined by statute, must include:

- Two members of the Senate appointed by the Senate Majority Leader;
- Two members of the Senate appointed by the Senate Minority Leader;
- Two members of the House of Representatives appointed by the Speaker of the House;
- Two members of the House of Representatives appointed by the Minority Leader;
- The Commissioner of Revenue or a designee.
- If the chair of the house or senate committee with primary jurisdiction over taxes is not an appointed member, the chair is an ex officio, nonvoting member of the Commission.

The 2025 Tax Expenditure Review Commission members are:

House of Representatives

- Rep. Esther Agbaje, Co-Chair
- Rep. Greg Davids, Co-Chair
- Rep. Kristin Robbins
- Rep. Andy Smith

Department of Revenue

- Commissioner Paul Marquart

Senators

- Sen. Doron Clark, Vice Chair
- Sen. Matt D. Klein
- Sen. Mark W. Koran
- Sen. Bill Weber

Ex Officio Members

- Rep. Aisha Gomez
- Sen. Ann H. Rest

Duties and Responsibilities

The duties of the Commission are defined in Minnesota Statutes 2025, section 3.8855, subdivision 4:

- For not more than three years after the Commission is established, the Commission must complete an initial review of the state's tax expenditures. The initial review must identify the objective of each of the state's tax expenditures if none was submitted to the Commission in accordance with section 3.192. The Commission may also identify metrics for evaluating the effectiveness of an expenditure.
- The Commission must review and evaluate Minnesota's tax expenditures on a regular, rotating basis.
    a) The Commission must establish a review schedule that ensures each tax expenditure will be reviewed by the Commission at least once every ten years.
    b) The Commission may review expenditures affecting similar constituencies or policy areas in the same year, but the Commission must review a subset of the tax expenditures within each tax type each year.
    c) To the extent possible, the Commission must review a similar number of tax expenditures within each tax type each year.
    d) The Commission may decide not to review a tax expenditure that is adopted by reference to federal law.
- Before February 1 of the year a tax expenditure is included in a Commission report, the Commission must hold a public hearing on the expenditure, including but not limited to a presentation of the review components listed in Minnesota Statutes 2025, section 3.8855, subdivision 5.

Additionally, under subdivision 6, the DOR Tax Research Division must provide the Commission with the summary data required to complete certain statutorily required review components.

Subdivision 10 states that LBO staff must provide professional and technical assistance to the Commission as the Commission deems necessary, including assistance with the annual report.

2025 Commission Meetings

This section provides a brief discussion of Commission activities during 2025. Detailed summaries of the three meetings convened between September and December can be found in appendices B-D. Meeting agendas, minutes, and meeting materials can be found on the Tax Expenditure Review Commission website.

September 11, 2025

The Commission elected Co-Chairs and a Vice Chair. The LBO presented an overview of the Commission's framework and history as this is a new cohort of Commission appointees. An update was provided on the progress of initial reviews and evaluations.

Process considerations and next steps were discussed to continue on past efforts of the Commission, including a process for the Commission to make recommendations to the legislature to continue repeal, or modify a tax expenditure. No other formal motions or actions were taken by the Commission.

November 5, 2025

Two evaluations were presented to the Commission, an evaluation of the state's marriage credit and a bundle of two exemptions from the sales and use tax specific to solar and wind energy equipment. No formal action was taken by the Commission on the tax expenditures included in the evaluations.

Co-chair Agbaje lead a discussion on the process for tax expenditure recommendations from the Commission and direction was given by the Commission to LBO staff to develop a template and draft a procedural document for the Commission recommendations.

December 10, 2025

The Commission discussed and approved a procedure to facilitate recommendations to the Legislature to continue, repeal, or modify tax expenditures. Commission members agreed to individually score tax expenditures based on the evaluations provided by the LBO. Aggregated scores will be presented at Commission meetings and will be used to inform discussion on a recommendation. See Appendix E for commission procedures and a scoring template for members to use in their assessment of tax expenditures.

Three evaluations were presented to the Commission, consisting of 12 individual tax expenditures. No formal action was taken by the commission on any of the tax expenditures included in the evaluations.

Landscape of Tax Expenditure Evaluations

U.S. state governments use tax expenditures to incentivize economic activities, nudge economic behavior, and address regressivity in their tax systems. Tax expenditures target two types of economic entities: individuals and businesses. At the individual level, households receive tax credits for business investment, deductions from their income tax for saving purposes, and exemptions from sales tax for certain purchases. At the business level, companies are allowed to deduct expenses from taxes owed and receive various types of tax credits to allow them to develop, remain competitive, and stimulate local economic growth. There is hardly any aspect of state tax systems or major tax categories that are not affected by tax expenditures.

Tax expenditures target a wide range of economic activities such as housing development and purchases, home and business energy consumption, business investment and development, and business location decisions. Tax expenditures are provided through state income tax, sales tax, corporate tax, property tax, and other taxes. Consequently, given the wide range of economic activities targeted by tax expenditures, a key question arises: To what extent, if any, do tax expenditures achieve their stated objectives? To answer this question, there is a need to evaluate state tax expenditures.

To that end, the Minnesota Legislative Budget Office (LBO) briefly surveys the current landscape of tax expenditure evaluations at the state level. For purposes of this report, tax expenditures include tax credits, deductions, subtractions, exclusions, and any other tax incentive that adjusts the standard tax base and whose policy intent is not eliminating tax pyramiding. Further, a few other parameters are in order given the broad scope of tax expenditure evaluations. This review is not meant to be a comprehensive historical account of the evolution of tax expenditure evaluations, rather it is a look at the *current* practices and methods that states are using to measure the effectiveness of tax expenditures. Thus, this brief survey will mainly focus on the challenges that states face when it comes to evaluating tax expenditures. Specifically, the LBO will look at challenges related to data practices, modelling techniques, and software packaging tools used to provide insights on tax expenditure evaluations. As a point of comparison with current state practices, the LBO also briefly highlights tax expenditure evaluations at the federal level in the United States, with a brief mention of tax expenditures in Canada.

Having set those parameters, the remainder of this brief survey is laid out as follows. First, the LBO highlights research on federal tax expenditures due to the sophistication of the methods used, as well as the detailed and varied data sets used. Second, the LBO reviews current state practices, focusing on modelling techniques, data challenges, and limitations of economic impact modeling tools such as Impact Analysis for Planning

(IMPLAN) and Regional Economic Models, Inc. (REMI). Finally, the LBO briefly reviews the evaluations conducted in 2025 on behalf of the Tax Expenditure Review Commission to assess how those evaluations compare to current state practices.

Tax Expenditure Evaluations at the Federal Level

In the United States, there are hundreds of federal tax expenditure programs.[1] Some of the most studied federal tax expenditures in economics include the home mortgage interest deduction[2], the Earned Income Tax Credit (EITC),[3] tax deductions related to charitable giving[4], the child tax credit (more on this later), and health savings accounts (HSAs)[5]. Rigorous reviews of dozens of similar federal tax expenditures have been performed by independent researchers and economists. To illustrate, consider the child tax credit; there have been research papers on the effect of the child tax credit on labor supply[6], material hardship[7], parents' psychological well-being[8], living arrangements and housing affordability of families with low incomes,[9] to name a few examples. Similar examples abound with respect to the other federal tax expenditures mentioned above.

There are at least three lessons state practitioners can draw from the multitude of studies on the child tax credit. One lesson is that different methods have been used with different time periods and datasets. Another lesson relates to unintended consequences of a tax incentive, as a multitude of outcomes are considered. Oftentimes, public policies do have unintended consequences, some of which may be as or more important in understanding a tax expenditure's impact as their stated objectives. The third lesson relates to the availability of quality data that allows researchers to conduct quality research on federal tax expenditures.

---

[1] U.S. Department of Treasury, "Tax Expenditures", (2025): https://home.treasury.gov/policy-issues/tax-policy/tax-expenditures

[2] Edward L. Glaeser and Jesse M. Shapiro, "The Benefits of the Home Mortgage Interest Deduction," NBER Working Paper 9284 (2002): https://www.nber.org/papers/w9284

[3] Austin Nichols and Jesse Rothstein, "The Earned Income Tax Credit (EITC)," NBER Working Paper 21211 (2015): https://www.nber.org/system/files/working_papers/w21211/w21211.pdf

[4] https://www.nber.org/papers/w32737

[5] Stephen T. Parente and Roger Feldman, Tax Policy and the Economy, Volume 22 (University of Chicago Press, 2008), chap. 3, https://www.nber.org/books-and-chapters/tax-policy-and-economy-volume-22/do-hsa-choices-interact-retirement-savings-decisions

[6] Brandon Enriquez, Damon Jones, and Ernest V. Tedeschi, "The Short-Term Labor Supply Response to the Expanded Child Tax Credit," NBER Working Paper 31110 (2023): https://www.nber.org/papers/w31110

[7] Zachary Parolin, Elizabeth Ananat, Sophie M. Collyer, Megan Curran, and Christopher Wimer, "The Initial Effects of the Expanded Child Tax Credit on Material Hardship," NBER Working Paper 29285 (2021): https://www.nber.org/papers/w29285

[8] Lisa A. Gennetian and Anna Gassman-Pines, "The Effects of the 2021 Child Tax Credit on Parents' Psychological Well-Being," NBER Working Paper 32662 (2024): https://www.nber.org/papers/w32662

[9] Natasha V. Pilkauskas, Katherine Michelmore, and Nicole Kovski, "The 2021 Child Tax Credit, the Living Arrangements and Housing Affordability of Families with Low Incomes," NBER Working Paper 31339 (2023): https://www.nber.org/papers/w31339

Although there is not an official federal agency or entity that is responsible to regularly evaluate federal tax expenditures, the Congressional Research Service (CRS) periodically publishes a compendium of federal tax expenditures for the U.S. Senate Budget Committee. The focus of the CRS compendiums is not on estimating the effectiveness of federal tax expenditures, but rather on discussing available evidence surrounding each tax expenditure.[10] A review of the last three compendia shows a similar pattern. Each compendium includes the following:

- a brief description of the tax expenditure under review;
- a discussion on its impact;
- a discussion on the rationale behind the tax expenditure;
- an assessment of the tax expenditure; and
- a selected bibliography.

Overall, though there is not an extensive data analysis, each compendium presents a balanced assessment of federal tax expenditures.

Tax Expenditure Evaluations at the International Level

There is also an international component to tax expenditure evaluations. Countries and development organizations have identified benefits from evaluating tax expenditures. To facilitate tax expenditure evaluations, international institutions such as the International Monetary Fund (IMF)[11] and the World Bank[12] have written guides focusing on helping countries evaluate the effectiveness of tax expenditures. Though not necessarily following the guides of the IMF and the World Bank, Canada has been evaluating its tax expenditures annually since 2021, as indicated by its Department of Finance.[13] A quick review of recent tax expenditure reports from 2021 to 2025 reveals a well-defined process, evaluating all tax expenditures with respect to their incidence for different demographic groups, while also acknowledging that the tax incidence numbers do ignore behavioral change.

---

[10] Congressional Research Service, “Tax Expenditures,” Committee on the Budget United States Senate, (2022):https://www.govinfo.gov/content/pkg/CPRT-117SPRT49569/pdf/CPRT-117SPRT49569.pdf

[11]Sebastian Beer, Dora Benedek, Brian Erard, and Jan Loeprick. "How to Evaluate Tax Expenditures", *IMF How To Notes* 2022 : https://www.imf.org/en/publications/fiscal-affairs-department-how-to-notes/issues/2022/11/how-to-evaluate-tax-expenditures-525166

[12]World Bank, “Tax Expenditure Manual,” World Bank Publications , (2024): https://documents1.worldbank.org/curated/en/099062724151636908/pdf/P174543148ba880bb188fd1ce06f588a6aa.pdf

[13] Department of Finance Canada, “Federal Tax Expenditures,” Government of Canada (2025): https://www.canada.ca/en/department-finance/services/publications/federal-tax-expenditures.html

Tax Expenditures at the State Level

To provide a sense of magnitude, in 2021, tax expenditures reduced all state revenues by more than $1 trillion a year.[14] Further, state tax expenditure reports for various years for all 50 states are published by the Institute of Tax and Economic Policy (ITEP), highlighting the fact that almost all 50 states do use tax expenditures.[15] There is some data available on tax expenditures for Minnesota's neighboring states. In 2020, tax expenditures reduced Iowa general fund revenues by just under $16 billion;[16] in 2025, South Dakota had a total sales and use tax expenditures of $1.4 billion (no income tax).[17] Wisconsin relies heavily on tax expenditures. For example, Wisconsin collected $9.7 billion in income tax in fiscal year 2024, while income tax expenditures related to federal conformity for sickness and injury benefits cost the state $1.3 billion in the same fiscal year.[18] North Dakota seems to be an outlier with a smaller amounts of forgone revenue, with nearly $32 million in tax expenditures between fiscal year 2022 and fiscal year 2023.[19] In reviewing state tax expenditure reports published by the ITEP, it is evident that state tax expenditures have a wide reach and are deeply embedded in state tax systems.

Considering the importance and reach of tax expenditures, it is no wonder that there is a need to evaluate them, assess what works, what does not work, and, if necessary, propose changes. More than 25 states have laws mandating evaluations of tax incentives.[20] To assist them in this task, states have delegated the evaluation of tax expenditures to various entities or government agencies. The most common institutional arrangements involve, either in combination or separately, state department of revenues and state legislative offices. Some states have contracted outside entities for some of their evaluations, as evidenced by film tax credit evaluations conducted by Ernst & Young on behalf of New Mexico and New York.[21] Georgia has an interesting

---

[14] Matt Fabian and Lisa Washvurn, "Benefit or Burden: Evaluating $1 Trillion in State Tax Expenditures," Municipal Market Analytics Inc (2024):https://www.volckeralliance.org/sites/default/files/2024-06/Benefit%20or%20Burden%20-%20The%20Volcker%20Alliance_0.pdf

[15] Institute of Taxation and Economic Policy," State-by-state Tax Expenditure Reports," ITEP Staff (2025):https://itep.org/state-by-state-tax-expenditure-reports/

[16] Iowa Department of Revenue," Tax Expenditure Study," Tax Research Bureau (2022): https://revenue.iowa.gov/media/3242/download?inline

[17]State of South Dakota Summary of Governor's Budget Fiscal Year 2025: https://bfm.sd.gov/budget/FY2025/SummaryBook_FY2025.pdf

[18] Wisconsin Department of Revenue, "Summary of Tax Exempt Devices," (2007-2025): https://www.revenue.wi.gov/Pages/Report/Summary-Tax-Exemption-Devices.aspx

[19] North Dakota Office of Sate Tax Commissioner, "Biennial Report", 2023: https://www.tax.nd.gov/sites/www/files/documents/news-center/publications/56th-biennial-report.pdf

[20] Pew Charitable Trusts, "How States Are Improving Tax Incentives for Jobs and Growth: A National Assessment of Evaluation Practices," 2017: https://www.pew.org/-/media/assets/2017/05/edti_how_states_are_improving_tax_incentives_for_jobs_and_growth.pdf

[21] Jennifer Weiner, "Ernst & Young Analyses of New Mexico and New York Film Tax Credits," Federal Reserve Bank of Boston (2009).

arrangement, as tax expenditure assignments are split between three state universities: Georgia State University, University of Georgia, and Georgia Southern University.

Evaluation Approaches

Regardless of the institutional arrangements in evaluating their tax expenditures, most states have not used the wide array of methods and detailed data used by independent researchers to study federal tax expenditure in the United States. Further, analyzing whether most tax expenditures achieve their stated objectives is ultimately an empirical exercise. Ideally, assessing whether a tax incentive succeeded in incentivizing economic behavior would require either well-designed randomized experiments or carefully crafted causal inference methods. However, randomized experiments are rarely feasible in the social sciences. Therefore, only causal inference methods designed for program evaluations using non-experimental data can tell us convincingly whether tax expenditures meet their objectives. Fortunately, over the last few decades, there has been a revolution in the economics of program evaluation, with the development and refinement of econometric methods for non-experimental data such as, differences-in-differences, triple-differences, regression discontinuity design, synthetic control, matching technique, and instrumental variables. With some notable exceptions, causal inference methods have not found their way into state tax expenditure evaluations.[22]

Several reasons explain why the widespread use of causal inference methods in the economics of program evaluation has not found its way in the field of tax expenditure evaluation. One, as further explained below, there might be a lack of quality and detailed data on beneficiaries of tax expenditures. Second, such data challenges are further complicated by a time component. As a pre-requisite, causal inference methods require pre-treatment data, i.e. data from before the enactment of the tax expenditures. In some cases, tax expenditures were enacted more than 25 years ago, so obtaining pre-enactment data can be a challenge. Third, causal inference methods usually require a comparison group to compare to the beneficiaries of the tax incentives. Comparison groups can be in-state entities that are not eligible for the tax expenditures or out-of-state entities whose own states do not have a similar tax expenditure. If in-state comparison groups are used, for these methods to be credible, the eligibility rules or requirements for receiving the tax incentives must be independent of the outcomes or objectives of the tax expenditures. However, this is not always the case. An alternative approach might be to use cross-state comparisons, comparing outcomes of the state that enacted the tax expenditure with other states that did not. Here, too, there are

[22] Jim Landers, "How Counterfactual Analysis Can Help Assess the Effectiveness of State and Local Tax Incentives," Pew Charitable Trusts (2020): https://www.pew.org/en/research-and-analysis/articles/2020/03/02/how-counterfactual-analysis-can-help-assess-the-effectiveness-of-state-and-local-tax-incentives

some challenges, as such an approach would require detailed data (tax data) from other states and institutional knowledge of other state policies.

Considering these difficulties, rather than using causal inference methods to assess tax expenditures, states have undertaken alternative practices. There is not a one-size-fits-all approach when it comes to state-level tax evaluation practices, as different states structure their evaluation processes based on their own laws or statutes. Nevertheless, in general, most states have used some combination of survey methods, often non-scientific, analyzing descriptive statistics and trends in outcomes over time when data allows them to do so. One recurring theme in state tax expenditure evaluations to infer whether the tax expenditures meet their objectives is an examination of trends data since the implementation of the tax expenditures. One notable from the state tax evaluation literature comes from Iowa. In an evaluation of a tax incentive to beginning farmers in Iowa, researchers at the Iowa Department of Revenue went to great lengths to choose an appropriate control group to compare to beneficiaries of the tax incentives.[23] In another tax evaluation on angel investment credit, Iowa researchers admit at the outset that they cannot directly address the objective of the tax credit and the reasons why they cannot do so, and instead chose an appropriate control group to address other aspects of the tax credits.[24] In a similar vein, researchers at the Fiscal Research Center at Georgia State University uses synthetic control to complement IMPLAN analysis. [25]

Cost-benefit analysis is a common approach in tax expenditure evaluations. Cost-benefit analysis often fails to account for both positive and negative externalities associated with tax expenditures.[26] Thus, such approaches have their limitations. Massachusetts primarily does a cost-benefit analysis in analyzing its tax expenditures, focusing only on the direct costs and direct benefits while acknowledging the difficulty of estimating indirect benefits and costs.[27] Rhode Island is broadly in line with such an approach, though using REMI.[28] In a similar vein, researchers from both the University

---

[23] Estelle Montgomery, "Beginning Farmer Tax Credit Program Evaluation Study," Research and Policy, Division Iowa Department of Revenue (2020): https://revenue.iowa.gov/sites/default/files/2021-01/BFTC%20Evaluation%20Study%202020.pdf

[24] Estelle Montgomery, "Angel Investment Tax Credit Evaluation," Research and Policy, Division Iowa Department of Revenue (2024): https://revenue.iowa.gov/media/4054/download?inline

[25] Fiscal Research Center, "Tax Incentive Evaluation: Georgia's Film Tax Credit," (2023): https://www.audits2.ga.gov/reports/summaries/tie-georgias-film-tax-credit/

[26] For example, a comprehensive cost-benefit analysis of data center tax credits would account for environment factors, while a small alcohol producer tax credits would incorporate rather large externalities associated with alcohol consumption.

[27] Massachusetts Tax Expenditure Review Commission, "Report of the Tax Expenditure Review Commission," (2025): https://www.mass.gov/doc/terc-2025-final-report/download

[28] Madiha Zaffou and Emily Fazio, "Training: Cost-Benefit Analysis and Tax Incentive," Evaluations Rhode Island Department of Revenue, Office of Revenue Analysis (2021): https://www.pew.org/-/media/assets/2021/07/cba-training-transcript.pdf

of Georgia and Georgia State University compare forgone revenues with revenues generated by the tax credits, ignoring secondary effects.[29]

To assist their work in evaluating tax incentives, some states rely heavily on two tools: IMPLAN and REMI. Interestingly, some states (Washington, Georgia) almost exclusively use REMI and/or IMPLAN, while a state like Massachusetts explicitly avoids using these tools due to their complexity and data limitations. Roughly, REMI and IMPLAN are input-output tools that model how $1 dollar spent in one sector of the economy spills over to other sectors of the economy through a ripple effect. Usually, the resulting economic outcomes of interest are the number of jobs created and value-added output (GDP). In addition, both IMPLAN and REMI provide tax revenue estimates, which are computed based on the level of economic activity, not on the tax base and tax rates. As such, IMPLAN and REMI revenue estimates may be less reliable than estimates from state agencies (Department of Revenue). Finally, IMPLAN is static, while REMI is dynamic, allowing researchers to see the evolution of the impact of a specific tax expenditure on the overall economy over time.

There are several limitations with both IMPLAN and REMI. To begin with, those tools cannot tell us anything about the *specific objectives* of some tax expenditures. To illustrate, Minnesota has several housing tax expenditures that aim to increase the number of housing units in the state (supply side) or help Minnesotans purchase a house (demand side). In either of those two cases, the key question that the Tax Expenditure Review Commission would want to answer is: Did the tax incentives help people buy a house or increase housing units in the state? IMPLAN and REMI are of no help here. Continuing with our Minnesota examples, the same logic applies to tax credits to small alcohol producers (to help them stay in business) and agricultural loan tax credits (to help local banks remain competitive with federal banks for agricultural loans). Here, too, neither IMPLAN nor REMI can address the *specific objectives* of those tax incentives.

Another limitation with both IMPLAN and REMI is their black box nature. This relates to the underlying assumptions of those economic modeling tools, and how different researchers use those models can lead to significant differences in findings.[30] Perhaps for that reason, among others, Massachusetts explicitly mentioned in their Tax Expenditure Review Commission reports that they did not use IMPLAN or REMI due to data challenges and sophistication of these models.[31] In an ideal world, researchers

[29] Georgia Department of Audits & Accounts, “Tax Incentive Evaluations,” (2004): https://www.audits2.ga.gov/reports/summaries/tax-incentive-evaluations/

[30] Jennifer Weiner, “Ernst & Young Analyses of New Mexico and New York Film Tax Credits,” Federal Reserve Bank of Boston (2009).

[31] Massachusetts Tax Expenditure Review Commission, “Report of the Tax Expenditure Review Commission,” (2025): https://www.mass.gov/doc/terc-2025-final-report/download

would assess how the underlying assumptions of these models fit with the tax incentives they are examining.

Acknowledging the limitations already mentioned with REMI and IMPLAN, a vexing and elusive problem persists, and it cannot be addressed using those two input-output modelling software packages. The so-called “but-for” question is essential to a good tax expenditure evaluation, and, to emphasize, it must be addressed *outside* of IMPLAN and REMI.[32] To illustrate, let us use tax credits for data centers, as this is currently a hot-button issue. For the sake of argument, the objective of a data-center tax credit is to create jobs, and either IMPLAN or REMI is used to estimate the number of jobs created by the tax credit. The resulting number of jobs from those models would be the gross total number of jobs generated by the tax credit, which is an overestimation. From that jobs number, we would need to subtract the number of jobs that would have been created anyway in the absence of the tax credit. This is what economists call the *counterfactual* state. Unfortunately, we do not get to observe two different states of the economy at the same time. That is, we do not get to observe the state of the economy *with* and *without* the tax credit at the same time. We observe one of those two states, not both. In such an instance, a well-designed experiment or causal inference methods can yield a good “but-for” estimate.[33] Without a good “but-for” estimate, it is challenging to determine economic impact or change in behavior resulting from implementation of a specific tax policy.[34] This “but-for” issue is crucial in tax incentive evaluations. In reviewing attempts at estimating “but-for” numbers with respect to business tax incentives, Bartik[35] concludes that most studies reviewed seem to either overestimate or underestimate their “but-for” numbers. Due to the difficulty in estimating a good “but-for” number, a useful compromise might be to use another approach such as how Rhode Island Department of Revenue computes the “but-for” number that would be

---

[32] John Hamman, “Options for approaching Montana’s incentive evaluation criteria,” The Pew Charitable Trusts (2019): https://www.pew.org/-/media/assets/2019/08/pew-provides-best-practices-for-tax-incentive-evaluation-to-inform-montana-analyses.pdf

[33] These models are so important that economists Joshua D. Angrist and Guido W. Imbens received the Nobel Prize in economics 2021 for “methodological contributions to the analysis of causal relationships,” https://www.nobelprize.org/prizes/lists/all-prizes-in-economic-sciences/

[34] Michigan Economic Development Corporation. Michigan Business Development Program Effectiveness Study. January 28, 2019. available at https://www.michiganbusiness.org/4ad955/globalassets/documents/reports/third-party-research/mbdp-effectiveness-study-012819-2.pdf

[35] Bartik, Timothy J. 2018. "'But For' Percentages for Economic Development Incentives: What Percentage Estimates are Plausible Based on the Research Literature?" Upjohn Institute Working Paper 18-289. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research: https://research.upjohn.org/up_workingpapers/289/

required for a tax credit to break even.[36] Granted, this approach still does not address the original objective of the tax credit: to create jobs.

Regardless of the modelling approaches used, good quality data is a prerequisite for a successful tax expenditure evaluation. Unfortunately, data quality and data availability represent a major challenge for research in tax expenditure evaluations. One data challenge has to do with sensitive tax data. Drawing from the LBO's own experience in Minnesota, there might be laws restricting what types of individual or business tax data can be shared with evaluators. Therefore, though economic modelling techniques often require detailed individual and business tax data, it can be challenging to obtain such data due to data privacy laws. Another data challenge relates to lack of data reporting requirements, especially for tax expenditures administered at the local level. Third, the administrative forms used to file for tax incentives might fail to capture important data needed for an accurate assessment of tax expenditures.

Tax Expenditure Evaluation in Minnesota

To reiterate, in this brief survey, the LBO focuses only on the mechanics of conducting tax expenditure evaluations (e.g., modelling approaches, data challenges, input-output modeling software packages) at the state level, with a brief mention of federal tax expenditures and practices from other countries. However, an important aspect of this process relates to the outcomes of tax expenditure evaluations. That is, presumably, the goal of a tax expenditure evaluation is to assess what works, what does not work, and suggest possible alternatives. The Commission will consider this in their assessment of evaluations and recommendations to the legislature.

Having surveyed the current landscape of tax expenditure evaluations at the state level in the United States, the LBO seeks to highlight how its process compares to other states. To begin with, the Minnesota Tax Expenditure Review Commission is a relatively new entity, established in 2021 by the Minnesota Legislature to evaluate tax expenditures. Currently, Minnesota has more than 300 tax expenditures.

To discuss the evaluations the LBO conducted in 2025, a useful starting point might be the 2011 Tax Expenditure Review Report, which is a foundational document on how the LBO should conduct its evaluations.[37] Very briefly, the 2011 Report recommends, among other things, providing detailed descriptive statistics on beneficiaries of tax expenditures and using, whenever possible, "inferences based on comparisons across

---

[36] Madiha Zaffou and Emily Fazio, "Training: Cost-Benefit Analysis and Tax Incentive," Evaluations Rhode Island Department of Revenue, Office of Revenue Analysis (2021): https://www.pew.org/-/media/assets/2021/07/cba-training-transcript.pdf

[37] Minnesota Department of Revenue, "Tax Expenditure Review Report: Bringing Tax Expenditures into the Budget Process", 2011: https://www.revenue.state.mn.us/sites/default/files/2018-12/TE_Review_Report_02_15_11.pdf

states (or before and after enactment) must be made with care." This last point refers to using causal inference methods to evaluate tax expenditures that have to do with behavioral change. In addition, though not mentioned specifically, the 2011 Report also acknowledges the limitations of tools such as IMPLAN and REMI, concluding that those are blunt tools not designed to estimate the effect of specific tax expenditures. Those recommendations present a useful benchmark to assess the evaluations the LBO conducted in 2025.

In 2025, the LBO evaluated more than a dozen tax expenditures on topics ranging from marriage penalties, renewable energy equipment purchases, lawful gambling activities, utilities consumption, and alcohol production by small producers. To give a sense of their economic value, tax credits evaluated ranged from forgone revenue estimates of less $1 million to more than $200 million. Further, the tax expenditures the LBO evaluated affect major Minnesota state taxes: income tax, sales tax, and corporate income tax. Finally, a few of these tax credits were enacted more than a decade ago: wind and solar (enacted in 1992); marriage credit (1999); residential heating fuel (1978); residential water services (1979); lawful gambling (1985). A relatively long time period since enactment presents data challenges in tracking the effectiveness of these evaluations.

With respect to modelling approaches, data availability usually dictates what types of analysis the LBO included in the tax expenditure evaluation. The methods range from a combination of surveys, descriptive statistics, and trend analysis. When evaluating the three tax credits to small alcohol producers, IMPLAN was leveraged to model economic impact. Moving forward, as a complement to IMPLAN, the LBO is in the process of obtaining a REMI license to check the robustness of evaluation findings and their sensitivity to modelling tools. Overall, though data challenges complicate the LBO's efforts in reaching the benchmark of the 2011 Report, the modelling approaches of the LBO are broadly in line with practices in other states.

Given the limitations of IMPLAN and REMI, especially relating to the but-for question, here the LBO elaborates on different approaches that are worth exploring to measure the effectiveness of tax expenditures. As already mentioned, there are a multitude of alternative econometric and causal inference methods available: differences-in-differences, synthetic control, regression discontinuity design, matching, and instrumental variables.

Data challenges are the major obstacle to applying program evaluation methods. Briefly, two types of data are required. One, for beneficiaries of the tax expenditures, longitudinal data that covers both the pre and post enactment period of the tax expenditures are required. Second, for non-beneficiaries or an appropriate comparison

group, the same type of data that covers the same time frame would be required as well.

In a nutshell, then, data permitting, this all comes down to finding an appropriate comparison group for beneficiaries of Minnesota tax expenditures. There are three ways the LBO might proceed. First, the most obvious comparison groups are Minnesota's neighbors (Iowa, Wisconsin, North Dakota, and South Dakota). Second, regions within Minnesota might serve as good comparison groups, assuming of course that there is a geographical component to tax expenditure. A comparison of Minneapolis vs St. Paul (or other neighboring cities or counties) would be ideal, in cases where a tax expenditure affects only one city, not both. Third, entities (individuals or businesses) within Minnesota might serve as good comparison groups. In all scenarios above, ideally, beneficiaries of tax expenditures would be as similar to non-beneficiaries as possible with respect to relevant characteristics related to the outcomes of the tax expenditure under study. Put simply, similar groups lead to comparison of apples with apples, not apples with oranges to measure the effectiveness of tax expenditures.

There are a few techniques available to estimate the effectiveness of tax expenditures. At a minimum, different approaches to IMPLAN and REMI, especially relating to the but-for question, would require an appropriate comparison group and longitudinal data that covers both pre and post enactment period of tax expenditures. The LBO will explore options available to obtain this level of robust analysis on behalf of the TERC.

In sum, tax expenditures represent a significant part of state budgets, impacting a wide range of economic activities and all major state tax types (income tax, sales tax, corporate tax, property tax). Therefore, state policymakers need to evaluate their tax expenditures. To do so, states face several challenges ranging from data quality issues to relying almost exclusively on IMPLAN and REMI, which cannot address specific objectives of most tax expenditures, while ignoring causal inference methods. The LBO is not immune to those challenges. The LBO hopes this brief survey of state tax expenditure evaluations will help readers gain more insights into the evaluation process.

This page is left intentionally blank.

Appendix A. Glossary

This glossary provides definitions for terms that have been previously defined in Minnesota Statutes, Minnesota DOR published reports, Federal agency reports, IMPLAN software documentation, or industry reference materials. Many of these terms are used in tax expenditure evaluations. See references and links to source materials.

Business Tax Credit
A credit against the corporate franchise tax claimed by a C corporation; or a credit against the individual or fiduciary income tax claimed by a pass-through entity that is allocated to its partners, members, or shareholders.[38]

Capacity
The amount of energy output a system would produce if it were operating at its full potential.[39]

Concentrated Solar Thermal Systems
Mirrors used to direct and concentrate sunlight to create heat or thermal energy, which is used to produce other forms of usable energy like electricity, renewable fuels, and industrial process heat. Different configurations of these systems include power towers, linear mirror systems, and smaller dish engine systems.[40]

Deductions
Also called Subtractions for Minnesota tax purposes, are income tax provisions that reduce the amount of individual or business income that is taxable. For examples of Minnesota deductions and subtractions, see Department of Revenue Subtractions and Deductions webpage https://www.revenue.state.mn.us/subtractions-and-deductions.

[38] Minnesota Statutes 2025, section 270C.11, subdivision 6(1) i, ii.
[39] U.S. Energy Information Administration. (2024). “What is the Difference Between Electricity Generation Capacity
and Electricity Generation?” https://www.eia.gov/tools/faqs/faq.php?id=101&t=3.
[40] Office of Energy Efficiency and Renewable Energy. 2013. Concentrating Solar-Thermal Power Basics. November 02. Accessed March 24, 2024. https://www.energy.gov/eere/solar/concentrating-solar-thermal-power-basics.

Direct Effects
Attributable outputs that take place directly within the industry of interest.

Distributed Energy Resources
Customer-owned systems like solar panels, wind turbines, and energy storage devices that are located at the site of use to offset the energy required from a utility provider. These systems are referred to as behind-the-meter systems. They can also be front-of-the-meter installations that are not located with a particular customer or at the site of use, such as a community solar garden. These systems are connected to a utility's distribution grid and can provide excess generated energy to a utility provider for compensation.[41] This definition is limited to systems that are less than 10 megawatts, interconnected with the distribution system, and operate in parallel with the utility.

Economic Impact Analysis
A type of applied economic analysis that tracks the interdependence among various producing and consuming sectors of an economy. More particularly, it measures the relationship between a given set of demands for final goods and services and the inputs required to satisfy those demands.

Effective Tax Rate
A taxpayer's tax liability as a percentage of their taxable income after credits, subtractions, and deductions are accounted for.

Employment
Employment in IMPLAN is an industry-specific mix of full-time, part-time, and seasonal employment. It is an annual average that accounts for seasonality and follows the same definition used by the U.S. Bureau of Labor Statistics (BLS) and U.S. Bureau of Economic Analysis (BEA). IMPLAN Employment is not equal to full-time equivalents (FTE), and includes wage and salary employment and proprietors.

Event
In IMPLAN, events specify the economic transactions occurring in the local economy being analyzed, in terms of type, specification, and value.

Exclusions
Property tax provisions that lower tax liability by subtracting the amount of the exclusion from the property's estimated market value to arrive at a lower taxable market value. For examples of Minnesota exclusions, see the DOR's Property Tax Program webpage at https://www.revenue.state.mn.us/property-tax-programs.

[41] Minnesota Public Utilities Commission. 2024. Distributed Energy. March 08. Accessed March 27, 2024. https://mn.gov/puc/activities/economic-analysis/distributed-energy/

Indirect Effects
Economic effects stemming from business-to-business purchases in the supply chain.

Induced Effects
Economic effects stemming from household spending of labor income, after removal of taxes, savings, and commuter income.

Industry Contribution Analysis (ICA)
A method used to estimate the wider economic contribution of an existing industry or group of industries in a region, at their current levels of production. ICA shifts the traditional input-output framework to see what industries, and what level of production in these industries are being supported by current activity. ICA events are distinct from impact events because they employ a constraint that removes feedback linkages or buybacks to the industry being analyzed. For example, if breweries and wineries were added to the same event within a model, the model would exclude any purchases between the two industries.

Interconnection
The connection of a distributed energy resource to a utility's distribution grid.

Labor Income
All forms of employment income, including employee compensation (wages, salaries, and benefits) and proprietor income.

Normal Tax Base
Also referred to as a reference tax base. A reference tax system reflects a particular conceptual basis for taxation as well as other features necessary to implement and administer the tax code.[42]

Output
For all industries, output equals the value of production.

[42] Congressional Budget Office. How Specifications of the Reference Tax System Affect CBO's Estimates of Tax Expenditures. 2021. Available at https://www.cbo.gov/publication/57695

Photovoltaic energy devices
Solar panels that are composed of smaller cells. These smaller cells are made of semiconductor materials, designed to produce electric currents as ions transfer throughout the materials as a result of the energy transfer from sunlight. The transfer of ions creates an electric charge that is harnessed and made to flow throughout the panels and into a system that converts this direct current into alternating current for household or industrial use. A photovoltaic system can consist of one panel or a large grouping of solar panels, referred to as an array.[43]

Population Decile
Minnesota's population broken down into ten evenly divided segments by household income.[44]

Progressive Tax
A tax for which the effective tax rate rises as income rises.

Regressive Tax
A tax for which the effective tax rate falls as income rises. See 2024 MN Tax Incidence Study.

Significant Tax Expenditure
A tax expenditure, but excluding any tax expenditure that:

(i) is incorporated into state law by reference to a Federal definition of income;

(ii) results in a revenue reduction of less than $10,000,000 per biennium; or

(iii) is a business tax credit.[45]

Subtractions
Allowable deductions to an individual's adjusted gross income. Claiming subtractions reduces your income taxable to Minnesota. For examples of Minnesota deductions and subtractions, see DOR Subtractions and Deductions webpage: https://www.revenue.state.mn.us/subtractions-and-deductions.

[43] U.S. Office of Energy Efficiency and Renewable Energy. 2019. PV Cells 101: A Primer on the Photovoltaic Cell. December 03. https://www.energy.gov/eere/solar/articles/pv-cells-101-primer-solar-photovoltaic-cell.
[44] Population Deciles, "2021 Population Deciles", Minnesota Department of Revenue, (2024): https://www.revenue.state.mn.us/sites/default/files/2024-03/table-2-21-average-tax-tax-type.pdf
[45] Minnesota Statutes 2025, section 270C.11, subdivision 6(3) i, ii, iii.

Tax Credits
A tax provision that directly reduces the amount of tax liability that would otherwise be owed. A *refundable* credit may reduce a tax liability to zero and allow the taxpayer to receive a refund if the credit amount is greater than the tax amount. A *nonrefundable* credit may only reduce a tax liability to zero despite the full value of the credit. For examples of Minnesota tax credits, see the Minnesota DOR's 2024 Tax Expenditure Report available at https://www.revenue.state.mn.us/sites/default/files/2024-11/2024-tax-expenditure-budget-published-version-cover.pdf

Tax Expenditure
A tax provision which provides a gross income definition, deduction, exemption, credit, or rate for certain persons, types of income, transactions, or property that results in reduced tax revenue, but excludes provisions used to mitigate tax pyramiding.[46]

Tax Incidence
"The ultimate burden of the tax after the person or business firm legally obligated to pay the tax alters its behavior in response (if it does alter its behavior). In some cases, namely taxes imposed directly on households, both the impact and the incidence are the same. In other cases, such as taxes on businesses, some or all of the incidence may be shifted from the business to others." For this definition and other tax incidence related terms see the glossary included in the Minnesota DOR's 2024 Tax Incidence Study available at https://www.revenue.state.mn.us/sites/default/files/2024-03/2024-tax-incidence-study- final-online-revision_0.pdf

Tax Pyramiding
Imposing sales taxes under chapter 297A on intermediate business-to-business transactions rather than sales to final consumers.[47]

Utility Scale Energy
Renewable energy systems that are connected to the transmission grid and have a capacity of 10 megawatts or more.

Value Added
The difference between an industry's or establishment's total output and the cost of its intermediate inputs; it is a measure of the contribution to GDP.

[46] Minnesota Statutes 2025, section 270C.11, subdivision 6(a)(4).
[47] Minnesota Statutes 2025, section 270C.11, subdivision 6(a)(6).

This page is left intentionally blank.

Appendix B. TERC Meeting September 11, 2025

Commission Member Attendance

Commissioner Paul Marquart called the meeting of the Tax Expenditure Review Commission (TERC) to order at 1:00 PM.

Present

Commissioner Paul Marquart
Rep. Esther Agbaje
Sen. Doron Clark
Rep. Greg Davids
Rep. Aisha Gomez (Ex Officio)
Sen. Mark W. Koran
Rep. Andy Smith

Excused

Sen. Matt Klein
Sen. Ann H. Rest (Ex Officio)
Rep. Kristin Robbins
Sen. Bill Weber

Meeting Summary

Commissioner Marquart called the hybrid meeting of the Tax Expenditure Review Commission to order, per Minnesota Statutes 2025, section 3.8855, subdivision 8. A quorum was present. The meeting minutes from December 4, 2024, were approved as presented. Commissioner Marquart initiated the election of chair and vice chair. The Commissioner also noted that, due to the current make-up of the House of Representatives, House co-chairs would be elected. Rep. Agbaje moved to nominate Rep. Agbaje and Rep. Davids for the positions of co-chairs. Both Rep. Agbaje and Rep. Davids accepted the nominations. No other nominations were made for the positions of co-chair. A roll call vote was taken. Representative Agbaje and Davids were elected Commission co-chairs.

Sen. Clark moved to nominate Sen. Klein for the position of vice chair. Rep. Smith nominated Sen. Clark for the position of vice chair. Sen. Clark accepted the nomination. Sen. Clark withdrew his nomination of Sen. Klein for the position of vice chair. No other nominations were made for the position of vice chair. A roll call vote was taken. Sen. Clark was elected Commission vice chair.

Christian Larson, Director with the Legislative Budget Office and Kristi Schroedl, Deputy Director with the Legislative Budget Office, provided Commission members with a historical overview of the Commission, including statutory duties and an overview of binder materials prepared for members.

Commissioner Marquart presented options for the Commission to consider in meeting the requirements of Minnesota Statutes 2025, section 3.8855, Subdivision 5(a)(9),

requiring the Commission to recommend whether the expenditure be continued, repealed, or modified. Commission members were directed to consider the options presented and be prepared to discuss and finalize at a future TERC meeting.

Commission Motions and Actions

Rep. Agbaje and Rep. Davids were elected as Commission co-chairs. Sen. Clark was elected vice-chair. The LBO will respond to member questions in a memo from Director Christian Larson.

Future Meetings

Co-Chair Agbaje noted that she and Co-Chair Davids would meet with staff to discuss the schedule and agenda for future meetings and would then follow up with other Commission members.

Appendix C. TERC Meeting November 5, 2025

Commission Member Attendance

Present

Rep. Esther Agbaje, Co-Chair
Rep. Greg Davids, Co-Chair
Sen. Doron Clark, Vice Chair
Sen. Bill Weber
Sen. Mark W. Koran
Rep. Kristin Robbins
Commissioner Paul Marquart

Excused

Rep. Andy Smith
Sen. Matt Klein
Sen. Ann H. Rest (Ex Officio)
Rep. Aisha Gomez (Ex Officio)

Meeting Summary

Co-Chair Davids called the hybrid meeting of the Tax Expenditure Review Commission to order. A quorum was present. The meeting minutes from September 11, 2025, were approved as presented. Co-Chair Agbaje presented a tax expenditure evaluation process proposal from the Co-Chairs for consideration. Commission member questions and discussion followed.

Legislative Budget Office (LBO) staff were directed to create a tax expenditure evaluation worksheet for the Commission using the previously presented Massachusetts template as a model, and providing the worksheet to the Commission for final approval at the next meeting. Co-Chairs Agbaje and Davids requested that LBO staff draft a written procedure for evaluating tax expenditures based on Commission discussion and preferences from the meeting and present that draft for Commission approval at the December meeting. The Co-Chairs stated that their intent is for the Commission to begin using the procedure, once approved, to make recommendations – with the first tax expenditure recommendation vote taking place in January 2026.

The LBO presented on the Marriage Penalty Credit Tax Expenditure and the Solar Energy Systems and Wind Energy Conversion Systems tax exemption evaluations.

Marriage Penalty Credit Tax Expenditure Evaluation Presentation

Alyssa Holterman Rosas, Lead Budget Analyst with the LBO, and Carlos Güereca, Lead Analyst with the LBO, presented the Marriage Penalty Credit Tax Expenditure evaluation. Commission questions and discussion followed.

Solar Energy Systems/Wind Energy Conversion Systems Tax Exemptions Evaluation

Carlos Güereca, Lead Analyst with the LBO, and Thomas Raney, Program Evaluator with the LBO, presented the Solar Energy Systems Tax Exemption and Wind Energy Conversion Systems Tax Exemption evaluation. Commission questions and discussion followed.

Commission Motions and Actions

LBO Director, Christian Larson noted that, based on conversations with the Co-Chairs, there will be three tax expenditure evaluations on the agenda for the next meeting: one related to small alcohol producers, one related to utilities, and one related to lawful gambling. Director Larson also noted that the data center tax expenditure evaluation will be presented at the first meeting in January and that the second January meeting will be a review of the Commission's work for the year and the TERC annual report. The LBO will respond to member questions in a memo from Director Larson.

Appendix D. TERC Meeting December 10, 2025

Commission Member Attendance

Present

Rep. Esther Agbaje, Co-Chair
Rep. Greg Davids, Co-Chair
Sen. Doron Clark, Vice Chair
Sen. Bill Weber
Rep. Kristin Robbins
Commissioner Paul Marquart
Rep. Andy Smith
Rep. Aisha Gomez (Ex Officio)

Excused

Sen. Matt Klein
Sen. Mark W. Koran
Sen. Ann H. Rest (Ex Officio)

Meeting Summary

Co-Chair Agbaje called the hybrid meeting of the Tax Expenditure Review Commission to order. A quorum was present. The meeting minutes from November 5, 2025, were approved as presented. Co-Chair Agbaje presented a tax expenditure evaluation procedural process document and template for member consideration. Commission member questions and discussion followed. Individual member forms submitted to the LBO will be private; however, the aggregate response summary will be shared with members at a subsequent meeting when a public vote will be taken for the Commission to recommend to continue, modify or repeal a tax expenditure. Rep. Robbins moved to adopt the proposed procedure and template. The motion prevailed.

The LBO presented three tax expenditure evaluation reports.

Credit for Small Brewers, Small Wineries, and Microdistilleries Tax Expenditures Evaluation Report Presentation

Vlad Fleurimond, Economist with the LBO, and Jordan Peoples, Program Evaluator with the LBO, presented the Credit for Small Brewers, Small Wineries, and Microdistilleries Tax Expenditures Evaluation. Commission questions and discussion followed.

Lawful Gambling Tax Expenditures Evaluation Report Presentation

Annie Lemieux and Thomas Raney, Program Evaluators with the LBO, presented the Lawful Gambling Tax Expenditures Evaluation. Commission questions and discussion followed.

Residential Heating Fuels, Residential Water Services, and Sewer Services Tax Expenditures Evaluation Report Presentation

Carlos Güereca, Lead Analyst with the LBO, and Jordan Peoples, Program Evaluator with the LBO, presented the Residential Heating Fuels, Residential Water Services, and Sewer Services Tax Expenditures Evaluation Report. Commission questions and discussion followed.

Commission Motions and Actions

The LBO will send evaluation forms to members today or tomorrow. Members should return the forms to the LBO in one week. The LBO will respond to member questions in a memo from Director Christian Larson.

Appendix E Commission Procedures

Procedures of the Tax Expenditure Review Commission (TERC)

As presented December 10, 2025

Powers and Duties

A. The TERC exercises the authorities and powers designated in Minnesota Statutes 2025, section 3.8855.

B. TERC will use the following procedure as it relates to making official recommendations on a tax expenditure pursuant to Minnesota Statutes 2025, section 3.8855, subdivision 5(a)(9) to continue, repeal, or modify a tax expenditure:

1. After each evaluation presentation, TERC members will receive a tax expenditure evaluation form. Each member will fill out the form to indicate their agreement or disagreement with the listed propositions related to the effectiveness of the tax expenditure. This form should be distributed on the same day as the evaluation or as soon as practically feasible after the evaluation. Each individual TERC member form is non-public.

2. After receiving the form, TERC members will need to return the form within one week to LBO staff.

3. LBO staff will compile and aggregate the responses from TERC members. This will be reported at the following TERC meeting as an addendum to the evaluation. The aggregated report will also be available for review in advance of the meeting similar to other TERC meeting materials. The aggregated report is public, but de-identified.

4. At the subsequent TERC meeting after the full evaluation and after members fill out their individual report, TERC members will discuss their recommendations and then vote on whether a tax expenditure should continue, be modified, or be repealed. The vote will be public.

5. Results of the TERC members' vote to continue, modify, or repeal a tax expenditure will be included in the next annual TERC report.

Tax Expenditure Evaluation Form

Minnesota Template for Evaluating Tax Expenditures

Name of Expenditure:
Estimate of Annual Revenue Lost:
Year of Adoption:
Sunset Date:

Tax Type:

- ☐ Individual Income Tax
- ☐ Corporate Franchise Tax
- ☐ Estate Tax
- ☐ General Sales and Use Tax
- ☐ Motor Vehicle Sales Tax
- ☐ Highway Fuels Excise Tax
- ☐ Alcoholic Beverage Tax
- ☐ Cigarette and Tobacco Tax
- ☐ Mortgage Registry Tax
- ☐ Deed Transfer Tax
- ☐ Lawful Gambling Tax
- ☐ Insurance Premiums Tax
- ☐ Property Tax
- ☐ Motor Vehicle Registration Tax
- ☐ Aircraft Registry Tax
- ☐ Cannabis Gross Receipts Tax

This expenditure is the result of state conformity to the Federal Code:

- ☐ Yes
- ☐ No

Commission Approved Objective:

Business (check all that apply):

- ☐ Job Creation & Maintenance
- ☐ Investment
- ☐ Competitiveness/Strategic
- ☐ Health/Environmental/Social Justice
- ☐ Other

Individual (check all that apply):

- ☐ Relief of Poverty
- ☐ Progressivity/Assistance to Low Earners
- ☐ Access to Opportunity
- ☐ Health/Environment/Social Justice
- ☐ Other

Measurement and Effectiveness Ratings

Which best reflects your opinion on each statement?

Statement	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
We can measure the overall benefit towards achieving the objective(s).	☐	☐	☐	☐
The expenditure's benefit justifies its fiscal cost.	☐	☐	☐	☐
The expenditure is claimed by its intended beneficiaries.	☐	☐	☐	☐
The expenditure is claimed by a broad group of taxpayers.	☐	☐	☐	☐
The expenditure amount claimed per taxpayer is meaningful as an incentive/benefit.	☐	☐	☐	☐
The expenditure is relevant today.	☐	☐	☐	☐
Business Only: The expenditure is primarily beneficial to smaller businesses.	☐	☐	☐	☐
Individuals Only: The expenditure is primarily beneficial to lower income taxpayers.	☐	☐	☐	☐

This tax expenditure is flagged for legislative review:

☐ Continue

☐ Repeal

☐ Modify

Please provide comments below explaining strongly disagree/somewhat disagree ratings and other considerations to be highlighted, including policy proposals and further details to support your legislative review response above.

Comments:

Name of Commission Member:

Tax Expenditure Number:

Date Presented to Commission:

This page is left intentionally blank.

Appendix F

Minnesota
Tax Expenditure Evaluation:
Marriage Credit

Prepared for the Tax Expenditure Review Commission

by the Legislative Budget Office

July 09, 2025

Prepared by the Legislative Budget Office on behalf of the Tax Expenditure Review Commission.

For comments, questions, or concerns regarding this review please contact the Legislative Budget Office:

658 Cedar St.
Centennial Building, 1st floor
St. Paul, MN 55155

E-mail: lbo@lbo.mn.gov

Phone: 651-297-7146

Evaluation Team:

Carlos Güereca, lead

Alyssa Holterman Rosas

Xunxuan (Susan) Weerts

Table of Contents

This page is left intentionally blank.

Executive Summary

The Tax Expenditure Review Commission is responsible for reviewing the effectiveness and efficiency of Minnesota's tax expenditure policies. The Tax Expenditure Review Commission has elected to review and evaluate Minnesota's marriage credit. This report provides an assessment of the credit with consideration to the first eight components of tax expenditure review required under Laws of Minnesota 2025, 1st Spec. Sess. chapter 13, article 8, section 5. The commission may consider the findings of this report to recommend whether the expenditure be continued, repealed, or modified.

The Legislative Budget Office (LBO) has evaluated the marriage credit in its design and its application, and it has found that the credit is generally effective at addressing its stated objective of reducing marriage penalties; however, there are areas where the credit can be modified to be more effective and efficient. This applies to cases where married joint filers receive a tax credit that is either less or more than the value of the tax penalty they incur. Based on how the credit is calculated, cases have been identified with the potential for underpayments or overpayments to take place, but it is challenging to identify the rate at which this occurs. Potential solutions to structural issues in the design of the marriage credit calculation that address this concern are included in this evaluation report.

Additionally, there are few cases where the full benefit is not received by the taxpayer because the credit is not refundable. This happens in limited cases where a couple's tax liability falls below $0 as a result of claiming other credits, causing the remaining amount of their credit to be forgone. If the credit was made refundable, then all taxpayers would receive the full benefit of the credit and the credit's objective would be more fully accomplished.

The LBO would like to extend its gratitude to the Minnesota Department of Revenue Tax Research Division for their consultation, cooperation, and analysis in this evaluation.

Introduction

Minnesota's marriage credit was enacted in 1999. This is a nonrefundable credit that aims to compensate couples for an increase in tax liability experienced when filing income taxes jointly compared to when they filed individually as single filers. The increase in tax liability that married filers experience is often referred to as a marriage penalty.

A marriage penalty occurs if one or both individuals are taxed at a higher rate when filing jointly than if they had filed income taxes separately, or if more of their income is taxed at a higher rate than when they filed as a single filer. While earned income may stay constant for the individuals, the combined income of a couple filing jointly is taken into consideration to determine their tax liability. Applying the combined income of a couple to the state's progressive income tax structure, one or both individuals may find themselves in a higher income tax bracket. To understand how a marriage penalty occurs, it is important to understand two distinct features of the state's income tax structure.

First, the state has a progressive income tax system, meaning that as income increases, so does the tax rate. In Minnesota, there are four progressive tiers of income tax, each with a corresponding income range and tax rate. These are more commonly referred to as tax brackets.

Second, the income range for each tax bracket differs depending on the filing status. There are five income tax filing status options for a filer to choose from in Minnesota depending on their personal situation. These include "Single," "Married Filing Jointly," "Married Filing Separately," "Head of Household," and "Qualifying Surviving Spouse with Dependent Child." This report primarily focuses on two filing statuses, "Single" and "Married Filing Jointly." Generally, the income ranges are wider for the married joint filing status than they are for the single filing status. The varying ranges of tax brackets also contribute to the occurrence of a marriage penalty. The state's progressive tax structure and varying tax bracket ranges are critical to understand the underlying mechanics that result in a marriage penalty.

Conversely, a couple may benefit from a portion of their income falling into a lower tax bracket as married joint filers. This scenario is commonly referred to as a marriage bonus and mainly results from the wider ranges of income for tax brackets under the married joint filing status. Assessing the marriage bonus is not within the scope of this evaluation.

This evaluation is focused on determining the effectiveness and efficiency of the marriage credit in addressing marriage penalties that arise from Minnesota's progressive income tax rate structure and associated income ranges for each tax rate.

To that end, the LBO analyzed the calculation methodologies that filers are directed to follow in calculating the amount of their marriage credit. Further, the LBO ran simulations of income tax filings for married joint filers, calculating marriage penalties and corresponding credit calculations to inform an assessment of efficiency and effectiveness of the marriage credit. This simulation is limited to a simplified income tax filing structure taking into consideration only wages and the standard deduction, and assuming no other sources of income, itemized deductions, or other tax credits. The findings from this analysis are provided within this report.

The LBO worked closely with the Department of Revenue Tax Research Division, hereby referred to as DOR Tax Research, to better understand the underlying policies and administration of the marriage credit. Note that the Department of Revenue, as a whole, is referred to as DOR throughout the report.

This report provides a background on Minnesota's marriage credit; descriptive statistics regarding the tax credit and its beneficiaries; and an analysis of simulated tax filings to understand the effectiveness and efficiency of the policy in addressing the marriage penalty. The Commission may choose to consider these findings in preparing a recommendation to the legislature to continue, repeal, or modify the tax expenditure, as is required of the Commission under Laws of Minnesota 2025, 1st Spec. Sess. chapter 13, article 8, section 5.

Components of Review

The objective of this evaluation is to understand the effectiveness and efficiency of the marriage credit in compensating for the additional tax burden, or marriage penalty, placed on married couples that file income taxes jointly, as opposed to the tax liability they would have if they filed income tax separately.

This evaluation also addresses the minimum review components outlined in Laws of Minnesota 2025, 1st Spec. Sess. chapter 13, article 8, section 5 and provides additional analysis. The findings are listed in corresponding order as written in law.

Component 1. Estimate of the Annual Revenue Lost

The estimated fiscal impact for fiscal year 2024 is $98,100,000, according to an analysis by DOR Tax Research. This is associated with an estimate of 422,200 returns claiming the marriage credit in Tax Year 2023.

Component 2. Objective of the Tax Expenditure

The objective of the marriage credit is to reduce marriage penalties resulting from Minnesota income tax rate brackets for qualified two-earner married couples who file a joint return.

This objective was approved and adopted by the Tax Expenditure Review Commission on March 15, 2024, for the purpose of evaluating the marriage credit.

Component 3. Estimating the measurable impacts and efficiency of the tax expenditure in accomplishing the objective of the expenditure

The marriage credit is found to be effective at compensating for a marriage penalty for married couples whose lesser-earning spouse makes at least $114,000. The marriage credit can provide overpayments to a small fraction of these higher-earning couples. This only applies to couples that itemize their deductions, which is roughly 8 percent of married joint filers, based in 2021 sample tax filing data provided by DOR Tax Research. Therefore, there are few cases where this tax expenditure is not efficient from the state's perspective due to overpayments.

For married couples in which the lesser-earning spouse makes less than $114,000, the marriage credit is less effective. These couples are required to calculate their credit amount using a look-up table, which can produce underpayments or overpayments. It is challenging to identify the frequency of this occurring, but the potential exists when the use of a look-up table is implemented. The marriage credit is considered less effective for couples who receive an underpayment and considered to be effective for couples who receive a credit equal to their actual penalty. Cases where couples face an overpayment or underpayment are considered to prove the marriage credit to be inefficient.

Component 4. Comparing the effectiveness of the tax expenditure and a direct expenditure

Comparison to a direct payment program is challenging because the beneficiaries are not consuming a particular service or good, and the marriage credit is not a program designed to encourage a specific behavior that might be alternatively achieved through a direct payment to a target population. Additionally, it is impossible to preemptively estimate an individual's annual income or filing status to provide a direct payment in anticipation of a marriage penalty. The best comparison in this case may be a refundable tax rebate. The marriage credit, being a nonrefundable tax credit, could be more effective at compensating taxpayers by making the credit refundable. This would allow all eligible taxpayers to recoup the full amount of the penalty they incur even if their tax liability falls below zero dollars, regardless of whether they benefit from other credits. The refundability aspect of this credit was estimated by DOR Tax Research to be 278 out of 391,855 claims in tax year 2021. That makes up less than 0.07 percent of claims for the marriage credit.

Component 5. Potential modifications to the tax expenditure to increase its efficiency or effectiveness

One solution to making the calculation of the marriage credit more efficient is to repeal the statutory requirement for the Commissioner of Revenue to devise a look-up table for the marriage credit and to direct all filers to implement the calculation method provided in Part 2 of the Schedule M1MA form published by DOR. This method is shown to be more efficient at calculating the marriage penalty and corresponding credit for the majority of taxpayers. This would remove calculation inefficiencies for couples whose lesser-earning spouse has an income lower than $114,000, based on the 2023 Schedule M1MA form.

An alternative solution is to make the look-up table larger to allow for finer income ranges for joint taxable income and the income of the lesser-earning spouse. This would reduce the degree of the inefficiencies for couples whose lesser-earning spouse has income lower than $114,000, but it would not eliminate the inefficiencies all together since the credit amounts in the look-up table are calculated using the midpoint for each income range. Returns with more or less than the midpoint values may receive an overpayment or underpayment.

Component 6. Estimating the amount by which the tax rate for the relevant tax could be reduced if the revenue lost due to the tax expenditure were applied to a rate reduction

DOR Tax Research calculated a revenue-neutral tax rate that would reduce the current rate by 0.045 percent for each tax bracket of the individual income tax for married joint filers. Figure 1 displays the current tax rate and corresponding rate reduction for each tax bracket for married joint filers.

Figure 1. Revenue-Neutral Calculations

Tax Bracket	Current Tax Rate	Revenue-Neutral Tax Rate
First ($0 - $46,330)	5.350 percent	5.305 percent
Second ($46,330 - $184,040)	6.80 percent	6.755 percent
Third ($184,040 - $321,450)	7.850 percent	7.805 percent
Fourth ($321,450 and higher)	9.850 percent	9.805 percent

Component 7. The incidence of the tax expenditure and the effect of the expenditure on the incidence of the state's tax system

DOR Tax Research estimated the tax change, by population decile, as a result of marriage credit claims in tax year 2021, and also calculated the percentage of tax change proportional to each decile.[48] This was performed on a sample of income tax

[48] Population deciles rank household income into 10 equal segments, each segment containing the same

filings. The results of this breakdown can be found in Figure 2. This breakdown indicates that the majority of fiscal impact from the credit is concentrated in the top three population deciles. This results in 94 percent of the marriage credit's total value going to households with household income above $95,361. As the marriage credit is constructed to address a structural penalty that occurs when household income rises as result of a couple becoming married and filing their income taxes accordingly, it makes sense to find that the credit will disproportionately benefit households with higher incomes. This would suggest that the marriage credit reduces the progressivity of the state's income tax system by providing tax relief as income rises.

However, looking at the tax expenditure itself, DOR Tax Research calculated a Suits index of .088, which would suggest that the policy is slightly progressive. A slightly progressive tax incentive can be interpreted to mean that as income rises, the proportion of the incentive to total income reduces. In other words, the benefit that lower income households receive is larger in proportion to their income than the benefit that higher income households receive.

Figure 2. Incidence of the Marriage Credit, Tax year 2021

Population Decile	Tax Change	Percent Tax Change	Return Count
$15,544 & under	$10,960	0.0 percent	24
$15,545 - $24,961	*	*	*
$24,962 - $35,168	$16,176	0.0 percent	70
$35,169 - $45,808	$41,060	0.0 percent	121
$45,809 - $58,014	$9,155	0.0 percent	39
$58,015 - $73,668	$52,781	0.1 percent	699
$73,669 - $95,360	$2,390,730	2.4 percent	21,009
$95,361 - $127,780	$17,519,092	17.9 percent	100,588
$127,781 - $183,475	$34,823,052	35.5 percent	165,363
$183,476 & over	$39,314,500	40.1 percent	103,942
Nonresidents	$3,922,494	4.0 percent	30,345
All	$98,100,000	100.0 percent	422,200

*Fewer than 10 returns. Amounts were combined with an adjacent cell.

number of households. The first segment, or decile, includes households with the lowest household income, while the tenth decile includes households with the highest household income.

Component 8. Cumulative fiscal impacts of other state and Federal taxes providing benefits to taxpayers for similar activities

There are other provisions in Minnesota law that create a marriage penalty, but there are no other tax provisions that are designed to intentionally correct for those penalties. Therefore, there is not a similar state program or other fiscal impacts to consider alongside the impact of the marriage credit.

At the federal level, the marriage penalty is addressed by doubling the income tax brackets for married joint filers, except for the last two brackets. Doubling brackets for married joint filers often leads to marriage bonuses. The LBO asked DOR Tax Research to estimate the cumulative fiscal impact of the state Marriage Credit and the marriage bonus that may occur at the federal level.

The DOR Tax Research calculated the combined effect of the federal bonus and state penalty for all returns that claimed the marriage credit in tax year 2021. Considering their combined state and federal tax, 208,025 returns had a total estimated net gain of $277.2 million compared to filing as two single individuals. The federal bonus more than offset the state marriage penalty for this group of filers. However, for many tax returns, the federal bonus does not offset the state penalty. This applies to 191,200 tax returns, which account for an estimated net increase in tax of $49.2 million. This likely comes about because the tax returns with the largest federal bonus are not the ones with the largest state penalty. There is more discussion to this topic within the report.

Background on Minnesota's Marriage Credit

Basics

Beneficiaries of the marriage tax credit are qualified married joint filers whose income would fall into lower income tax brackets had they filed their taxes separately. To determine the credit amount, the qualified taxpayers must complete form Schedule M1MA, Marriage Credit, in addition to form M1, Individual Income Tax. The credit amount and look-up parameters in the M1MA form are adjusted annually for inflation, so tax filers should be sure to reference the forms that correspond to the appropriate tax filing year. Throughout this report, references to the M1MA are specific to the 2023 Schedule M1MA form, unless otherwise noted.

The DOR administers this tax expenditure. The Marriage Credit reduces the amount of income tax revenue that would otherwise be generated. State income tax collections are deposited in the state General Fund, except as provided in the Minnesota Constitution or Minnesota Statutes 2024, section 290.62.

The latest estimates of forgone revenue are provided in Component 1: Estimate of the Annual Revenue Lost.

Mechanics

Filers will use Schedule M1MA, provided by the DOR, to determine whether they are eligible for a credit and to calculate their credit amount. Eligibility is based on a mathematical determination of whether a penalty will occur due to the taxable income of each spouse. To be eligible for the marriage credit, the lesser-earning spouse must make at least $28,000 in income from wages, self-employment, investments, and taxable social security benefits, and the couple together must make at least $44,000 in taxable income.

After determining eligibility, filers will complete the remaining portions of Schedule M1MA to determine their credit amount. The credit is determined under one of two methods depending on the income of the lesser-earning spouse. If the lesser-earning spouse makes less than $114,000 in income from wages, self-employment, investments, or taxable social security benefits, filers are directed to a look-up table within the Schedule M1MA form to determine their credit amount. Joint taxable income and the income of the lesser-earning spouse are used to reference the corresponding credit amount in the look-up table.

If the lesser-earning spouse makes more than $114,000 in income from the previously listed sources, then the filers are directed to complete Part 2 of the M1MA form. This consists of 10 line-items that are used to calculate the credit amount. This second method walks the filers through calculating tax liability for each spouse as if they were filing under the “single” status separately. This method assumes the lower-earning spouse would take the standard deduction and implicitly assigns any itemized deduction amounts beyond the standard deduction to the higher-earning spouse. The sum of the resulting tax liabilities is compared to the tax liability the couple faces if filing under the married joint status. If tax liability for the couple is larger under the married joint status compared to their combined tax filing as two single individuals, then the difference is considered the marriage penalty amount, and this is the same amount that the couple is directed to claim for the credit.

The difference in tax liabilities between a couple filing their annual income taxes under the married joint status or filing separate under the single filer status is a result of the state’s graduated tax rate structure and income ranges that vary within each tax bracket, depending on the filing status chosen.

Minnesota’s graduated, or progressive, tax rate structure provides for a higher marginal tax rate as income increases, meaning that an individual’s income will be taxed at one rate within the first income bracket. For any income exceeding that first bracket, their tax rate will increase but only for that excess portion of income. Any portion of income that exceeds the second income bracket is taxed at a rate corresponding to the third income range tax rate. The same applies to any portion exceeding the third bracket and into the

fourth bracket. In other words, in 2023, an individual filing as single is taxed at 5.35 percent on their taxable income up to $30,070. Any taxable income beyond $30,070 and up to $98,760 is taxed at 6.80 percent. Any taxable income beyond $98,760 and up to $183,340 is taxed at 7.85 percent. Finally, any taxable income beyond $183,340 is taxed at 9.85 percent. These four income ranges make up the state's tax brackets for individuals filing taxes as single. The income ranges for each bracket widen for couples filing under the married joint status. The differing income ranges for each respective filing status combined with the four tax rates lead to a difference in tax liability for couples filing as married jointly rather than if they would have filed as single. Examples of marriage credit calculations are provided in Appendix A.

The mechanics of determining eligibility and calculating a corresponding marriage penalty is automated when filing taxes electronically based on taxpayer inputted data. Taxpayers are relieved of the administrative burden of determining their eligibility and calculating their marriage credit amount through electronic filing. Electronic tax preparation services must develop these processes into their software according to DOR Tax Research.

Legislative History

In an effort to mitigate marriage penalties, the Minnesota legislature introduced several bills during the period of 1997-1999. Initial efforts focused on modifying the tax brackets. Some bills proposed widening the individual income tax brackets for married joint filers from 30 percent to 100 percent, which would have cost the state $106 million in 1999, largely due to increases in marriage bonuses that would result.[49]

A marriage penalty credit was proposed under HF 1998 and ultimately included in the 1999 Omnibus Tax Bill, HF 2420. The legislation provided the nonrefundable credit that exists in statute today to compensate married joint filers for the marriage penalty. This nonrefundable credit is designed to minimize the marriage penalty without increasing the marriage bonus. The revenue forgone for the marriage credit was estimated at $48 million in 1999, significantly less than the alternative proposal to widen tax brackets for individual filers.

There are other provisions in state law that create a marriage penalty, but the marriage credit only addresses penalties that occur as a result of filing income taxes under the married joint status and subsequently having different proportions of income fall into a different tax bracket. See Appendix B for a listing of other state provisions that create marriage penalties, as identified by the Minnesota House of Representatives Research Department.

[49] See Appendix D for a list of bills introduced between 1997 to 1999 aimed at addressing the marriage penalty.

Evaluation

Descriptive Statistics

The LBO looked at the distribution of the marriage credit according to income deciles of adjusted gross income, analyzing aggregated income sample data from 2021.[50] This is the latest available income sample data at the time this analysis was performed. Organizing sample data by income deciles allows for a clear view on the concentration of income across the state and helps to understand the relationship of income to the marriage credit. Analysis of this data is consistent with Finding 7 related to incidence, meaning that couples in higher income groups tend to benefit the most in terms of dollar value. The statistics below illustrate the distribution of marriage credit claims.

According to 2021 income tax sample data provided by the DOR Tax Research, the state issued $88,074,000 in nonrefundable credits for 426,974 returns claiming the marriage credit. The average marriage credit amount is just over $206 per claim. Just under 40 percent of the tax filings submitted through the married joint status received a marriage credit. The percentage of filings receiving a marriage credit drops to just over 22 percent when considering filings across all filing status types (Single, Married Joint, Married Separate, Head of Household, Qualified Widow).

Just under 21 percent of claims for the marriage credit go to households in the top four income deciles - incomes of $222,209 and above. This same group receives about 37 percent of the credit's dollar value issued in tax year 2021. Households in the top four income deciles account for the top 40 percent of income under the married joint filing status.

Slightly more than 72 percent of the marriage credit claims go to households in the fourth, fifth, and sixth income deciles, accounting for just over 60 percent of the credit's dollar value issued in tax year 2021. These three deciles represent 30 percent of the income under the married joint filer status and consist of married joint filers with household incomes ranging from $96,791 to $222,208.

Fewer than seven percent of the marriage credit claims go to households in the first three income deciles. This group receives three percent of the marriage credit dollar value issued in tax year 2021. This would include married joint filers with household income below $96,790. These first three income deciles represent 30 percent of the income under the married joint filing status.

[50] Income deciles divide households into 10 equal segments by income. Each decile will have the same amount of total household income but will differ in number of households included. The first decile will require many more households to equal the same amount of total household income as the tenth decile with far fewer households.

There are a few reasons that can explain why the first three income deciles tend to receive a marriage credit at lower rates than the next seven deciles. To start, the joint taxable income of a married couple in the first income decile might be below the joint income threshold that determines eligibility for the marriage credit ($40,000 in tax year 2021). Second, the upper limit of the first tax bracket ($39,810) for married joint filers is below the eligibility threshold for the credit, meaning that the first instance of eligible tax filers will be found in the second tax bracket by default.

The distribution of returns claiming the credit across income deciles illustrates that a disproportional amount of the marriage credit's dollar value goes to a comparatively smaller percentage of the eligible population in the higher income deciles. This is likely a result of larger amounts of income falling into a higher income tax brackets under the married joint filing status – meaning larger marriage penalties occur for individuals with higher income.

Effectiveness and Efficiency - Calculation of Marriage Penalty and Corresponding Credit

To understand how effectiveness and efficiency were assessed, both terms should be defined. The LBO considered the following definitions for the purpose of this evaluation.

Effectiveness refers to whether the calculated credit covers the full amount of the true marriage penalty experienced by a couple filing jointly. Note that this does not consider whether a couple benefits from the full amount of the credit due to its design as a nonrefundable credit. There is discussion to the refundability of the credit at the end of this section.

Efficiency refers to the degree to which the credit compensates the exact amount of the penalty. If a couple receives a credit that is larger or smaller in value than the penalty, then the LBO considers that instance of the marriage credit to be inefficient. This takes the perspective of the State of Minnesota and its fiduciary relationship to state funds. This definition of efficiency also aligns with the Department of Revenue's vision that "everyone reports, pays, and receives the right amount: no more, no less."

As previously described, the marriage penalty is calculated as the difference in tax liability between a couple filing under the married joint status and the same couple filing under the single status. The Schedule M1MA form provides two methods for determining a couple's credit amount. The following paragraphs discuss the effectiveness and efficiency of each method.

The first method, for households where the lesser-earning spouse earns less than $114,000, relies on a look-up table, which the DOR is required to provide under Minnesota Statutes 2024, section 290.0675, subdivision 3. Statute directs the Commissioner of Revenue to devise the look-up table using increments of up to $2,000

for the income of the lesser-earning spouse. Ranges for joint taxable income are provided in ranges of $20,000. The use of a look-up table will inherently provide ineffective and in some cases inefficient results. The midpoint of each range is used in the calculation of the corresponding credit. This will lead some taxpayers to receive a credit that is higher than their actual penalty and some to receive a credit that is lower than their actual penalty. Therefore, for married couples in which the lesser-earning spouse makes less than $114,000, the marriage credit is less effective. These couples are required to calculate their credit amount using a look-up table, which can produce significant underpayments, as well as significant overpayments.

An example of a significant overpayment is one where the actual marriage penalty experienced is calculated to be 73 cents, but the look-up table dictates the credit to be $106 based on income combinations. The marriage credit is considered less effective for couples that receive an underpayment and considered to be effective for couples that receive a credit equal to their actual penalty. Cases where couples face either an underpayment or an overpayment are considered to prove the marriage credit to be inefficient.

The second method of the Schedule M1MA form is used for married couples whose lesser-earning spouse makes at least $114,000. As indicated in the Mechanics section of this evaluation, this method uses a calculation to determine the amount of the penalty which then becomes the amount of the credit. The marriage credit is found to be effective at compensating for a marriage penalty for these couples. However, the marriage credit can provide overpayments to a small fraction of these higher-earning couples, specifically if they itemize their deductions. Roughly 6.5 percent of marriage credit claimants itemize their deductions. This is about 27,764 of the marriage credit claims from 2021 sample data according to DOR Tax Research. There is more discussion to these scenarios further in this section.

The LBO calculated the marriage penalty and corresponding credit for 75 hypothetical income combinations to understand the variability between the marriage penalty experienced and the credit determined by the respective calculation method. In the design of these simulations, the LBO used the income thresholds provided in the 2023 Schedule M1MA form. In 62 of the 75 income combinations, the lesser-earning spouse had income below the $114,000 threshold, requiring the use of a look-up table. Of these 62 simulations, there were 24 cases where the couple would have received a credit that was either higher or lower than their actual penalty by almost $10 or more if they would have applied the second calculation method instead. In these 24 cases, the difference in credit calculations range from an overpayment of $105.27 to an underpayment of $104.75. In cases where a couple receives a credit that covers the amount of their actual penalty, the policy can be determined to be effective and to be meeting its objective. However, in cases where the couple receives a credit that is less than their

actual penalty, the marriage credit can be considered ineffective. See Appendix C for examples of simulations illustrating how the calculation of the marriage credit may be ineffective and at times inefficient due to overpayments.

The DOR Tax Research Division was able to estimate the number of cases from tax year 2021 sample data tax filings where the marriage credit calculated under the look up table differed from the credit calculated based on Part 2 of the M1MA form. Figure 3, provided by Tax Research Division, gives a breakdown of the findings organized by population deciles of Married Joint filers that received a marriage credit in tax year 2021. Based on sample data, the Department estimates that there were 175,161 cases where the credit amount differed by $0.50 or more between the two credit calculation methods. The cumulative impact is estimated to be $139,720 in underpayments. The total amount of underpayments, estimated at $636,383, are offset by the total amount of overpayments, estimated at $496,663.

Figure 3. Inefficiencies of the M1MA Table for Minnesota Married Joint Filer, Tax Year 2021.

Inefficiencies of the M1MA Table for Minnesota Married Joint Filers, TY21			
Population Decile	**Count**	**Sum**	**Average**
$15,544 & Under	*	*	*
$15,545 - $24,961	-	-	-
$24,962 - $35,168	-	-	-
$35,169 - $45,808	*	*	*
$45,809 - $58,014	-	-	-
$58,015 - $73,668	420	($21,258)	($50.61)
$73,669 - $95,360	23,021	($284,327)	($12.35)
$95,361 - $127,780	61,819	$298,342	$4.83
$127,781 - $183,475	41,931	$338,041	$8.06
$183,476 & Over	47,970	($191,078)	($3.98)
All	175,161	$139,720	$0.80

A positive value indicates that the filer receives LESS from using the M1MA table.
A negative value, enclosed in parentheses, indicates that the filer receives MORE from using the M1MA table.
**Fewer than 10 returns. Results were combined with an adjacent cell.*

Again, the shortcomings described above are a result of the use of a look-up table. As part of this evaluation, the DOR Tax Research Division pointed out that the ranges in the look-up table are dictated by statute and are in increments of $2,000 for the lesser-earning spouse. However, the increments for joint taxable income have changed since the enactment of the marriage credit. Originally, the table only provided two ranges for the couple's joint taxable income. One range was between $25,000 and $99,999, and the other was for $100,000 and above. This initial structure of the look-up table was written into the enacting statute in 1999. These larger ranges for joint taxable income would have made the tax credit less efficient. In 2001, the Commissioner of Revenue was authorized to establish the look-up table and the structure previously established in statute was repealed.[51] This led to the current ranges as seen in the M1MA form.

The DOR Tax Research Division suggests two potential solutions to address the inefficiencies produced by the look-up table. The first would be to alter and expand the look-up table; the second would be to require all taxpayers to use the calculation in Part 2 of the M1MA form rather than the look-up table.

The first solution would involve expanding the look-up table to provide for finer income increments. This would reduce the differences between the actual penalty experienced and the credit as indicated in the look-up table. This would not completely address the inefficiencies in overpayments and underpayments.

The second alternative would be to repeal the statutory requirements for the Commissioner of Revenue to devise a look-up table for the marriage credit and require that every tax filer use the method laid out in Part 2 of the M1MA form to calculate their credit. This method would provide more efficient and effective results in terms of calculating a penalty and corresponding credit. While this process is relatively burdensome when performed on paper, the process is significantly streamlined for electronic filers, which account for 94 percent of all filers who claim the marriage credit. The ability to calculate this credit electronically removes many steps in the process and makes the use of a look-up table almost unnecessary. The high-level mechanics of using Part 2 of form M1MA are provided in the background section of this report. To reiterate some key aspects of this method, the combined tax liability of each spouse filing as single is compared to the couple filing as married joint. For couples that take the standard deduction, Part 2 provides a more accurate calculation of the penalty a couple is likely to incur. Based on 2021 sample income data, it is estimated that 92 percent of taxpayers filing married jointly in 2021 took the standard deduction. So, it is reasonable to determine that this calculation method is accurate for the vast majority of filers claiming the marriage credit.

[51] Laws of Minnesota 2001, 1st Special Session. chapter 5, article 7, section 41

For the eight percent of taxpayers that itemized their deductions in 2021, there is a potential for this method to provide a credit that exceeds a couple's actual penalty amount, benefitting the couple. For these couples, this method can distort the distribution of their income, creating an inefficiency in the calculation of the credit. This is because the couple's joint taxable income amount, which includes all of their itemized deductions, is assigned to the higher-earning spouse, minus the income of the lower-earning spouse. Further, the calculation assumes that the lower earning spouse would take the standard deduction if filing single. The combination of these assumptions has the effect of minimizing the difference in the couple's income. The result is a higher calculated penalty with a corresponding higher credit than would result from the calculation assuming an equal split of itemized deductions for both spouses or a corresponding assignment of the itemized deductions. Splitting the couple's itemized deductions evenly does not necessarily reflect a more accurate representation of a couple's income distribution, though its effect of minimizing the difference in a couple's income is less than the current approach. For eight percent of taxpayers, this approach is likely to yield inefficient results when overpayments are made.

The definition of Effectiveness for the purpose of this evaluation is provided at the beginning of this section and it clarifies that the refundability of the credit is not considered in the definition. However, it should be noted that due to the fact that the credit is non-refundable, there are cases where a couple loses out on a portion of their marriage credit. This would apply to cases where the couple's tax liability falls below $0, because they claim other tax expenditures, namely refundable tax credits. DOR Tax Research estimates that this applied to about 278 returns out of 391,855 returns eligible for a marriage credit filed by Minnesota residents in tax year 2021. The total benefit lost by couples is estimated at $11,067. All 278 cases are found among taxpayers in the top three population deciles. For couples to benefit from a refundable tax credit, both spouses need to have a minimum taxable income and the couple has to claim other credits that would reduce their tax liability to zero.

Administrative Burden

The LBO asked DOR Tax Research to speak to the administrative burden the credit poses to the department. The department assures that the marriage credit is not administratively burdensome for the department to carry out. Further, it states the only complication arises when manual adjustments must be made to the M1MA form to account for conformity adjustments.[52]

In addition, the LBO completed an analysis of the administrative burden a tax filer may experience in claiming the marriage credit. The following analysis of the administrative burden of filing for the marriage credit assumes that a taxpayer is submitting a paper tax

[52] Curtis Walker, direct email to Legislative Budget Office evaluation team, November 25, 2024.

filing. It should be noted that according to the DOR Tax Research, only six percent of the marriage credit claims issued are for paper tax return filings. This means that most marriage credit recipients file their tax returns electronically. Electronic filing removes many of the administrative burdens a taxpayer would face if filing a paper tax return.

Qualification for the marriage credit is somewhat complex. To qualify for the marriage credit, the taxable income of the lesser-earning spouse must exceed $28,000 in 2023, calculated on Line 6 of Schedule M1MA, and the couple's joint taxable income must exceed $44,000 in 2023, calculated on Line 7 of Schedule M1MA. An individual must understand whether they received income from self-employment, a taxable retirement pension, profit-sharing, stock bonuses, an annuity plan, or taxable social security benefits. This information can be referenced in an individual's federal tax filing, but it may require referencing up to five separate line entries in a taxpayer's federal tax filing.

The calculation of the marriage credit itself is also not straightforward. The calculation methods are not uniform across all income levels. As mentioned above, if the income of the lesser-earning spouse is below $114,000, the taxpayers must use the look-up table on the M1MA form to determine the appropriate marriage credit. If the income of the lesser-earning spouse exceeds $114,000, the taxpayers need to switch to Part 2 and follow 10 steps to compute the applicable credit. This requires multiple references to a couple's Minnesota Income Tax Return M1 form. For part-year residents and nonresidents, there are two additional steps and one cross-reference.

The marriage credit is not a line item on Minnesota Income Tax Return M1 form. Once completing the M1MA form, the taxpayers must enter the value from Line 21 of form M1MA to Line 1 of the Nonrefundable Credit form, Schedule M1C. After adding all other nonrefundable credits on Schedule M1C, the final value will then be added to Line 16 on the M1 form.

The subtle difference between income sources, two distinct calculation methods, and multiple entries on three separate tax forms creates an administratively burdensome process for tax filers. With these considerations in mind, the marriage credit can be determined to be administratively burdensome for taxpayers with respect to paper tax filings.

Comparison to Similar Policies

Review of Similar Programs in Minnesota

Minnesota's marriage credit only rectifies the marriage penalties caused by Minnesota's tax bracket structure. To the best of the LBO's knowledge, there is no other program that is designed to address the marriage penalty resulting from filing income taxes jointly and subsequently having different portions of income fall into a higher tax bracket.

However, other programs exist which, in their original design, may penalize a married couple due to different rates of benefit based on single versus married status. Such was the case in 1999 when HF 2420 was introduced to address various instances of a marriage penalty.

Besides the marriage credit, HF 2420 included provisions to reduce marriage penalties resulting from the dependent care credit and the federal standard deduction. In the case of the dependent care credit, a phase out threshold was doubled for married couples, requiring a separate phase out table to be created. The issue of the standard deduction was that at the federal level the standard deduction for married couples was not double that of a single filer. An additional income tax subtraction was enacted to cover the difference. HF 2420 was signed into law with a line-item veto (unrelated to marriage penalty provisions) on May 25, 1999. This is no longer an issue for many taxpayers, as the federal standard deduction for married joint filers has been double the standard deduction for taxpayers filing as single in the first four income brackets since tax year 2018.

Review of Marriage Penalties at the Federal Level

Like Minnesota, the United States has a progressive income tax structure, meaning there are instances of marriage penalties and bonuses present in the federal tax system. Attempts to alleviate marriage penalties by the federal government include creating new filing statuses, allowing deduction for married couples, and altering the tax brackets of married joint filers to widen or double them.[53]

In 2001, tax brackets were widened by 15 percent for married joint filers. In 2003, the two lowest tax brackets were doubled for joint filers. Most recently, in 2017, all tax brackets were expanded to be double for joint filers, except for the top marginal 35 percent tax bracket and beyond. These adjustments reduced marriage penalties, but also increased marriage bonuses.[54] There is no marriage credit at the federal level that resembles Minnesota's marriage credit.

Additionally, at the federal level a married couple can elect to file their federal taxes separately, using the standard deduction and rate schedule that mirrors those for single filers. This would eliminate the marriage penalty, but it can also increase administrative

[53] For more detailed history of earlier Federal efforts to address marriage penalties and bonuses, reference the Overview of Present Law and Economic Analysis Relating to the Marriage Tax Penalty, The Child Tax credit, and The Alternative Minimum Tax, prepared for the US Senate Committee on Finance on March 8, 2001, by Staff of the Joint Committee on Taxation. Available at https://www.jct.gov/CMSPages/GetFile.aspx?guid=ec80bef5-01ba-427d-9f01-6d394224a72e

[54] El-Sibaie, Amir. Marriage Penalties and Bonuses under the Tax Cuts and Jobs Act. Tax Foundation. Fiscal Fact No. 573. February 2018. https://taxfoundation.org/research/all/federal/tax-cuts-and-jobs-act-marriage-penalty/

burden and calculation complexity, as couples must decide how to split joint assets as well as deductions and any other credits. Filing under this status limits the types and amounts of other tax provisions that a couple would otherwise be eligible for under the joint filing status.

A timeline of actions taken at the federal level to address marriage penalties and bonuses can be found in Appendix E.

As a component of this evaluation, the DOR Tax Research was asked to calculate the cumulative impact of the state's marriage credit and the federal marriage bonus resulting from the doubling of tax brackets for married joint filers. DOR Tax Research provided the following analysis:

> *"Married joint filers that claimed the marriage penalty credit received an estimated federal marriage bonus of $227.9 million, more than the estimated state penalty. However, for many returns the federal bonus does not offset the state penalty because the returns with the largest federal bonus are not the ones with the largest state penalty. DOR calculated the combined effect of the federal bonus and state penalty for all returns that claimed the marriage credit in tax year 2021. The federal bonus was calculated using a similar method to the marriage credit calculation but substituting federal rates and parameters. The calculation was limited to the standard income tax rates and did not account for the reduced rates on capital gains or qualified dividends. Of the 399,198 returns that claimed the marriage credit, the federal bonus more than offset their state penalty [for 208,025 returns]. Considering their combined state and federal tax, they had a net gain of $277.2 million compared to if they filed as two single individuals. For 191,173 returns, the federal bonus did not completely offset their marriage penalty. They had a net increase in tax of $49.2 million. Also, some returns in the top federal tax brackets may experience a federal marriage penalty. Those returns would have both a state and federal penalty."*

It should be noted that the taxpayers who receive the largest federal marriage bonus are not necessarily the same taxpayers that receive the largest marriage penalties and subsequent credit at the state level. Couples that tend to receive a larger federal bonus are likely to be couples with disparate incomes, whereas couples who tend to receive a larger state marriage penalty have similar levels of income. Reference Figure 4, provided by the DOR Tax Research, for a summary of net impact according to population deciles in tax year 2021.

Figure 4. Counts and Net Impact of (Federal Bonus - State Penalty) for Minnesota Married Joint Filer, TY 21**

Counts and Net Impact of (Federal Bonus - State Marriage Penalty) for Minnesota Married Joint Filers, TY21**						
Population Decile	Positive		Negative		Total	
	Count	Sum	Count	Sum	Count	Sum
1	22	$314,737	-	-	22	$314,737
2	-	-	-	-	-	-
3	*	*	69	($14,526)	69	($14,526)
4	*	*	120	($36,690)	120	($36,690)
5	*	*	-	-	*	*
6	151	$85,614	411	($30,970)	562	$54,644
7	1,577	$466,309	23,288	($2,551,709)	24,865	($2,085,400)
8	70,949	$68,350,732	38,436	($5,631,943)	109,385	$62,718,789
9	83,104	$92,855,327	79,530	($15,313,346)	162,634	$77,541,981
10	52,223	$115,082,518	49,319	($25,644,783)	101,542	$89,437,735
All	208,025	$277,155,237	191,173	($49,223,967)	399,198	$227,931,270

**Fewer than 10 returns. Results were combined with an adjacent cell.*
***Positive sums indicate that the federal bonus outweighs the state penalty.*
****Negative values are enclosed in parentheses.*

Review of Similar Programs in Other States

Four other states were identified that also offer a variation of a marriage credit to compensate qualified married joint filers for a marriage penalty. These include North Dakota, Ohio, South Carolina, and Wisconsin. North Dakota, and Wisconsin compute their marriage credit based on equations considering tax liabilities of the couple under the single and married joint filing statuses, similar to Minnesota. The maximum possible computed marriage credit in Minnesota was $1,710 in 2023.[55] North Dakota caps its marriage penalty credit at $300. Wisconsin allows a credit up to $480.

The “Two Wage Earner Credit” in South Carolina is equivalent to 0.7 percent of the lesser of $50,000 or the qualified earned income of the taxpayer with the lower qualified income in the tax year of 2023. The maximum amount is $350.

The “Joint Filing Credit” in Ohio is calculated based on the percentage of qualifying Ohio adjusted gross income more than $500. The credit was capped at $650 in 2023.

[55] Most taxpayers do not receive the maximum calculatable marriage credit amount. To receive the highest credit possible, the lesser-earning spouse must have taxable income in the highest tax bracket for single filers.

Eleven states have a flat rate income tax including Arizona, Colorado, Idaho, Illinois, Indiana, Kentucky, Michigan, Mississippi, North Carolina, Pennsylvania, and Utah. The flat rate income tax structure is considered marriage neutral.

Among 31 states with progressive income tax rates, eight states more than double their brackets, which result in a marriage bonus for the married couples filing jointly. These states are Alabama, Connecticut, Hawaii, Kansas, Louisiana, Maine, Nebraska, and Oregon.

Minnesota, along with other states, allows a fifth filing status, “married filing separately”. Like a single filing option, this status gives married couples the ability to avoid the marriage penalty. However, the LBO does not consider this filing status option to be a feasible alternative solution to relieve couples from the marriage penalty that results from filing jointly. While the filing status does address the penalty, it introduces limitations to other filing options which may prove to be disadvantageous to a couple. This fifth filing status is more appropriate for couples that find themselves dealing with situations that may prove to be more complicated than dealing with a marriage penalty. IRS Publication 501(2024) spells out situations that may be most appropriate for individuals to choose this filing status for federal tax filings, which may impact state tax filings.

Comparison to a Direct Payment Program

Another point to consider with respect to effectiveness is how the credit compares to a direct payment program. Comparison to a direct payment program is challenging because the beneficiaries are not consuming a particular service or good, and the marriage credit is not a program designed to encourage a specific behavior that might be alternatively achieved through a direct payment to a target population. Additionally, it is impossible to preemptively estimate an individual’s annual income or filing status to provide a direct payment in anticipation of a marriage penalty. The best comparison in this case may be a refundable tax rebate.

The nonrefundable nature of the marriage tax credit means that some couples may not recoup the full amount of their credit if their tax liability falls below zero as result of other credits taken. If the marriage credit is designed to relieve taxpayers of a penalty incurred by a change in filing status after marriage, then the credit might be more effective if the full marriage credit amount was made available despite the couple’s final tax liability. The DOR Tax Research estimates that this impacted 278 tax returns out of 391,855 that received a marriage credit in tax year 2021 and were Minnesota residents. The Department estimates that the total fiscal impact was $11,067.

Evaluation Methodology

Literature Review

To understand the foundational principles of the marriage credit, the LBO began with a review of published topic briefings produced by non-partisan offices of the Minnesota Legislature. This included a review of materials dating back to 2007 to understand the history of the marriage penalty in Minnesota, along with a review of the enacting bill (HF 2420) passed 1999. Additionally, material published by the DOR were reviewed, including the Schedule M1MA forms produced for several tax years. The search of literature was expanded to published works on the marriage penalty at the federal level. These materials were limited to items that describe only the mechanics of the marriage penalty resulting from the tax structure (tax brackets) and solutions considered to rectify a structural issue in the tax code. This includes mainly works published by the US Department of Treasury and the Joint Committee on Taxation. Items that were excluded include published works that focus on determining whether the marriage credit or penalty sway a couple's decision to marry. Also excluded were studies that measure the impact of the penalty or credit on effective tax rates. These topics were eventually determined to be beyond the scope of this evaluation.

Review of Summary Tax Filing Data and the Schedule M1MA form

After reviewing published material and understanding the landscape of the policy, the LBO requested summary tax filing data from the DOR Tax Research. The LBO received summary income sample data for tax years 2018 through 2021. Data was requested by income deciles according to filing status. Producing this information in income deciles assigns the state's total household income across 10 equal segments, or deciles, varying in the number of households within each decile. This can provide more detail to the number of households that exist within each decile, i.e., the concentration of income. This summary data was analyzed to provide descriptive statistics to the marriage credit and filing trends across income deciles.

The LBO made several data requests to address other analysis approaches, which DOR Tax Research did provide. These approaches included a review of effective tax rates and were determined to be out of scope. Upon that determination, these approaches were subsequently abandoned.

As mentioned in the literature review section, the DOR Schedule M1MA form was reviewed to understand the calculation methods of the marriage penalty and the corresponding credit. The form was reviewed to understand the administrative burden associated with completing and filing the form. A simulation of tax credit claims was created using the calculations steps as outlined in this form.

Conclusion

The LBO set out to evaluate how well the marriage credit meets its stated objective as identified by the Tax Expenditure Review Commission. Based on this evaluation of Minnesota's marriage credit, the LBO has concluded that while the marriage credit generally covers the marriage penalty that couples filing jointly incur, there are instances where the calculation design could lead to underpayment and overpayments of the marriage credit. The LBO cannot determine how often this is the case as incomes may fluctuate from year to year, but there are ways that the credit's calculation could be modified to minimize underpayments and overpayments. Potential solutions include repealing the statutory requirement for the Commissioner of Revenue to produce a look-up table and require that all filers claiming the credit use the method included in Part 2 of the Schedule M1MA form; or increasing the income range increments used in the look-up table to minimize error in calculating the marriage credit. Finally, making the credit refundable would ensure that no taxpayer loses out on a portion of their credit due to their tax liability falling below zero. These changes would contribute to achieving the credit's objective.

The Tax Expenditure Review Commission may choose to consider these findings in preparing a recommendation to the legislature to continue, repeal, or modify the tax expenditure, as is required of the Commission under Laws of Minnesota 2025, 1st Spec. Sess. chapter 13, article 8, section 5.

Appendix A. Marriage Penalty and Credit Examples

Case scenarios are depicted below illustrating how a marriage penalty may or may not manifest across different income combinations. Each of the following examples assumes for the purposes of these calculations that the two taxpayers are married without dependents, and that the couple takes no other credit, deduction, or subtraction apart from the standard deduction and the marriage credit. The 2023 Schedule M1MA form was used in calculating the following cases.

Case 1: Taxpayers A and B

Taxpayer A earns $56,000 annually and Taxpayer B earns $50,000 annually.

As single filers:

- Taxpayer A's taxable income is $42,175. Their tax liability is $2,432.
- Taxpayer B's taxable income is $36,175. Their tax liability is $2,024.
- The total single-filer tax liability for this couple is $4,456.

As married joint filers:

- Their combined total income is $106,000.
- Their joint taxable income is $78,350, making their tax liability as married joint filers $4,691.
- Their marriage penalty is $235.

Because Taxpayer B earns less than $114,000, this couple will use the look-up table on Form M1MA to find their marriage credit. According to that table, they will receive a marriage credit of $235.

Case 2: Taxpayers C and D

Taxpayer C earns $180,000 annually and Taxpayer D earns $160,000 annually.

As single filers:

- Taxpayer C's taxable income is $166,175. Their tax liability is $11,572.
- Taxpayer D's taxable income is $146,175. Their tax liability is $10,002.
- The total single-filer tax liability for this couple is $21,574.

As married joint filers:

- Their combined income is $340,000.
- Their joint taxable income is $312,350, making their tax liability as married joint filers $22,196.
- Their marriage penalty is $622.

Because Taxpayer D, as the lesser earning spouse, makes more than $114,000, this couple will receive a marriage credit equal to their marriage penalty, using the calculations in Part 2 of Form M1MA.

Case 3: Taxpayers E and F

Taxpayer E earns $30,000 annually and Taxpayer F earns $28,500 annually.

As single filers:

- Taxpayer E's taxable income is $16,175. Their tax liability is $865.
- Taxpayer F's taxable income is $14,675. Their tax liability is $785.
- The total single-filer tax liability for this couple is $1,650.

As married joint filers:

- Their combined income is $58,500.
- Their joint taxable income is $30,850, making their tax liability as married joint filers $1,650.

This couple does not qualify for the marriage credit, because their joint taxable income falls below $44,000, so their tax liability when filing married joint is the same as their total tax liability if both would file as single.

Case 4: Taxpayers G and H

Taxpayer G earns $65,000 annually and Taxpayer H earns $175,000 annually.

As single filers:

- Taxpayer G's taxable income is $51,175. Their tax liability is $3,044.
- Taxpayer H's taxable income is $161,175. Their tax liability is $11,179.
- The total single-filer tax liability for this couple is $14,223.

As married joint filers:

- Their combined income is $240,000.
- Their joint taxable income is $212,350, making their tax liability as married joint filers $14,199

This couple does not qualify for the marriage credit, as their tax liability when filing married joint is lower than their total tax liability if both would file as single. This couple receives a marriage bonus. This is a result of more income falling within a lower tax bracket under the married joint status.

Appendix B: Provisions of the Minnesota Income Tax System That Create Marriage Penalties or Bonuses

The Minnesota House Research Department identified provisions in 2017 that create marriage penalties or bonuses, depending on a couple's situation. For purposes of accessibility, a summary table is recreated on the next page to identify those provisions and their maximum penalties or bonuses at that time. The DOR Tax Research provided updated estimates of penalty and bonus maximums since 2017 – see footnote. [56] The original brief can be found online at https://www.house.mn.gov/hrd/pubs/mrgcred.PDF

[56] Several of these provisions have been revised since 2017. The Social Security subtraction has been expanded, and the maximum penalty or bonus is now 100 percent of taxable benefits. A similar subtraction for public pension benefits was enacted in 2023 with similar penalties and bonuses. For the education credit, the maximum penalty is now $1,500 times the number of children. The maximum child and working family credit penalty is now $350 plus $1,750 per qualifying child and up to $2,500 for older qualifying children. The maximum bonus is now $700 plus $1,750 per qualifying child plus and up to $2,500 for qualifying older children. The student loan credit was revised in 2021 to eliminate the marriage penalty.

Provisions of the Minnesota Income Tax
Creating Marriage Penalties and Bonuses, Tax Year 2017

Provision	Maximum Penalty	Maximum Bonus
Calculation of taxable income		
Subtraction for Social Security benefits	$494	$71
Elderly exclusion	415	377
Education deduction per dependent K-6	None	160
Education deduction per dependent 7-12	None	246
Charitable contribution deduction for nonitemizers	None	25
Subtraction for 529 plan contributions	None	148
Tax rates		
Couples with dependents	2,917	1,320
Tax credits		
Beginning farmer credit—owner	None	$32,000
Beginning farmer credit—management	None	$1,500
Dependent care credit	2,100	None
Education credit	1,000 times number of children	None
Long-term care credit	None	100
Master's degree credit	None	2,500
Student loan credit	1,000	500
Working family credit	4,127	2,064
529 plan contribution credit	859	500
Alternative minimum tax exemption	2,507	1,253
Alternative minimum tax exemption phaseout	1,266	633

Appendix C. Marriage Credit Inefficiency and Ineffectiveness Examples

Three cases are provided to illustrate the inefficient calculation of a couple's marriage credit using the statutorily required look-up table. These examples include overpayments and underpayments to tax filers based on hypothetical wages and the look-up table included in the 2023 Schedule M1MA form. Each case also includes a calculation of the marriage credit using the method outlined in Part 2 of the Schedule M1MA form, proven to be a more accurate representation of a couple's penalty and corresponding credit.

Case 1

Taxpayer A earns $35,000 and Taxpayer B earns $38,000 annually. They are married without dependents. It is assumed that there are no federal adjustments to income and that the couple takes the standard deduction to get to a joint taxable income of $45,350

The lesser earning spouse in this couple earns less than $114,000, so this couple would use the look-up table of Schedule M1MA to calculate their marriage credit. The table indicates the couple will receive a credit of $106.

However, using Part 2 of Schedule M1MA, the marriage penalty for this couple is only $21. As married joint filers, this couple's tax liability is $2,447. Their total tax liability if each would file as single is $2,426. The difference equals a marriage penalty of $21 This couple benefits by using the look-up table as directed to receive an overpayment of $85. In this case, the marriage credit is inefficient as it covers more than the amount of the penalty.

Case 2

Taxpayer C earns $40,000 and Taxpayer D earns $45,000. They are married without dependents. The same assumptions are made as in Case 1 to dependents, federal adjustments, and use of the standard deduction. Joint taxable income is estimated at $57,350.

The lesser earning spouse earns less than $114,000, so this couple would use the look-up table of Schedule M1MA to calculate their marriage credit. The table indicates a credit of $146.

Using Part 2 of Schedule M1MA, the actual marriage penalty this couple experiences is $178. As married joint filers, this couple's tax liability is $3,263. Their total tax liability if each would file as single is $3,084. The difference is a marriage penalty of $178. If this couple used Part 2 of Schedule M1MA, they would receive a credit that is $32 higher

than the credit that they receive using the look-up table. In this case, the marriage credit is not effective at covering the entire amount of the penalty.

Case 3

Taxpayer E earns $105,000 and Taxpayer F earns $105,000. They are married without dependents. Again, the same assumptions are made as in Cases 1 and 2 to dependents, federal adjustments, and use of the standard deduction. Joint taxable income is estimated at $182,350.

Because the taxpayers earn the same amount, and it is less than $114,000, this couple would use the look-up table of Schedule M1MA to calculate their marriage credit. Using the table, the amount of their credit is $235.

However, using Part 2 of Schedule M1MA, the actual marriage penalty this couple faces is $316. As married joint filers, this couple's tax liability is $11,844. Their total tax liability if each would file as single is $11,528. The difference is a penalty $316. If this couple used Part 2 of Schedule M1MA, they would receive a credit that is $81 higher than the credit that they receive using the look-up table, and sufficiently covers the value of their marriage penalty. This is another example of the marriage credit not being effective at covering the true value of the marriage penalty using the required look-up table.

Appendix D. Bills Introduced to Address a Marriage Penalty in Minnesota

Bills introduced during the period of 1997 to 1999 by the Minnesota Legislature aimed at addressing the marriage credit are listed below by legislative session.

The 80th Legislature (1997-1998)

- HF 2063 - widen the tax brackets and modify the alternative minimum tax
- HF 2513 - widen the tax brackets and modify the alternative minimum tax
- HF 3411 / SF 2642 - widen the tax brackets and modify the alternative minimum tax
- HF 3453 - widen the tax brackets and modify the alternative minimum tax

The 81st Legislature (1999-2000)

- HF 267 / SF 448 - widen the tax brackets by 100 percent and modify the alternative minimum tax
- HF 890 / SF 960 - reduces tax rates and widens the tax brackets by 100 percent
- HF 1998 – introduces marriage penalty credit; doubles the threshold for phasing out the dependent care credit for married couples; provides an additional subtraction to married joint filers beyond the standard deduction; modifies the alternative minimum tax
- HF 2420 - Omnibus tax bill establishes the marriage penalty credit and reduces tax rates
- HF 3989 / SF 3773 - expands the definition of earned income used in determining the marriage penalty credit to include pension income and taxable social security income.
- HF 4127 - Omnibus tax bill expands the definition of earned income used in determining the marriage penalty credit to include pension income and taxable social security income; reduces tax rates.

Appendix E. Timeline of Federal Changes to Address the Marriage Penalty and Bonuses

Federal Marriage Credit History:

- Pre-1948: A single tax structure was used for all taxpayers regardless of marriage status. No marriage penalties or bonuses existed
- 1948: Marriage bonus introduced when a new filing status (married couples filing jointly) was introduced. Rate brackets for this new status were double those of single filers and allowed “income splitting” between the couple. This created a marriage bonus, but no marriage penalty.
- 1969: Tax brackets were widened for single filers, but not for married filing jointly couples. This created the marriage penalty for some couples.
- 1981-86: A two-earner deduction was introduced, allowing married couples to deduct 10 percent of the lower earner’s income up to $30,000. This addressed the marriage penalty but was repealed in 1986.
- 2001: Tax brackets were widened by 15 percent for joint filers.
- 2003: The 10 percent and 15 percent tax brackets were widened for joint filers.
- 2017: Tax brackets are doubled for joint filers except for the top marginal 37 percent bracket.

Appendix G

Minnesota Tax Expenditure Evaluation of Wind Energy Conversion Systems and Solar Energy Systems Sales and Use Tax Exemptions

Prepared for the Tax Expenditure Review Commission

By the Legislative Budget Office

October 24, 2025

Prepared by the Legislative Budget Office (LBO) on behalf of the Tax Expenditure Review Commission.

The LBO would like to extend its gratitude to the Minnesota Department of Revenue Tax Research Division for their consultation, cooperation, and analysis in this evaluation.

Additionally, the LBO would like to extend its gratitude to the following entities for their assistance with data utilized in this report: Minnesota Department of Commerce; Minnesota Public Utilities Commission; Xcel Energy; and Minnesota Power.

For comments, questions, or concerns regarding this review please contact the Legislative Budget Office:

658 Cedar St. Centennial Building, 1st floor, St. Paul, MN 55155

E-mail: lbo@lbo.mn.gov

Phone: 651-297-7146

Evaluation Team:

Carlos Güereca

Karl Palm

Jordan Peoples

Thomas Raney

Xunxuan (Susan) Weerts

Table of Contents

This page is left intentionally blank.

Executive Summary

The Tax Expenditure Review Commission (TERC) is responsible for reviewing the effectiveness and efficiency of Minnesota's tax expenditure policies. The TERC has elected to review and evaluate Minnesota's sales and use tax exemption of wind energy conversion systems and solar energy systems.[57] This report provides an assessment of the exemptions with consideration to the first eight components of tax expenditure review required under Laws of Minnesota 2025, 1st Spec. Sess., chapter 13, article 8, section 5. The Commission may consider the findings of this report to recommend whether the expenditure be continued, repealed, or modified.

Wind and solar energy systems have both been implemented and utilized at an increasing rate over the last several decades. What is not clear is the explicit role that these two tax expenditures have played in that process. This evaluation views these two tax expenditures as part of a larger policy initiative, which takes place at the federal and state levels of government, as well as some private sector utilities companies. As outlined in component 8, this wide array of tax policies and other programs are aligned with the objectives of both the wind energy conversion and solar energy system tax expenditure objectives. After reviewing the tax expenditures, it does appear that the tax expenditures do incentivize and promote the implementation and utilization of wind energy installations and solar energy installations contributing to the growth of renewable energy production in Minnesota. In this way, it is achieving its objective. As these policies exist within the context of other federal and state policies and programs with similar objectives, this evaluation was not able to determine the extent to which these policies contributed to achieving the stated objective.

Components of Review

The intent of this evaluation is to understand the effectiveness and efficiency of the wind energy conversion systems and solar energy systems sales and use tax exemptions in incentivizing and promoting the implementation and utilization of wind energy conversion and solar energy systems in Minnesota. Ultimately, these exemptions seek to achieve a greater percentage of renewable energy contributions to the state's electricity fuel generation mix.

This evaluation addresses the review components outlined in Laws of Minnesota 2025, 1st Spec. Sess. chapter 13, article 8, section 5, and provides additional analysis. The findings are listed in order to correspond with the statute.

[57] Minnesota Statutes 2024, section 297A.68, subdivision 12; Minnesota Statutes 2024, section 297A.67, subdivision 29.

Component 1. Estimate of the Annual Revenue Lost

The estimated fiscal impact of the wind energy conversion systems sales and use tax exemption in fiscal year 2024 is $11,300,000.[58] See Figure 14 on page 29 for more detail.

The estimated fiscal impact of the solar energy systems sales and use tax exemption in fiscal year 2024 is $9,000,000. See Figure 14 for more detail.

The LBO developed an alternative estimate of the foregone revenue for the exemption on solar energy systems for calendar years 2010 through 2023 using industry data reported by utility providers. Compared to previous estimates, there is a significant increase in fiscal impact between 2016 and 2022 as a result of interconnection costs related to community solar gardens. See Figure 15 on page 30 for more detail.

Component 2. Objective of the Tax Expenditure

The objective of the wind energy conversion general sales and use tax exemption is to incentivize and promote the implementation and utilization of wind energy systems in Minnesota. The exemption is intended to achieve a greater percentage of renewable energy contributions to the state's electricity fuel generation mix.

The objective of the solar energy systems general sales and use tax exemption is to incentivize and promote the implementation and utilization of solar energy systems in the state of Minnesota to achieve a greater percentage of renewable energy contributions to the state's electricity fuel generation mix.

Both objectives were approved and adopted by the Tax Expenditure Review Commission on March 15, 2024, for the purpose of evaluating the respective exemptions.

Component 3. Estimating the measurable impacts and efficiency of the tax expenditure in accomplishing the objective of the tax expenditure

This evaluation determines that both sales and use tax exemptions meet their objectives in that they contribute to a broader policy initiative. However, estimating the measurable impacts and efficiency of the two tax expenditures in accomplishing their respective objectives is complicated for two primary reasons.

First, due to the complexity of the renewable energy policy area, it is difficult to empirically assess the measurable impacts of one specific piece of renewable energy policy. For example, multiple state, federal, and private programs incentivize the utilization of wind and solar energy systems, making it difficult to parse out the impact of

[58] Minnesota Department of Revenue Tax Research Division. State of Minnesota Tax Expenditure Budget Fiscal Years 2024-2027. Page 154.

a specific policy. Thus, we assume that these policies overlap to encourage the uptake of renewable energy. This is discussed in greater detail in component 8.

Second, there are significant data limitations that inhibit the ability of the LBO to conduct a comparative analysis at the level required to estimate the measurable impacts of a single tax expenditure. This is further expanded on in the “limitations” portion of the Methodology section of the report found on page 39.

Component 4. Comparing the effectiveness of the tax expenditure and a direct expenditure

An alternative to an upfront sales tax exemption is a direct payment incentive like a grant or a loan. There are key differences between each policy design that are worth noting. It can be argued that a tax exemption has the potential to reach a larger population based on the assumption that it is less administratively burdensome to obtain and it is not capped at a certain dollar amount. However, the benefit per entity is likely to be smaller in comparison to a grant or loan program. An advantage of a direct payment incentive is that it is likely to address financial barriers for targeted populations that would otherwise not be in a position to participate in a particular activity. An underlying assumption here is that the benefit per entity is much larger than the benefit of a sales tax exemption. Additionally, there is the potential for the participant pool to be smaller based on either eligibility criteria necessary to target a specific group or financial resource limitations associated with direct expenditure programs. Several of these elements play out in the two federal grant programs highlighted in this evaluation.

Component 5. Potential modifications to the tax expenditure to increase its efficiency or effectiveness

Sales and use tax exemptions are an administratively efficient type of tax expenditure. These exemptions take place at the time of sale and require no additional action on behalf of the consumer. Any additional requirements to improve tracking of utilization for future evaluation may reduce the efficiency of the program if the requirements prove to be burdensome for consumers.

The energy contribution of wind and solar to the state’s electricity fuel generation has increased over the last several decades. As such, this evaluation determines that both sales and use tax exemptions meet their objectives in that they contribute to a broader policy initiative. What is less clear is the explicit role that these two tax expenditures have played in that process given the multitude of policies aimed at promoting the uptake of renewable energy. Therefore, modifications could not be identified that would lead to increased effectiveness for these two policies in particular.

Component 6. Estimating the amount by which the tax rate for the relevant tax could be reduced if the revenue lost due to the tax expenditure were applied to a rate reduction

The Minnesota Department of Revenue Tax Research (DOR Tax Research) calculated a revenue-neutral tax rate that would reduce the current rate by 0.009 percent for the wind energy conversion systems exemption and 0.007 percent for the solar energy system exemption. Revenue-neutral rates are the tax rates necessary to raise approximately the same revenue for the state of Minnesota if the tax expenditure were repealed. The current general sales and use tax rate is 6.875 percent.

Component 7. The incidence of the tax expenditure and the effect of the expenditure on the incidence of the state's tax system

Tax incidence refers to who ultimately bears the relative burden of a tax that is levied. An incidence analysis is not available for wind energy conversion systems or solar energy systems sales and use tax exemptions.

DOR Tax Research assumes the incidence of both exemptions to be similar to the incidence of the business sales tax. A brief analysis of the incidence of the business sales tax is provided in this report based on an incidence breakdown found on page 135 of the 2024 Tax Expenditure Budget.

Based on claims for the Residential Clean Energy Credit at the federal level, the LBO estimates that 67 percent of the value of these exemptions are realized by households with adjusted gross income in the top 24 percent.

Component 8. Cumulative fiscal impacts of other state and federal taxes providing benefits to taxpayers for similar activities

The cumulative fiscal impacts of other state and federal taxes providing benefits to taxpayers for similar activities in calendar year 2023 are about $77 million for solar and roughly $1.3 million for wind. These estimates include the Minnesota Solar Energy Production Incentive program, the federal Residential Clean Energy Credits, and federal grants under the Rural Energy for America Program. The estimates of fiscal impact are not comprehensive of all available programs given data limitations. Examples of programs not included in these estimates are incentive programs offered by utility providers and federal exclusions from income on utility-provided subsidies. The full analysis of cumulative fiscal impacts is outlined in a subsequent section within the report. See pages 33-38 for more detail. See Appendix C for an overview of federal changes made in the One Big Beautiful Bill Act (OBBBA).

Introduction

The Tax Expenditure Review Commission (TERC) directed the Legislative Budget Office (LBO) to evaluate a subset of tax expenditures in 2024 to meet the requirements outlined in Minnesota Statutes 2024, section 3.8855, subdivision 5. Two of the tax expenditures selected for evaluation focus on renewable energy products: the exemption of wind energy conversion systems and solar energy systems from the state's general sales and use tax. Both tax expenditures can be found in the 2024 Tax Expenditure Budget published by the Minnesota Department of Revenue Tax Research Division (DOR Tax Research) on page 154.[59]

The evaluation conducted by the LBO aims to address whether each policy is meeting its respective objective as determined by the TERC on March 15, 2024.

The objective of the sales tax exemption on wind energy conversion systems is to incentivize and promote the implementation and utilization of wind energy systems in Minnesota. The objective of this exemption is to achieve a greater percentage of renewable energy contributions to the state's electricity fuel generation mix. Likewise, the objective of the sales tax exemption on solar energy systems is to incentivize and promote the implementation and utilization of solar energy systems in the state of Minnesota to achieve a greater percentage of renewable energy contributions to the state's electricity fuel generation mix.

This evaluation does not include utility-scale installations, as purchase and installation costs of that equipment would likely fall under the capital equipment exemption from general sales and use tax under Minnesota Statutes 2024, section 297A.68, subdivision 5.[60] This caveat is included in the tax expenditure budget entry for the wind energy conversion system sales tax exemption. The evaluation team applied this logic to the solar energy systems tax expenditure and was confirmed by DOR Tax Research. These assumptions informed the scope of the evaluation.

The scope of this evaluation is limited to distributed wind and solar energy installations that interconnect to a utility provider's distribution grid.[61] Distributed energy resources (DER) can be customer-owned systems like solar panels, wind turbines, and energy storage devices that are located at the site of use to offset the energy required from a utility provider. They can also be front-of-the-meter installations that are not located with a particular customer or at the site of use, such as a community solar garden (CSG).

An analysis is provided on trends in renewable energy production and installation of qualifying equipment in the state. U.S. Energy Information Administration (EIA) data are

[59] Minnesota Department of Revenue Tax Research Division. State of Minnesota Tax Expenditure Budget Fiscal Years 2024-2027. Page 154.
[60] See the definition of Utility Scale Installations in the Key Terms section in Appendix A.
[61] See the definition of Distributed Energy Resources in the Key Terms section in Appendix A.

analyzed to understand the changing composition of the state's electricity fuel generation mix over time. Geographic data are used to illustrate regional installations across Minnesota.

Per statute, the exemption on wind energy conversion systems also applies to the materials used to manufacture, install, construct, repair, and replace wind energy conversion systems.[62] The evaluation of this tax expenditure is limited to purchase and installation costs. Manufacturing, repair, and replacement costs are not included in the evaluation of wind conversion systems as this information was not readily accessible.

This report provides background information on the two state sales and use tax expenditures, a description of the methodology applied to evaluate the tax expenditures separately, and a summary of evaluation findings for the Commission to consider.

Background

Mechanics

In order to receive either exemption, a purchaser is required to fill out Form ST3, Certificate of Exemption, made available by the Department of Revenue (DOR), and provide it to the seller as part of the transaction. On the form, the purchaser indicates the reason for the exemption. For these two tax exemptions, recipients will indicate the reason for the exemption as "O – Other," and in a corresponding line enter code "34" for solar energy systems or "44" for wind energy systems. Sellers are directed to keep the certificate as part of their records should there ever be a need to verify whether a transaction was eligible for a transaction.

If the certificate is not completed, the seller must charge sales tax. If the form is completed, the seller does not charge and remit a sales tax. The seller may be required to provide the ST3 exemption certificate to the DOR to verify the exemption. As form ST3 is not required to be submitted to DOR for every transaction, data on each qualifying transaction is not available. This is generally the case for any exemption from the sales and use tax.

Overview of Exemptions and State Efforts in the Renewable Energies Sector

A common wind energy conversion system is a wind turbine, which may be found as a solitary installation or as part of a wind energy farm with multiple installations. A wind energy system can also encompass windmills or wind chargers. A solar energy system includes photovoltaic solar energy devices, such as solar panels, and concentrated solar-thermal devices like power towers that use mirrors to harness and concentrate the

[62] Minnesota Statutes 2024, section 297A.68, subdivision 12.

sun's heat. The exemption of wind and solar energy conversion devices from sales and use tax are two among several efforts the state is making to promote the use of renewable energy. State policies enacted to promote renewable energy sources can be categorized as supporting supply, supporting demand, and encouraging technological developments.

Examples of strategies to increase supply include establishing renewable energy targets; setting minimum standards for utility providers to source from renewable energy systems; limiting the Public Utilities Commission's ability to approve more nonrenewable energy facilities; and requiring the state's largest utility provider to acquire certain levels of megawatts from specific renewable energy sources.[63] The two sales and use tax exemptions evaluated by the LBO can be understood to fall into the category of supporting supply.

Policies that promote demand include a requirement that electric utilities purchase power from smaller cooperative or municipal producers if they are interconnected; and an inactive requirement that a utility provider offer their retail customers the choice of buying electricity that was generated through renewable energy sources.[64]

State policies that promote investments in renewable technologies include direct incentive payments under the Renewable Energy Production Incentive, made to small renewable energy producers that sell excess energy to utility providers; allocation of funds to support those direct payment incentives; and a requirement of the state's largest utility provider to make specific contributions to the Renewable Development Account to fund renewable energy projects.[65]

These state policies, even if expired, should be kept in mind as they play a role in molding the renewable energy industry sector for the state and as an acknowledgment that the sales and use tax exemptions for wind and solar energy systems do not exist in a vacuum. Additionally, there are federal programs that should be considered in the evaluation of these two state tax expenditures. Further discussion of the federal programs is continued in the evaluation section of the report. The interactions of multiple policies may be taken into consideration when choosing to invest further in wind and solar energy systems in Minnesota.

The Cost to Produce Renewable Energy

The cost of producing renewable energy has changed dramatically within the past decade. Both wind and solar energy systems have become less expensive and more

[63] Minnesota Statutes 2024, section 216B.1691, subdivision 2f; Minnesota Statutes 2024, section 216B.2422, subdivision 4; Minnesota Statutes 2024, section 216B.2423, subdivision 1.
[64] Minnesota Statutes 2024, section 216B.164, subdivision 4; Minnesota Statutes 2008, section 216B.169, subdivision 2
[65] Minnesota Statutes 2024, section 216C.41; Minnesota Statutes 2024, section 116C.779

competitive with fossil fuels and other energy sources.[66] The levelized cost of energy (LCOE) is often cited as a key metric for comparing the relative cost of energy sources. The calculation of LCOE for a certain generation source is the cost to produce electricity using that source over energy produced.[67] This allows for comparison between sources while taking varying costs and levels of production into account. When comparing two energy sources using LCOE, the lower of the two is assumed to be more competitive due to a lower ratio of cost to production.

The global weighted average LCOE of wind was 85 percent higher than the most affordable fossil fuel in 2010. By 2022, the LCOE of wind was 52 percent lower than the cheapest fossil fuel. The shift in LCOE for solar was significantly larger. The global weighted average LCOE of solar was 670 percent higher than the cheapest fossil fuel in 2010. By 2022, this metric dropped to be 28 percent lower than the cheapest fossil fuel. This particular calculation of LCOE does not account for financial support for renewable technologies, which makes the estimates more sensitive to market trends.[68] The LCOE does vary to some degree between different types of wind and solar generation. For example, the LCOE of onshore wind is slightly less than offshore wind and the LCOE of rooftop residential solar is roughly twice that of utility-scale solar.[69] Overall, these market shifts indicate that renewable energies have become more competitive forms of energy, but challenges with cost still remain for some sources such as residential solar.

Trends in Distributed Wind Energy in Minnesota

The exemption on wind energy conversion systems from the Minnesota general sales and use tax was established in 1992. Wind installations have been licensed and sited in Minnesota since the 1980s, seeing significant growth in the late 2000s.

Through the 1980s, four unique distributed wind energy facilities were installed and interconnected in Minnesota. Three of these facilities were properties of residential utility customers and one facility belonged to a commercial customer. Seven additional facilities were interconnected in the 1990s, five of those being residential-owned installations, one owned by a commercial customer, and the first installation owned by a utility. The first decade of the 2000s saw a significant increase with 148 new interconnected facilities – 98 of those coming online between 2007 and 2009. This growth trend continued through the next decade with 145 new interconnected facilities between 2010 - 2019. Since 2020, the number of installations has slowed with 19

[66] International Renewable Energy Agency, “Renewable Power Generation Costs in 2022”, 34-36, https://www.irena.org/Publications/2023/Aug/Renewable-Power-Generation-Costs-in-2022; Lazard, “Lazard Levelized Cost of Energy Version 17.0”
[67] International Renewable Energy Agency, “Renewable Power Generation Costs in 2022”, 191-193.
[68] International Renewable Energy Agency, “Renewable Power Generation Costs in 2022”, 34-36, https://www.irena.org/Publications/2023/Aug/Renewable-Power-Generation-Costs-in-2022; Lazard, “Lazard Levelized Cost of Energy Version 17.0”.
[69] International Renewable Energy Agency, “Renewable Power Generation Costs in 2022”, 191-193.

unique facilities being interconnected through 2023. Three hundred and fifty-seven distributed wind energy facilities have been installed and interconnected in Minnesota since the 1980s, with 47 facilities being decommissioned over the same period.[70]

Trends in Distributed Solar Energy in Minnesota

Photovoltaic devices have been exempted from the sales and use tax in Minnesota since 1992; however, the current solar energy systems sales and use tax exemption was enacted in 2005.[71] Solar energy systems have been implemented into the state's distributed energy system since 1996. Two distributed energy installations were interconnected in the 1990s. Distributed solar energy increased significantly in the 2000s, with 324 installations becoming newly interconnected through 2009. There has since been exponential growth with 8,356 reported interconnections of unique installations in the 2010s and 16,312 new interconnections from 2020 through 2024. The majority of these installations are owned by residential customers, followed by commercial customers, and a growing number of CSGs.[72]

History of Solar and Wind Incentives from the Federal Government

The U.S. federal government also issued policies to promote the uptake of renewable energies. This includes exclusions from individual and corporate income tax on subsidies received by taxpayers for the installation of energy conservation measures, like solar-thermal and photovoltaic systems.[73] Another policy promoting renewable energy production is the Residential Clean Energy Tax Credit, which provides a credit of up to 30 percent for the purchase of renewable energy systems and installations for residential use – extended by the Inflation Reduction Act of 2022 (IRA).[74] A similar credit is allowed to businesses investing in renewable energy projects through the Investment Tax Credit for Energy Property – a credit of up to 30 percent of project costs with additional bonuses available for meeting certain requirements. This credit was also modified and expanded by the IRA.[75] The credit is set to be replaced by the Clean Energy Investment Tax Credit in 2025. The two policies are designed to function similarly, but the new policy will apply to more renewable energy technologies.

Additionally, businesses can benefit from depreciation deductions of their investments and can accelerate those depreciations through the Modified Accelerated Cost-

---

[70] Minnesota Public Utilities Commission (MPUC). "Annual Distributed Generation Report, Minnesota Data through December 31, 2022." Accessed on January 17, 2025.

[71] Laws of Minnesota 1992, chapter 511, article 8, section 20, subdivision 47; Minnesota Statutes 2024 216C.01, subdivisions 16; Laws of Minnesota 2005, 1st Spec. Sess. chapter 3, article 5, section 6; Minnesota Statutes 2024 216C.01, subdivisions 17.

[72] MPUC. "Annual Distributed Generation Data"

[73] DSIRE, "Residential Energy Conservation Subsidy." Programs. Accessed on October 8, 2024.

[74] DSIRE, "Residential Energy Tax Credit." Programs. Accessed on October 8, 2024.

[75] DSIRE, "Business Energy Investment Tax Credit." Programs. Accessed on October 8, 2024; Internal Revenue Service. Clean Energy Tax Incentives for Businesses, Publication 5885. Accessed on October 8, 2024.

Recovery System – enhanced in 2017 by the Tax Cuts and Jobs Act.[76] Alternatively, individuals and businesses can choose to forgo the credit on 30 percent of their investment and claim the Renewable Electricity Production Tax Credit (PTC), enacted in 1992 and recently extended by the IRA to 2025. Under the PTC, a credit is provided based on a per kilowatt hour of energy production through the means of renewable energies. In addition to extending the expiration date, the IRA created bonus tax credits contingent on meeting certain requirements like wage minimums and implementing apprenticeship programs.[77] The PTC is set to be replaced with the Clean Electricity Production Tax Credit starting in 2025. Like the investment credits, the two production-based policies are designed to function similarly, but the Clean Electricity Production Tax Credit is more expansive as it is not technology specific.[78]

Review of Other States

Thirty-two U.S. states offer a sales tax incentive for the purchase of a distributed renewable energy system. Below, Figure 1 illustrates the 32 states with a sales tax incentive for renewable energy systems. These include sales tax exemptions and deductions from use tax on production and storage equipment. Twenty-six states offer sales tax incentives specific to solar energy – see Figure 2. Sixteen states offer sales tax incentives for small wind energy systems – see Figure 3.[79] These programs vary significantly in both program structure and the sectors eligible for the incentive. To be clear, color concentration and counts in Figures 1-3 indicate the number of policies adopted by a state, not number of installations.

Where Minnesota has developed tax exemptions to specifically target wind and solar energy systems, several states have developed incentives that cover a broader renewable energy sector. In 1999, Vermont implemented a broad sales tax exemption for renewable energy systems. Most qualifying technology is exempt for systems up to 500 kW (kilowatt) in capacity.[80] Utah exempts purchases of alternative energy sources, including both wind and solar. Utah's exemption is structured for use by industrial and utility companies. To qualify, facilities in Utah must have a capacity of more than 2 MW (Megawatt) (or 1 MW for expansions). [81]

Figure 1. Thirty-two States with Sales Tax Incentives for Renewable Energy Resources

[76] DSIRE, "Modified Accelerated Cost-Recovery System." Programs. Accessed on October 8, 2024.
[77] DSIRE, "Renewable Electricity Production Tax Credit." Programs. Accessed on October 8, 2024.
[78] Environmental Protection Agency. "Summary of Inflation Reduction Act provisions related to renewable energy." Last updated July 29, 2025. Available at https://www.epa.gov/green-power-markets/summary-inflation-reduction-act-provisions-related-renewable-energy#:~:text=Through%20at%20least%202025%2C%20the,additional%20credit%20amounts%2C%20described%20below.
[79] DSIRE, "Sales Tax Incentive." Programs. Accessed on January 1, 2025. https://programs.dsireusa.org/system/program?type=81&
[80] DSIRE, "Renewable Energy Systems Sales Tax Exemption." Programs. Accessed on October 22, 2024.
[81] DSIRE, "Alternative Energy Sales Tax Exemption." Programs. Accessed on October 22, 2024.

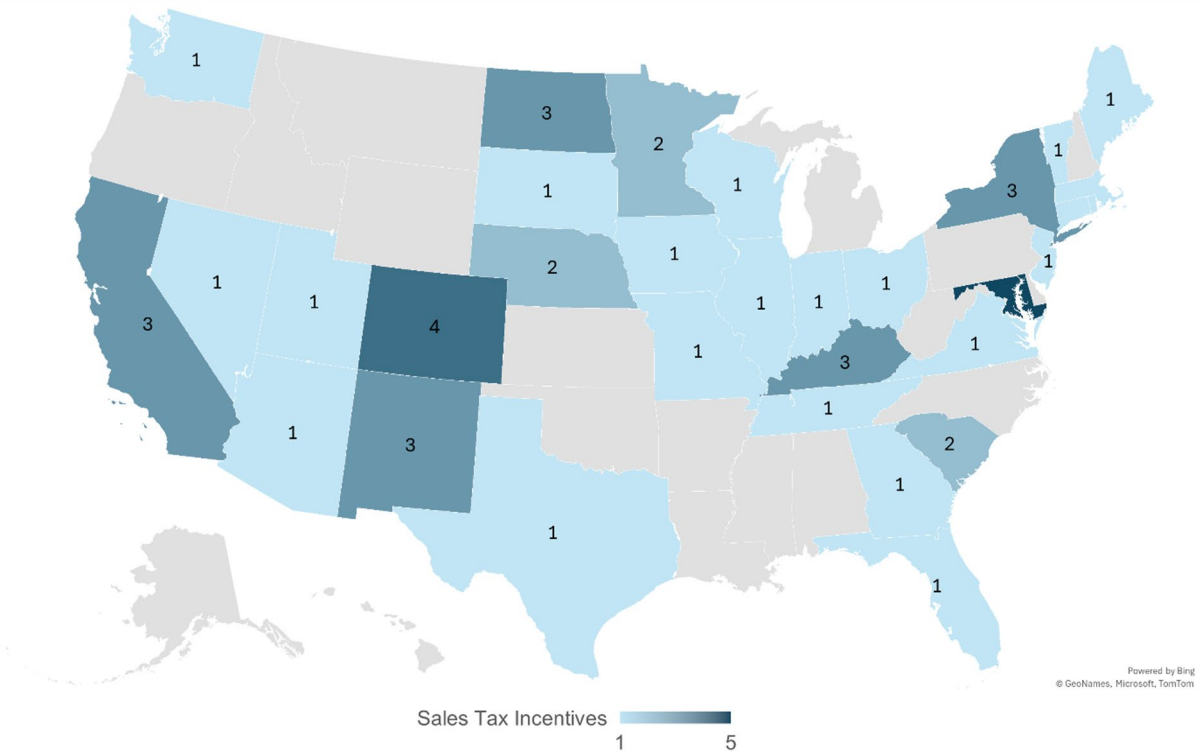


Figure 2. Twenty-six States with a Sales Tax Incentive for Solar Energy Systems

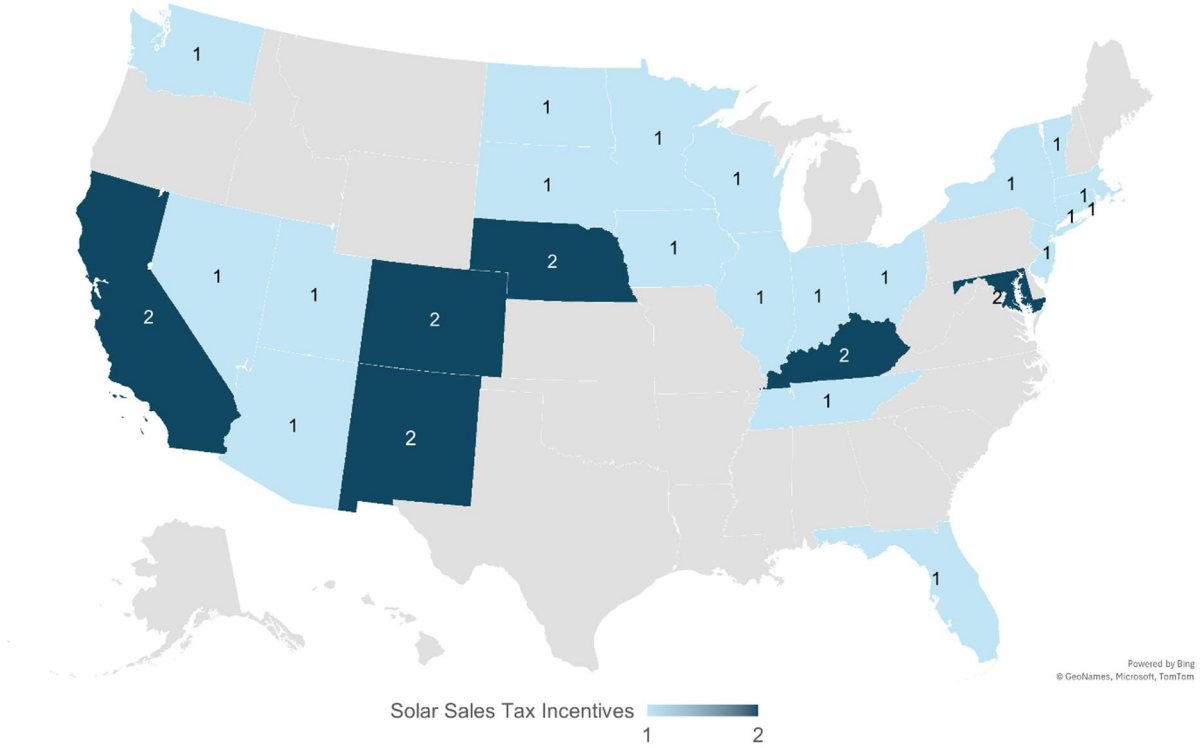
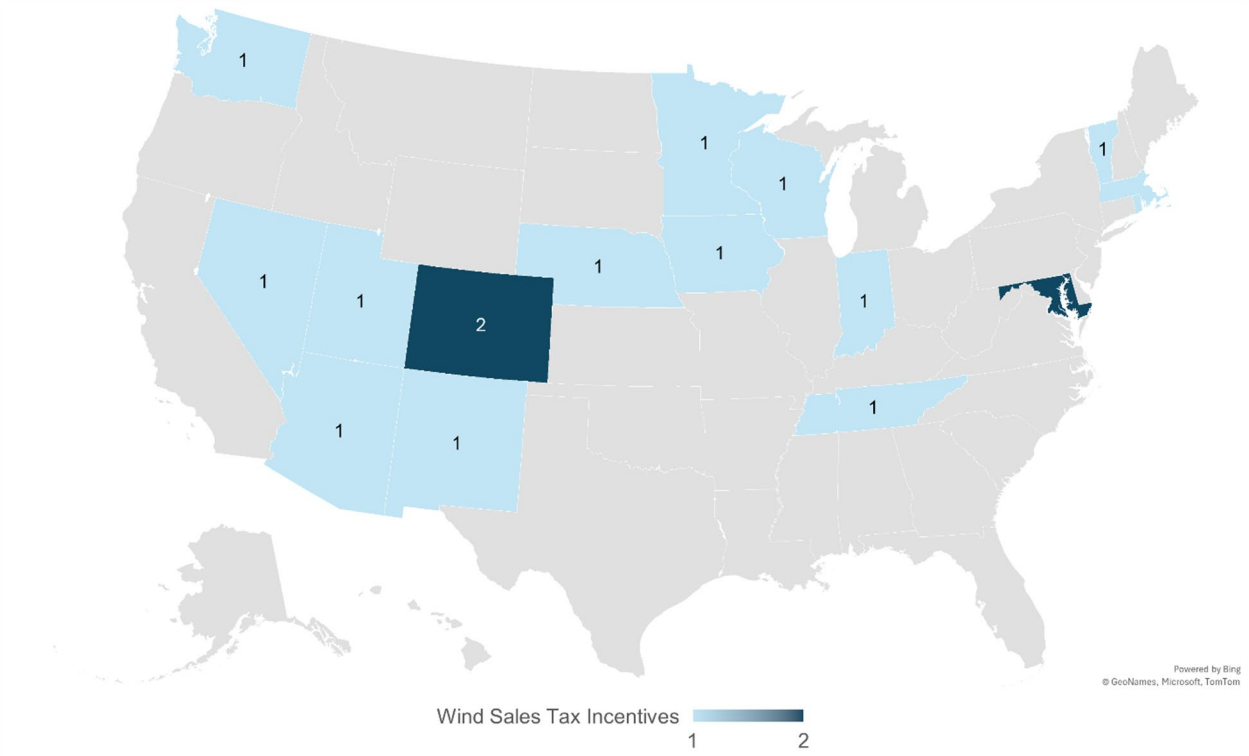


Figure 3. Sixteen States with a Sales Tax Incentive for Small Wind Energy Installations

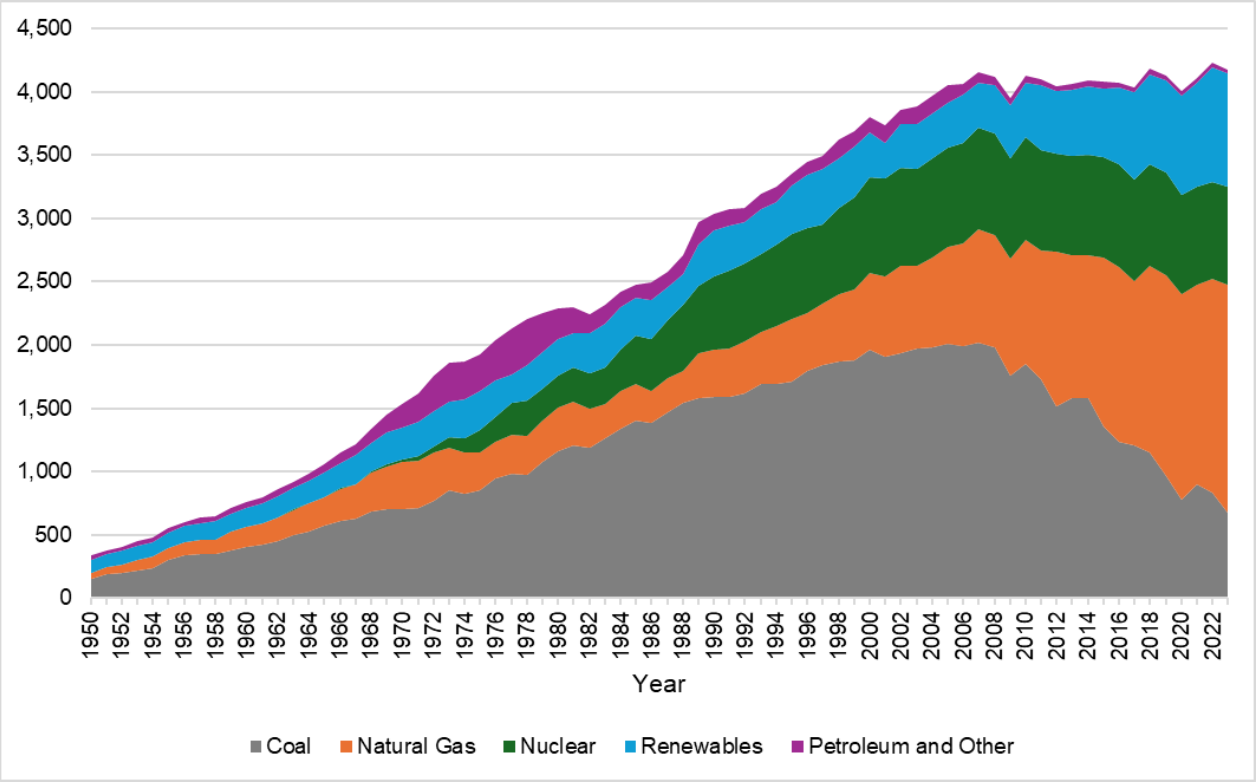


Evaluation

Electricity Fuel Generation Mix

Part of the objective of the general sales and use tax exemptions on wind energy conversion systems and solar energy systems is to increase the utilization of these technologies and ultimately contribute a greater percentage of renewable energy to the state's electricity fuel generation mix. For a national context, Figure 4 displays the electricity mix and increase in energy demand of the United States going back to 1950. Data on Minnesota's electricity fuel generation mix is presented in Figure 5. The trends in source of electricity generation in Minnesota largely mirrors national trends; however, Minnesota did produce more electricity from renewable sources (about 3 percent) in 2020. Figure 5 is presented in a bar chart format to provide for more detailed information on the state's generation mix over time.

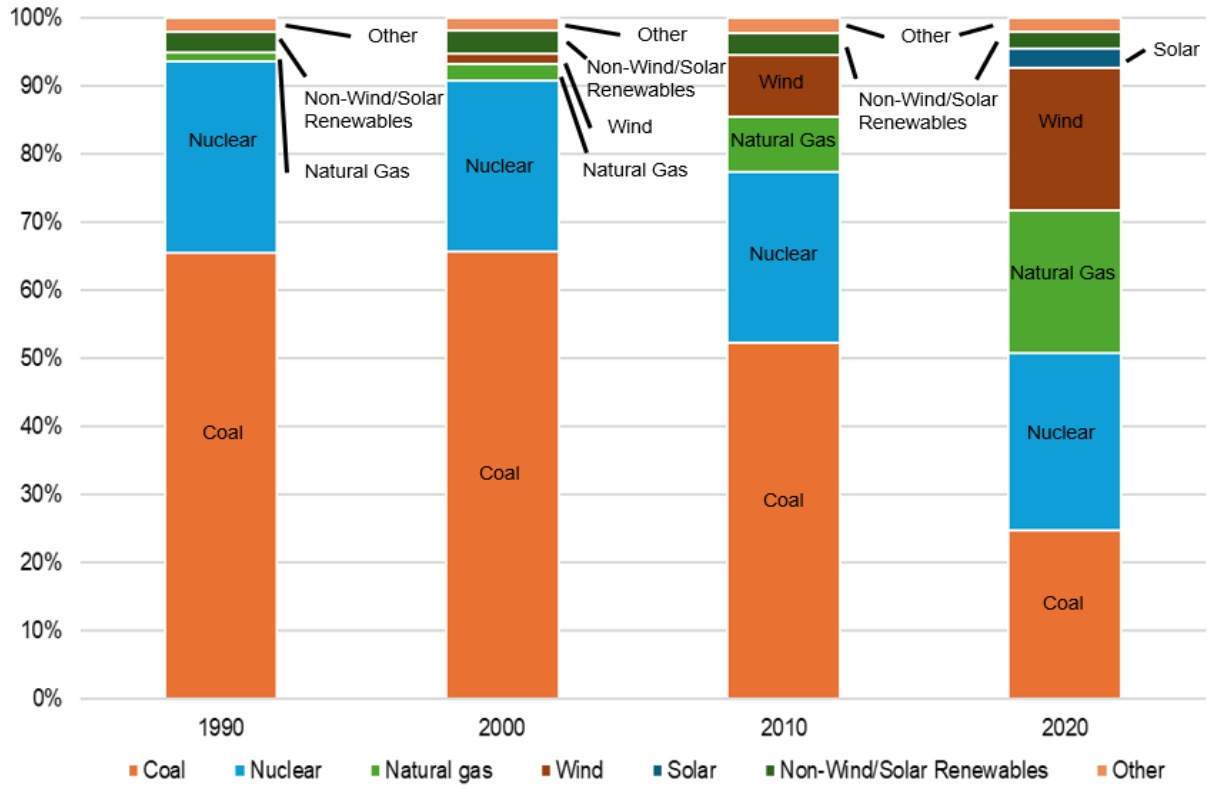
Figure 4. U.S. Electricity Generation by Major Energy Source, 1950 – 2023 (Billion KW/hr)



Data Source: U.S. Energy Information Administration, Monthly Energy Review and Electric Power Monthly, February 2024, preliminary data for 2023

Focusing on Figure 5, Minnesota's electricity fuel generation mix has gone through significant changes over the past three decades. In 1990, coal was Minnesota's primary energy source, and it contributed just over 65 percent of total generation. This share has steadily declined to just under 25 percent in 2020. Nuclear energy, while experiencing a slight decrease from about 28 percent in 1990 to 26 percent in 2020, has maintained its overall contribution. In contrast, natural gas saw a dramatic increase, rising from just 1 percent in 1990 to almost 21 percent by 2020. Wind energy also experienced sizeable growth, rising from zero in 1990 to 21 percent in 2020, reflecting its growing importance in the energy mix. Solar energy, initially nonexistent in the early years, has increased to about 3 percent share by 2020. Non-wind renewables saw a slight decline from 3 percent in 1990 to 2 percent in 2020, while the share of other sources remained relatively stable. Overall, these shifts highlight a transition towards renewable energy sources, specifically illustrated by the proportion of energy generated via wind - and to a lesser degree solar systems.

Figure 5. Minnesota Electricity Fuel Generation Mix, 1990 – 2020 (% of total MWh)



Data Source: U.S. Energy Information Administration, Form EIA-923, Power Plan Operations Report and predecessor forms.

Installed Capacity

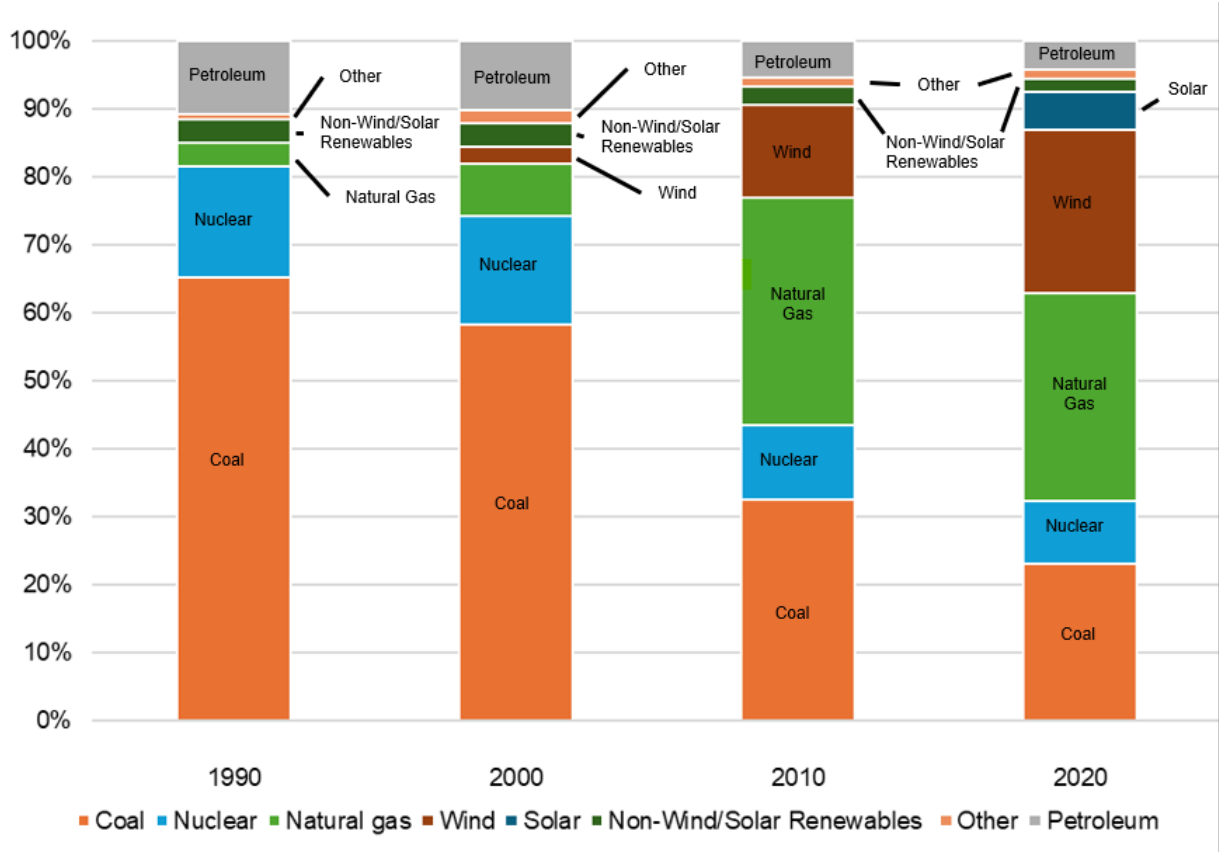
In addition to increasing renewable energy contributions to the state's electricity fuel generation mix, part of the objective for the general sales and use tax exemptions is to increase the implementation of wind energy systems and solar energy systems across Minnesota. Implementation is measured as installed capacity as reported by the EIA. Installed capacity refers to the amount of energy output a system would produce if it were operating at full capacity.[82]

Figure 6 includes three decades of Minnesota's electric power industry capacity data. There are several important items to note regarding installed capacity. Petroleum has a relatively significant portion of installed capacity, which was around 10 percent between 1990 and 2000 but generated less than 1 percent in each reported year. Additionally, coal's decreasing installed capacity indicates a reduction in coal-powered power plants. Lastly, wind and solar saw steady increases in installed capacity between 2010 and 2020, where wind increased by just over 10 percent and solar increased by 3 percent.

[82] U.S. Energy Information Administration. "What is the Difference Between Electricity Generation Capacity and Electricity Generation?" https://www.eia.gov/tools/faqs/faq.php?id=101&t=3.

These trends reflect those highlighted in Minnesota's electricity fuel generation mix in Figure 5, but there are limitations to the conclusions that can be drawn from the similarities between electricity generation and capacity. Capacity is a calculation of a fuel source's maximum generation potential. Thus, the total megawatts hours generated, as reflected in Figure 5, could be much higher than past performance based on installed capacity alone.

Figure 6. Electric Power Industry Capacity in Minnesota, 1990 - 2020 (% of total MW)



Data Source: U.S. Energy Information Administration, Form EIA-860, Annual Electric Generator Report.

Location of installations

Figures 7 through 10 depict the concentration of site locations and energy capacity for distributed wind and solar in Minnesota. These maps were developed using available data from the Minnesota Public Utilities Commission (MPUC), Xcel Energy, and Minnesota Power.

Figure 7 depicts DER solar sites in Minnesota, which are primarily clustered around the Twin Cities metro, with lower density in the areas around Duluth and Rochester. The solar capacity depicted in Figure 8 varies from the solar site count map, in that capacity is spread more broadly across the southern and southeast regions of the state.

Figures 9 and 10 show that wind energy installations and wind energy generation is mostly located around the southern and western areas of Minnesota. There is also wind energy activity clustered along the North Shore of Lake Superior, though this area sees a lower DER capacity than the southern and western regions of Minnesota. In a National Renewable Energy Laboratory (NREL) report discussing the economic potential of distributed wind in Minnesota, average wind speed and turbine siting availability are shown to be concentrated on the western edge and notably the southwestern corner of the state. [83] Figures 9 and 10 show that Minnesota is largely aligned with these NREL models. This correlation points toward effective DER wind site placement in Minnesota.

[83] National Renewable Energy Laboratory. “Assessment of the Economic Potential of Distributed Wind in Colorado, Minnesota and New York.” https://www.nrel.gov/docs/fy18osti/70547.pdf

Figure 7. Map of Solar Energy Site Locations in Minnesota 1

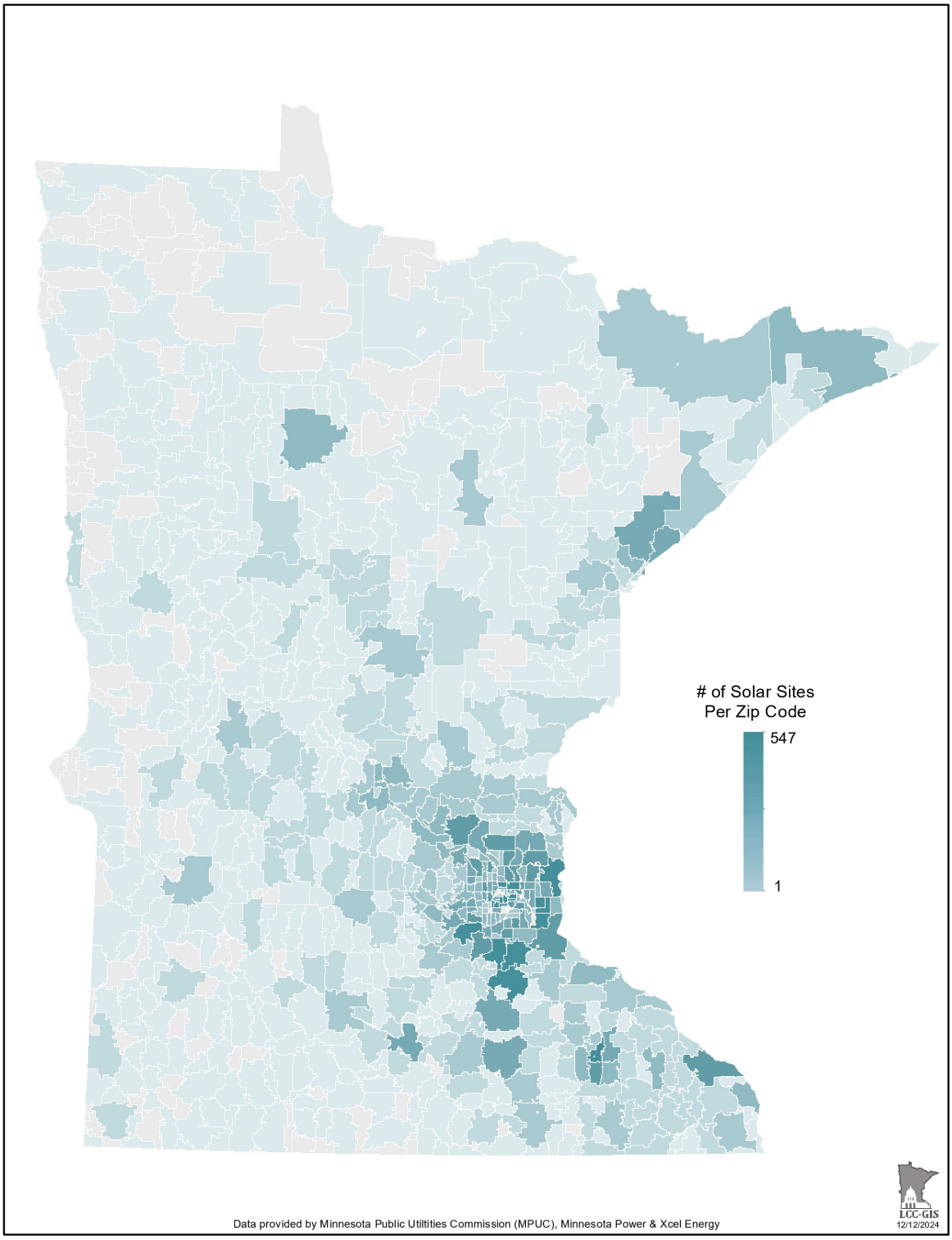


Figure 8. Sum of Distributive Energy Solar Capacity in Minnesota

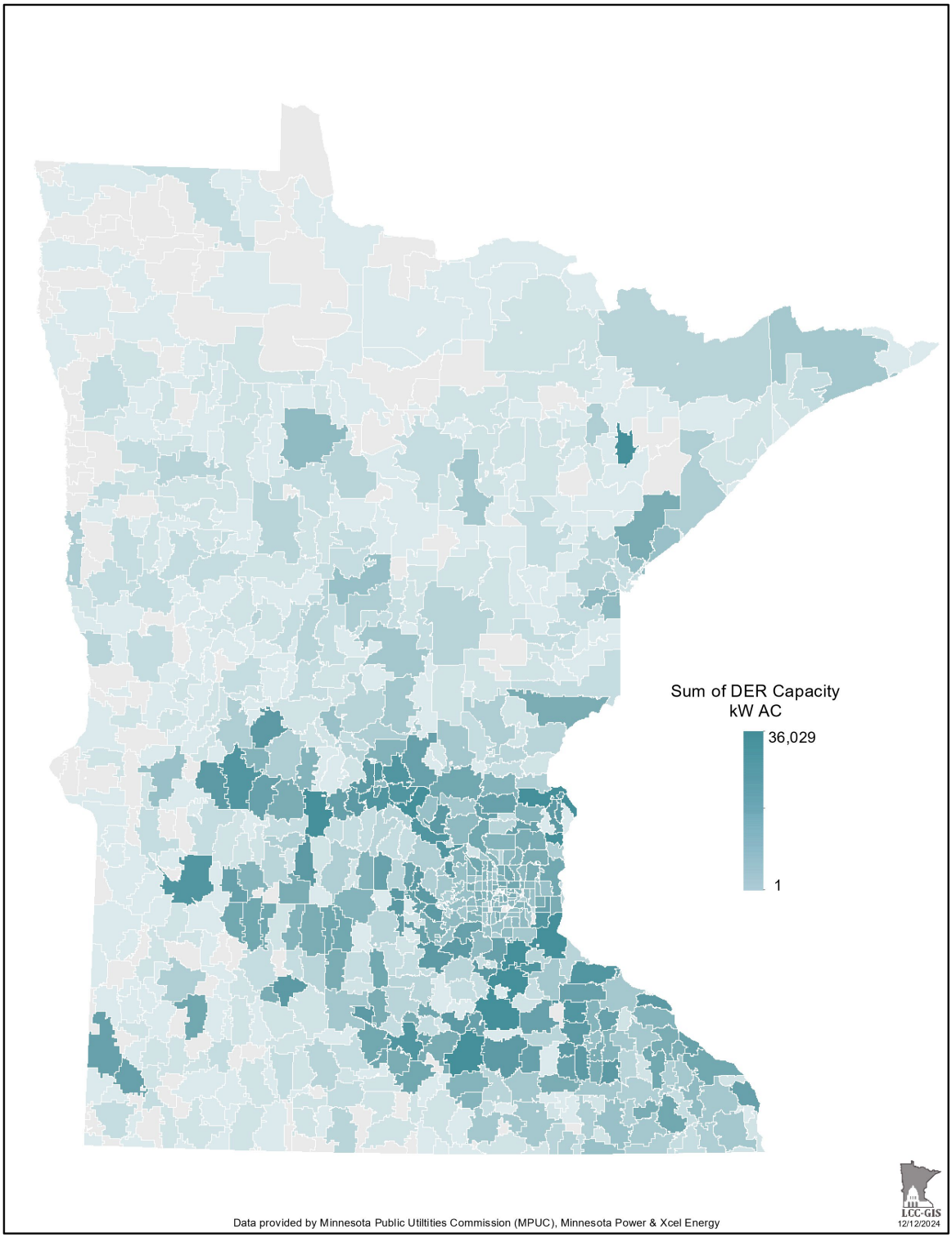


Figure 9. Map of Wind Energy Site Location in Minnesota

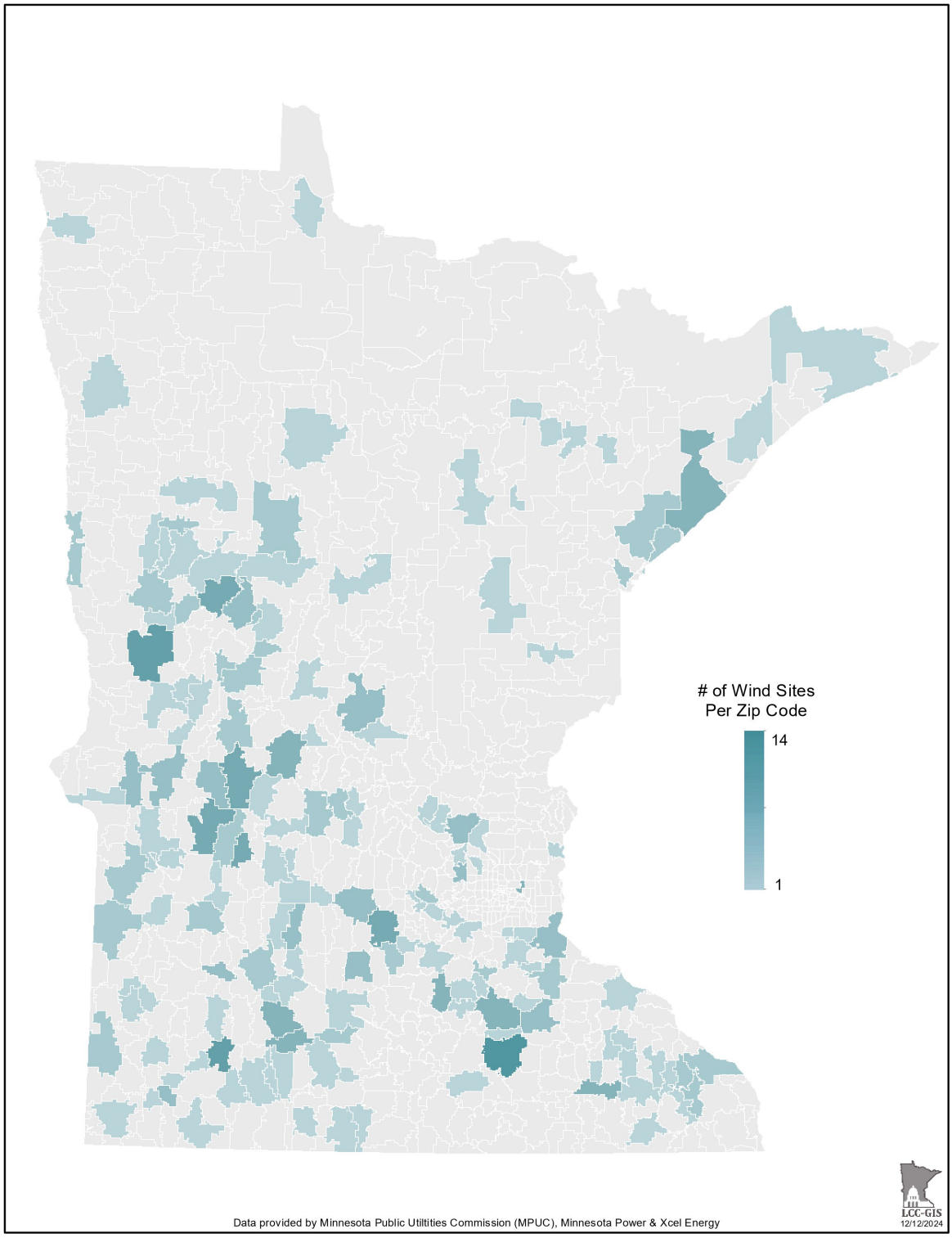
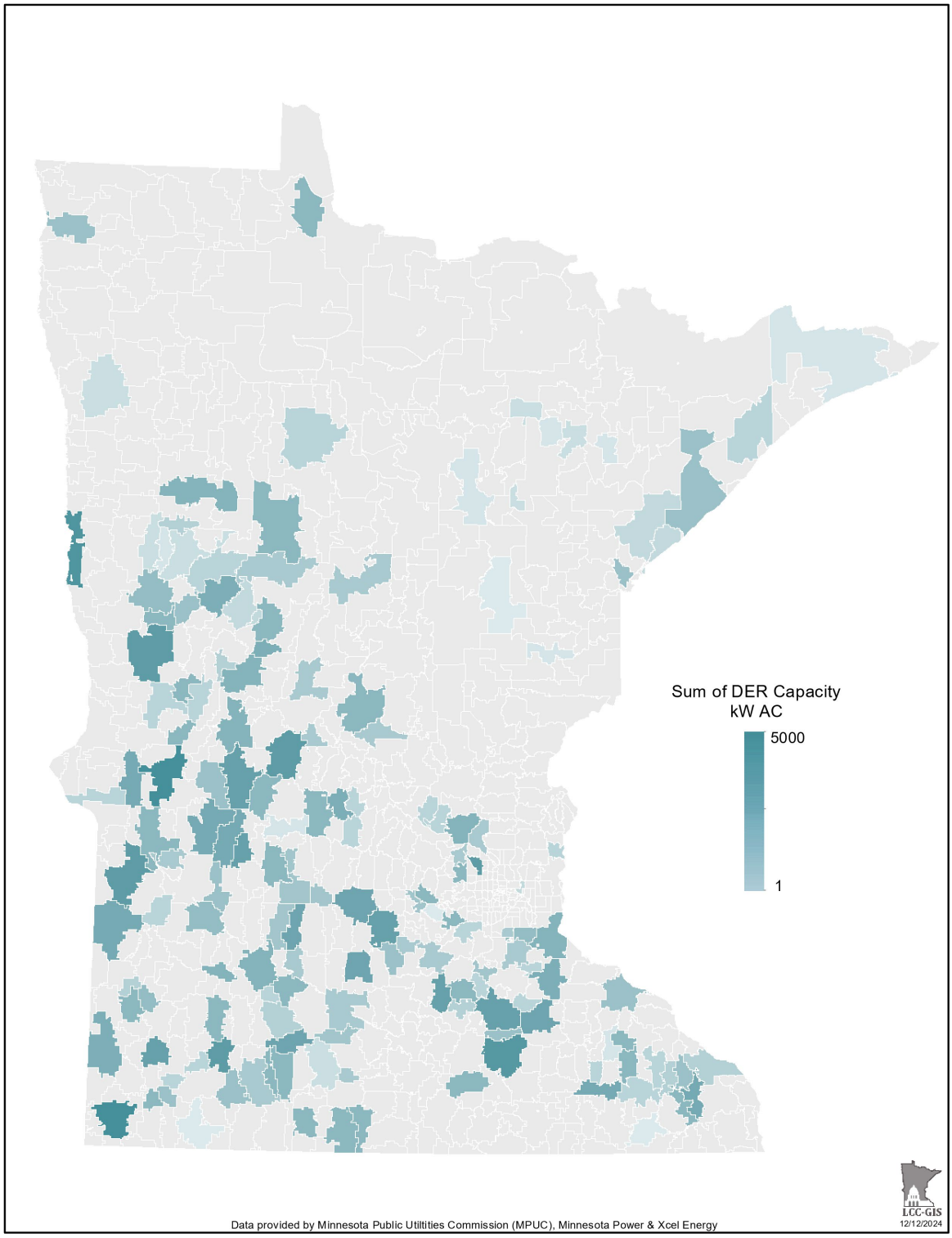


Figure 10. Sum of Wind Distributive Energy Capacity (kW AC)



Customer Type

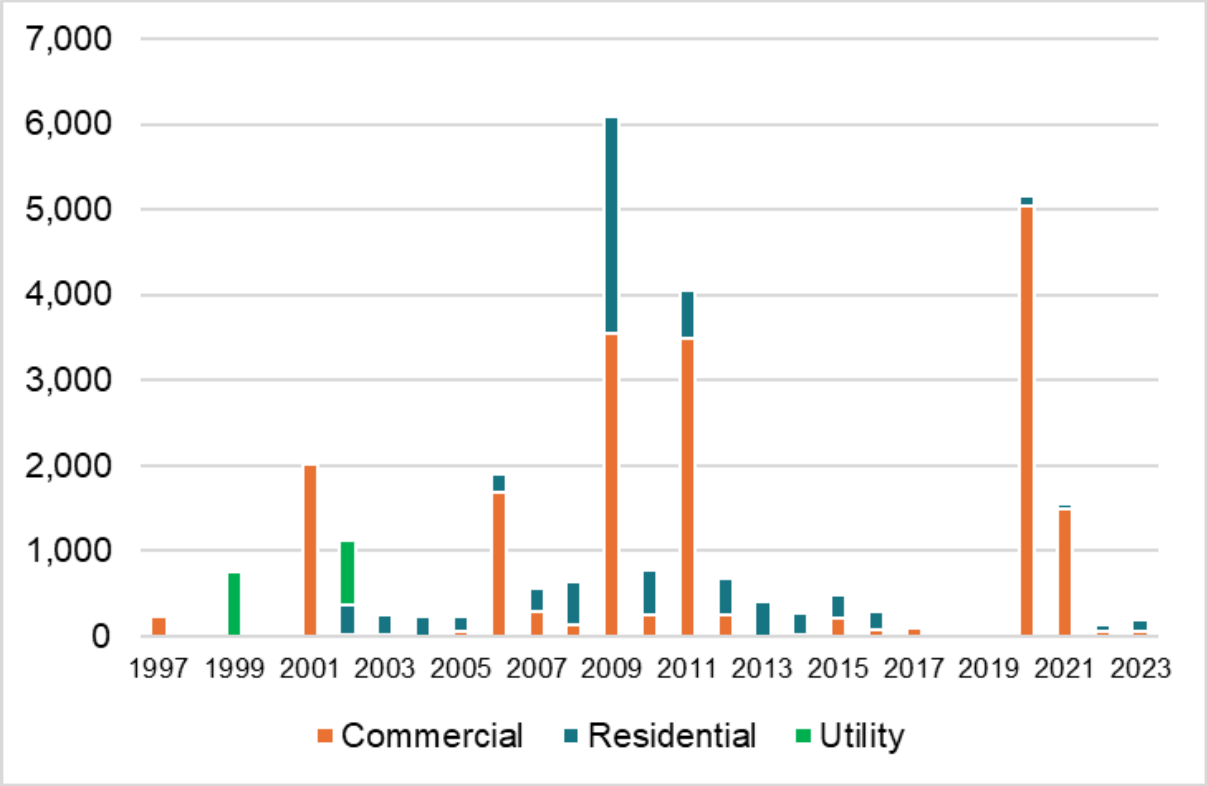
Information on customer type is presented using annual added capacity across customer types as reported by the MPUC Annual Distributed Generation Report.[84] Annual added capacity is used in place of the count of annual installations as it provides a detailed window into the distributed energy landscape. This is primarily because it illustrates the additional quantity of potential generated energy each year. Using a count of annual installations would be misleading as it would mute the scale of these systems. This is especially true for wind systems, as single systems often produce a greater amount of energy than a single solar energy system.

Annual wind capacity uptake in Minnesota by customer type is presented in Figure 11. There is significant variation in the frequency at which wind energy systems are installed. Most customers fall within the commercial category, though there was a higher uptake of residential wind systems between 2005 and 2015. Differences between solar and wind in the amount of added capacity each year are likely due to the fact there are much fewer locations of wind systems (n=440) than solar (n=37,492) included in the dataset. Solar is a more affordable and, overall, more accessible distributed energy system, thus making it the more popular choice among residential customers.[85]

As depicted in Figure 12, solar installations were minimal until 2016. The primary drive of the sharp uptake in installation is CSGs, which accounted for the majority of added capacity in 2016-2020. CSGs are shared solar panel systems, which allow individuals to benefit from distributed energy systems without bearing the full cost of installation and maintenance.[86]

[84] MPUC. "Annual Distributed Generation Report, Minnesota Data through December 31, 2022."
[85] World Economic Forum. “Solar vs wind power: The ultimate showdown.” https://www.weforum.org/stories/2022/03/solar-wind-power-renewable-energy-climate-change/#:~:text=Wind%20power%20takes%20up%20far,the%20top%20residential%20solar%20panels.
[86] Minnesota Commerce Department. “Community Solar Gardens”. https://mn.gov/commerce/energy/consumer/energy-programs/community-solar-gardens.jsp

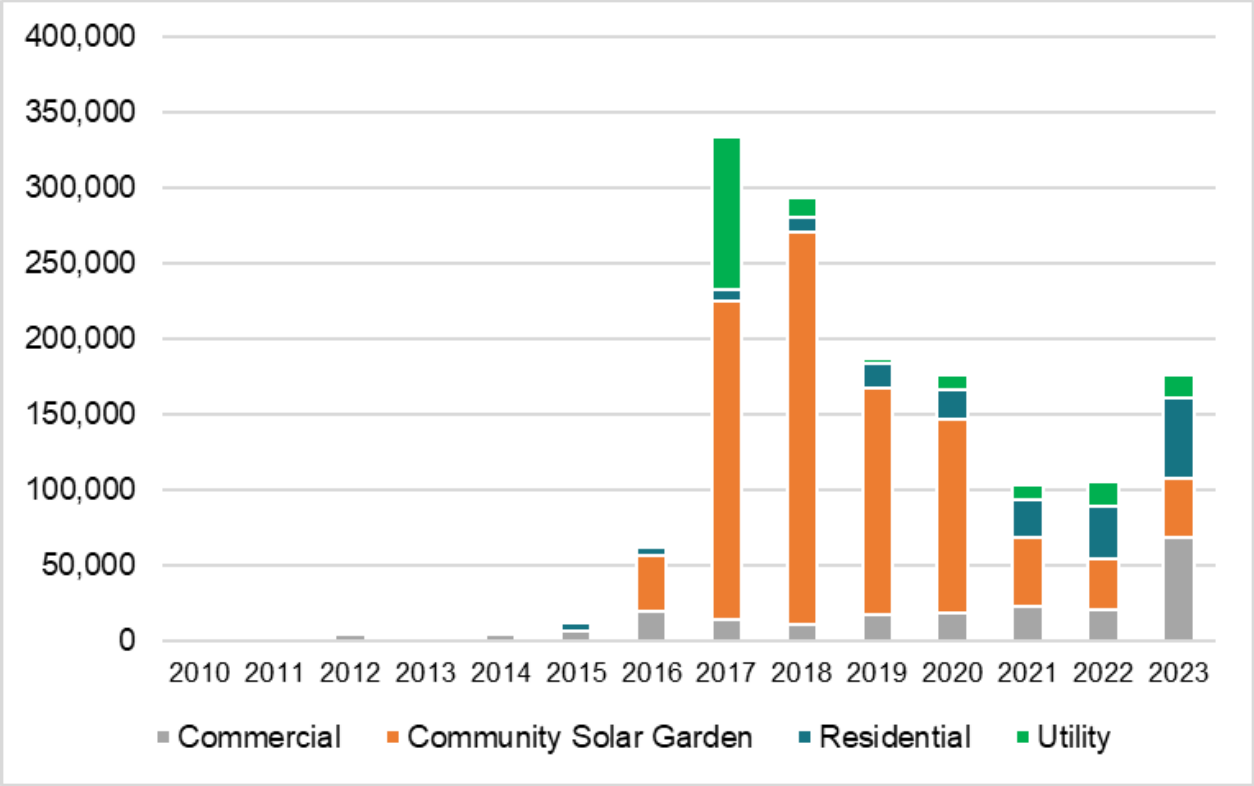
Figure 11. The Sum of Annual Added Wind Capacity (kW AC), 1997 – 2023, *total installations* = 440



Data Source: Minnesota Public Utilities Commission (MPUC). 2024. "Annual Distributed Generation Report, Minnesota Data through December 31, 2023."; Minnesota Power; Xcel Energy.

Note: Data prior to 1997 are negligible relative to what is included here and have been excluded.

Figure 12. The Sum of Annual Added Solar Capacity by Customer Type (kW AC), 2010 – 2023, *total installations* = 37,492



Data Source: Minnesota Public Utilities Commission (MPUC). 2024. "Annual Distributed Generation Report, Minnesota Data through December 31, 2023."; Minnesota Power; Xcel Energy

Note: Data prior to 2010 are negligible relative to what is included here and have been excluded.

Installed Costs

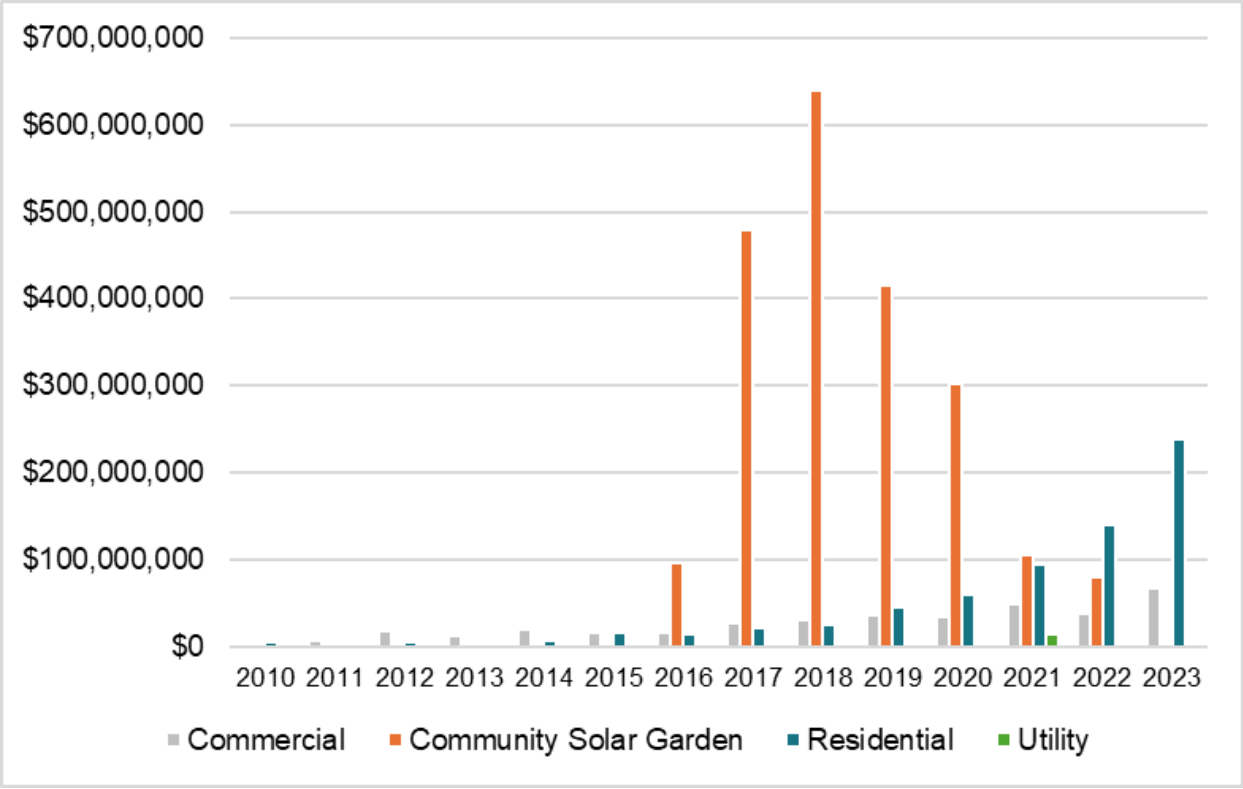
The total installed cost of solar and wind energy systems was included in the MPUC dataset. These are estimates made by the customer and reported to the utility company, not the exact cost of each respective energy system. Additionally, MPUC cannot verify whether interconnection costs are included as part of installation costs in these self-reported figures. Xcel Energy alone accounts for about 70 percent of the distributed energy systems reported in the dataset. Figure 13 illustrates the magnitude of installed costs of distributed solar energy systems. Only installed costs of distributed solar energy systems are included in this analysis due to inconsistencies with the reported costs of distributed wind energy systems.

The total installed cost of solar equipment has increased rapidly within the last 10 years. Before 2016, investment in solar equipment was minimal and experienced sluggish growth. Beginning in 2016, investment skyrocketed from just under $100 million to just over $600 million in 2018. It has declined since then except for 2020, where it

underwent a slight increase. The variation in investment is likely due to the different types of customers installing solar panels.

Looking at installation costs by customer type reveals huge investments from CSG customers within the 2016 to 2022 range.[87] These costs, as depicted in Figure 13, are exclusively the costs that the CSGs paid Xcel Energy to interconnect their solar arrays to Xcel Energy's electricity grid. Xcel Energy clarified that these numbers include only interconnection costs, not installation costs of each solar garden. Thus, these estimates are likely lower than the actual amount of foregone revenue.

Figure 13. Total Installed Cost of Solar Installations by Customer Type, 2010 - 2023



Data Source: Minnesota Public Utilities Commission (MPUC). 2024. "Annual Distributed Generation Report, Minnesota Data through December 31, 2023."; Minnesota Power; Xcel Energy.

[87] Minnesota passed a law in 2013 that prioritized the construction of community solar gardens. See Minnesota Statutes 2024, section 216B.1641.

Estimates of Foregone Revenue

Figure 14 displays the DOR Tax Research estimates of foregone revenue for each tax expenditure included in the evaluation for fiscal years 2024 through 2027. These estimates are published in the 2024 Tax Expenditure Budget and are based on data from the Minnesota Department of Commerce, the U.S. Department of Energy, U.S. Energy Information Administration, The Energy Markets and Policy Berkeley Lab, and EnergySage.

Figure 14. Estimates of Foregone Revenue

Fiscal Year	2024	2025	2026	2027
Wind	$11,300,000	$11,600,000	$12,000,000	$12,500,000
Solar	$9,000,000	$9,300,000	$10,000,000	$10,700,000

Note: These estimates come from the 2024 Tax Expenditure Budget.

The LBO estimated foregone revenue of previous calendar years using the total installed costs of DERs as reported to MPUC. It is understood that reported costs include system and installation costs. Additional interconnection cost data was received from Minnesota Power and Xcel Energy for the purposes of this evaluation.[88] This interconnection cost data was reported as non-public data to MPUC, but was made available to the LBO upon request.[89] Figure 15 displays LBO estimates of foregone revenue with and without the estimates associated with CSGs.[90] Estimates from 2016 to 2022 are much higher due to the interconnection costs associated with new solar gardens.

Though there was a rapid increase in foregone revenue due to CSG, this is not likely to continue and may even decrease for several reasons. First, the growth in CSG is due to Minnesota's CSG program, which, as a result of legislative changes made in 2023, is likely to slow in growth.[91] This decrease in growth is already evident in the decreases in

[88] DOR Tax Research confirmed that interconnection costs would be exempt from sales tax based on the broad definition of the solar energy system exemption in Minnesota Statutes, section 216C.06, subdivision 17, and an understanding that costs associated with performing interconnection services would not be taxable based on Minnesota Statutes, section 297A.61, subdivision 3(j). In cases where verification may be necessary, billing documents are reviewed to verify the eligibility of purchased products.

[89] Utility companies are allowed to deem certain data "not for public consumption" when submitting to MPUC. Minnesota Power and Xcel both filed their reasoning when they remitted the data. Therefore, some interconnection cost estimates were not available when estimates of foregone revenue were calculated for the 2024 Tax Expenditure Budget. Both companies privately agreed to share this data with the LBO at a higher level of aggregation through the course of this evaluation.

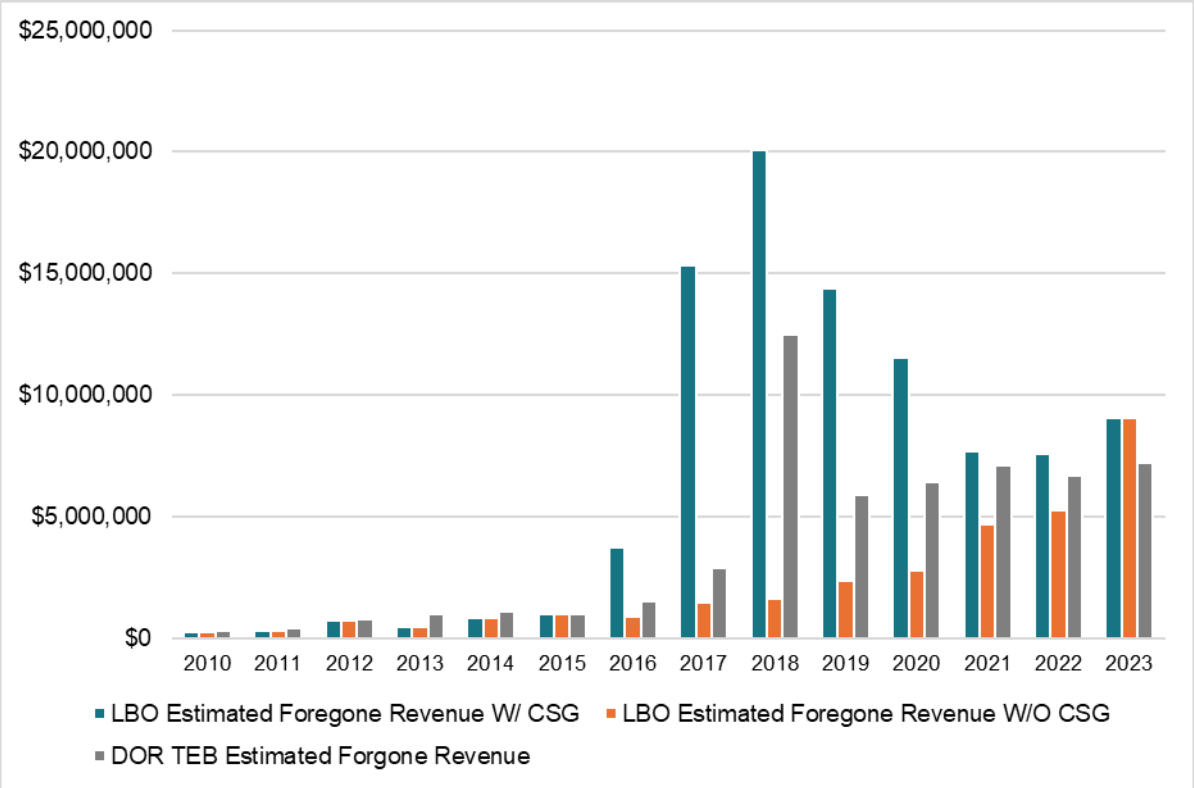
[90] These estimates assume that 58% of CSG costs and 57% of other PV costs are attributed to labor, thus not taxable. These labor cost estimates are based on a report by the National Renewable Energy Lab (NREL). National Renewable Energy Lab. "U.S. Solar Photovoltaic System and Energy Storage Cost Benchmarks, With Minimum Sustainable Price Analysis: Q1 2023." September 2023.

[91] Bob Eleff, "Changes to Xcel Energy's Community Solar Garden Program: 2023-2024." MN House Research, December 2024.

annual added capacity in recent years.[92] Lastly, changes in federal policy are likely to drastically decrease the number of clean energy projects, including CSGs.[93]

Estimates from the latest and of previously published Tax Expenditure Budgets are also plotted on Figure 15 to illustrate trend lines; though it is important to note that estimates from the Tax Expenditure Budget are reported in fiscal years. For visualization purposes, these estimates have been plotted alongside calendar year estimates to illustrate trends in fiscal impact.

Figure 15. Comparison of LBO estimated Foregone Revenue with CSG Interconnection costs, without, and TEB Estimates



Data Source: Minnesota Public Utilities Commission. 2024. "Annual Distributed Generation Report, Minnesota Data through December 31, 2023."; Minnesota Power; Xcel Energy; Minnesota Department of Revenue Tax Research Division. Tax Expenditure Budget. Editions 2010, 2012, 2014, 2016, 2018, 2020, 2022.

Note: Estimates from the Tax Expenditure Budget are reported in fiscal years. For visualization purposes, these estimates have been plotted alongside calendar year estimates to illustrate trends in fiscal impact.

[92] Minnesota Public Utilities Commission, Distributed Energy Resources in Minnesota (2023 data)".
[93] Rhodium Group, "What Passage of the "One Big Beautiful Bill" Means for US Energy and the Economy." July 11, 2025.

Revenue Neutral Rate

DOR Tax Research identified revenue-neutral rates for the sales and use tax exemptions on wind energy conversion systems and solar energy systems. A revenue-neutral rate means the state could maintain its current revenue levels even if a specific tax expenditure was repealed. Minnesota's general sales and use tax rate has been set at 6.875 percent since July 1, 2009. [94] If the exemption for Wind Energy Conversion Systems was repealed, the general sales and use tax rate would have to decrease to 6.866 percent to maintain current state revenue levels. Similarly, repealing the exemption for Solar Energy Systems would require reducing the tax rate to 6.868 percent. These rates were calculated independently, assuming one exemption is repealed while the other remains in place.

Incidence

A tax incidence analysis is not available for either of the tax exemptions directly. Tax incidence refers to who ultimately bears the relative burden of a tax. As a proxy, we analyze incidence of sales tax paid by businesses and the incidence of claims for the Residential Clean Energy Credit.

DOR Tax Research assumes the incidence of these two sales tax exemptions to be similar to the incidence of the business sales tax, as explained in the 2024 Tax Expenditure Budget.[95] For an overview of the business sales tax incidence, please see Figure 16, originally published on page 135 of the 2024 Tax Expenditure Budget. The LBO understands the Business Portion of Sales and Use Tax to mean the sales tax on business purchases paid by a business that is not expected to be fully reflected in the price paid by consumers. This is separate from sales tax paid by households whether they be Minnesota residents or nonresidents.

Figure 16 provides a breakdown of the business portion of Minnesota’s general sales and use tax paid by population decile.[96] Excluding non-residents, 74 percent of the business portion of the general sales and use tax is paid by the top half of Minnesota businesses, deciles six through ten. This aligns with the LBO’s expectations of a heavier distribution of incidence to land in the top half of the population, considering the high cost of wind and solar renewable energy technology. In other words, the upfront costs of equipment is likely to limit who can afford to buy and install such equipment; therefore, who is most likely to benefit from both exemptions from the general sales and use tax.

---

[94] Laws of Minnesota 2009, chapter 88, article 4, section 4; Minnesota Statutes 2024, section 297A.62, subdivisions 1, 1a.

[95] Minnesota Department of Revenue Tax Research Division. State of Minnesota Tax Expenditure Budget Fiscal Years 2024-2027. Page 154.

[96] Population deciles rank the sample population into 10 equal segments by ascending levels of income, each segment containing the same number of observations. In this case, the first segment, or decile, includes businesses with the lowest levels of income, while the tenth decile includes businesses with the highest levels of income.

Figure 16. Tax Incidence of the Business Portion of General Sales and Use Tax in Minnesota[97]

General Sales Tax, Business Portion

Population Decile	Sales & Use Tax	Business Portion of Sales & Use Tax	Share of Business Portion
$15,544 & Under	$275,989,456	$108,858,170	2.7%
$15,545 - $24,961	$321,365,571	$119,743,208	2.9%
$24,962 - $35,168	$369,752,647	$139,471,032	3.4%
$35,169 - $45,808	$417,394,917	$159,742,201	3.9%
$45,809 - $58,014	$465,046,347	$178,530,355	4.4%
$58,015 - $73,668	$526,644,412	$201,895,886	4.9%
$73,669 - $95,360	$641,957,246	$248,497,825	6.1%
$95,361 - $127,780	$802,412,748	$311,867,360	7.6%
$127,781 - $183,475	$988,123,559	$386,770,698	9.5%
$183,476 & Over	$2,041,065,136	$882,501,822	21.6%
Nonresidents	$1,605,124,031	$1,354,771,928	33.1%
All	**$8,454,900,000**	**$4,092,700,000**	**100%**

The Statistics of Income (SOI) program at the Internal Revenue Service published several statistic tables on claims for the Residential Clean Energy in tax year 2023. SOI's Table 2 lists out Residential Energy Credits, by size of adjusted gross income. This table was analyzed as a proxy for the incidence of the sales tax exemptions on solar and wind energy for residential households. For reference, Table 2 is provided in Appendix D.

There were 1,246,440 claims for the Residential Clean Energy Credit, totaling to $6,337,122,000 ($6.3 billion), in tax year 2023. This represents almost one percent of the population that completed Form 1040 for their 2023 income tax filing. In the case of Residential Clean Energy Tax credits being a proxy for households, the majority of claims go to the top quarter of households. With respect to the state's sales and use tax exemptions for solar energy and wind energy conversion systems, this can be interpreted to mean that 67 percent of the benefit of these exemptions goes to the top quarter of earners. An analysis of claims and credit values is provided in the following paragraph.

Thirty-three percent of the value of Residential Clean Energy Credits went to households with adjusted gross income between $25,000 - $100,000. Fifty-four percent of claims for the credit come from the same income range. Roughly 49 percent of the tax filing population falls within this income range. Meanwhile, 40 percent of the value of

[97] Minnesota Department of Revenue Tax Research Division. State of Minnesota Tax Expenditure Budget Fiscal Years 2024-2027. Page 135.

credits went to households with adjusted gross income between $100,000 - $200,000, representing nearly 30 percent of the claims. About 17 percent of the tax filing population falls in this income range. The final 27 percent of the value of credits went to households with adjusted gross income above $200,000, about 14 percent of claims for the credit. Seven percent of the tax filing population falls in this income range. Ultimately, about 44 percent of the claims for the Residential Clean Energy Credit come from households in the top 24 percent of the population. These claims receive 67 percent of the value of credits issued. This exceeds the expectations described above that claims would fall heavily in the top half of the population.

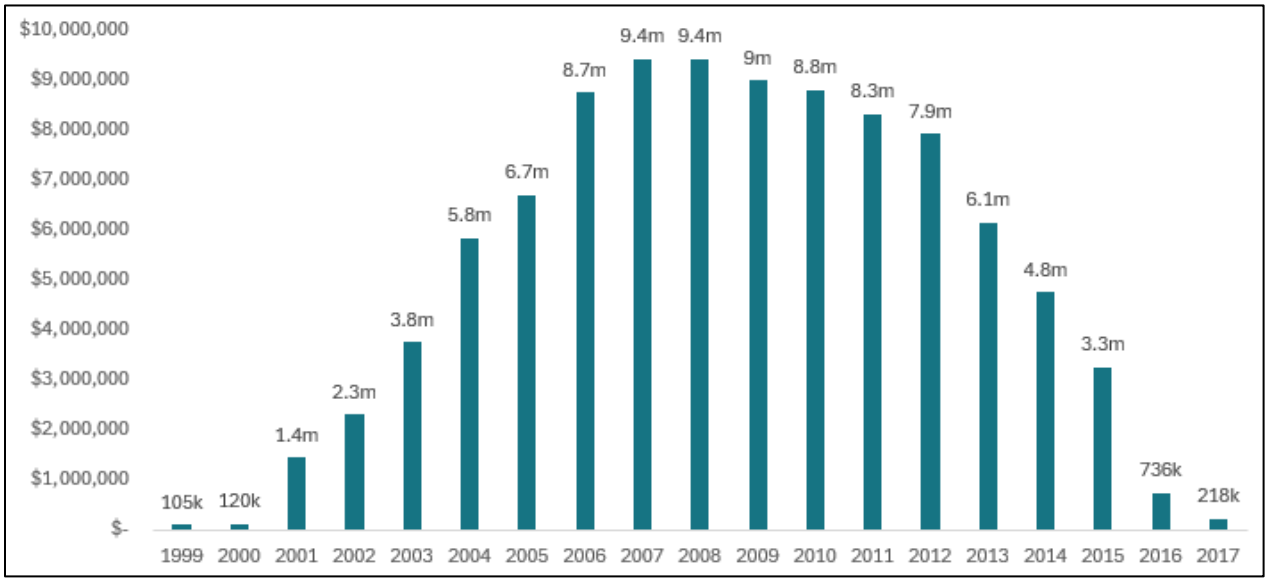
Cumulative Fiscal Impacts of other State and Federal Programs

Minnesota's general sales and use tax exemptions for solar and wind energy systems operate within a broader policy landscape that includes various state and federal incentives aimed at promoting renewable energy in the State of Minnesota. Understanding the cumulative fiscal impacts of these incentives provides an important context for evaluating the effectiveness of Minnesota's exemptions for solar and wind systems. This section examines key state production incentives, as well as federal tax policies and grants that encourage contributions to Minnesota's renewable energy goals. This section covers both past and current incentives.

Under Minnesota Statutes 1996, section 216C.41, subdivision 2, the state provided incentive payments for electricity produced by wind energy conversion facilities from 1999 to 2017 under the Renewable Energy Production Incentive. During this time, the state made 2,069 incentive payments totaling approximately $97 million.[98] The Department of Commerce estimates that 194 – 200 different wind facilities and producers benefitted from these incentive payments. The program was designed to expire, per statute, on December 21, 2018. Figure 17 depicts annual incentive payments as reported by the Department of Commerce.

[98] Jack Kluempke, Minnesota Department of Commerce Email Response to LBO Research Team. December 13, 2024.

Figure 17. Wind Energy Incentive Payments, 1999 – 2017 (amounts in USD)



In 2013, the Solar Energy Production Incentive program was created by the Minnesota Legislature to be administered jointly by the Department of Commerce and Xcel Energy starting in 2014. This program provides production-based payments to Xcel customers who own and operate a qualifying solar energy system, and is funded by payments made from Xcel Energy to the state Renewable Development Account for nuclear cask storage.[99] Additionally, owners receive credits on their monthly utility bill through the net metering benefit for any excess energy produced by the solar energy system that is directed to the interconnected utility provider for redistribution across the utility grid. To qualify for production incentive payments, a solar energy system cannot exceed a total aggregate nameplate capacity of 40 kilowatts and must be sized to produce up to 120 percent of the owner's annual energy consumption.

The Legislature initially set aside $5 million annually for production incentives and planned for the program to run for five consecutive years.[100] The program has since been extended and the allocated amounts have been adjusted across years. Payments are allowed through 2035 to cover production incentives to owners of solar energy systems. Five million dollars is allocated annually to cover incentive payments from 2026 through 2035, with unspent amounts being transferred to the state's renewable development account on January 1, 2038.[101]

At the federal level, tax expenditures and grants have been available to individuals and businesses choosing to install renewable energy equipment on their property. DOR Tax

[99] Minnesota Statutes 2024, section 216C.41; Minnesota Statutes 2024, section 116C.779
[100] Laws of Minnesota 2013, chapter 85, article 10, section 1. Minnesota Statutes 2024, section 116C.7792.
[101] Laws of Minnesota 2025, 1st Spec. Sess. chapter 7, article 3, section 1.

Research estimates that Minnesota taxpayers received over $69.5 million through the Residential Clean Energy Tax Credit in tax year 2023 for the purchase and installation of qualifying renewable energy technology. DOR Tax Research estimates that $63.5 million of these credits were for the purchase of solar energy systems, which would also qualify for the state's sales and use tax exemption. This includes solar electric and solar heating equipment. With respect to wind energy conversion systems, DOR Tax Research estimates that Minnesota taxpayers received over $526 thousand in Residential Clean Energy tax credits.[102] Figure 18 displays estimates of Residential Clean Energy credits to Minnesota taxpayers by qualifying renewable energy sources. These estimates are based on clean energy tax statistics published by the Internal Revenue Service SOI program. [103]

Figure 18. Estimates of Residential Clean Energy Tax Credits to MN Taxpayers in Tax Year 2023

Eligible Purchases for Residential Clean Energy Credit	Estimates of Residential Clean Energy Tax Credit to MN Taxpayer
Qualified solar electric property	$61,296,026
Qualified solar water heating property	$2,212,599
Qualified small wind energy property	$526,392
Qualified geothermal heat pump property	$1,781,768
Qualified battery technology	$2,129,508
Qualified fuel cell property	$1,534,989
Total	$69,481,282

The federal PTC is a tax credit for generating electricity from renewable energy sources. It is available to taxable businesses and some tax-exempt entities. The LBO cannot provide estimates for any credits received by Minnesota taxpayers through the federal PTC. There are several challenges in trying to estimate this amount. First, there is a lack of summary filing data made available on this credit to understand the proportion of claims taken by Minnesotans. Second, it can be assumed that the PTC is more advantageous to large scale producers likely to benefit from the capital equipment exemption for any eligible solar energy system or wind energy conversion system purchases, meaning that estimates from these facilities would not be included in this

[102] Ben Pults. DOR Tax Research Email Response to LBO Research Team. January 23, 2025.
[103] Internal Revenue Service Statistic of Income Division. Clean Energy Tax Credit Statistics – Table 3. Form 5695 Residential Energy Credits, by State, Tax Year 2023. Accessed on February 07, 2025. https://www.irs.gov/statistics/soi-tax-stats-clean-energy-tax-credit-statistics.

evaluation. This introduces a third challenge of delineating claims between large scale producers and smaller distributed energy facilities on available nationwide data.

It is important to note that taxpayers must choose between claiming the Residential Clean Energy Credit or the PTC. Analysis of IRS summary filing data suggests that most owners of a distributed energy facility are likely to elect the Residential Clean Energy Credit. The most recent available data from the IRS reports that in tax year 2022 there were 3,491 claims for the PTC under the individual income tax, resulting in $2,784,000 in credits granted across the US.[104] Compared to over 1.4 million claims for the Residential Clean Energy Credits, accounting for over $7.7 billion in estimated credit amounts. It can be inferred that most individuals are likely to choose the Residential Clean Energy Credit to be reimbursed for up to 30 percent of their upfront investment.

The Residential Clean Energy Credit, the Clean Electricity Investment Credit, and the Clean Electricity Production Credit were impacted by recent federal changes under H.R. 1, The One Big Beautiful Bill Act (OBBBA). The Residential Clean Energy Credit was previously scheduled to sunset at the end of 2034, but is now scheduled to sunset at the end of 2025. The Clean Electricity Investment and Production Tax Credits changed in several ways. Most notably, solar and wind energy systems were singled out to sunset earlier than other qualifying energy systems. The sunset date was changed from 2032 to 2027. These changes do not impact the above estimates but will eliminate these programs after the new sunset dates. See Appendix C for additional information.

In addition to credits, grants have been afforded to Minnesotans interested in establishing renewable energy systems on their property. Two grant programs with reported grant distributions in Minnesota include the US Department of Agriculture's Rural Energy for America Program (REAP) and the US Department of Energy's Office of Indian Energy Policy and Programs.

USDA provided annual grant amounts for the last four calendar years specific to wind and solar energy project recipients of REAP grants. The largest grant distributions came in calendar year 2024 with nearly $22 million in grants for 261 solar energy projects and nearly $1.4 million in grants for eight wind energy projects.[105] See Figure 19 for distributions to Minnesota grant recipients between 2021 and 2024.

[104] Internal Revenue Service Statistics of Income. 2022 Individual Income Tax Returns Line-Item Estimates. Internal Revenue Service. Pages 98-99. Available online at https://www.irs.gov/pub/irs
[105]Ron Omann. U.S. Department of Agriculture Email Response to LBO Research Team. February 10, 2025.

Figure 19. USDA REAP Grant Distribution in Minnesota

Renewable Technology Type	CY2021	CY 2022	CY 2023	CY 2024
Wind	$331,891	$160,250	$773,861	$1,387,144
Solar	$765,998	$2,210,722	$8,405,844	$21,919,799

The US Department of Energy's Office of Indian Energy Policy and Programs issued a one-time competitive grant in 2022 to the Leech Lake Band of Ojibwe for a solar energy project in the amount of $1,048,735.[106]

An estimate of cumulative fiscal impact of other state and federal programs aimed at promoting the same activity is provided in Figure 20. This estimate is limited to programs with data that was available across the same time period, calendar year 2023. These programs include Minnesota's Solar Energy Production Incentive program, the federal Residential Clean Energy Credits, and the USDA REAP grants. For the purpose of this visual, we are assuming the amounts reported for the Residential Clean Energy Credits in tax year 2023 align with calendar year 2023. Minnesota residents benefitted from nearly $77 million in resources dedicated by the state and federal government to promote solar energy production at the residential or distributed energy level. Similarly, Minnesotans investing in wind energy conversion systems received $1.3 million in federal support.

[106] Office of Indian Energy Policy and Programs. Leech Lake Band of Ojibwe – 2022 Project. US Department of Energy. Access on February 10, 2025. Available at https://www.energy.gov/indianenergy/leech-lake-band-ojibwe-2022-project.

Figure 20. Cumulative Fiscal Impacts of Other State and Federal Programs Promoting Wind and Solar in CY 23

Other State and Federal Programs	Solar Energy Systems	Wind Energy Conversion Systems
Minnesota Solar Energy Production Incentive	$5,000,000	NA
Federal Residential Clean Energy Credits	$63,508,625	$526,392
Federal Rural Energy for America Program (REAP) Grants	$8,405,844	$773,861
Total	$76,914,469	$1,300,253

This estimate is a cross-sectional look at investments in Minnesota and it is not a comprehensive estimate of all programs. There are incentive programs offered by private utility companies that promote the use of solar gardens. There are also exclusions from personal income at the federal level of subsidies offered by utility companies to promote installation of renewable energy equipment on personal property. Programs like these are not included in this estimate. The estimates that are provided are indicative of the broader policy landscape and the level of investment dedicated to promoting the installation of distributed wind and solar facilities.

Methodology

To assess Minnesota's general sales and use tax exemptions for wind energy conversion systems and solar energy systems, the LBO analyzed trends in the state's electricity fuel generation mix and installed capacity to determine if wind and solar energy contributions had increased since the enactment of the sales tax exemptions. Additionally, this analysis provides an overview of the location of installations, customer types, and new estimates of foregone revenue based on previously unavailable data. This analysis utilized datasets published by MPUC and the EIA to evaluate the landscape of distributed energy in Minnesota as reported by utility providers. Lastly, the

LBO evaluated the overlap and impact of the sales tax exemptions in tandem with other state and federal incentive programs based on reported installation costs.

Data and Methods

MPUC publishes the Annual Distributed Generation Report, which compiles utility-reported information on distributed electricity generation throughout Minnesota.[107]

Descriptive statistics were generated from the MPUC dataset to analyze trends in annual installations and added capacity by customer type and region. While the dataset contains limitations, it offers valuable insights into the scope and landscape of distributed wind and solar energy system installations across Minnesota, providing a clearer picture of how these technologies are being integrated into the state's overall energy mix. Two Minnesota utility companies, Minnesota Power and Xcel Energy, had installed costs that were not included in the public versions of their reports, meaning they were left out of the MPUC dataset. Both companies were willing to share their respective data with the LBO, which is included in the analysis of total installed cost and foregone revenue.

The EIA data was used to track long-term trends in the state's electricity fuel generation mix and installed capacity, focusing on the growth of wind and solar energy. The data begins before any significant contributions from wind and solar sources were enacted. The EIA data provides insight into how these renewable energy sources have evolved and their contributions to the state's energy grid.

Limitations

The solar energy systems sale and use tax exemption is available to all taxpayers who purchase a solar energy system, or components of a solar energy system. The data used in this evaluation are either at the state level (electricity fuel generation mix and state-level capacity) or are individual consumer data collected at the time each unit was installed (MPUC data). As a result, these data do not capture purchases of solar energy system components. Production and manufacturing data would be required to estimate the true extent of the exemption.

[107] Minnesota Public Utilities Commission, “DERs Data Dashboard. “(2023). https://mn.gov/puc/activities/economic-analysis/distributed-energy/der-data-dashboard/

Conclusion

The goal of this evaluation was to assess how well the wind energy conversion system and solar energy systems sales and use tax exemptions meet their stated objectives as identified by TERC. Based on this evaluation, it is evident that wind and solar energy systems have both been implemented and utilized at an increasing rate over the last several decades. The energy contribution of wind and solar to the state's electricity fuel generation has increased over the last several decades. What is less clear is the explicit role that these two tax expenditures have played in that process.

It is important to note that the production costs for both solar and wind have drastically decreased over the last 15 years independent of government incentives.[108] This fact further complicates determining the impact these tax expenditures have had on the increased utilization of renewable energy. Due to data limitations, it is empirically difficult to determine the degree to which decreases in production cost impacted utilization compared to economic incentives such as these tax expenditures. Despite the decreases in the cost to produce renewable energy, it is still likely that these sales and use tax exemptions have some impact given that the cost of renewable energy has decreased to a point where they are competitively priced compared to fossil fuel.

This evaluation views these two tax expenditures as part of a larger policy initiative, which takes place at the federal and state levels of government, as well as some private sector utilities companies. As outlined in component 8, this wide array of tax policies and other programs are aligned with the objectives of both the wind energy conversion and solar energy system tax expenditure objectives. As such, this evaluation determines that both sales and use tax exemptions meet their objectives in that they contribute to a broader policy initiative.

The conclusion that these exemptions meet their stated objectives applies only to the previous years that were included in the data. The OBBBA directly impacts the three federal tax credits that were considered in this conclusion. The LBO does not provide any forecast as to what the impact of these changes will be, but will consider the changes in future evaluations of these sales tax exemptions.

The Tax Expenditure Review Commission may choose to consider these findings in preparing a recommendation to the legislature to continue, repeal, or modify the tax expenditures, as is required of the Commission under Laws of Minnesota 2025, 1st Spec. Sess. chapter 13, article 8, section 5.

[108] International Renewable Energy Agency, "Renewable Power Generation Costs in 2022", 34-36.

Appendix A: Key Terms

Key Terms

Photovoltaic energy devices are solar panels that are composed of smaller cells. These smaller cells are made of semiconductor materials, designed to produce electric currents as ions transfer throughout the materials as a result of the energy transfer from sunlight. The transfer of ions creates an electric charge that is harnessed and made to flow throughout the panels and into a system that converts this direct current into alternating current for household or industrial use. A photovoltaic system can consist of one panel or a large grouping of solar panels, referred to as an array.[109]

Capacity refers to the amount of energy output a system would produce if it were operating at its full potential.[110]

Concentrated Solar Thermal systems use mirrors to direct and concentrate sunlight to create heat or thermal energy, which is used to produce other forms of usable energy like electricity, renewable fuels, and industrial process heat. Different configurations of these systems include power towers, linear mirror systems, and smaller dish engine systems.[111]

Distributed Energy Resources can be customer-owned systems like solar panels, wind turbines, and energy storage devices that are located at the site of use to offset the energy required from a utility provider. These systems are referred to as behind-the-meter systems. They can also be front-of-the-meter installations that are not located with a particular customer or at the site of use, such as a community solar garden. These systems are connected to a utility's distribution grid and can provide excess generated energy to a utility provider for compensation.[112] This definition is limited to systems that are less than 10 megawatts, interconnected with the distribution system, and operate in parallel with the utility.

Interconnection for the purposes of this evaluation, is the connection of a distributed energy resource to a utility's distribution grid.

---

[109] U.S. Office of Energy Efficiency and Renewable Energy. 2019. PV Cells 101: A Primer on the Photovoltaic Cell. December 03. https://www.energy.gov/eere/solar/articles/pv-cells-101-primer-solar-photovoltaic-cell.

[110] U.S. Energy Information Administration. (2024). "What is the Difference Between Electricity Generation Capacity and Electricity Generation?" https://www.eia.gov/tools/faqs/faq.php?id=101&t=3.

[111]Office of Energy Efficiency and Renewable Energy. 2013. Concentrating Solar-Thermal Power Basics. November 02. Accessed March 24, 2024. https://www.energy.gov/eere/solar/concentrating-solar-thermal-power-basics.

[112] Minnesota Public Utilities Commission. 2024. Distributed Energy. March 08. Accessed March 27, 2024. https://mn.gov/puc/activities/economic-analysis/distributed-energy/

Utility Scale Energy for the purpose of this evaluation refers to renewable energy systems that connected to the transmission grid and have a capacity of 10 megawatts or more.

Appendix B. Literature Review Methodology

A literature review was performed to understand the landscape of renewable energy production in the state of Minnesota and across the country. This includes understanding what incentives have been enacted to spur investment in this industry, as well as what the industry's response has been in terms of installed capacity and dollars spent. This review was also conducted to understand the approaches used to evaluate incentive performance in Minnesota, other states, and at the federal level.

A broad search was conducted to include a range of published materials on renewable energy policies. Materials include summaries of Minnesota's enacted policies that promote renewable energies and administration data collected by the state's regulatory agencies involved in licensing utility projects. Industry-wide materials are included as well, such as market reports published by federal agencies, national trade organizations, academic institutions, and private firms discussing the national outlook for renewable energy production considering national and global supply chain issues.

The literature review began with a search of Minnesota House Research published briefs on solar, wind, and renewable energy policies enacted. Next, we referenced any resources of interest cited in those briefs to expand the literature review. This resulted in a review of several federal agency references – particularly materials published by the Department of Energy.

Key distinctions across wind energy production systems were identified through a review of Department of Energy materials. This review resulted in researching wind projects by two categories - distributed wind projects and large-scale utility wind projects. Background information on these two subsectors was compiled. Ultimately, materials focused on distributed wind resources were retained.

Market reports on the overall wind industry's performance and outlook projections helped focus the LBO's literature review on incentives for renewable energy that were recently extended and enacted under the Inflation Reduction Act of 2022.

The literature review was capped off by seeking out state-specific resources to understand the industry footprint in Minnesota. Maps and datasets of distributed renewable energy projects throughout the state were obtained through the MPUC.

Appendix C. One Big Beautiful Bill Act Changes to Federal Solar and Wind Policies

The One Big Beautiful Bill Act (OBBBA), formally known as H.R.1, was signed into law on July 4, 2025. Three of the federal programs covered in this evaluation were impacted by changes made in the OBBBA. The Residential Clean Energy Credit was originally set to sunset at the end of 2034 but is now set to sunset at the end of 2025. It is estimated that Minnesotans benefited from roughly $63,500,000 worth of credits through this program. Additionally, the Clean Electricity Investment Credit and the Clean Electricity Production Tax Credit changed in several ways. Most notably, solar and wind energy systems were singled out to sunset earlier than other qualifying energy systems. The sunset date was changed from 2032 to 2027 for both credits.

Figure 21. One Big Beautiful Bill Act changes to federal programs

Program	OBBBA Changes
Residential Clean Energy Credit	Changes the credit sunset date from December 31, 2034, to December 31, 2025.
Clean Electricity Production Tax Credit	Creates a placed in-service deadline (PIS) for solar and wind facilities of December 31, 2027. Changes phase out date for all energy sources to 2032, except for solar and wind which are singled out in the changes. The PIS deadline effectively eliminates the credit for solar and wind facilities that begin construction after July 4, 2026.
Clean Electricity Investment Tax Credit	Same changes as the Clean Electricity Production Tax Credit apply.

Note: There are numerous changes not included in this table. For simplicity, only the changes applicable to the tax exemptions covered in the evaluation have been included.

Appendix D. IRS Statistics of Income: Form 5695 Residential Energy Credits, by Size of Adjusted Gross Income

Table 2. Form 5695 Residential Energy Credits, by Size of Adjusted Gross Income, Tax Year 2023 (through Filing Season 2024 Cycle 21, May 23, 2024) [1]

[money amounts are in thousands of dollars]

	Number of Form 1040 returns [2]	Total returns with a residential clean energy credit, energy efficient home improvement credit, or both	Residential clean energy credit		Energy efficient home improvement credit	
			Number of returns	Amount	Number of returns	Amount
	(1)	(2)	(3)	(4)	(5)	(6)
All returns, total	**137,934,330**	**3,421,880**	**1,246,440**	**6,337,122**	**2,338,430**	**2,061,588**
Under $1 [3]	1,570,760	980	420	171	570	160
$1 under $10,000	12,855,540	3,610	1,510	533	2,160	706
$10,000 under $25,000	22,381,940	65,940	29,260	15,459	37,700	15,031
$25,000 under $50,000	32,288,800	443,880	217,880	352,630	242,280	172,364
$50,000 under $75,000	21,494,980	581,390	256,410	794,472	352,640	291,420
$75,000 under $100,000	13,782,230	521,150	199,440	927,665	346,830	297,426
$100,000 under $200,000	23,680,390	1,194,450	368,320	2,532,756	885,000	803,599
$200,000 under $500,000	8,491,930	526,980	145,640	1,392,169	409,910	412,137
$500,000 under $1,000,000	1,077,460	67,580	21,480	234,852	50,430	56,203
$1,000,000 or more	310,300	15,930	6,080	86,415	10,910	12,543

[1] This table presents aggregates of returns filed and processed through the Individual Master File (IMF) system during Calendar Year 2024 (through May 23rd) for Tax Year 2023. It does not include any returns filed for tax years preceding 2023.

[2] Number of returns have been rounded to the nearest ten.

[3] Includes returns with negative or zero AGI.

NOTE: Number of returns and amounts may not add to totals because of rounding.

This table is based on tax returns as initially processed by IRS and does not reflect amended returns or errors that were corrected after initial processing. In general, during administrative or Master File processing, taxpayer reporting discrepancies are corrected only to the extent necessary. The table reflects very limited editing of the data for statistical purposes. Future estimates may differ.

SOURCE: IRS, RAAS, August 2024

This page is left intentionally blank.

Appendix H

Minnesota Tax Expenditure Evaluation: Credits for Small Brewers, Small Wineries, and Microdistilleries

Prepared for the Tax Expenditure Review Commission

By the Legislative Budget Office

December 1, 2025

Page left intentionally blank

Prepared by the Legislative Budget Office on behalf of the Tax Expenditure Review Commission.

For comments, questions, or concerns regarding this evaluation, please contact the Legislative Budget Office:

658 Cedar St. Centennial Building, 1st floor St. Paul, MN 55155

E-mail: lbo@lbo.mn.gov

Phone: 651-297-7146

Evaluation Team:

Laura Cecko

Vlad Fleurimond

Carlos Guereca

Annie Lemieux

Jordan Peoples

Thomas Raney

Kate Schiller

Page left intentionally blank

Table of Contents

Page left intentionally blank

Executive Summary

The Tax Expenditure Review Commission (TERC) is responsible for reviewing the effectiveness and efficiency of Minnesota's tax expenditure policies. The Tax Expenditure Review Commission has elected to review and evaluate Minnesota's tax credits for small brewers, microdistilleries, and small Wineries. These tax expenditures are bundled together for evaluation because they share an intended objective: to promote the development and survivorship of small breweries, microdistilleries, and small wineries, respectively. This report provides an evaluation of the credits with consideration to the first eight components of review required under Minnesota Statutes 2024, section 3.8855, subdivision 5. The Commission may consider the findings of this report to recommend whether the expenditure should be continued, repealed, or modified.

The Legislative Budget Office's (LBO) evaluation reveals that these credits likely positively impact the development and survivability of small breweries, small wineries, and microdistilleries in Minnesota. Data from the Minnesota Department of Public Safety (DPS) and responses to a survey of qualifying businesses suggest these credits contribute to survivability and positive development. An economic impact analysis speaks to the contributions of the credits to the alcohol manufacturing industries.

For purposes of this evaluation, survivorship is evaluated based on the number of years that a business holds an active license. According to DPS licensure data, Minnesota qualifying businesses have an average lifespan of 7.8 years, which is two years longer than the average lifespan of comparable small alcohol producers in the other states assessed in this evaluation. However, private businesses in Minnesota generally tend to have a higher survivability rate than the nation's average, meaning the magnitude of influence these tax credits have in supporting the survivability and growth of the impacted businesses is difficult to determine. It is likely other factors also influence the success of small alcohol producers who are using these tax credits.

Responses from the survey highlight that many of the newer qualifying businesses are not yet profitable, and most operate on narrow profit margins. These credits have supported qualifying businesses in maintaining operations, achieving small profit margins, and reinvesting in growth initiatives such as purchasing equipment, improving operations, and staffing logistics.

An economic impact analysis was conducted using IMPLAN modeling software to understand the impact of the tax credits on Minnesota's economy. The model attributes under $1 million dollars in labor income to the credits and suggests positive job growth. A combined forgone revenue estimate of $2.3 million is estimated to produce $1.6 million in total value-added to the brewery, distillery, and winery industries combined. The estimated amount of tax revenue forgone by the state is more than the estimated

economic impact attributed to the tax credits. The economic impact analysis indicated that outside of the three industries, the tax credits had minimal effects on other industries in Minnesota's economy.

Overall, the analysis of available data supports the conclusion that these tax credits likely meet their intended objectives by contributing to the growth, sustainability, and development of Minnesota's small breweries, small wineries, and microdistilleries.

The LBO would like to extend its gratitude to the DOR Tax Research Division, the Department of Public Safety, the small business owners who participated in the survey, and other stakeholders for their cooperation and consultation in this evaluation.

Introduction

The Tax Expenditure Review Commission directed the LBO to evaluate a subset of tax expenditures in 2024 to meet the statutory requirements outlined in Minnesota Statutes 2024, section 3.8855, subdivision 5. Three of the tax expenditures selected for review are tax credits available to small breweries, microdistilleries, and small wineries for certain quantities of alcoholic beverages produced and sold. The Credit for Small Brewers was enacted in 1985, the Microdistillery Credit was enacted in 2014, and the Small Winery Credit was enacted in 2017. These tax credits help reduce excise tax liability for businesses that produce alcoholic beverages.[113] To be awarded these tax credits, small brewers, small wineries, and microdistilleries must report their annual production and sales totals to DOR. All three of the tax expenditures can be found in the 2024 Tax Expenditure Budget published by the DOR Tax Research Division.

This evaluation aims to determine whether each policy is meeting its respective objective as approved by the TERC on March 15, 2024.

All three of these tax expenditures have a shared objective, which is to promote the development and survivorship of small breweries, small wineries, and microdistilleries, respectively.

Components of Review

This evaluation is designed to understand the degree to which these credits promote the development and survivorship of small breweries, small wineries, and microdistilleries. The evaluation also addresses the minimum review components outlined in Minnesota Statutes 2024, section 3.8855, subdivision 5, and provides additional analysis. The findings are listed in the corresponding order as written in the statute.

Component 1. Estimate of the Annual Revenue Lost

A DOR Tax Research analysis provides forgone revenue estimates for each tax expenditure. The latest claims estimates for each credit are for calendar year 2023, resulting in 346 claims for the Credit for Small Brewers, 46 claims for the Microdistillery Credit, and 91 claims for the Small Winery Credit. Figure 1 provides the forgone revenue estimates for each tax expenditure for Fiscal Years 2024 through 2027.

[113] Excise taxes are distinct from general sales and use tax in that they focus on the consumption of a certain good or service and are often associated with the intention of modifying consumer behavior. Common examples are alcohol and cigarette taxes.

Figure 2. 2024 Tax Expenditure Budget Forgone Revenue Estimates

Tax Expenditure	2024	2025	2026	2027
Credit for Small Brewers	$1,700,000	$1,700,000	$1,700,000	$1,800,000
Microdistillery Credit	$500,000	$500,000	$600,000	$600,000
Small Winery Credit	$100,000	$100,000	$100,000	$100,000

Data Source: DOR 2024 Tax Expenditure Budget

Component 2. Objective of the Tax Expenditure

The objective of the small brewery, small winery, and microdistillery tax credits is to promote the development and survivorship of small breweries, small wineries, and microdistilleries, respectively.

This objective was approved and adopted by the TERC on March 15, 2024, for the purposes of evaluation.

Component 3. Estimating the measurable impacts and efficiency of the tax expenditure in accomplishing the purpose of the expenditure

The LBO found plausible evidence to suggest these credits likely contribute to the development and survivorship of their respective industries, although the extent of the contribution is not clear. Survey responses and business survival rates support this claim. Survey respondents emphasized that these credits helped their businesses remain price-competitive despite operating within tight profit margins. Of the survey respondents, 61 out of 81 reported the tax credits either had a *very positive* or *positive* impact on their business growth. Fourteen percent of respondents indicated that the tax credits had *no impact* on the ability to grow their business.

The survivorship of small breweries, wineries, and microdistilleries in Minnesota tends to fare slightly better than small alcohol producers in other states.[114] Of the handful of identified states with comparable data, Minnesota's small alcohol producers tend to outlast small alcohol producers from other states by roughly two years. Small alcohol producers included in this evaluation have an average life expectancy of 7.8 years in Minnesota, while small alcohol producers in other states have a life expectancy of 5.8.

In the U.S., 48 percent of new businesses from all industries survive seven or more years, while in Minnesota, 51 percent of new businesses survive seven or more years. This indicates that all different types of businesses in the Minnesota market typically have a slightly higher survival rate than businesses in other states. It is undetermined if the tax credits in this evaluation help Minnesota's small alcohol producers outperform

[114] See "Business Survivorship Data Analysis – Minnesota Compared to Other States" section for further detail

small alcohol producers from other states, or if they outperform them based on other elements of the Minnesota market.

An economic impact model attributes under one million dollars in labor income to the credits and suggests positive job growth. However, the estimated amount of tax revenue forgone by the state is larger than the estimated economic impact attributed to the tax credits.

Component 4. Comparing the effectiveness of the tax expenditure and a direct expenditure

Although no direct spending programs were identified for this policy objective, there are merits in policy design for both a tax expenditure and a direct spending program.

A tax expenditure can be more effective than a direct spending program for a few reasons. A tax expenditure in the form of a credit allows any eligible small alcohol producers to benefit from the tax preference; whereas direct spending programs may be limited by state or beneficiary resources. State appropriations for grants are typically capped, limiting the number of eligible recipients, and time-bound to an application and program time-window. Additionally, eligible businesses may not have the administrative resources to apply for grants and satisfy reporting or outcome requirements. Elements typically associated with grant programs may limit the number of total beneficiaries.

On the other hand, it can be argued that direct expenditure programs reduce the barrier to entry for participants who are less favorably positioned to enter a market; whereas a tax expenditure may provide a benefit to a participant who was already planning to enter the market regardless of the tax expenditure. Additionally, a direct expenditure program may allow the legislature to more precisely target an intended behavior or industry outcome. For example, a grant program could be tied to the successful completion of a financial management course for small business owners, or to an investment threshold in capital equipment, or a job creation target.

Policymakers should consider the advantages and disadvantages in the program design chosen to meet the policy goal.

Component 5. Potential modifications to the tax expenditure to increase its efficiency or effectiveness

A small minority of survey responses mentioned the administrative burden associated with claiming the credits as a small business. Insights gathered from survey responses assisted the evaluation team in offering potential modifications for the administration of the tax credits so they can better meet the intended objective. The LBO offers three different potential modifications to increase the efficiency and effectiveness of the tax credits:

1. Issue tax credits based on other characteristics outside of alcohol production amounts. Numerous products and outputs from small alcohol producers are not necessarily captured by the number of barrels of liquor, wine, or beer that are produced. These small businesses would benefit from other outputs being incentivized by tax credits such as equipment upgrades, events being held, jobs created, etc.

2. Require quarterly production amount report filings instead of monthly filings. Numerous eligible small businesses reported that filing production amounts each month is burdensome, therefore doing so quarterly would reduce the burden on the staff members or owners who file these reports.

3. Increase awareness of the credits. Some respondents shared they were unaware of the applicable credits. Eligible alcohol producers could benefit from increased targeted advertising of these applicable tax credits. DOR Special Taxes Division's Alcohol Unit previously provided presentations on alcohol excise tax issues, as well as information on these tax credits due to the significant tax liability for taxpayers when filing their applicable monthly fermented malt beverage, distilled spirits, and wine excise tax returns to DOR. It is understood that these presentations have not been given in the past few years. DOR's Special Taxes Division relies on direct contact when issues related to a specific taxpayer filing arise, with direct customer service and education provided to assist the specific taxpayer. DOR also relies on the Department of Revenue Alcoholic Beverage web page to provide information on the credits and other filing issues.[115]

Component 6. Estimating the amount by which the tax rate for the relevant tax could be reduced if the revenue lost due to the tax expenditure were applied to a rate reduction

DOR calculated the revenue-neutral tax rates for each tax expenditure as part of the 2024 Tax Expenditure Budget. A revenue-neutral rate is the tax rate necessary to raise approximately the same amount of revenue for the state of Minnesota if the tax expenditure were repealed and the tax rate were applied to a larger tax base. Figure 2 displays the revenue-neutral rate for the three different tax expenditures according to the level of alcohol by volume for each product type.

[115] Email conversation between LBO, DOR Tax Research Division, and DOR Special Taxes Division (Alcohol Unit) (8/5/2025)

Figure 3. Revenue Neutral Rate for the Small Breweries, Microdistilleries, and Small Wineries Tax Credits [116]

Alcohol Type	Current Rate (per liter unless noted)	New Rate*
Beer - Less than 3.2%	$2.40**	$2.14**
Beer - More than 3.2%	$4.60**	$4.11**
Distilled Spirits	$1.33	$1.32
Wine - 14% or less	$0.08	$0.08
Wine 14% - 21%	$0.25	$0.25
Wine 21% - 24%	$0.48	$0.47
Wine 24% or more	$0.93	$0.92
Sparkling Wine	$0.48	$0.47

*Note: New Rate refers to the tax rate if the respective credit were to be repealed
**Rate per 31-gallon barrel
Data Source: DOR 2024 Tax Expenditure Budget

Component 7. The incidence of the tax expenditure and the effect of the expenditure on the incidence of the state's tax system

An incidence analysis was not conducted for the small breweries, microdistilleries, and small wineries tax credits. These tax credits are not classified as "significant tax expenditures," as defined under Minnesota Statutes 2024, section 270C.11, subdivision 6. Minnesota Statutes 2024, section 3.8855, subdivision 5(a)(7) mandates incidence analysis only for significant tax expenditures.

Component 8. Cumulative fiscal impacts of other State and Federal taxes providing benefits to taxpayers for similar activities

The LBO identified three different tax incentives that have potential overlap with recipients of the small brewery, small winery, and microdistillery credits: the Minnesota Capital Equipment Tax Exemption, the Minnesota Research and Development Tax Credit, and the Federal Tax Credit for Increasing Research Activities. It is estimated that $1.9 million will be received by small breweries, wineries, and microdistilleries in Fiscal Year 2025 under the Minnesota Capital Equipment Exemption. No detailed public information is available to estimate the cumulative fiscal impacts of the Minnesota Research and Development Tax Credit or the Federal Credit for Increasing Research Activities concerning small breweries, wineries, or microdistilleries in Minnesota. More discussion on this analysis is provided in the report.

[116] Minnesota Department of Revenue, "Tax Expenditure Budget", (2024): 204-205, https://www.revenue.state.mn.us/sites/default/files/2025-01/2024-tax-expenditure-budget-162024-revision.pdf

Background

Minnesota Alcoholic Beverage Taxes

In Minnesota, alcoholic beverages are subject to several types of taxes. Regardless of the type of beverage, all alcoholic drinks are subject to the state's general sales tax of 6.875 percent. In addition, a 2.5 percent gross receipts tax is imposed on retail sales of alcoholic drinks. This applies to producers making both on-sale (consumed on-site in a bar or restaurant) and off-sale (sold in liquor stores or by other sellers) transactions. Businesses may also be responsible for collecting and remitting applicable local or special local taxes.[117] Finally, different excise tax rates apply depending on the type of alcohol being sold, produced, imported, or possessed. Figure 3 outlines each beverage type along with its corresponding excise tax rate. In Fiscal Year 2025, the state of Minnesota collected over $109 million dollars in revenues from liquor, wine, and beer taxes out of over $30.5 billion dollars in total net non-dedicated revenues.[118]

Figure 4. Alcoholic Beverage Taxes – Excise Tax Rates

Beverage Type	Excise Tax Per Liter
Beer < 3.2% alcohol	$0.02
Beer > 3.2% alcohol	$0.03
Distilled Spirits *	$1.33
Cider <7% alcohol	$0.04
Low-alcohol dairy cocktails	$0.02
Wine < 14% alcohol	$0.08
Wine > 14% alcohol	$0.25
Wine 21%-24% alcohol	$0.48
Wine > 24% alcohol	$0.93
Sparkling Wine	$0.48

Data Source: Minnesota Statutes 2025, section 297G, sections 03 and 04.
*Unlike the tax at the federal level, the Minnesota tax on distilled spirits is imposed on the volume of the beverage sold, rather than its alcoholic content.

Small Winery Credit

As of September 2025, there were 121 wineries licensed by the Minnesota Department of Public Safety.[119] A credit is allowed to a winery that manufactures fewer than 75,000 gallons of wine or cider in the calendar year immediately preceding the fiscal year for which the credit is claimed. Qualifying wineries can claim the credit on the excise tax

[117] Minnesota Sales – Beverages, "Liquor Sales", Minnesota Department of Revenue, (2025): https://www.revenue.state.mn.us/guide/sales-liquor
[118] Minnesota Management and Budget, "General Fund Financial Summaries Budget Close 2025", MMB (2025): https://mn.gov/mmb-stat/documents/budget/operating-budget/actual25/close25-gf-financial-summaries.pdf
[119] Minnesota Department of Public Safety AGED Public Data Access, License Search, https://app.dps.mn.gov/AGEDIS5/DataAccess/pages/license-search

they owe on wine or cider sales the following fiscal year up to $136,275.[120] The Minnesota wine excise tax is due by the 18th of the month for production of the previous month, based on the tax rate for applicable alcohol content and types.

Claimants can apply for the credit in the fiscal year following the year of production. Form LB56F, the Farm Winery Tax Return, includes line 13, where qualifying claimants can enter the amount of credit they wish to claim based on Form LB56P, the Small Winery Production Report.[121] Form LB56P, the Small Winery Production Report, asks claimants to report wine produced (in gallons) for each month of the qualifying calendar year (January 1st - December 31st). Return paperwork is due January 18th the year following the reported production to receive the small winery credit. Wine production is categorized as the total of the following categories: wine 14 percent or less, wine 14 percent – 21 percent, wine more than 24 percent, sparkling wine, and cider. One important distinction of the form is that the focus is on production in gallons, not on sales. The credit is available to be utilized in the following fiscal year. For example, if a business produces 50,000 gallons of wine and cider during the 2020 calendar year (January 1 - December 31), they are eligible to utilize the credit the following fiscal year (July 1, 2021 - June 30, 2022).

DOR provides a yearly Small Winery Credit Report as required by Minnesota Statutes 2024, section 297G.03, subdivision 6. The report provides the number of Minnesota wineries and out-of-state wineries that claim the credit for Minnesota during the applicable fiscal year, as well as the total tax expenditure amount for the credit. In fiscal year 2023, 86 Minnesota small wineries claimed the credit, totaling $120,971 in tax credits.[122] Figure 4 displays the number of claimants of this tax credit by year from 2018 to 2023.

[120] Minnesota Department of Revenue Small Winery and Annual Production Report, https://www.revenue.state.mn.us/small-winery-credit-and-annual-production-report
[121] Form LB56P, "Small Winery Production Report", Minnesota Department of Revenue: https://www.revenue.state.mn.us/sites/default/files/2022-05/lb56p_17.pdf ; Form LB56F, "Farm Winery Tax Return", Minnesota Department of Revenue: https://www.revenue.state.mn.us/sites/default/files/2022-05/lb56f.pdf
[122] Minnesota Department of Revenue, "*Small Winery Credit Report",* (2024): https://www.lrl.mn.gov/docs/2024/mandated/240309.pdf

Figure 4. Small Winery Credit Claims by Calendar Year

Calendar Year	Number of Claimants	Average Credit Amount Claimed per Claimant	State Revenue Loss
2018	66	$1,539	$101,543
2019	70	$1,622	$113,566
2020	71	$1,864	$132,371
2021	87	$1,517	$132,007
2022	87	$1,435	$124,812
2023	91	$1,297	$118,023
Averages	**79**	**$1,546**	**$120,387**

Data Source: Claims data provided by DOR

Credit for Small Brewers

As of September 2025, there were 195 microbreweries, 13 small breweries, and 21 large breweries licensed in Minnesota by DPS. The brewery license designation is determined by production limits. Microbreweries are limited to 2,000 barrels of production annually. Small breweries and brew pubs are limited to 3,500 barrels of production annually. A Minnesota brewery producing over 3,500 barrels annually is considered a large brewer for the purpose of licensure. All license designations are eligible for the credit for small brewers, as long as they produce less than 250,000 barrels annually.

Eligible beneficiaries of the small brewer's credit include out-of-state brewers who meet the same production thresholds and sell beer in Minnesota. The credit is $4.60 per barrel on up to 25,000 barrels sold in a fiscal year, with a maximum credit equaling the lesser of the brewer's tax liability or $115,000.

To claim the tax credit for small brewers, a producer must file form LB42, Annual Beer Production Report Form, along with form LB41, Excise Tax Return for Brewers, specific to the month of December.[123] Brewers report the total barrels of beer produced each month during the calendar year with Form LB42. Form LB41 is used to document inventory, calculate tax liability, and determine tax credit amounts for producers. Both forms are due January 18th of the year following the reported production to claim the credit. Beer production is categorized as the total of the following categories: more than 3.2 percent alcohol, and 3.2 percent or less alcohol, in barrels.

[123] Form LB42, "Annual Beer Production Report", Minnesota Department of Revenue: https://www.revenue.state.mn.us/sites/default/files/2022-05/lb42.pdf ; Form LB41, "Excise Tax Return for Brewers", Minnesota Department of Revenue: https://www.revenue.state.mn.us/sites/default/files/2023-04/lb41.pdf

Figure 5 displays the number of annual small brewer credit claimants from 2012 to 2023.

Figure 5. Credit for Small Brewers: Number of Claimants by Calendar Year

Calendar Year	Number of Claimants	Average Credit Amount Claimed per Claimant	State Revenue Loss
2012	99	$5,779	$572,106
2013	126	$8,438	$1,063,229
2014	149	$8,579	$1,278,228
2015	168	$8,372	$1,406,482
2016	178	$8,472	$1,508,035
2017	198	$8,433	$1,669,694
2018	219	$8,127	$1,779,917
2019	233	$7,835	$1,825,541
2020	235	$7,251	$1,704,019
2021	325	$5,626	$1,828,607
2022	352	$4,934	$1,736,779
2023	346	$5,255	$1,818,163
Averages	**219**	**$7,258**	**$1,515,900**

Data Source: Claims data provided by DOR

At the federal level, the brewery industry benefited from the Craft Beverage Modernization and Tax Reform Act as a part of the Federal Tax Cuts and Jobs Act (TCJA) passed in 2017, which lowered the federal excise tax rate to $3.50 per barrel on a brewer's first 60,000 barrels if producing fewer than two million barrels annually.[124] Before the Federal TCJA, small domestic brewers paid $7 per barrel for the first 60,000 barrels produced, if producing fewer than two million barrels annually.[125] The lowered federal excise tax rates became permanent in 2020.[126] Trends in the number of operating breweries showed an increased number of craft breweries, as well as craft brewery production, between 1991 and 2012.[127] Nationwide, the beer industry paid an estimated $4.9 billion in federal and state excise taxes in 2022.[128]

[124] Federal Excise Tax, "Federal Excise Tax – for Brewers and Beer Importers", Beer Institute, (2025): https://www.beerinstitute.org/policy-responsibility/policy/excise-tax/.
[125] Alcohol Excise Taxes, "Alcohol Excise Taxes: An Overview - A Brief History of Federal Alcohol Excise Tax Rates", Congress.Gov (2024): https://www.congress.gov/crs-product/R48181
[126] Federal Excise Tax, "Federal Excise Tax – for Brewers and Beer Importers", Beer Institute, (2025): https://www.beerinstitute.org/policy-responsibility/policy/excise-tax/.
[127] Sophie Mumford, "*An Empirical Analysis of the Impact of State Excise Taxes on Craft Breweries in the United States",* Montana State University, (2014): https://scholarworks.montana.edu/server/api/core/bitstreams/0e0798c0-f00d-44f7-beee-b6fe30e7a655/content
[128] "Beer Industry Economic Impact, "The U.S. Beer Industry's Economic Contribution in 2022", Beer Serves America, (2023): https://acrobat.adobe.com/id/urn:aaid:sc:VA6C2:a2966af0-3c8b-4138-b216-5fb00964534f

Overall, federal, state, and local excise taxes have a large impact on pricing within the brewery industry. State and federal production and distribution taxes combine to make up approximately 40 percent of the retail price of beer.[129] The impact of excise taxes on the brewery industry is offset at the state level through a variety of incentives across several states. Six states offer a tax credit for brewers, five offer a tax exemption or reduced tax rate, and one offers a tax rebate.[130]

Microdistillery Credit

As of 2025, 49 microdistilleries were licensed in Minnesota by the DPS. Some license holders maintain multiple licenses because they operate at more than one production location. A microdistillery producing fewer than 40,000 proof gallons of premium distilled spirits per calendar year is allowed a credit of $1.33 per liter on 100,000 liters sold to consumers at retail per fiscal year.[131] The total credit allowed may not exceed the lesser of the tax liability or $133,000.

Claimants can apply for the credit in the fiscal year following the calendar year of production using the Microdistillery Credit and Annual Production Report. Annual production reports are due in conjunction with the December Microdistillery excise tax return. For example, if a microdistillery produces 30,000 proof gallons during the 2022 calendar year (January 1st - December 31st), they are eligible to use the credit the following fiscal year (July 1st, 2023 - June 30th, 2024). Proof gallons are calculated by multiplying the gallons produced by the percentage of alcohol by volume, and multiplying the result by two and dividing by 100. Figure 6 displays the number of claimants of this tax credit by year from 2018 to 2023.

[129] Beer Taxes by State, 2024, “Beer Taxes: How do Beer Taxes in Your State Compare?”, Tax Foundation, (2024): https://taxfoundation.org/data/all/state/state-beer-taxes-2024/.
[130] Pennsylvania Brewers’ Tax Credit, “An Evaluation of Program Performance”, Independent Fiscal Office, (2022): http://www.ifo.state.pa.us/download.cfm?file=Resources/Documents/TC_2022_Brewers.pdf
[131] A proof is a unit of measurement of the alcohol content in one gallon of spirits, where one proof gallon is one US gallon at 50 percent alcohol by volume.

Figure 6. Microdistillery Credit Number of Claimants by Calendar Year

Calendar Year	Number of Claimants	Average Credit Amount Claimed per Claimant	State Revenue Loss
2018	33	$8,084	$266,765
2019	29	$8,154	$236,462
2020	34	$6,565	$223,220
2021	42	$7,377	$309,843
2022	49	$8,869	$434,577
2023	46	$10,018	$460,849
Averages	**38.8**	**$8,178**	**$321,953**

Data Source: Claims data provided by DOR

Distilled spirits lead the U.S. in alcohol sales with an overall market share of 42 percent. This is a 13 percent increase in market share since 2000, and it is mainly due to the uptick in the production and sale of hard seltzers and ready-to-drink cocktails. While distilled spirits are the most sold alcohol products in the U.S., they are taxed at much different rates across the country, state by state.[132] As of January 1st, 2025, Minnesota ranked 19th highest in terms of distilled spirit taxes at $8.74 per proof gallon. Washington ranked the highest at $36.98 per proof gallon, and Missouri ranked the lowest at $2.00 per proof gallon. Minnesota's neighboring states levy a distilled spirit tax rate as follows: Wisconsin at $3.25 per proof gallon, Iowa at $15.14 per proof gallon, North Dakota at $4.93 per proof gallon, and South Dakota at $4.93 per proof gallon. There is limited available literature on the impact of tax incentives on the distilled spirits industry. Most of the available literature on alcohol production-based tax incentives revolves around the brewery or the alcohol industry as a whole.

Industry Analysis

To understand the context in which the credits for small brewers, microdistilleries, and wineries work in, it is crucial to give an industry analysis of small alcohol producers in Minnesota and the U.S. as a whole.

Across the U.S. over the past couple of decades, the number of breweries, distilleries, and wineries has increased. According to data from the Bureau of Labor Statistics, from 2001 to 2024, the number of breweries increased from 396 to 6,044 (13 percent Compound Annual Growth Rate).[133] The number of distilleries increased from 66 to

[132] Distilled Spirits Taxes, "How Stiff are Your State's Distilled Spirits Taxes", Tax Foundation, (2025): https://taxfoundation.org/data/all/state/distilled-spirits-taxes/

[133] Number of Establishments: "NAICS 31212 Breweries: 01' – 24'", U.S Bureau of Labor Statistics, (2025). Databases, Tables, & Calculators by Subject - BLS Employment and Wages Chart Creator

1,873 (16 percent Compound Annual Growth Rate).[134] The number of wineries also increased from 1,066 to 5,801 (8 percent Compound Annual Growth Rate).[135]

The state of Minnesota matches the national trend of increased alcohol producers over the same period of time. The number of breweries in Minnesota increased from 8 to 134 (13 percent Compound Annual Growth Rate). The number of distilleries in Minnesota increased from less than five to 35 (roughly 17 percent Compound Annual Growth Rate). The number of wineries in Minnesota increased from less than five to 38 (roughly 17 percent Compound Annual Growth Rate).[136] Minnesota has a similar growth rate to the national rate for breweries and distilleries, and a higher rate for wineries over the 2001 – 2024 time period.

When evaluating the workforce that makes up the alcohol industry (breweries, wineries, and distilleries), it is worth noting how the overall employment numbers evolved in the U.S and in Minnesota from 2001 to 2024. During this time, the number of U.S. workers employed in the brewery industry increased from 27,805 to 108,309 (6 percent Compound Annual Growth Rate). The number of U.S workers in the distillery industry increased from 6,915 to 26,738 (6 percent Compound Annual Growth Rate), while the number of U.S workers in the winery industry increased from 25,363 to 77,034 (5 percent Compound Annual Growth Rate. Over the same time period, the number of Minnesotan workers in the brewery industry increased from 362 to 3,010 (10 percent Compound Annual Growth Rate). The number of Minnesotan workers in the distillery or winery industries from 2001 to 2024 is not displayed due to disclosure standards of the U.S. Bureau of Labor Statistics.[137]

In terms of putting Minnesota in perspective with its neighboring states, as of 2024, Minnesota had the most breweries with134 (Wisconsin = 118, Iowa = 67, South Dakota = 19, and North Dakota = 9) and the most distilleries with 35 (Wisconsin = 28, Iowa = 14, South Dakota = 2, and North Dakota = 2). As of 2024, Wisconsin had the most wineries of all neighboring states, with 73 wineries (Minnesota = 38, Iowa =34, South Dakota = 7, and North Dakota = 8). When factoring in population, Minnesota is fairly similar in terms of the number of small alcohol producers compared to its neighboring states.

---

[134] Number of Establishments: “NAICS 31214 Distilleries”: 01’ – 24’”, U.S Bureau of Labor Statistics, (2025). Databases, Tables, & Calculators by Subject - BLS Employment and Wages Chart Creator

[135] Number of Establishments: “NAICS 31213 Wineries: 01’ – 24’”, U.S Bureau of Labor Statistics, (2025). Databases, Tables, & Calculators by Subject - BLS Employment and Wages Chart Creator

[136] The Bureau of Labor Statistics' quarterly census of employment and wages data uses the North American Industry Classification System (NAICS) to assign establishments to industries and to report data at a highly detailed and aggregated level. For classification purposes, the NAICS classification of breweries, wineries, and distilleries is not the same as the Minnesota Department of Public Safety's classifications, resulting in different counts of small alcohol producers in Minnesota in 2024.

[137] Confidentiality and Disclosure, “Disclosure”, U.S Bureau of Labor Statistics, (2025): https://www.bls.gov/rda/data-output-review-and-publication.htm

When evaluating the alcoholic beverage industry as a whole, it is important to note that in the last handful of years, alcohol consumption across the U.S. has taken a slight dip. Across the U.S. from the end of 2023 to the end of 2024, beer/cider sales were down 2.9 percent, spirit sales were down 2.3 percent, and wine sales were down 5.3 percent.[138] These decreased sales can be attributed to numerous reasons, including: a younger population not as interested in drinking, health concerns and wellness trends, and people choosing other recreational alternatives.[139]

Minnesota, like many other states, operates a regulatory framework referred to as a three-tiered system of regulation, which creates distinct roles and rules for producers, wholesalers, and retailers. Each tier is dependent on the other two under this system, as producers rely on wholesalers to distribute their products to retailers, who then sell to the final consumer. Exceptions to the three-tiered system have been enacted into law however, which provide advantages to producers. Examples include the ability for all wineries, all distilleries, and brewers of a certain size to sell their own product in a tap room for consumption or for off-site consumption; the ability of cideries producing under 2,500 gallons annually to self-distribute; and the ability of brewers of a certain size to sell product in growlers for off-site consumption. A brief on the three-tiered system of regulation is available from the Minnesota House Research Department for reference.[140] The exceptions to the three-tiered system of regulation likely play a role in the success of small producers in the state, potentially a larger role than the credits that are the subject of this evaluation.

Fiscal Impact to Minnesota

Estimates of Forgone Revenue

The Minnesota Department of Revenue's 2024 Tax Expenditure Budget provides estimates of forgone revenue for Fiscal Years 2024 through 2027 for the credits for small brewers, microdistilleries, and small wineries. In fiscal year 2026, $1.7 million is estimated as the forgone revenue for the Credit for Small Brewers, $600,000 for the Microdistillery Credit, and $100,000 for the Small Winery Credit. Figure 1 displays the forgone revenue estimates for each credit for fiscal years 2024 through 2027.

Revenue Neutral Tax Rate

The Minnesota Department of Revenue calculates revenue-neutral tax rates as part of the Tax Expenditure Budget. Revenue-neutral rates are the tax rates necessary to raise approximately the same tax revenue for the state of Minnesota if each respective tax

[138] Alcoholic Beverage Trends 2025, "Consumption and Purchasing Trends", PennState Extension, (2025): https://extension.psu.edu/alcoholic-beverage-trends-2025
[139] Why Alcohol Sales are Declining, "The Rise of Mindful Drinking, Economic Pressures and Alternative Choices", Rival Group Company, (2025): https://www.reach3insights.com/blog/alcoholic-beverage-customer-research-2025
[140] Minnesota House Research Department, "Minnesota's Three-tier System of Liquor Regulation", MN House Research, (2023): https://www.house.mn.gov/hrd/pubs/ss/ss3tier.pdf

expenditure were repealed and the excise tax of each alcohol type were applied to a larger tax base. The revenue-neutral tax rates are calculated in isolation from each other by alcohol type. The alcohol beverage tax could be reduced from $2.40 per liter to $2.14 for less than 3.2 percent alcohol beer and from $4.60 per liter to $4.11 for more than 3.2 percent alcohol beer. The impact from repealing the Microdistillery Credit and Small Wine Credit would have a minimal impact on the respective alcohol beverage tax rates. Figure 2 displays the revenue-neutral rates for the three different tax expenditures.[141]

Incidence

The incidence of a tax policy refers to the economic burden or benefit distribution across groups, such as employers, employees, or consumers, evaluating who ultimately gains or pays the cost and how impacts vary across income or business sectors. For the small breweries, microdistilleries, and small wineries tax credits, DOR does not conduct an incidence analysis since these tax credits are not classified as "significant tax expenditures" under Minnesota Statutes 2024, section 270C.11, subdivision 6, which mandates incidence reporting only for significant expenditures.[142]

Cumulative Fiscal Impacts of Other State and Federal Taxes

Three incentives were identified that could have potential overlap with recipients of the small brewery, small winery, and microdistillery credits. These include the Minnesota Capital Equipment Exemption[143], the Minnesota Research and Development Tax Credit[144], and the Federal Credit for Increasing Research Activities.[145]

The Minnesota Capital Equipment Exemption provides an up-front sales tax exemption on eligible capital equipment purchases. DOR Tax Research Division estimates $277,300,000 in forgone revenue for this tax exemption across all different beneficiaries of the incentive. Small breweries, wineries, and microdistilleries are estimated to account for 0.69 percent or $1.9 million of the total exemption dollars provided in fiscal year 2025.[146]

The Minnesota Research and Development Tax Credit provides a tax credit for qualifying organizations and research-related expenses in Minnesota. Neither DOR nor

---

[141] Minnesota Department of Revenue, “Tax Expenditure Budget: 204-205”, DOR Tax Research Division, (2024): https://www.revenue.state.mn.us/sites/default/files/2025-01/2024-tax-expenditure-budget-162024-revision.pdf
[142] Minnesota Statutes 270C.11, Subdivision 6 – Significant Tax Expenditures
[143] Minnesota Capital Equipment Exemption, Minnesota Department of Revenue: https://www.revenue.state.mn.us/capital-equipment-exemption
[144] Credit for Increasing Research Activities (R&D Credit), Minnesota Department of Revenue: https://www.revenue.state.mn.us/credit-increasing-research-activities-rd-credit
[145] Federal Credit for Increasing Research Activities, “About Form 6765”, Internal Revenue Service (IRS): https://www.irs.gov/forms-pubs/about-form-6765
[146] Estimate Prepared by the Minnesota Department of Revenue Tax Research Division

the Minnesota Department of Employment and Economic Development (DEED) have data available on the level of participation by breweries, wineries, and distilleries.

The Federal Credit for Increasing Research Activities can also help small breweries, wineries, and microdistilleries survive. According to the most recent publicly available data on this credit, the IRS awarded $4.54 billion in credits in tax year 2014 across all business types for research activities. The IRS separates these business types into 14 categories.[147] There is no specific category for alcohol producers, so the "manufacturing" category was selected as the most adequate fit. The IRS credited $2.5 billion to this select industry for research activities. It is uncertain how much of these funds were utilized by small breweries, microdistilleries, and small wineries in Minnesota due to the lack of industry-specific data. Businesses may be motivated to innovate or invest in development knowing that they may be able to offset some of the costs with the state and federal research credits.

Other tax incentives that are slightly outside the scope of the objective of these tax expenditures but are available to these small producers in their respective industries include the Federal Insurance Contributions Act (FICA) Tip Credit for Employers, the federal Fuel Tax Credit, Section 179 expense deductions, and the Minnesota tax exemption for Utilities Used in Production.[148]

The FICA Tip Credit for Employers allows businesses to claim a credit equal to the employer's share of FICA taxes paid on tips received by employees that exceed the amount needed to bring their pay to minimum wage. This evaluation is a lookback, so it is unclear how this tax credit will interact with the provisions made in H.R.1 (Public Law 119-21) that was signed into law on July 4th, 2025, which made tips non-taxable (effective 2025 through 2028) up to the maximum annual deduction amount of $25,000. After this threshold is met, taxes are then levied on tip wages, which is when businesses utilize the FICA Tip Credit.[149]

The federal Fuel Tax Credit allows business owners to receive a refundable tax credit for "off-highway" business fuel uses, such as fuel used to operate a generator or fuel used in the production (brewing, winemaking, distillation) of a product.

---

[147] SOI Tax Stats, "Credit for Increasing Research Activities", Internal Revenue Service (2025): https://www.irs.gov/statistics/soi-tax-stats-corporation-research-credit

[148] Citation One, FICA Tip Credit, "FICA Tip Credit for Employers", Internal Revenue Service, (2024): https://www.irs.gov/businesses/small-businesses-self-employed/fica-tip-credit-for-employers ; Citation Two, Fuel Tax Credit, "Types of fuels and uses", Internal Revenue Service, (2025): https://www.irs.gov/credits-deductions/businesses/fuel-tax-credit ; Citation Three, Utilities Exemption, "Utilities Used in Production", Minnesota Department of Revenue, (2020): https://www.revenue.state.mn.us/sites/default/files/2025-08/fs129_0.pdf

[149] H.R.1 One Big Beautiful Bill Act: Tax Deductions for Working Americans and Seniors, "No Tax on Tips", Internal Revenue Service, (2025): https://www.irs.gov/newsroom/one-big-beautiful-bill-act-tax-deductions-for-working-americans-and-seniors

The Minnesota tax exemption for Utilities Used in Production allows a sales tax exemption for the use of electricity, water, and natural gas when they are utilized to produce a product. Though these tax incentives are not specifically aimed at small alcohol producers, these broader tax incentives still offer financial support to these select businesses.

Under Section 179 of the federal tax code, businesses can deduct the cost of eligible property in the year that it was first put into service. Types of eligible properties are real property and tangible property. Real property can include modifications to a facility such as roofs, heating, ventilation, and air-conditioning equipment. Tangible property may include telecommunication equipment, equipment used in manufacturing and production, and a storage facility. The maximum Section 179 expense deduction is $1,220,000.[150]

Apart from the Minnesota Capital Equipment Exemption, there is limited accessible data available to confidently assess the cumulative fiscal impacts of other state and federal tax programs that target similar objectives and populations as the small brewer, small winery, and microdistillery tax credits.

Federal Excise Taxes

The U.S Department of the Treasury Alcohol Tax and Trade Bureau (TTB) regulates and collects excise taxes on distilled spirits, wine, and beer at the federal level.

Federal excise taxes paid by breweries, wineries, and distilleries were significantly reduced in 2017 under the Tax Cuts and Jobs Act, with most provisions included within the Craft Beverage Modernization Act made permanent in 2020.[151] These permanent provisions included:

- Reduced tax rates on beer and distilled spirits
- Certain tax credits for wine
- Adjusted alcohol content for certain still wine tax classes from 14 percent to 16 percent alcohol by volume
- Lower tax rates for certain meads (honey wine) and low-alcohol wines
- Exemption from the federal excise tax on transfers of beer between brewers who are not of the same ownership at the time of the transfer[152]

[150] Form 4652, “Instructions for Form 4562 Depreciation and Amortization”, Internal Revenue Service, (2024): https://www.irs.gov/pub/irs-pdf/i4562.pdf
[151] Craft Beverage Modernization Act, “Summary of CBMA Provisions for Distilled Spirits, Wine, and Beer”, U.S Department of the Treasury, Alcohol and Tobacco Tax and Trade Bureau, (2023): https://www.ttb.gov/alcohol/craft-beverage-modernization-and-tax-reform-cbmtra
[152] Craft Beverage Modernization Act (CBMA), “The Temporary CBMA Provisions that are now Permanent”, U.S. Department of the Treasury – Alcohol and Tobacco Tax and Trade Bureau, (2023): https://www.ttb.gov/alcohol/craft-beverage-modernization-and-tax-reform-cbmtra

Excise tax revenue from alcoholic beverages amounted to $10.2 billion in 2022, 12 percent of total excise receipts.[153] There are different tax rates for distilled spirits, wine, and beer. The alcohol content of beer and wine is taxed at a much lower rate than the alcohol content of distilled spirits.[154] Distilled spirits are federally taxed at $13.50 per proof gallon.[155] Tax rates on wines vary based on type and alcohol content, ranging from $1.07 per gallon for wines with 16 percent alcohol or less to $3.40 per gallon for sparkling wines. Lower rates apply for the first 750,000 gallons in a given year. Beer is typically taxed at $18.00 per barrel, although reduced rates apply for breweries producing less than two million barrels.[156]

Production tax incentives are available to wineries at the federal level, but similar incentives were not identified for brewers or distillers. Under Section 24.278 of Title 27 of the Code of Federal Regulations, the Domestic Wine and Hard Cider Producer Credit is available to domestic producers.[157] This credit gives wine producers $1.00 per gallon on the first 30,000 gallons of wine produced, $0.90 per gallon on the next 100,000 gallons of wine produced, and $0.54 per gallon on the next 620,000 gallons of wine produced. For hard cider producers, this credit gives $0.06 per gallon on the first 30,000 gallons of cider produced, $0.056 per gallon on the next 100,000 gallons of cider produced, and $0.03 per gallon on the next 620,000 gallons of cider produced.

Based on research of the evaluation team there are no federal production credits for breweries and distilleries, but there are a few different tax preferences that assist these targeted producers. For example, these producers can file a claim with the TTB for a partial refund of the tax paid on imported alcohol. Wine and beer producers can also claim a refund for taxes paid on products that were lost, returned, or destroyed due to natural disasters.[158]

Review of Other States

A majority of states offer some sort of tax incentive to breweries, wineries, and distilleries. Currently, 47 states offer either a tax credit or a refund to these targeted

---

[153] "What Are the Major Federal Excise Taxes, and How Much Money Do They Raise?" Tax Policy Center, (2024): https://taxpolicycenter.org/briefing-book/what-are-major-federal-excise-taxes-and-how-much-money-do-they-raise.
[154] "What Are the Major Federal Excise Taxes, and How Much Money Do They Raise?" Tax Policy Center, (2024): https://taxpolicycenter.org/briefing-book/what-are-major-federal-excise-taxes-and-how-much-money-do-they-raise.
[155] "What Are the Major Federal Excise Taxes, and How Much Money Do They Raise?" Tax Policy Center, (2024): https://taxpolicycenter.org/briefing-book/what-are-major-federal-excise-taxes-and-how-much-money-do-they-raise.
[156] "What Are the Major Federal Excise Taxes, and How Much Money Do They Raise?" Tax Policy Center, (2024): https://taxpolicycenter.org/briefing-book/what-are-major-federal-excise-taxes-and-how-much-money-do-they-raise.
[157] 27 CFR § 24.278, "Tax credit for certain small domestic producers", National Archives – Code of Federal Regulations, (2007): https://www.ecfr.gov/current/title-27/chapter-I/subchapter-A/part-24/subpart-N/subject-group-ECFRf46c2f6b3f10052/section-24.278
[158] Citation one: Claim – Alcohol, Tobacco and Firearms Taxes, "TTB Form 5620.8 Claim", Department of the Treasury, (2014): https://www.ttb.gov/media/70414/download?inline; TTB, "Filing Claims for Taxes on Losses Causes by Natural Disasters", U.S. Department of the Treasury, (2024): https://www.ttb.gov/public-information/when-disaster-strikes

businesses.[159] Many states offer tax refunds to alcohol producers for destroyed or defective products. Numerous states also offer tax incentives to manufacturers that sell their products outside of the state where they were manufactured. This is due to the Dormant Commerce Clause, which declares that states are prohibited from having state laws that unduly restrict interstate commerce.[160] Several states have credits for businesses that sell their products to the armed forces or other businesses or groups that qualify as 'serving the community' (churches, non-profits, etc.).

Eight states have tax credits based on alcohol production amounts like those offered in Minnesota. For example, California offers a tax credit to wine producers who subsequently export their products outside of the state.[161] New York offers a tax credit to liquor and distilled spirit producers who produce up to 800,000 gallons of liquor.[162] Ohio offers an exemption, which was previously administered as a tax credit, for beer producers who produce 9.3 million gallons of beer or fewer.[163]

Fewer states offer tax credits specifically for brewery start-ups and their production. Pennsylvania is one of six states, including Minnesota, that offer a tax credit to encourage brewery start-ups and production.[164] The Commonwealth of Pennsylvania's Independent Fiscal Office conducted an evaluation of the credit in 2022. While the evaluation reported that in 2020, 28 brewers received a combined total of $2.1 million in tax credits, over half of the tax credits were awarded to brewers meeting the definition of 'large brewer'. This was in part due to very small brewers not being able to utilize tax credits before their expiration date at the end of four years.[165] The report recommended changes to target small brewers by limiting it to those with lower annual production amounts.[166]

The state of Washington's Joint Legislative Audit and Review Committee conducted a tax preference performance review on their state's tax exemption on beer sales. This

---

[159] Alcoholic Beverages Excise Tax, "Credits and Refunds", Bloomberg Tax Research, (2024): https://pro.bloombergtax.com/

[160] Dormant Commerce Clause, "Article I, Section 8, Clause 3", Constitution Annotated, (2025): https://constitution.congress.gov/browse/essay/artI-S8-C3-7-1/ALDE_00013307/

[161] Tax Credits Allowed, "Tax Guide for Alcoholic Beverage Tax", California Department of Tax and Fee Administration, (2025): https://www.cdtfa.ca.gov/taxes-and-fees/alcoholic-beverage-tax/industry-topics.htm#tax-credit

[162] Alcoholic Beverage Production credit," Who is eligible? How Much is the Credit?", New York State Department of Taxation and Finance, (2024): https://www.tax.ny.gov/pit/credits/beer_prod_credit.htm

[163] Alcoholic Beverage Tax, "Who qualifies for the beer exemption (previously a credit)?", Ohio Department of Taxation, (2021): https://tax.ohio.gov/business/ohio-business-taxes/alcoholic-beverage-tax

[164] Commonwealth of Pennsylvania Independent Fiscal Office, "*Pennsylvania Brewers' Tax Credit: An Evaluation of Program Performance"*, (2022): http://www.ifo.state.pa.us/download.cfm?file=Resources/Documents/TC_2022_Brewers.pdf

[165] Commonwealth of Pennsylvania Independent Fiscal Office, "*Pennsylvania Brewers' Tax Credit: An Evaluation of Program Performance"*, (2022): http://www.ifo.state.pa.us/download.cfm?file=Resources/Documents/TC_2022_Brewers.pdf

[166] Commonwealth of Pennsylvania Independent Fiscal Office, "*Pennsylvania Brewers' Tax Credit: An Evaluation of Program Performance"*, (2022): http://www.ifo.state.pa.us/download.cfm?file=Resources/Documents/TC_2022_Brewers.pdf

tax preference is for breweries that produce fewer than two million barrels annually. If the brewery's production amounts fall under this threshold, the first 60,000 barrels of beer sold receive a tax exemption. Without the tax exemption, beer sales are taxed at $4.78 per barrel, and with the tax exemption, beer sales are taxed at $1.48 per barrel. Findings from this review reveal that 89 percent of Washington's breweries utilize this tax preference, but that the impacts are fairly small in terms of helping the businesses' bottom line.[167]

Minnesota's neighboring states offer varying tax preferences to assist alcohol producers. Wisconsin offers the Eligible Producer tax credit that is open to any brewer that produces less than 300,000 barrels of malt beverage per year. This tax credit awards $1.00 to brewers on every barrel for the first 50,000 barrels subject to the Wisconsin fermented malt beverage tax.[168] North Dakota offers a tax credit to beer wholesalers who purchase or produce beer that cannot be sold in the state.[169] Neither Iowa nor South Dakota has any tax credits or refunds for alcohol producers based on the manufacturing or production of alcohol. Minnesota is the only state in the upper Midwest to offer targeted tax preferences to multiple types of alcohol producers (breweries, distilleries, and wineries).

Methodology of Evaluation

The evaluation of the small brewers, small wineries, and microdistillery tax credits included a literature review, an analysis of available alcohol production and license data, an economic impact analysis, and the administration of a credit participant survey.

The literature review was conducted to explore topic briefs and relevant material produced by research offices of the Minnesota Legislature, other states, federal agencies, and other scholarly sources. The literature gathered was mainly utilized in the background section of the report to help inform and give context to the small alcohol producer credits in Minnesota.

This evaluation also analyzed licensee data from the DPS Alcohol and Gambling Enforcement Division. The licensee data includes businesses currently in operation and those previously licensed, dating back to 2001. This analysis provides an understanding of the development of new businesses and the survivorship of businesses within the alcohol production industry.

To gather information on the history of businesses claiming the credits and the effects on output and productivity, the LBO administered a survey to eligible alcohol producers

---

[167] Tax Preference Performance Review, "Microbrewers - beer tax exemption for a brewery's first 60,000 barrels sold", Washington Joint Legislative Audit and Review Committee, (2020): https://leg.wa.gov/jlarc/taxReports/2020/microbrewers/f_final/default.html

[168] Fermented Malt Beverage (Beer) Tax, "What is the Tax Rate on fermented malt beverages?", Wisconsin Department of Revenue, (2024): https://www.revenue.wi.gov)/Pages/FAQS/ise-beer.aspx#br2

[169] North Dakota Beer and Liquor Wholesalers: Taxation, "5-03-04. Collection of Taxes", North Dakota Office of State Tax Commissioner, (2024): https://ndlegis.gov/cencode/t05c03.pdf

to better assess how these tax credits are being used by small breweries, microdistilleries, and small wineries. The survey was distributed via email and mail, with an option for business owners to provide additional feedback over the phone if desired. A total of 81 businesses responded to the survey at a response rate just above 24 percent.[170] Respondents were surveyed on the impact of the credit, the recent growth of their business, business characteristics, and other factors discussed below.

Additionally, an economic analysis was conducted utilizing IMPLAN economic impact modeling software. IMPLAN was used to estimate the impact of the credits on the Minnesota economy as a whole. The model utilized forgone revenue estimates from the DOR Tax Research Division as a proxy for additional capital made available to each respective industry. These forgone revenue estimates were input into the model, and the model indicated the direct, indirect, and induced economic impacts caused by the tax credits. See Appendix D for additional information regarding the economic impact analysis provided in this report.

Survey

The LBO administered a non-generalizable survey to eligible small breweries, wineries, and microdistilleries in Minnesota. The purpose of the survey was to determine if the Minnesota tax credits for small breweries, small wineries, and microdistilleries promote development and survivorship for these businesses.

This survey was administered online using the survey platform *SurveyMonkey*. A link to the survey was shared with respondents via email, mail, or both. Two forms of contact were used, when possible, to ensure a more comprehensive sample of the businesses. The addresses of the qualifying businesses were collected from licensee data from DPS, and the email addresses were found on the businesses' websites, when available. A total of 271 emails containing the survey link were sent, and 330 physical letters were mailed with a QR code that linked to the survey. The survey yielded a response rate of just above 24 percent.[171]

Of the 81 businesses that responded to the survey, 63 claimed one or more of the three credits: 48 percent claimed the credit for small breweries, 33 percent claimed the credit for small wineries, and 24 percent claimed the credit for microdistilleries.[172] The proportion of each business type that completed the survey corresponds to the proportions within the DPS licensee data: 57 percent were small breweries, 30 percent were small wineries, and 12 percent were microdistilleries. A cross-tabulation was

[170] Response Rate: See "Evaluation" section (page 17) for clarity on response rate range. The survey had 81 total respondents. The lower end denominator (271) represents the total number of surveys that were electronically emailed to business owners, the upper denominator (330) represents the total number of surveys that were physically mailed to business owners.
[171] Of the 330 businesses contacted either via email or physical letter, 81 businesses filled out the survey (81/330 = 24.5%). This is the response rate of the survey.
[172] Three of the 81 respondents claimed more than one of the tax credits.

performed to see if there were any differences in how the three types of businesses responded to each question. As there were no statistically significant differences between each business type (small breweries, small wineries, and microdistilleries), the results of the survey are presented in totality rather than across the three business types.

Survey Findings

Respondents were asked to describe the overall impact of the credit on their primary business using a scale ranging from “very positive” to “very negative”. Seventy-eight percent of respondents described the credit’s impact as “very positive”, while 21 percent of respondents chose “positive”, and two percent of respondents chose “no impact”. Respondents stated the credits enable small businesses to be profitable despite distribution costs, allowing them to reinvest the funds saved into marketing, sampling, tours, employee salaries, and equipment.

One respondent noted that they are typically eligible for $6,000 in credit per month, which the business has allocated to raise their staff from five to twelve people in the time they have been in operation.

Another respondent noted that - ***“The overhead to make a very large batch of beer is similar to the overhead to make a smaller batch of beer”.*** The credit allowed prices to stay competitive when selling in a market with larger distributors who incur less proportional overhead costs.

Survey responses suggest the credits positively impact both growth and the ability to stay in operation. When asked to describe the tax credit’s impact on output growth, 45 percent of descriptions focused on the ability to stay in operation, 31 percent discussed business growth, and two percent of respondents reported that the credit had no effect. Many businesses discussed that one important aspect of the credit was the impact on their business's ability to remain competitive in an increasingly difficult marketplace within the state, and that overall, “every bit helps”. Respondents also discussed survivability with one respondent stating the credit –***“Has allowed [my] distillery to exist. It’s a hard business when you just sell through a distributor as a small company. May not be in business without credits”.***[173]

Respondents reported reinvesting credit proceeds in equipment, operations, employee earnings, and hiring new staff. Of the 81 businesses that responded to the survey, a small number of them were unaware of the credit. Additionally, a small number of respondents never claimed the credit. On average, businesses have been claiming the credit(s) for six years.

[173] For a full view of all short answer responses please see Appendix B

Economic and Employment Insights from Survey

The survey gathered economic and employment data from respondents to better understand the financial and operational characteristics of eligible small breweries, wineries, and microdistilleries. Forty-two percent of the respondents employ nine or fewer employees, while 58 percent of the respondents pay less than $25,000 per month in total employee payroll. Additionally, 56 percent of respondents have annual net profits under $25,000. This data illustrates the small-scale environment that many of these businesses operate in.

Below, Figures 7 through 9 display the number of employees each responding business has, the average amount of total employee wages paid each month, and the 2023 annual net profits, as well as gross revenue for each business.

Figure 7. Number of Employees by Each Individual Business

Number of Employees	Number of Responses	Percentage of responses
No Employees	2	3.2
1-2 Employees	9	14.5
3-4 Employees	4	6.5
5-9 Employees	11	17.7
10-19 Employees	20	32.3
20-49 Employees	12	19.4
50-99 Employees	4	6.5
100+ Employees	0	0.0
Total responses	**62**	**100%**

Data Source: LBO survey administered to small alcohol producers in MN

Figure 8. Average Amount of Total Employee Wages Paid Each Month by Each Business

Total Dollar Amount Paid in Employee Wages per Month	Number of Responses	Percentage of responses
Less than $10,000	19	32.2
$10,000 - $24,999	15	25.4
$25,000 - $49,999	13	22.0
$50,000 - $99,999	10	17.0
$100,000 - $249,999	2	3.4
$250,000 or greater	0	0.0
Total Responses	**59**	**100%**

Data Source: LBO survey administered to small alcohol producers in MN

Figure 9. 2023 Annual Net Profit and Annual Gross Revenue for Each Business

Total Dollar Amount	Annual Net Profit – percentage of respondents (i.e., after taxes and expenses)	Annual Gross Revenue - percentage of respondents (i.e., pre-tax)
Less than $25,000	55.6	0.0
$25,000 - $49,999	8.3	0.0
$50,000 - $99,999	16.7	2.8
$100,000 - $249,999	8.3	13.9
$250,000 - $399,999	2.8	13.9
$400,000 - $749,000	0	30.6
$750,000 - $999,999	0	16.7
$1M - $2.49M	0	19.4
$2.5M - $4.99M	0	0.0
$5M - $7.49M	0	2.8
Over $7.49M	0	0.0

Note: 8.1 percent of respondents were unsure of their annual net profit
Data Source: LBO survey administered to small alcohol producers in MN

Again, insight from the survey responses speaks to the narrow margins that these businesses operate in and illustrates that every dollar matters to businesses with limited revenue and limited profit margins. For reference, the U.S. Small Business Administration (SBA) defines a “small business” according to revenue or employment thresholds by industry. SBA’s “Table of Size Standards” determines that wineries with

less than 1,000 employees, breweries with less than 1,250 employees, and distilleries with less than 1,100 employees are all considered “small businesses”. There are no revenue standards listed for these select industries to determine if a business is small or not.[174]

While all of the survey respondents fell well below the SBA definition of the number of employees of a small business, most of the alcohol producers in the state are below the number of employees as well. As of 2017, the average number of employees per brewery was roughly 23 in Minnesota.[175] There is no average employee-specific data available for wineries or distilleries.

During Fiscal Year 2023, 75 percent of survey respondents had annual gross revenues between $100,000 and $999,999. That is revenue before taxes and expenses. After taxes and business expenses, 80.5 percent of survey respondents had annual net profits under $100,000. This metric illustrates the narrow profit margins and small-scale environment that small alcohol producers in Minnesota typically operate within.

Survey Perspective on Impact of Business Growth and Operations

The survey sought to understand the impact of the tax credits on business growth. The survey defined business growth as “an increase in revenue, sales, etc.” Of 65 respondents, 24 (37 percent) said the tax credit(s) have had a *very positive* impact on their business growth. Thirty-two (49 percent) respondents said their credit(s) had a *positive* impact. Nine respondents (14 percent) said the tax credit(s) had no impact on their ability to grow their business. None of the survey respondents indicated that the tax credit(s) harmed their business’s ability to grow.

Overall, the survey indicates that these tax credits have made a positive impact on the business operations of small breweries, small wineries, and microdistilleries, and to varying degrees, the tax credit assists in the growth of these small businesses.

Regarding the tax credit(s) having an impact on a business's ability to stay in operation, out of 65 responses, 30 respondents (46 percent) said the tax credit(s) has had a *major positive* impact on the business's ability to stay in operation. Twenty-five respondents (39 percent) said the tax credit(s) had a *minor positive* impact on their ability to stay in operation. Nine respondents (14 percent) said the tax credit(s) had no impact on their business's ability to stay in operation, and one person answered they were not sure about the impact on their business.

---

[174] U.S. Small Business Administration, “Table of Size Standards”, U.S. Department of State, (2023): https://www.sba.gov/document/support-table-size-standards

[175] Statewide Employment per Brewery, “Employment per establishment in breweries, by state, first quarter 2017”, U.S. Bureau of Labor Statistics, (2017): https://www.bls.gov/opub/ted/2017/on-tap-a-look-at-statewide-employment-per-brewery.htm

Out of 65 responses received, 32 respondents (49 percent) said the tax credit(s) reduced their reliance on business loans. Twenty-seven respondents (42 percent) indicated that the tax credit(s) did not reduce their reliance on business loans. Six other respondents (9 percent) said they were unsure if the tax credit(s) reduced reliance on business loans.

The survey asked respondents if they reinvested the savings from the tax credit(s) and how they utilized those funds. Respondents were allowed to answer with more than one response. Among 56 responses, 35 respondents (63 percent) said they used the funds on equipment, 39 respondents (70 percent) said they spent the funds on operations, 29 respondents (52 percent) said they put the funds towards employee earnings, 24 respondents (43 percent) said they used the funds towards hiring new staff, and five respondents (9 percent) were not sure how the tax credit proceeds were used.

Survey Open-ended Responses

The survey included a series of open-ended questions to which respondents could reply with written responses. The responses to each open-ended question are summarized below, and a comprehensive list of all responses is provided in Appendix B. Responses were categorized into a series of codes to help analyze the types of responses received.

All open-ended responses were ascribed to the codes outlined in Figures 10 - 12. The codes are meant to help organize the responses and highlight any prominent themes that were present in the data. An example response is listed for each code.

Figure 10 displays survey respondents speaking to the impact of the credit(s) on their business' output growth. Most respondents either indicated that the credit helped them grow as a business (31 percent) or helped them stay in operation (45 percent). Only one respondent shared that the tax credit(s) had no impact on their business' output growth.

Figure 10. Prompt – “Please describe the tax credit’s impact on your output growth as a business.”

Code	Example	Count	Percent
Stay in operation	“For a small brewery like ours, every little bit helps keep the lights on.”	23	46
Growth	“It provides more opportunity for investing in the quality of the business we have.”	16	32
Negligible	“While it helps, larger issues like the pandemic and SBA interest rates have had more impact.”	5	10
Profit	“Output is independent of the credit; we need to serve customers. It does allow us to actually have a profit margin.”	3	6
Positive	“Helps with taxes”	3	6

Note: A comprehensive list of all responses is listed in Appendix B. These are verbatim quotes from the respondents.
Data Source: LBO survey administered to small alcohol producers in MN

Figure 11 displays survey respondents speaking to the nature of their business’ ability to stay in operation due to the tax credit(s) impact on their business. Over half of the respondents voiced that the tax credit(s) help them stay in business or reinvest in their business. Thirty-six percent of respondents shared that the credit(s) had no impact or a minor impact on their businesses’ ability to stay in operation.

Figure 11. Prompt – “Please describe the tax credit(s) impact on your business’s ability to stay in operation.”

Code	Example	Count	Percent
Stay in operation	“Would not be in distribution without it.”	17	34
Minor Impact	“There are many expenses that go into making and selling beer. Taxes, while a small portion, still impact my overall costs.”	15	30
Re-invest	“Frees up money in the budget and increases the profit margin to allow expansion in staffing, running a cocktail room, and hosting events.”	10	20
Revenue	“This is a significant amount of annual savings for a small brewing operation.”	5	10
No Impact	“No impact”	3	6

Note: A comprehensive list of all responses is listed in Appendix B. These are verbatim quotes from the respondents.
Data Source: LBO survey administered to small alcohol producers in MN

The codes provided for the question in Figure 12 are more general than the previous two because this question did not inquire regarding a specific topic. Fifty-three percent of the respondents noted that the credit(s) positively impacted them, and 18 percent mentioned that they felt they needed further tax relief. Twenty-nine percent of the respondents provided some form of feedback. Some feedback was specifically about the credit(s) or the process of claiming the credit(s), but many comments gave feedback on the survey itself.

Figure 12. Prompt – “Do you have any general comments or concerns about the credit(s) or other aspects of your business that have impacted your business’s growth or ability to remain in operation?”

Code	Example	Count	Percent
Positive	“With ongoing rising costs and slower traffic, credits like this are what allow us to stay in business.”	18	53
Feedback	“With the credits, we are still operating in the negative. We have not made any profits and have invested personal $ into the business to keep us open.”	10	29
More tax breaks	“MN taxes are some of the highest in the nation. We need to work to reduce those burdens on small businesses and encourage small business growth to create jobs. Therefore, tax credits should remain in effect. Also, R&D tax credits need to be reimplemented.”	6	18

Note: A comprehensive list of all responses is listed in Appendix B. These are verbatim quotes from the respondents.
Data Source: LBO survey administered to small alcohol producers in MN

Survey Insights Regarding Barriers to Claiming the Credits

Two survey respondents shared that they were unaware of the credit(s) and that they didn’t know how to claim the credit(s). On the other hand, some of the respondents knew about the credit(s), but chose not to claim them for other reasons. One respondent reported they were not claiming the credit(s) due to the process involving “too much paperwork”. Of those who claimed at least one of the credits, the notion of administrative burden was brought up by two other respondents who discussed that “the paperwork currently required [to claim the credit] is onerous”. The two main themes surrounding any barriers to claiming the credits are a lack of knowledge of the credit(s) and the process of claiming the credit(s).

Business Survivorship Data Analysis – Licensee Data

To understand the survivability of small breweries, wineries, and microdistilleries, the evaluation examined license data collected from DPS and correlated survey responses. License data was reviewed to understand the length of time a business possessed a license and was further cross-referenced with whether the business remained open. Survey data was reviewed to look at the years that businesses sold products and how long each respective business claimed the applicable credit.

The following analysis is based on DPS licensure data that goes back to the beginning of 2001, extending through September 2025. **As indicated by DPS data, small wineries, breweries, and microdistilleries in Minnesota have stayed active in**

business for an average of 7.8 years.[176] Furthermore, for all private sector establishments in Minnesota from March 2017 to March 2024, 45.7 percent of the newly established businesses that started in 2017 made it to the end of 2023, indicating that the business survivorship rate for small alcohol producers in Minnesota is similar to the survivorship rate of other private businesses in the state.

Licensure data was analyzed by one year, five years, 10 years, and 20 years of survivorship. Alcohol producers with active licenses had one-year survivorship rate of 97 percent, a five-year survival rate of 69 percent, a 10-year survival rate of 28 percent, and a 20-year survival rate of 3 percent. Out of the businesses that closed or held a canceled or expired license, 74 percent had a survival rate of five years, and 24 percent had a survival rate of 10 years.

Survey data indicates that respondents claimed the credit(s) for an average of 5.7 years. Businesses reported the average years of selling products to be 9.2 years. Survey data shows businesses started to claim the credit an average of 1.6 years after starting to sell products. Most businesses claimed the credit for the same year they started selling products. However, as the small winery credit is newer, more wineries opened before the credit became available in 2017, thus altering the data to show a higher average.

The survivorship rates of Minnesota small wineries, small breweries, and microdistilleries are similar to those of other industries in Minnesota but tend to outlive small alcohol producers and other private businesses in other states. According to survivorship data from the Bureau of Labor Statistics, in Minnesota, the survivorship rate of all new businesses established in March 2017 that lasted until March 2024 (or longer) was 45.7 percent.[177] From a national perspective, 43.2 percent of new businesses in the U.S. survived between the same seven-year period.[178] This indicates that Minnesota's survival rate for new businesses is slightly higher than the U.S. average.

Business Survivorship Data Analysis – Survivorship Across Different Alcohol Beverage Manufacturers in Minnesota

As noted, the business survivorship rate for all alcoholic beverage manufacturers in Minnesota between January 2001 to September 2025 is roughly 7.8 years. While this is the average life expectancy across all the different manufacturer types, there is variability by alcohol types. During this time period, the average survivorship rate for

[176] Aged Public Data Access, "License Search", Minnesota Department of Public Safety, (2025): https://app.dps.mn.gov/AGEDIS5/DataAccess/pages/license-search
[177] Percentage of new businesses in MN that survive 7 or more years past their start date: March 2014 – March 2021 (or longer) = 48.4%, March 2015 – March 2022 (or longer) = 49.6%, March 2016 – March 2023 (or longer) = 50.5%.
[178] Bureau of Labor Statistics, Survival of private sector establishments in the United States by opening year, https://www.bls.gov/bdm/us_age_naics_00_table7.txt

distilleries was roughly seven years. For breweries the average survivorship rate was roughly 7.4 years; and for wineries the average survivorship rate was roughly nine years. Figure 13 displays the survivorship rate for all the different alcoholic beverage manufacturers' license types that were included in this evaluation.

Figure 13. Business Survivorship of Minnesota's Breweries, Wineries, and Distilleries by Specific License Type

License Type Description	License Type Code	Survivorship Rate (years)
Farm Winery License	FWN	8.97
Farm Winery Branch	FWNBR	10.92
Farm Wine Distiller	FWNDST	8.38
Micro Brewer License	MCB	6.54
Minnesota Brewer License	MNB	14.40
Small Minnesota Brewer License	SMNB	8.82
Micro Distillers License	MDL	6.50
Micro Distillery Branch License	MDLBR	13.33
Micro Distillery Small	MDLS	6.99
Liquor Manufacturer's License	LQRMFR	7.76D

Note: There are additional license types; this table only includes license types that were a part of this evaluation. See footnote for full list.[179]

Data Source: Data gathered from 2025 DPS licensee data

Business Survivorship Data Analysis – Minnesota Compared to Other States

To better put Minnesota's small alcohol producers' average business survivorship rate of 7.8 years into perspective, the LBO reached out to the alcohol regulatory agencies in 47 other states to see how long their small alcohol producers survive in their respective states.[180] Of the 47 states contacted by the LBO, nine states got back to the LBO with comparable data. To reiterate, Minnesota alcohol producer data from DPS dates back to 2001. Some of the states surveyed did not have data going back to 2001, so there are

[179] License Codes, "Liquor Types and Fees", Minnesota Department of Public Safety, (2025): https://app.dps.mn.gov/AGEDIS5/DataAccess/pages/license-codes

[180] Hawaii and Nevada were not contacted because they are the only states that administer alcohol licenses through county and/or local authorities (all other 48 states administer at the state level)

some slight inconsistencies in the data that are being compared. All of the data (both Minnesota and the other nine states) has a cutoff date of September 2025.

The LBO received detailed data from Connecticut, Iowa, Michigan, Missouri, Montana, New Hampshire, North Dakota, Pennsylvania, and Vermont. Figure 14 displays the survivability in each of these states, as well as the years in which the data were collected. Iowa, Michigan, and Montana are included in the table, but the survivorship rate is not directly comparable to Minnesota's because the alcohol regulatory agencies in these states provided the LBO with partial data. Connecticut, Missouri, New Hampshire, North Dakota, and Pennsylvania have comparable data to Minnesota's small alcohol producers survivorship rate because they include the same data as the Minnesota DPS data (survivorship rate of both active and non-active businesses). A caveat to this data is that North Dakota provided data dating back to 2005, and Pennsylvania and Vermont provided data dating back 2002. The available data is not perfect but provides context to put Minnesota's small alcohol producers' survivorship rate in perspective. The average survivorship rate of the five comparable states is 5.8 years, two fewer years than Minnesota's average of 7.8 years. Of the data collected, only Vermont has a higher survivorship rate (8.1 years) than Minnesota's small alcohol producers. It should be noted that Pennsylvania, Michigan, and Montana offer tax incentives to small producers as well, and Connecticut recently reduced the alcohol excise tax for all producers.[181] Also, as previously mentioned, North Dakota offers a tax credit to beer wholesalers who purchase or produce beer that cannot be sold in the state.

[181] Pennsylvania Act No. 84 of 2016; Michigan Complete Laws Annotated § 436.1409; Montana Code Annotated § 16-1-406; Connecticut Public Act 21-2.

Figure 14. Business Survivorship Rate for Contacted States

State	Survivorship Rate (years)	Data Clarification / Notes
Connecticut	3.4	For manufacturer licenses issued 2001 or later, either active or inactive
Missouri	5.3	For manufacturer licenses issued 2001 or later, either active or inactive
New Hampshire	6.5	For manufacturer licenses issued 2001 or later, either active or inactive
North Dakota	6.1	For manufacturers with registered start dates on 01/01/2005 or later, whether active or closed
Pennsylvania	5.3	For manufacturer licenses issued 2002 or later, either active or inactive
Vermont	8.1	For manufacturer licenses issued 2002 or later, either active or inactive
Iowa	*4.2	For manufacturer licenses issued in 2017 or later that are active
Michigan	*3.4 **4.1	*For manufacturer licenses issued 01/1/2017 or later that are no longer active (business closed) // **For manufacturer licenses issued 01/1/2017 or later that are currently active
Montana	*5.9	For manufacturer licenses issued in 2006 or later that are active

Note: Iowa, Michigan, and Montana have partial data, which is not comparable to MN's survivorship rate calculations. MN, as well as CT, MO, NH, ND, PA, and VT, include both active and inactive licenses in their calculations. IA, MI, and MT only have calculations for active or inactive licenses (calculations done separately, not together).
Data Source: Data gathered from alcohol regulatory agencies of respective states

Economic Impact Analysis

In this section, the LBO models the impacts of the three tax credits on the Minnesota economy. The general idea underlying the model is that the economy has many different industrial sectors, and a change in one sector may have an impact on other sectors of the economy through a ripple effect. Presumably, the economic impacts of the tax credits go beyond the brewery, wine, and microdistillery industries and the workers employed in those industries. The resulting economic effects can be measured in terms of direct, indirect, and induced impacts.[182] Direct impact is due to the initial

[182] To elaborate further, direct impacts/effects are limited to the three alcohol industries that receive the initial $2.3 million tax credit. To produce alcohol, small alcohol producers need to purchase intermediate inputs from other suppliers. Thus, indirect effects capture business-to-business transactions taking place between small alcohol producers and other retailers through the supply chain. Finally, induced impacts capture spending in Minnesota by both employees of small alcohol producers and related industries due to an increase in household income associated

activity resulting from the three tax credits; indirect impact occurs due to business expenditures on goods and services (business-to-business transactions); and induced impact refers to consumer spending on goods and services (consumer-to-business transactions). It should be noted that while the model provides what appears to be specific outputs resulting from an assumed contribution to a specific industry, it is better to think about these outputs as estimates that give likely impacts of a general direction and magnitude. Additionally, the model relies on a set of broad assumptions that were not specifically tested or validated for the brewery, wine, and microdistillery industries.[183]

The Impact Analysis for Planning (IMPLAN) software package was used to carry out the impact model. This is a widely used regional input-output economic impact modeling software in the tax incentive evaluation literature. IMPLAN analyzes how the initial tax credits (small breweries, wineries, and microdistilleries) flow through different sectors of the economy. IMPLAN requires an initial level of spending. To that end, the 2025 DOR estimate of forgone revenue of $2.3 million, combined across all three industries was used as the initial input for the analysis. It is assumed that the economic impact is likely to be a higher bound as some of the $2.3 million will likely flow to other states. Please see Appendix D for more details on IMPLAN and the methodology used.

Figure 15 presents the IMPLAN estimates of the tax credits on employment and economic output in 2024. Overall, the model estimates the combined $2.3 million tax credits supported a total of 14 jobs. Specifically, the tax credits supported about seven direct jobs with a total labor income of $347,558. Additionally, it supported seven indirect and induced jobs with a total labor income of $585,548. While these job numbers may not be trivial, in 2024, total private and total nonfarm job estimates in Minnesota were 2.6 million and 3 million, respectively.[184] Finally, the tax credits supported $1.7 million in value added, and $4.2 million in total output. Here, the value added is a much better measure of economic activity than total output, as the value added excludes the values of intermediate input. Overall, relative to the size of the value added, these findings suggest that the tax credits did not generate much economic output.[185]

---

with the three tax credits.

[183] IMPLAN Foundations, “Detailed Key Assumptions of IMPLAN & Input-Output Analysis”, IMPLAN, (2025): https://support.implan.com/hc/en-us/articles/115009505587-Detailed-Key-Assumptions-of-IMPLAN-Input-Output-Analysis

[184] Current Employment Statistics, “Minnesota Current Employment Statistics”, Minnesota Employment and Economic Development, (2025): https://mn.gov/deed/data/data-tools/current-employment-statistics/

[185] In IMPLAN, output measures the total value of all production (column 5 of Figure 15). That is, it includes the values of all final goods and services, in addition to the values of all intermediate goods and services (which are used to produce gross output). In measuring economic activity or gross domestic product (GDP), we normally consider only the values of all final goods and services, excluding the values of intermediate inputs (which are already included in the values of final goods and services). Thus, IMPLAN Output overestimates the true scope of economic activity. On the other hand, Value Added output excludes the values of intermediate inputs and is therefore our preferred measure of economic activity (column 4 of Figure 15).

Figure 15. IMPLAN Economic Impacts of $2.3 Million in Tax Credits

Impact	Employment	Labor Income	Value Added	Output
Direct	7	$347,558	$661,642	$2,300,000
Indirect	4	$375,608	$617,618	$1,304,564
Induced	3	$209,940	$375,441	$604,491
Total	**14**	**$933,106**	**$1,654,701**	**$4,209,055**

Data Source: IMPLAN 2024, authors' calculations

Next, the LBO evaluated the impacts of the three tax credits on the economic output of specific alcohol manufacturing industries. Figure 16 displays the findings for the three most impacted industries: breweries, distilleries, and wineries. "Industry Total Output" refers to total value of each industry's production or economic output in Minnesota in 2024. "Impact Output" is the portion of each industry's output that is due to the three tax credits. Breweries show the highest total output and impact output, with the small brewer tax credit representing approximately 0.18 percent of the total industry output. Distilleries follow with an impact output of 0.10 percent, and then wineries with an impact of 0.06 percent on their total output, from their respective tax credits. These results are consistent with the design of the tax credits, which aim to support and promote the growth of these specific industries.

Figure 16. IMPLAN Top Three Impacted Industries

Impacted Industries - Rankings	Industry	Industry Total Output (in $ Millions)	Impact Output	Percentage of Total Industry Output
1	Breweries	$944	$1,700,154	0.18%
2	Distilleries	$499	$500,775	0.10%
3	Wineries	$163	$100,197	0.06%

Data Source: IMPLAN 2024, authors' calculations

Alternative Use of Forgone Revenue

To put the findings of this section in context, the LBO performed an additional modeling exercise. In lieu of providing the tax credits to the brewery, wine, and microdistillery industries, the LBO assumed that Minnesota decided to use the $2.3 million in forgone revenues and distribute the money according to expenditure categories based on their budget shares. The LBO acknowledges one important limitation of this approach: just removing the tax credit fails to capture behavioral responses from small alcohol producers due to an eventual increase in the cost of production. That is, how much of the increase in the cost of production small alcohol producers decide to pass on to their customers will depend on how sensitive customers are to a price change. Further, this

exercise is not meant to suggest that an increase in government spending would be the best use of the $2.3 million in forgone revenues. Rather, it is meant to provide a sense of the magnitude of the economic impact of the tax credit on the Minnesota economy when the forgone revenues are put to an alternative use. To that end, according to Minnesota Management and Budget, in the 2024-2025 biennium, the state spent 34.7 percent of its General Fund on E-12 Education, and roughly 30 percent on Health and Human Services.[186] The remaining 35.3 percent is assigned to "All Other Categories", as the remaining categories in IMPLAN do not match the other categories of the Minnesota expenditure budget.[187] Figure 17 displays the findings which show that the alternative use of forgone revenue supported a total of 23 jobs and $2.5 million in value added. Ignoring behavioral responses from small alcohol producers due to the removal of the tax credits, the model suggests that the direct expenditures on education, health and all other budget categories have a bigger economic impact on the Minnesota economy compared to the tax credits. Granted, these findings were obtained under a specific set of assumptions. Overall, the findings of this economic impact analysis are in line with a study from the Washington Joint Legislative Audit and Review Committee that finds a $7.2 million biennial preference for microbrewers directly supported between 2 to 6 manufacturing jobs and reduced between 25 to 27 public sector jobs.[188]

Figure 17. Economic Impacts of Alternative Use of Forgone Revenue

Impact	Employment	Labor Income	Value Added	Output
Direct	16	$1,317,042	$1,651,407	$1,959,938
Indirect	1	$98,790	$154,085	$279,877
Induced	6	$408,596	$732,241	$1,178,766
Total	**23**	**$1,824,428**	**$2,537,733**	**$3,418,581**

Data Source: IMPLAN 2024, authors' calculations

But-for Analysis

As is often the case when using input-output models such as IMPLAN, it is not known how much of the new economic activity is due to the tax credits. That is, in the absence of the tax credits, how much of the direct impact, indirect impact, induced impacts, and economic output estimated above would have occurred. The counterfactual state of the economy is always a difficult question to answer. There are generally two ways to address this concern. First, analyses of other data in other states could be analyzed to

[186] General Fund FBA Pie Chart, "Where the General Fund Dollars Come From?", Minnesota Management and Budget, (2025): https://mn.gov/mmb-stat/documents/budget/operating-budget/enacted/2025/eos25-fba-pie-charts.pdf
[187] To further clarify, IMPLAN has two other relevant categories ("Other" and "Investment"), while the remaining categories of the Minnesota budget are as follows: Public Safety and Judiciary (5.2%); Transportation (1.9%); Environment & Energy (1.5%) ; Jobs, Commerce, Ag and Housing (5.5%); State Government & Veterans (4.2%); Debt Service & Others (3.3%); Higher Education (5.9%) ; Procurement Technical Assistance Center (7.8%).
[188] WAJLARC 2020 Tax Preference Review, "Preliminary Report: 2020 Tax Preference Performance Reviews – Microbrewers", WAJLARC, (2020): https://leg.wa.gov/jlarc/taxReports/2020/microbrewers/p_i/default.html

get an idea of how much of the new economic activity is due to the tax credit. Unfortunately, there is a dearth of studies that specifically address the but-for issue in the context of tax credits for small alcohol producers. Second, an econometric analysis could be performed. This would require gathering data that predates the implementation of the tax credits. Unfortunately, due to data limitations, this is not possible. Further, even if panel data were available, given the relatively small magnitude of the tax credits ($2.3 million), findings from econometric analysis may be inconclusive or unable to capture such very small effects on the Minnesota economy.

Limitations

Survey specific

Limitations to the online distribution of the survey included encountering businesses that did not have a listed email address. This limitation was addressed through mail-out surveys to try to limit the gap in recipients. However, other potential survey limitations include email fatigue and mail fatigue that contribute to the response rate. Lastly, while some businesses had addresses listed online, some mail-out surveys were returned to the sender.[189]

Due to the complex nature of tax expenditures and the number of businesses that have tax professionals file and claim their credit(s), there were some instances of misunderstood questions.[190] This could be improved upon in the future by testing the survey on a sample selection of the survey population before full distribution.

Another potential limitation of the answers gathered through the survey is that when completing the survey, some businesses have the potential to fill out the survey with biased answers. Numerous factors could influence biased answers, such as survey respondents thinking that if they speak highly of the tax credits, they will be more likely to remain in place, or that if they speak negatively about the tax credits, they will be at risk of losing them.

Standards for similar research

This evaluation of small brewery, microdistillery, and winery tax credits is one of the first in Minnesota to evaluate the effect on the survivability of small businesses benefiting from the credits. As a result, there was little available research and literature on best practices and recommended standards for similar research. Overall, there was a lack of existing literature discussing the impact of existing production credits in Minnesota or

[189] 25 mailout surveys were returned to the sender.

[190] One question was stated as asking “if the credit was to expire, would that have an impact on our business’s ability to stay in operation?” with the response options “major positive impact, minor positive impact, no impact, and not sure”. Without the inclusion of the response options “major negative impact” and “minor negative impact”, respondents were unsure of how to respond to the question. Because of the resulting confusion over the miswording of the question, the question was not analyzed as a part of the survey results.

other states. Literature was available to understand and analyze the impact of the brewery, winery, and microdistillery industry on local, state, and federal economic development. While the evaluation team utilized available literature review resources and existing survey best practices, future evaluations will benefit from further research on evaluating the impact of tax credits on survivability in a small business context.

Secondary Considerations for Future Evaluations

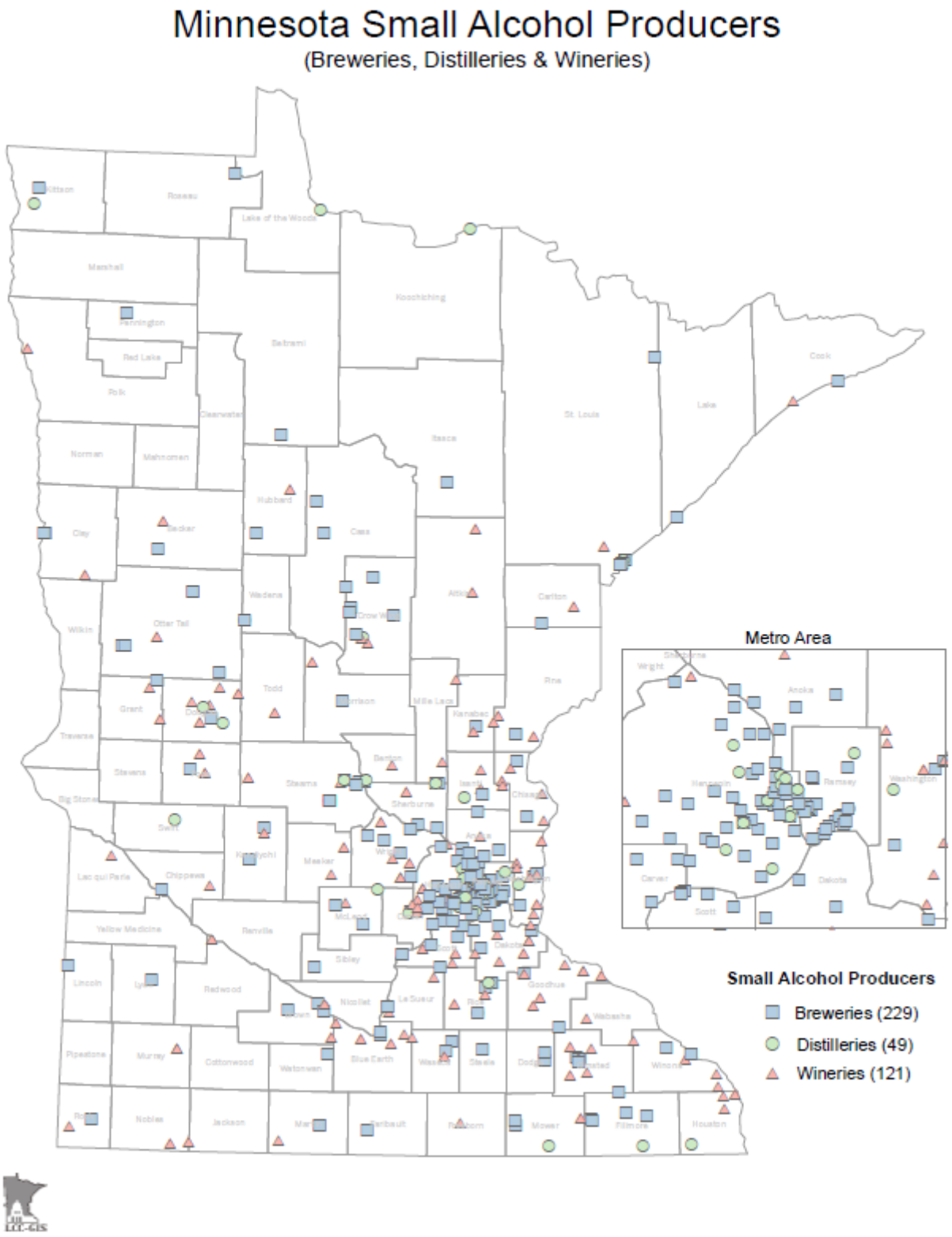
While the primary objective of these tax credits is to promote the development and survivorship of small wineries, breweries, and distilleries in Minnesota, additional considerations may be relevant for future evaluations. These include a focused analysis of market share and market competition, secondary impacts on the local economy, geographic distribution, and expansion opportunities made possible by claiming these credits.

One area to explore is the potential influence of these tax credits on market competition. By supporting small producers, these incentives may enable smaller businesses to gain a stronger foothold in an industry that larger manufacturers generally dominate – this could contribute to reshaping market dynamics. Beyond the impact of these credits, it may be worthwhile to understand the impact that exceptions to the three-tiered system of regulation have had on market dynamics and revenue streams for small producers.

These tax credits could also contribute to increased tourism and local spending. Small wineries, breweries, and distilleries often attract visitors and host events that generate economic activity not only for themselves but also for surrounding businesses such as restaurants, hotels, shopping centers, etc. Future evaluations may consider whether this spending represents growth for Minnesota's economy by new revenue coming into the state, or if it could just represent dollars being traded from one Minnesota business to another.

Another consideration is the geographical spread of credits. The survivorship and success of small producers may vary significantly based on location. Figure 18 below displays the geographical distribution of small alcohol producers in Minnesota as of September 2025. Further investigation into the economic impact by region or by location may be useful for policy makers to consider.

Figure 18. Geographical Spread of Small Alcohol Producers in Minnesota



Data Source: DPS Alcohol and Gambling Enforcement license database

Finally, the tax credits may play a role in business growth and expansion. Survey responses suggest that the financial assistance provided by these credits enables investments in production capacity, innovation, and staffing. Over time, this growth may reduce their dependency on the credits for survival, making businesses more self-sustaining. Understanding the extent to which the credits support long-term business viability could help refine these incentives to maximize their effectiveness.

Although these considerations extend beyond the immediate scope of the current evaluation, assessing these broader impacts in the future could provide valuable insights into the full effects of these tax credits on Minnesota's economy and the extent to which they achieve the intended objective.

Data Analysis

Individual tax filing data and contact information for the businesses that file for the credits were unable to be obtained. Only high-level data of businesses in the state that hold qualifying licenses was available. As a result, the survey recipient list reflects all businesses across the state with a qualifying license. Businesses that at one point held a license and claimed the credit but are no longer in operation were not included in the recipient list. Their experiences are not captured in the survey results, but this would be useful information to collect in the future to fully analyze the effectiveness of these credits.

Conclusion

Overall, the analysis of available data suggests that the credit for small brewers, small wineries, and microdistilleries are likely meeting their intended objectives of promoting development and survivability within their respective industries.

Survey data revealed that many qualifying small businesses were not yet profitable or had very small profit margins. Further, the credit contributed to qualifying small businesses' ability to obtain small profit margins or remain in business and reinvest credit savings into growth initiatives.

Minnesota's small alcohol producers tend to out-survive small alcohol producers from other states, though the evaluation is not able to identify to what extent the tax credits impact this phenomenon. Many factors influence business survivorship and it is likely that multiple factors contribute to the increased business survivorship of small alcohol producers in Minnesota.

An economic impact model attributes under one million dollars in labor income to the credits and suggests positive job growth. However, the estimated amount of tax revenue forgone by the state is more than the estimated economic impact attributed to the tax credits.

The Tax Expenditure Review Commission may choose to consider these findings in preparing a recommendation to the legislature to continue, repeal, or modify the tax expenditure, as is required of the Commission under Minnesota Statutes 2024, section 3.8855, subdivision 5.

Appendix A - Survey Questions

1. What is the Name of your business?
2. What year did your business first start selling products to the public? Ex. 2011
3. Have you claimed the Small Brewery, Small Winery, or Microdistillery Credit?
    - I have claimed the credit(s) in tax year 2023
    - I have claimed the credit(s) prior to tax year 2023, but did not claim for 2023
    - I have never claimed the credit(s)
    - I am not aware of the existence of the credit(s)
    - Other (please specify) ___
4. Which credit(s) has your business claimed? Check all that apply.
    - Small Winery (includes cideries)
    - Small brewery
    - Microdistillery
5. What tax year did you first claim one of the credit(s)? Ex. I filed my taxes in 2024 for **tax year 2023.**
6. If you no longer claim any of the credits, when was the last tax year that you claimed one of the credit(s)? Ex. I filed my taxes in 2024 for **tax year 2023.**
7. How would you describe the overall impact of the credit(s) on your primary business?
    - Very Positive
    - Positive
    - No Impact
    - Negative
    - Very Negative
    - Not Sure
8. Has the tax credit reduced your reliance on business loans?
    - Yes
    - No
    - Not Sure
9. What has been the tax credit's impact on your business' "growth"? We are defining "growth" as an increase in profit, revenue, sales, etc.
    - Very Positive
    - Positive
    - No Impact
    - Negative
    - Very Negative
    - Not Applicable to My Business
10. Please describe the tax credit's impact on your output growth as a business.
11. Has the credit had an impact on your business's ability to stay in operation?
    - Major Positive Impact
    - Minor Positive Impact

- No Impact
- Not sure

12. Please describe the credit's impact on your business's ability to stay in operation.
13. How would you categorize the change in your business's growth over the last five years?
    - Large Increase in growth
    - Small Increase in growth
    - No change
    - Small decrease in growth
    - Large decrease in growth
14. If the credit were to expire, would that have an impact on your business's ability to stay in operation?
    - Major positive impact
    - Minor positive impact
    - No impact
    - Not Sure
15. How many individuals are currently employed at your primary business?
    - No employees
    - 1-2 employees
    - 3-4 employees
    - 5-9 employees
    - 10-19 employees
    - 20-49 employees
    - 50-99 employees
    - 100-199 employees
    - 200-499 employees
    - Over 500 employees
16. Please estimate the following to the best of your ability.
    - Annual net profit (i.e., after taxes and expenses) 2022 = ____ 2023 = ____
    - Annual gross revenue (i.e., pre-tax) 2022= ____ 2023 = ____
17. If you have used the savings from the tax credit(s) to reinvest into the business, please check all the areas that apply to the types of investments you are making into your business:
    - Equipment
    - Operations
    - Employee earnings
    - Hire new staff
    - Not sure
    - Other (please specify) ____
18. Approximately what are the average total employee wages paid per month?
    - < $10,000
    - $10,000 - $24,999

- $25,000 - $49,999
- $50,000 - $99,999
- $100,000 - $249,999
- $250,000 - $399,999
- $400,000 - $749,999
- $750,000 - $999,999
- $1m +

19. Do you have any general comments or concerns about the credit(s) of other aspects of your business that have impacted your business's growth or ability to remain in operation?
20. Would you be willing to participate in a brief phone interview in the future for any clarifications or follow-up questions?
    - Yes
    - No
21. Please indicate the name and preferred contact information for follow-up questions and interview purposes.
    - Name of Business
    - Name of Primary Contact
    - Email
    - Phone Number
22. What are the barriers preventing you from claiming one of these credits?

Appendix B - Open-Ended Survey Responses

Prompt: "Please describe the tax credit's impact on your output growth as a business."

"It provides more opportunity for investing in the quality of the business we have."

"Output is independent of the credit, we need to serve customers. It does allow us to actually have a profit margin."

"Helps free up cash that can be put into making more product, which can age, which leads to long-term growth."

"This tax credit has been very helpful when managing growth. Our Company has grown every year and in years with more growth we have a strapped cash flow and high debt load, and so the credit helps us stay afloat."

"While it helps, larger issues like the pandemic and SBA interest rates have had more impact"

"It increases cash flow which helps to promote expansion, employee salaries, and investment into the business"

"It saves $, that I can spend on marketing, etc."

"A microdistillery credit allows some of our revenue to be able to put towards other intangibles such as marketing, sampling, tours, etc."

"It has no impact."

"For a small brewery like ours, every little bit helps keep the lights on."

"Every bit helps"

"It allows us to invest more back into our business and employees"

"Tax credit only way distribution makes sense"

"Profitably"

"Still a new small business and not profitable yet"

"This credit has been critical for allowing us to stay competitive in an increasingly difficult marketplace"

"The tax credit has helped keep us afloat financially"

"I keep dollars in the business instead of another tax or fee."

"We are very small so the credit is small but every bit helps."

"Slight"

"We produce less than 250 bbls per year. The tax credit isn't much but for a small business it matters over the year in savings and redirecting revenue elsewhere."

"We can invest in equipment and labor instead."

"It is nice to not pay the tax"

"It has been very helpful not to have to worry about or plan for a tax

as we grow. We are significantly under the lower limit and will be for many years"

"We can keep our MSRPs stable."

"Helps with taxes"

"Allows positive cash flow vs negative"

"As a small producer, my expenses are much higher than a large brewer. The tax credit helps keep my product pricing competitive in the marketplace."

"Money saved on taxes allows us to stay competitive with people who get economies of scale from brewing bigger batches."

"It has allowed my business to exist. It's a hard business when required to sell through a distributor as a small distillery. May not still be in business without credits"

"The credit is too small to be meaningful"

"It reduced our loss the past 3 years"

"We have been able to increase production of wine every year since we opened our store in 2018"

"We would be shut down without it."

"Small businesses are struggling, we pay so much in other taxes and fees, this helps immensely."

"It has allowed us to be competitive with our pricing in the market"

"We are a small brewery. It is great that we don't pay for production. We still pay a huge amount of sales tax on beer sold."

"Gives us small guys a bit of breathing room on the monthly expenses"

"This tax credit allows me to provide more pay and benefits to my empl--oyees and grow"

"We are not profitable yet, so any credits help our bottom line"

"Has not affected output."

"The credit has encouraged us to grow because we will not see an additional tax fee for additional output, as we are well below the ceiling for the credit."

"First, it gives us parity with other businesses that for years were given a tax credit before it was offered to wineries. We had previously, in 1980, but denied a tax credit that we had when we first started. Our margins are small and the tax credit is a huge savings for us to re-invest in our business, hire a new employee, offset the losses from our vineyard that frequently occur."

"Operating a brewery is already very challenging with taxes at every corner. Having one less tax to pay has increased our ability to reinvest in our business and build a second facility."

"It allows us to use those monies for new equipment to increase our capacity"

"This is a very positive credit that helps small businesses get off their feet and stay in business in this competitive environment"

“Chance to compete”

“We are still in startup mode but the credits allow us to operate and sell product. I feel that without them we would have trouble continuing to operate.”

“Money saved with this tax credit can be applied toward other operational expenses.”

“This tax credit has helped us grow our business and spend the $6,000 a month on increasing our paid labor rather than on paying taxes. Since 2018 we've grown our staff from 5 people to 12 people and added 4 full-time positions.”

“We're so small it isn't a large amount of money”

Prompt: "Please describe the credit's impact on your business's ability to stay in operation."

"While we do have a solid financial foundation from our ownership, every penny counts and we are grateful for the credit."

"This is a significant amount of annual savings for a small brewing operation"

"We are a small family owned business and cash flow is tight. Without the credit we'd be forced to take out loans or find investors to maintain operations."

"It is especially helpful to have this credit up front, versus as a reimbursement/refund. It would be very hard to pay these bills with our seasonal industry."

"As we're a smaller brewery, it provides some relief, but probably has a bigger impact on larger local breweries"

"It's less money that I have to spend, and can use on other operating costs."

"Frees up money in the budget and increases the profit margin to allow expansion in staffing, running a cocktail room, hosting events."

"No impact"

"For a small scale brewery like ours, the cost of submitting a new label for registrations is almost more than the brewer's tax. Being able to claim the tax credit allows for us to redirect that money to the registration with less stress on the idea of wanting to create new and innovative brews but not looking at higher costs for doing so."

"Every bit helps"

"It has helped us to expand and retain employees"

"Would not be in distribution without it"

"We were able to hire new employees."

"Any cost savings is helpful"

"We likely would not be as large or even in operation without it"

"Same as above"

"It keeps dollars in the business instead of another tax or fee."

"We could survive without it."

"Important"

"The redistribution of revenue to other areas"

"There is already high tax in alcohol so the credit is nice"

"Without it, we probably wouldn't have had enough margin to launch the business in our projections."

"If we had to pay the tax we would. It is really nice to have the credit."

"Without tax credit we would have had a very difficult time staying in operation."

"As a small brewery in a small town in rural Minnesota, the tax credit has been very helpful in

dealing with increased costs - ingredient costs, energy costs, water costs, and inflation"

"Keeps costs lower."

"Helps reduce taxes, means we have more money in the bank"

"For 2023, the MN tax credits have saved my business $11k which allows us to stay in business."

"There are many expenses that go into making and selling beer. Taxes, while a small portion, still impact my overall costs."

"Without credits to support small breweries, they cannot stay competitive against larger breweries. The overhead to make a very large batch of beer is similar to the overhead to make a smaller batch of beer. This means that in order to have small breweries compete against larger breweries, there needs to be something to level the playing field."

"It has allowed my distillery to exist. It's a hard business when you just sell through a distributor as a small company. May not still be in business without credits"

"Every little bit helps, if we continue to lose money each year we will close the business at some point"

"No tax liability during covid when we were shutdown. We continue to increase sales and are holding our prices without an increase in three years."

"We would have shut down without the tax credit."

"Again, we pay enormous amounts in fees and taxes , for a small business."

"It is one of many that impacts our business so can't say that it has an impact greater than other operating expenses. For sure, though, it has allowed us to be competitive."

"It helps but it is just $100-$200 per month. It would be bad to have to pay it and sales tax."

"Helps big time with cash-flow"

"We watch every dollar as we are not profitable yet. Any additional costs impact our bottom line"

"Reduce tax burden"

"The credit saves us money which helps in the long run, but our taxes would be low enough that we could have probably always remained in operation regardless of the tax, albeit as a more strained operation."

"According to 250K BBL being classified as a small brewery would make us microscopic. Though are contributions to the brewing industry, environment and agriculture are not."

"Surviving the closures during Covid was very difficult and every savings, including the tax credit, helped to keep us in operation."

"Operating a brewery is already very challenging with taxes at every corner. Having one less tax to pay has increased

our ability to reinvest in our business and build a second facility."

"Being able to save even a small amount of money is very helpful to our business"

"Not having this credit would create a new financial hurdle in an already tough economic environment."

"Extra cash to reinvest"

"In startup we are at heavy negative cash flows, even with low sales volumes it helps to avoid more negative flows."

"Any amount saved using a credit means that money can go toward other operational expenses, which assists in keeping the business in operation."

"Without the tax credit we would have to raise the prices of our locally made craft products and would not be able to be price competitive with the larger multinational brands that dominate the spirits market."

"too small to have an impact"

Question: "Do you have any general comments or concerns about the credit(s) or other aspects of your business that have impacted your business's growth or ability to remain in operation?"

"With ongoing rising costs and slower traffic, credits like this are what allow us to stay in business."

"Would be great if we could use the credits in other aspects of the business other than just bottles sold."

"Credits are a huge help. We already pay nearly 10 percent of sales annually on all combined taxes. Our local taxes continue to increase and so help from the State is much appreciated."

"SBA loan rate increases have been hard to navigate, as have increases in raw material costs"

"We appreciate the ability to apply for this monthly microdistillery credit!"

"Question 14 referenced the expiration of the tax credit but did not give an option to select that it would have a minor negative impact on our business"

"The tax credit I'm assuming this is the reprieve on the excise tax we get a break on for being a micro Distillery. If not, please send me information on any additional tax credit or small business grants"

"MN taxes are some of the highest in the nation. We need to work to reduce those burdens on small business and encourage small business growth to create jobs. Therefore tax credits should remain in effect. Also R&D tax credits need to be reimplemented."

"If the tax credit were to expire it would have a significant negative impact"

"Cider with added fruits needs realignment of it's tax structure. Change the "bubble tax" on cider and sparkling wine so these beverages can be more competitive in the marketplace without the heavy tax burden. Both State and Federal need this adjustment."

"I hope it doesn't go away."

"They are vital, we've lost many distilleries this year."

"Really like the tax credit. We are a small winery so we don't come close to using the whole amount each year."

"The tax credit has been very helpful these past 4 years. The credit has been helpful as we grow to not have to plan to pay increased taxes on that growth. We are unlikely to grow beyond 5,000 BBL annual production in the near future, so for us, the credit could be lowered from 250,000 barrels annually to 5,000 barrels annually with little impact to us. PLEASE

keep it at least for us very small breweries!!"

Question 14: "Answer would be Major Negative Impact. Question 16: Answer would be Negative profit (loss) for 2022 If the MN Distillers excise tax credits were to expire, we may not be able to remain in operations."

"Craft brewing as a whole is declining. If MN wants to keep small breweries viable they need to continue to support them and not take away already existing benefits."

"Nothing about credits, just parity in all other aspects between craft beverage industries"

"With growth there is a constant need to upgrade equipment a tax credit could help accomplish this faster."

"With the credits we are still operating in the negative. We have not made any profits and have invested personal $ into the business to keep us open."

"The tax credit is helpful; other regulatory reforms would also be helpful to modernize the 3-tier system in MN and eliminate some of the barriers that restrict direct to consumer access."

"I assume this is the credit applied for each month when completing the fermented malt beverage report. Every tax break helps. If we grow in distribution, the tax break really helps keep margins a bit better on packaged product."

"The credit is a major positive impact on a small brewery"

"This is an essential tax credit. Our taproom already pays over $100,000 in sales tax each year."

"If the credit were to expire, I would hurt our business"

"I was pleasantly surprised to learn of the credit"

"We are a sub 300 BBL brewery though we get lumped in with breweries making up to 250K BBLs per year, which doesn't make sense. We are thankful for any savings though credits such as these really help larger businesses only, not the small."

"Given the tax credit and zero liability we have every month it doesn't make sense that we would be required to file monthly tax statements to the state. Even the federal forms allow us to file quarterly. Further, the tax brackets (over 14 percent for the state but 16 percent for federal) and calculations (liters for the state vs gallons for federal make for some very complicated spread sheets."

"The tax credits add up over the year for a small micro brewery like ours. We are able to invest that back in the brewery in product or operations to keep the business afloat."

"This current economic environment is very tough. Every day is hard and cash flow is a

constant concern. I would implore the continuation (or expansion) of the tax credits. The big companies have so many advantages that small micro-distilleries will never have access to"

"Keep the credit it's a positive for the industry"

"The credits are very much needed as we continue through startup, with large losses in startup phase any savings of cash is very helpful to our business."

"The tax credit is a very beneficial thing for us as a small business. We are able to apply that money to expense categories most in need at any given time. One major concern in another aspect of our business would be the brewery laws and restrictions that hinder our ability to operate and leave breweries at an obvious disadvantage to distributors and liquor stores who have the heavier lobby at the Capitol (ie. Brewery off sale 4-pack restrictions of two 4-packs per person per day.)"

"Question #14 - Did not have a negative impact response option. If the credit were to expire it would have a very negative impact on our business and the entire craft spirits industry in MN. We have lost more local distilleries than have opened in the last 2 years."

"The paperwork currently required is onerous. In the First few years it was much easier to claim the credit now it's a big headache"

Question: "What are the barriers preventing you from claiming one of these credits?"

"*Unsure of the process"*

"Don't know how to claim credits"

"Too much paper work"

"never heard of it."

"We are new and unprofitable"

Appendix C - Minnesota Businesses' Survivability Calculations

Licensure data was obtained through the Minnesota Department of Public Safety Alcohol and Gambling Enforcement public access licensure database. Data was filtered for production licenses of each alcohol type. Two large manufacturers were removed from the data set after one was identified as a large producer above the eligibility threshold and another as a research and development lab, not a small business. Fifty-one entries were removed after being identified as duplicate firms under the same licensure type. There were 31 instances of firms holding manufacturing licenses for different alcohol types. In these cases, entries were merged into one business, with the license type associated with the earliest start date dictating the alcohol manufacturer category. This established survivability of the business as a firm, rather than separate establishments. The DPS licensee data captures licensure data from 2001 to September 2025, with the exception of two producers established in 1981 and 1986.

Figure 19 displays the survivability calculations for small alcohol producers in Minnesota. During the time period captured by the data, the average number of years a small alcohol producer stayed in business was 7.8 years. This survivability rate is on par with other private businesses in Minnesota.

Small alcohol producers in Minnesota tend to have a higher survivability rate than small alcohol producers from other states, as well as other private businesses from other states. This indicates that Minnesota’s market tends to foster businesses that have longer survivability than businesses in other states as a whole. This makes it difficult to determine if tax credits for small alcohol producers assisted them in having longer survival rates than similar businesses in other states, or if their survival is partially because they are situated within Minnesota. Alternatively, it could be an unknown combination of multiple factors.

Figure 20 displays the survival rates of all the small alcohol producers in the DPS licensee dataset. As indicated in the table below, 389 businesses were analyzed of the 399 total businesses in the dataset, removing businesses that began in 2025, to understand how many businesses survive at least one year, based on longevity of licensure. Based on licensure data, 99 percent of these businesses licensed prior to 2025 are assumed to survive one year or more. Ninety percent of businesses licensed five years ago or prior survive five years or more. Ninety-eight percent of businesses licensed over ten years ago have survived ten years or more. Ninety-two percent of businesses licensed 20 years ago or more have survived 20 years or more.

Figure 21 displays the survival rates for small alcohol producers that have closed and have an expired or cancelled license. Of the 123 businesses in the dataset that are now closed or have expired/canceled license, 98% survived at least one year. Eighty-three percent of businesses that opened five years ago or more and have since closed or

have an expired/cancelled license survived at least five years. Sixty-four percent businesses that opened 10 years ago or more and have closed or have an expired/cancelled license survived for at least 10 years.

Figure 19. Minnesota Small Alcohol Producers Survivability Calculations

Survivability Calculations	Years
Average Years Active	7.8
MIN	0.0
MAX	44.6
MODE	5.0
Average Survivability of Closed Businesses & Canceled/Expired Licensees	7.7

Note: 399 Total Businesses
Data Source: Data gathered from 2025 DPS licensee data

Figure 20. Survival Rates – All Licensees through 2024

Business Survivorship Threshold	Licensed Businesses	Surviving Businesses	Percent Surviving
1 year or more	389*	385	99
5 years or more	308	277	90
10 years or more	113	111	98
20-years or more	14	13	92

*399 Total Businesses in the database –10 businesses licensed in 2025 were removed from the sample
Data Source: 2025 DPS licensee data

Figure 21. Survival Rates – Closed Businesses and Cancelled/Expired Licensees

Business Survivorship Threshold	Licenses Businesses	Surviving Businesses	Percent Surviving
1 year or more	123	120**	98
5 years or more	108	90	83
10 years or more	39	25	64

**Producer licenses are issued for a period of one year. Three businesses listed under the cancelled or expired status were licensed for only year, so it is assumed that the business did not survive beyond the life of the license.
Data Source: Data gathered from 2025 DPS licensee data

Appendix D - Economic Impact Analysis

Model Background and Methodology

IMPLAN industry contribution analysis was used as the economic model in this evaluation. As already mentioned, the input data was from DOR's estimated forgone revenue generated by each respective credit. Estimated forgone revenue is the total dollar amount that the states would have received if the tax credits had been removed or had not been put in place. IMPLAN utilizes NAICS codes to categorize existing industries in the United States. The three industries analyzed were breweries, wineries, and distilleries. IMPLAN does not have a subsection of the brewery, winery, or distillery industry that isolates small businesses.[191] Therefore, the industry selection includes businesses at all production levels. For modeling purposes, the assumption is that the majority of operating wineries, breweries, and distilleries in Minnesota qualify for their respective credits based on statutory production eligibility thresholds, and the available IMPLAN industries are representative of the credit recipient population.

The DOR estimate of forgone revenue generated by each credit was inputted into IMPLAN for each industry: breweries, wineries, and microdistilleries. More specifically, the fiscal year 2025 forgone revenue estimate was $1.7 million for small brewers, $500,000 for microdistilleries, and $100,00 for wineries. Estimates of forgone revenue were taken from the 2024 Tax Expenditure Budget. See Figure 22 to reference the inputs used under the IMPLAN industry contribution analysis.

Figure 22. IMPLAN Input Table

Industry	Forgone Revenues	IMPLAN Industry Code
Small Brewers	$1,700,000	101
Microdistilleries	$500,000	103
Small Wineries	$100,00	102

Each credit's respective industry contribution data was then applied to Minnesota as separate events, and the model was run to understand the impact of the credits as a whole on Minnesota's economy. Each industry was added as a separate event within the model to ensure that industry buyback was reflected within the model. Industry buyback includes purchases made, for example, between a winery and a brewery.

[191] IMPLAN Industry Codes, "U.S. 528 Industries, Conversions & Bridges", IMPLAN, (2025): https://support.implan.com/hc/en-us/articles/30545246649115-U-S-528-Industries-Conversions-Bridges

IMPLAN then estimated impacts caused by the input estimates of forgone revenue for each industry impacted by the credits.

Further Results

Figure 23 displays the findings for the top 13 most impacted industries. Outside of the top 3 most impacted industries, the remaining impacted industries have an impact output that is less than 0.05 percent of their total respective industry output. Glass container manufacturing has an impact of 0.04 percent; rice milling and metal cans manufacturing are among the industries with minimal impacts at 0.01 percent, reflecting secondary connections to the production and supply chains of breweries, distilleries, and wineries. Other sectors, such as flour milling, crop farming, and paperboard container manufacturing, similarly demonstrate limited effects (less than 0.01 percent). Overall, these findings suggest that while the tax credits have targeted impacts on their intended industries, their influence on broader industry sectors remains minimal.

Figure 23: IMPLAN Top Impacted Industries

Impacted Industries - Rankings	Industry	Industry Total Output (in $ Millions)	Impact Output	Percentage of Total Industry Output
1	Breweries	$944	$1,700,154	0.18
2	Distilleries	$499	$500,775	0.10
3	Wineries	$163	$100,197	0.06
4	Glass container manufacturing	$85	$34,555	0.04
5	Rice milling	$11	$1,074	0.01
6	Metal cans manufacturing	$614	$60,351	0.01
7	Flour milling	$682	$57,774	0.01
8	All other crop farming	$54	$3,909	0.01
9	Wet corn milling	$581	$23,229	<0.01
10	Malt Manufacturing	$303	$11,393	<0.01
11	Fruit Farming	$42	$1,241	<0.01
12	Paperboard container manufacturing	$2,103	$42,173	<0.01
13	Wholesale – Other nondurable goods merchant wholesalers	$11,518	$152,893	<0.01

Data Source: IMPLAN 2024, authors' calculations

Limitations to Econometric Analysis

IMPLAN is an economic modeling software that estimates economic impact based on the inputted information, in this case, estimates of forgone revenue provided by the DOR. It is important to note that DOR estimates forgone revenue based on available information. There is no data collected on what qualifying small businesses choose to reinvest credit dollars towards, and as such, there is no available data to have an exact credit distribution allocation; rather, the model assumes a standard usage of dollars by industry based on historical industry data. Further, the economic impact is likely to be a higher bound as some of the $2.3 million will likely flow to other states.

Key Terms

The following definitions are key terms taken from IMPLAN's glossary resource and filtered here for relevance.[192]

Direct Effects: Attributable outputs that take place directly within the industry of interest.

Event: In IMPLAN, Events specify the economic transactions occurring in the local economy being analyzed, in terms of Type, Specification, and Value.

Indirect Effects: Economic Effects stemming from business-to-business purchases in the supply chain.

Induced Effects: Economic Effects stemming from household spending of Labor Income, after removal of taxes, savings, and commuter income.

Economic Impact Analysis: A type of applied economic analysis that tracks the interdependence among various producing and consuming sectors of an economy. More particularly, it measures the relationship between a given set of demands for final goods and services and the inputs required to satisfy those demands.

Industry Contribution Analysis (ICA): Is a method used to estimate the wider economic contribution of an existing Industry or group of Industries in a region, at their current levels of production. ICA shifts the traditional input-output framework to see what Industries, and what level of production in these Industries are being supported by current activity. ICA Events are distinct from Impact Events because they employ a constraint that removes feedback linkages or buybacks to the industry being analyzed. For example, if breweries and wineries were added to the same event within a model, the model would exclude any purchases between the two industries.

Output: For all Industries, output equals the value of production.

Value Added: The difference between an Industry's or establishment's total Output and the cost of its Intermediate Inputs; it is a measure of the contribution to GDP.

Labor Income: All forms of Employment income, including Employee Compensation (wages, salaries, and benefits) and Proprietor Income.

Employment: Employment in IMPLAN is an Industry-specific mix of full-time, part-time, and seasonal employment. It is an annual average that accounts for seasonality and follows the same definition used by the BLS and BEA. IMPLAN Employment is not

[192] IMPLAN References, "Glossary", IMPLAN, (2025): https://support.implan.com/hc/en-us/sections/16901820111003-Glossary?page=2#articles

equal to full-time equivalents (FTE). Includes wage and salary employment and proprietors.

Appendix I

Minnesota
Tax Expenditure Evaluation:
Lawful Gambling

Prepared for the Tax Expenditure Review Commission

by the Legislative Budget Office

December 10, 2025

Prepared by the Legislative Budget Office on behalf of the Tax Expenditure Review Commission.

For comments, questions, or concerns regarding this review please contact the Legislative Budget Office:

658 Cedar St.
Centennial Building, 1st floor
St. Paul, MN 55155

E-mail: lbo@lbo.mn.gov

Phone: 651-297-7146

Evaluation Team:

Annie Lemieux

Thomas Raney

Table of Contents

This page is left intentionally blank.

Executive Summary

The Tax Expenditure Review Commission is responsible for reviewing the effectiveness and efficiency of Minnesota's tax expenditure policies. The Tax Expenditure Review Commission has elected to review and evaluate the following tax expenditures:

- Minnesota's Bingo at Certain Organizations Exclusion
- Bingo at Fairs and Civic Celebrations Exclusion
- Infrequent Bingo Occasions Exclusion
- Smaller Raffles Exclusion
- Lawful Gambling Under Certain Conditions Exemption
- Credit for Certain Raffles

This report provides an assessment of the tax expenditures with consideration to the first eight components of tax expenditure review required under Minnesota Statutes 2024, section 3.8855, subdivision 5. The Commission may consider the findings of this report to recommend whether the tax expenditure be continued, repealed, or modified.

The Legislative Budget Office (LBO) evaluated the exclusions and exemptions based on their stated objectives of simplifying compliance and easing administrative burden. Each exclusion and exemption are likely achieving their stated objectives based on interviews with the Gambling Control Board (GCB). The Credit for Certain Raffles likely meets its objective by simply existing. Claimants of the credit must contribute the net proceeds exclusively to relieve the effects of poverty, homelessness, or physical or mental disability for an individual or family, thus achieving the objective of directing a higher amount of net raffle proceeds to such causes.

The LBO would like to extend its gratitude to the Minnesota Department of Revenue Tax Research Division and the Minnesota Gambling Control Board for their consultation, cooperation, and analysis in this evaluation.

Introduction

Minnesota Statutes 2024, section 349.166, allows organizations to conduct some lawful gambling activities under certain conditions without a license. Organizations that are excluded from licensing requirements are also exempt from lawful gambling taxes. The lawful gambling tax expenditures are outlined below, along with their estimates of annual claims, if available, and estimates of fiscal impact for fiscal year 2026. An analysis of four exclusions, one exemption, and one credit are included in this evaluation report.

This evaluation report references information found in the Minnesota Department of Revenue Tax Research Division 2024 Tax Expenditure Budget (TEB). The 2024 TEB does not reflect the language distinction between a lawful gambling exclusion and exemption and refers to TEB numbers 11.1.01-11.1.04 as lawful gambling exemptions. This evaluation report includes updated language distinguishing tax exemptions 11.1.01-11.1.04 as lawful gambling exclusions per Minnesota Statutes 2024, section 349.166, subdivision 1. Unless referencing specific tax expenditures, this evaluation refers to 11.1.01-11.1.04 as exclusions, 11.1.05 as an exemption, and 11.2.01 as a credit. Excluded gambling activity may be conducted without a permit, while exempt activity requires an organization to obtain a permit from the GCB. Evaluation methodology is located in Appendix A.

11.1.01 Bingo at Certain Organizations

An exclusion from the lawful gambling tax is allowed under Minnesota Statutes 2024, section 297E.02, subdivision 2, and section 349.166, subdivision 1(b), for bingo conducted within a nursing home or a senior citizen housing project or by a senior citizen organization if certain conditions are met. The prizes for a single bingo game cannot exceed $10, and total prizes awarded at a single bingo occasion cannot exceed $200.

This provision was enacted in 1985 and was last modified in 2015. No utilization estimates are available for this tax expenditure. The latest fiscal estimate of forgone revenue for fiscal year 2026 is less than $50,000.

11.1.02 Bingo at Fairs and Civic Celebrations

The lawful gambling tax is not imposed on bingo conducted by an organization in connection with a county fair, the state fair, or a civic celebration under Minnesota Statutes 2024, section 297E.02, subdivision 2, and section 349.166, subdivision 1(a)(1). To qualify, the bingo cannot be conducted for more than 12 consecutive days and no more than four applications can be applied for and approved in a calendar year.

This exclusion was enacted in 1984 and recodified in 1994. No utilization estimates are available for this tax expenditure. The latest fiscal estimate of forgone revenue for fiscal year 2026 is less than $50,000.

11.1.03 Infrequent Bingo Occasions

An exclusion from the lawful gambling tax is allowed under Minnesota Statues 2024, section 297E.02, subdivision 2, and section 349.166, subdivision 1(a)(2), for bingo conducted by an organization which conducts bingo on four or fewer days in a calendar year. This exclusion does not apply if the organization holds a lawful gambling license.

This exclusion was enacted in 1984 and last modified in 2006. No utilization estimates are available for this tax expenditure. The latest fiscal estimate of forgone revenue for fiscal year 2026 is $100,000.

11.1.04 Smaller Raffles

If the value of all raffle prizes awarded by an organization in a calendar year does not exceed $1,500, the raffles of that organization are excluded from the lawful gambling tax under Minnesota Statutes 2024, section 297E.02, subdivision 2, and section 349.166, subdivision 1(c). The exclusion also applies if the organization qualifies under Section 501(c)(3) of the Internal Revenue Code and the value of all raffle prizes awarded at one event in a calendar year does not exceed $5,000.

This provision was enacted in 1984. In 2003, the prize limit was increased from $750 to $1,500. The exemption limit of $5,000 for 501(c)(3) organizations was enacted in 2013. The latest fiscal estimate of forgone revenue for fiscal year 2026 is $300,000. An estimated 1,520 organizations are covered by this exemption.

11.1.05 Lawful Gambling Under Certain Conditions

All types of lawful gambling except linked bingo games are exempt from the lawful gambling taxes if certain conditions are met under Minnesota Statutes 2024, section 297E.02, subdivision 2, and section 349.166, subdivision 2. To qualify, an organization must conduct lawful gambling on no more than five days in a calendar year and cannot award more than $50,000 in prizes for lawful gambling in a calendar year.

This exemption was enacted in 1986. The latest fiscal estimate of forgone revenue for fiscal year 2026 is $2,900,000. Approximately 2,300 organizations qualify for this exemption.

11.2.01 Credit for Certain Raffles

An organization may claim a credit against the lawful gambling tax equal to the tax resulting from a raffle if the net proceeds have been used exclusively to relieve the effects of poverty, homelessness, or physical or mental disability for an individual or

family under Minnesota Statutes 2024, section 297E.02, subdivision 2a, and section 349.12, subdivision 25(a)(2).

This credit was enacted in 2000. The latest fiscal estimate of forgone revenue for fiscal year 2026 is less than $50,000. In fiscal year 2023, 25 organizations claimed this exemption.

Background

Basics

Minnesota's legal gambling environment includes charitable gambling, horse racing, the state lottery, and tribal casinos. The federal Indian Gaming Regulatory Act allows Indian tribes to conduct gambling allowed on Indian land.[193] Minnesota has 19 tribal casinos operating in the state.[194] The Minnesota Lottery started in 1990 and contributes to the General Fund, Game and Fish Fund, Natural Resources Fund, and Environment and Natural Resources Trust Fund.[195] Legal charitable gambling activities conducted by a licensed nonprofit organization include pull-tabs, bingo, paddlewheels, tipboards, and raffles.[196] The exclusions and exemption discussed in this evaluation are considered qualifying lawful gambling activities not subject to the lawful gambling tax. The credit discussed is considered a qualifying lawful gambling activity eligible to claim a credit against the lawful gambling tax as long as it meets the statutory requirements.

Three state agencies govern and regulate charitable gambling activities in Minnesota. The GCB is in charge of regulating charitable gambling conduct including approving equipment, issuing licenses, providing training and education, conducting compliance reviews and site inspections, and imposing penalties for any violations. Excluded gambling activity may be conducted without a permit issued by the GCB while exempt gambling activity requires an organization to obtain a permit and meet various exemption requirements. Additionally, the GCB receives licensee's financial reports, verifies gross receipts, prize payouts, expenses, and expenditures of net profits for lawful use. The Alcohol and Gambling Enforcement Division in the Department of Public Safety enforces charitable gambling laws and rules and acts as the primary investigation agency for any suspected violations. The Lawful Gambling Unit of the Special Taxes Division of the Department of Revenue is responsible for collecting and auditing all charitable gambling taxes and returns.[197]

The lawful gambling tax on non-linked bingo, raffles, and paddlewheels is 8.5 percent of net receipts (gross receipts excluding prizes paid out). This does not apply to linked bingo. Organizations conducting lawful gambling activities are subject to a combined net receipts tax on their net receipts after prizes from pull-tabs (paper and electronic), tipboards, and electronic linked bingo. The tax is imposed on the fiscal year combined

[193] Christopher Kleman , "Indian Gambling in Minnesota," House Research Short Subjects, September 2016, https://www.house.mn.gov/hrd/pubs/ss/ssindgamb.pdf.
[194] "FAQS," Minnesota Indian Gaming Association (MIGA), December 5, 2023, https://mnindiangamingassoc.com/faqs/.
[195] Christopher Kleman , "Charitable Gambling in Minnesota," House Research Information Briefs, November 2015, https://acrobat.adobe.com/id/urn:aaid:sc:VA6C2:59edd087-e4fa-499e-8691-f48984afc4aa
[196] Christopher Kleman , "Charitable Gambling in Minnesota," House Research Information Briefs, November 2015, https://acrobat.adobe.com/id/urn:aaid:sc:VA6C2:59edd087-e4fa-499e-8691-f48984afc4aa
[197] Christopher Kleman , "Charitable Gambling in Minnesota," House Research Information Briefs, November 2015, https://acrobat.adobe.com/id/urn:aaid:sc:VA6C2:59edd087-e4fa-499e-8691-f48984afc4aa

receipts of the organization according to the graduated rate schedule displayed in Figure 1. Worksheet E is utilized by organizations to calculate monthly net receipt tax liability.[198] Taxes paid the prior month are subtracted from the current month's tax liability. Organizations may fall into different categories throughout the year. Minnesota's gambling tax revenue as a share of state own-source general revenue was 0.5 percent in 2017, ranking 44th among all states.[199]

Figure 5. Net Receipt Lawful Gambling Graduated Rate Schedule

Fiscal Year Combined Net Receipts (in USD)	Tax Rate on Net Receipts
First $87,500	8.0%
$87,501-$122,500	17.0%
$122,501-$157,500	25.0%
More than $157,500	33.5%

The Minnesota GCB produces an annual report that includes an overview of allowable expenses, taxes and fees, as well as gross and net receipt trends for each fiscal year.[200] In 2024, the gross amount wagered by gambling participants, excluding prize payouts, was approximately $5 billion. Gross receipt amounts wagered in Minnesota have increased by $3 billion since fiscal year 2020. March 2025 gross receipts for lawful gambling in Minnesota were around $430 million with net receipts at $63 million. This is approximately a 3 percent decrease in net receipts from March 2024.

Figure 2 shows the receipts by game type in Minnesota for fiscal years 2023 and 2024 (FY 23 and FY 24). Pull-tabs account for 95 percent of all lawful gambling receipts and are included along with bingo, tipboards, paddlewheels, and raffles. Interest and other income refers to a section in the G1 Lawful Gambling Monthly Tax Return that asks for reported profit on interest and other income including advertising or sponsorship income.[201]

[198] "Worksheet E, Lawful Gambling Combined Net Receipts Tax," Minnesota Department of Revenue , accessed June 5, 2025, https://www.revenue.state.mn.us/sites/default/files/2023-11/worksheet-e-23.pdf.
[199] Lucy Dadayan, "Are States Betting on Sin? The Murky Future Of ...," Tax Policy Center Urban Institute & Brookings Institution , October 2019, https://www.urban.org/sites/default/files/publication/101132/are_states_betting_on_sin-the_murky_future_of_state_taxation.pdf.
[200] Minnesota Gambling Control Board, Annual Report Fiscal Year 2024. https://mn.gov/gcb/assets/GCB%202024%20Annual%20Report%20apr%2002%20meta_tcm1192-676777.pdf
[201] Minnesota Department of Revenue, G1 Lawful Gambling Monthly Tax Return https://www.revenue.state.mn.us/sites/default/files/2023-07/g1.pdf

Figure 6. Receipts by Game Type (in Thousands USD)

	Gross Receipts			Net Receipts		
	FY 24	FY 23	Change	FY 24	FY 23	Change
Paper Pull-tabs	$2,048,422	$2,041,725	0.3%	$288,600	$291,087	-0.9%
Electronic Pull-tabs	$2,671,659	$2,334,760	14.4%	$365,924	$321,414	13.8%
Paper Bingo	$88,063	$79,028	11.4%	$21,986	$19,688	11.7%
Electronic Bingo	$71,651	$63,765	12.4%	$15,085	$13,494	11.8%
Sports Tipboards	$3,558	$3,381	5.2%	$766	$729	5.1%
Non-sports Tipboards	$15,027	$14,651	2.6%	$3,870	$3,709	4.3%
Paddlewheel with Table	$2,597	$3,129	-17%	$318	$396	-19.7%
Paddlewheel without Table	$16,623	$15,446	7.6%	$5725	$5,365	6.7%
Raffles	$17,612	$16,031	9.9%	$9,369	$8,700	7.7%
Interest Income	$469	$296	58.4%	$469	$296	58.4%
Total	$4,935,681	$4,572,211	7.9%	$712,112	$664,879	7.1%

Data Source: Minnesota Gambling Control Board, Annual Report Fiscal Year 2024

Mechanics

Lawful gambling is allowed to be conducted by fraternal, religious, veterans, and other nonprofit organizations.[202] Eligible organizations must obtain a Minnesota license from the GCB that meets specific qualifications which include having at least 15 active members at the time of application, existing for three years prior to application, identifying a qualified gambling manager, and not existing for the sole purpose of conducting gambling.[203] The following gambling activities are excluded from state licensing and do not need a license to operate:

- County fair, state fair, or civic celebration bingo run by an organization for no more than 12 consecutive days. The sponsoring organizations cannot apply more than four times per calendar year, and this does not apply to linked bingo.
- Bingo hosted on four or fewer days in a calendar year run by an organization. This exclusion does not apply to linked bingo games.
- Bingo hosted in a nursing home, senior citizen housing project, or senior citizen organization if the prizes are less than $10, total prizes per event are less than $200, only members or guests of the hosting organization play, no

[202] Minnesota Statutes 2024 section 349.166, https://www.revisor.mn.gov/statutes/cite/349.166
[203] Minnesota Statutes 2024, Chapter 349 Lawful Gambling and Gambling Devices https://www.revisor.mn.gov/statutes/cite/349

one who runs the bingo event is compensated, and a manager is chosen to supervise bingo.

- Raffles run by an organization where raffle prizes are not more than $1,500 in a calendar year, or $5,000 in a calendar year if the facilitating organization is a 501(c)(3).

Excluded bingo still requires a permit from the GCB since they use gambling equipment in their activity and must receive an excluded permit from the GCB to do that. An excluded activity that is just a raffle does not require a permit from the GCB, but is limited to awarding $1500 in prizes over a calendar year. Neither activity requires any reporting of the activity results to the GCB. Registration with the GCB is required for the first two exclusions as is prior approval from the applicable local governing body. No prior approval is required for qualifying senior bingo or raffles.[204] An organization that conducts exempt lawful gambling activities must obtain a permit from the GCB prior to the event.[205]

Bingo, raffles, paddlewheels, tipboards, and pull-tab activities, excluding linked bingo, are exempted from state licensing requirements under a variety of conditions outlined in Appendix B. These conditions are captured within this evaluation in the analysis of 11.1.05 Lawful Gambling Under Certain Conditions.

[204] Minnesota Statutes 2024, Chapter 349 Lawful Gambling and Gambling Devices, https://www.revisor.mn.gov/statutes/cite/349
[205] Minnesota Statutes 2024, Chapter 349 Lawful Gambling and Gambling Devices, https://www.revisor.mn.gov/statutes/cite/349

Evaluation

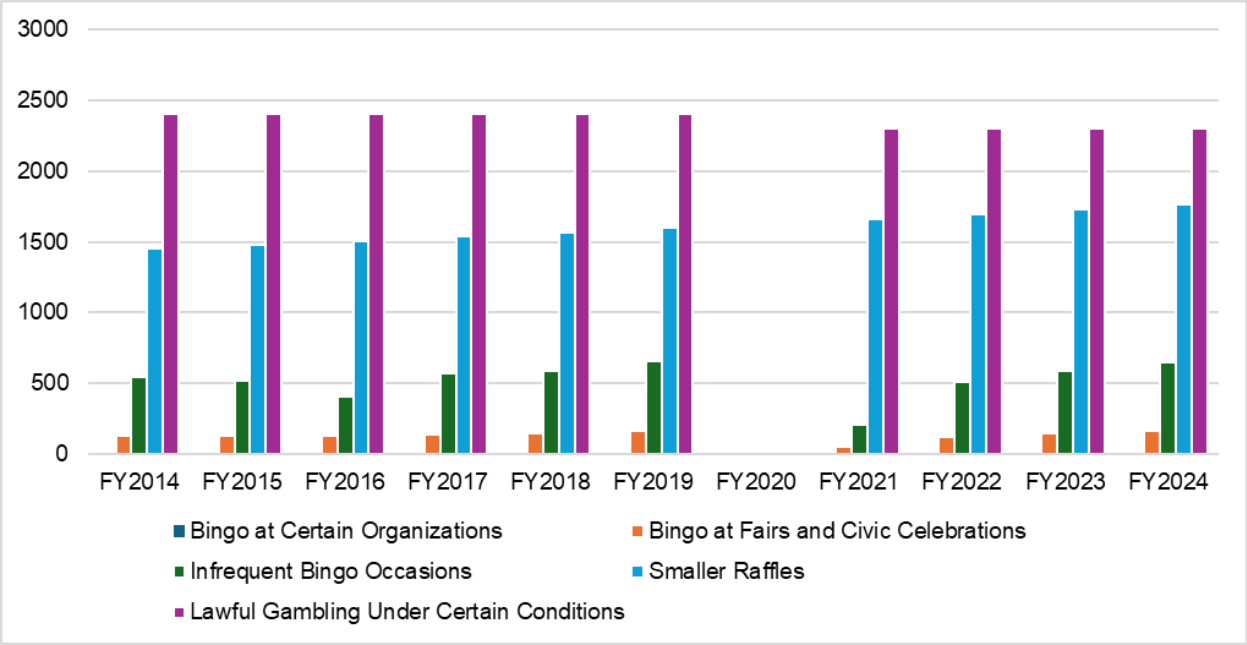
This section will provide an overview of the number of claimants and forgone revenue since fiscal year 2014, a discussion of administrative burden as it relates to the tax exemptions objectives, and various policy considerations. Based on the information presented in this section, the LBO concludes that all tax expenditures included in this evaluation meet their stated objectives.

Descriptive Statistics

Exclusions (11.1.01-11.1.04) and Exemption (11.1.05)

Figure 3 shows the number of claimants for each tax expenditure. The number of claimants for each tax expenditure has remained stable over the last decade, except for years during the Covid-19 pandemic. There is no claimant data reported for 2020. Additionally, there is no data reported for Bingo at Certain Organizations (TEB. 11.1.01) in any of the fiscal years included. The lowest total number of claimants for the included five tax expenditures is 4,233 in fiscal year 2021, and the highest was 4,886 in fiscal year 2024.

Figure 7. Number of Claimants, FY2014 - FY2024

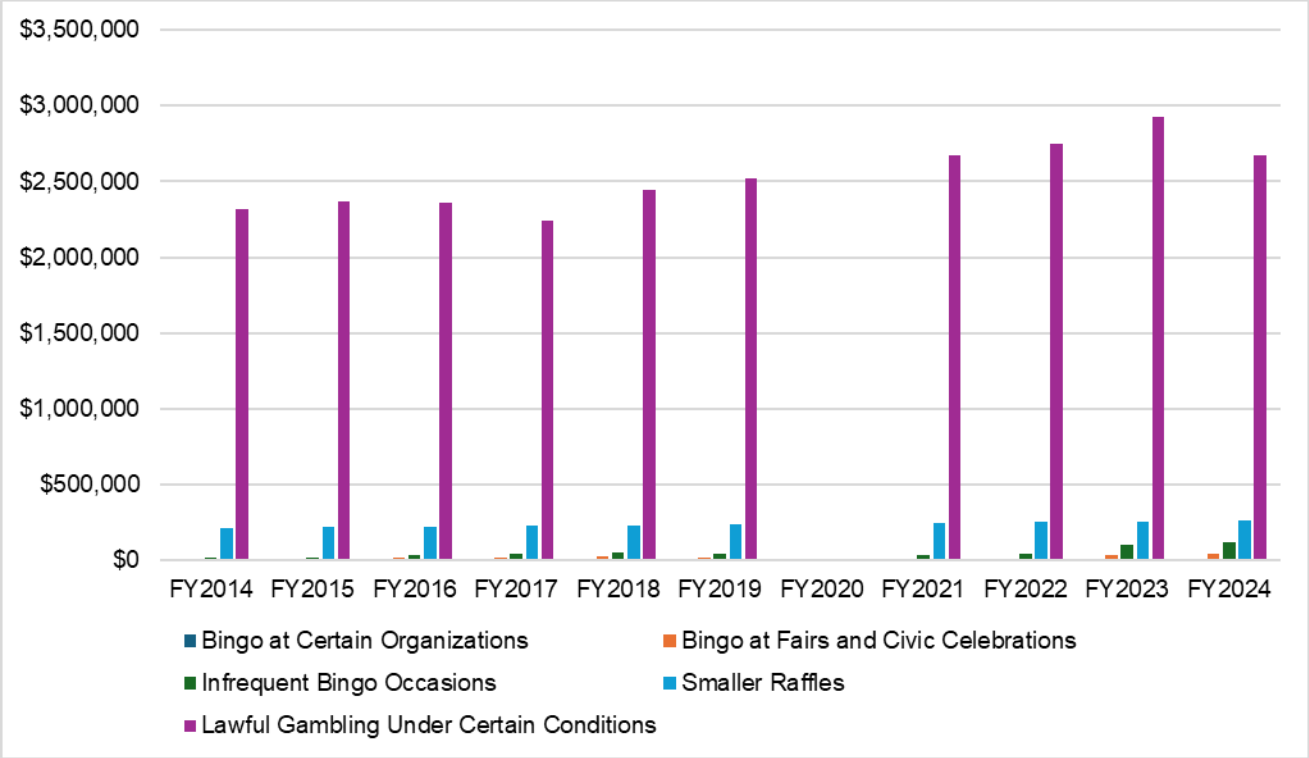


Data Source: DOR Tax Research

Figure 4 includes estimates of forgone revenue for each tax expenditure. As with the number of claimants per tax expenditure, the approximate totals have remained stable over the last decade. There are no approximate totals reported in 2020 or for Bingo at Certain Organizations (TEB. 11.1.01). The lowest total approximation for all five tax

expenditures was just over $2.5 million in fiscal year 2017, and the highest total was just over $3.1 million in fiscal year 2023.

Figure 8. Estimate of Forgone Revenue, FY2014 – FY2024



Data Source: DOR Tax Research

Credit (11.2.01)

The total amount of net raffle proceeds directed toward relieving the effects of poverty, homelessness, or disability was just under $245,000 in calendar year 2024. The values presented in Figure 5 are reported in DOR form Schedule ER Lawful Gambling Tax Credit for Exempt Raffles. Gross receipts for exempt raffles were just under $350,000, which is the total amount spent by those who participated in exempt raffles. Of that $350,000, roughly $100,000 was spent on prizes awarded. Just under $21,000 was awarded in tax credits to those who hosted these raffles.

Figure 9. Schedule ER, Lawful Gambling Tax Credit for Exempt Raffles, CY2024 Sum Totals

Line #	Line Title	Sum Totals
1	Gross receipts for exempt raffles	$347,137
2	prizes awarded for exempt raffles	$102,717
3	Net receipts (subtract line 2 from line 1; the result cannot be more than Form G1, line 2C)	$244,420
4	Exempt raffle tax credit (multiply line 3 by 8.5% [.085]). Also enter the result from G1, line 16	$20,778

Data Source: DOR Tax Research

Estimating the amount by which the tax rate for the relevant tax could be reduced if the revenue lost due to the tax expenditure were applied to a rate reduction

If the lawful gambling under certain conditions tax exemption were to be repealed, the lawful gambling tax could be reduced to 8.4 percent from 8.5 percent. The evaluated exclusions and credit both have a negligible revenue neutral rate.

The incidence of the tax expenditure and the effect of the expenditure on the incidence of the state's tax system

None of the tax expenditures included in this evaluation are considered to be significant tax expenditures as defined by DOR Tax Research, and are therefore excluded from the requirement for an incidence study as part of a tax expenditure evaluation per Minnesota Statute 3.8855.

Administrative Burden

A questionnaire was administered to the regulation manager of the GCB to better understand the administrative burden and process associated with lawful gambling in Minnesota and what it would look like to monitor currently exempted and excluded activities. While the DOR is responsible for enforcing tax compliance in the state, the GCB processes applications, reports, and provides outreach to organizations conducting lawful gambling activities.

The administrative burden for the GCB is relatively low given the current exclusions and exemption. The GCB is tasked with making sure organizations are qualified to gamble under chapter 349, making sure organizations are spending money and reporting properly, serving as a disciplinary arm when organizations violate laws and regulations, and hosting classes for organizations to ensure laws and regulations are followed. Since the specific gambling activities covered in this evaluation are tax excluded and exempt, many of these responsibilities are not required of the GCB.

If the exclusions and exemption were to be repealed, the GCB estimates that organizations would experience a yearly loss of 8-9 percent in revenue from currently exempt lawful gambling activities. This estimate assumes that taxes would be similar to those charged on fully licensed organizations. This also assumes that organizations would have to report activity results to the GCB, as well as the DOR, which would require additional administrative costs associated with reporting and record maintenance. Within the GCB, an estimate of an additional two FTE would be required if current activities were no longer excluded and exempt. This estimate assumes that unless the current exclusions were maintained, any organization conducting lawful gambling activities would be required to register and report activities to the GCB and DOR. GCB estimates that an additional 600 authorizations would result from a repeal of the exclusions and exemption. Figure 6 shows by tax expenditure, whether or not the GCB could reasonably enforce the discussed gambling activities if they were no longer excluded or exempt. Reasonably enforce is defined as the ability of the GCB to theoretically enforce the discussed gambling activities without a significant increase in administrative costs.

Figure 10. Enforcement of Lawful Gambling Activities But For Current Exemptions

Exemption	Reasonably Enforce	Notes
11.1.01 Bingo at Certain Organizations	Yes	Could reasonably enforce up to 90-95% through voluntary compliance.
11.1.02 Bingo at Fairs and Civic Celebrations	Yes	Could reasonably enforce up to 90-95% through voluntary compliance.
11.1.03 Infrequent Bingo Occasions	Yes	Could reasonably enforce up to 90-95% through voluntary compliance.
11.1.04 Smaller Raffles	No	No way to know who is partaking in smaller raffles as the permit is not issued by the GCB.
11.1.05 Lawful Gambling Under Certain Conditions	Yes	May require additional resources and costs to the GCB. If the change was taxing groups that make a certain amount, that would be easy. If it is taxing a type of group as opposed to another type of group such as taxing a Minnesota non-profit, but not a church or 501(c)(3) or veteran's group, that could be regulated by the GCB but would require additional documentation be obtained from organizations to determine their non-profit status.

Note: The contents of this table are taken directly from interviews with the GCB

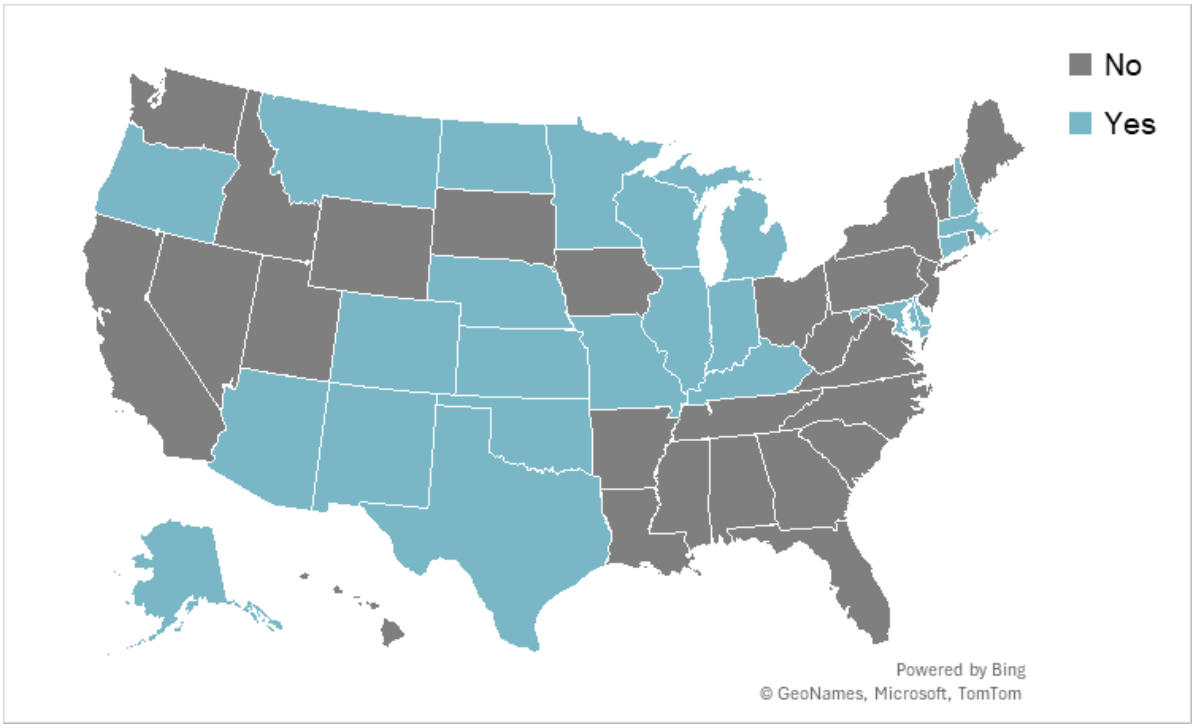
Federal and Other State Taxes

State-level taxation of bingo, raffles, and charity games varies in a multitude of ways. Twenty-one states impose an excise tax on gaming, wagering, and athletic events such as bingo, raffles, and charity games. Several states impose license fees in lieu of a tax. Of the 21 states that impose an excise tax, eight offer credit(s) for certain types of activities, three offer exemptions, and six offer both. The type of exemption or credit depends on the state. Eight states impose a tax and offer no form of tax expenditure.[206] Most of the tax expenditures target specific groups (i.e., charitable institutions) or certain types of gaming (i.e., bingo).

[206] Bloomberg Tax Research, accessed 5-15-2025.

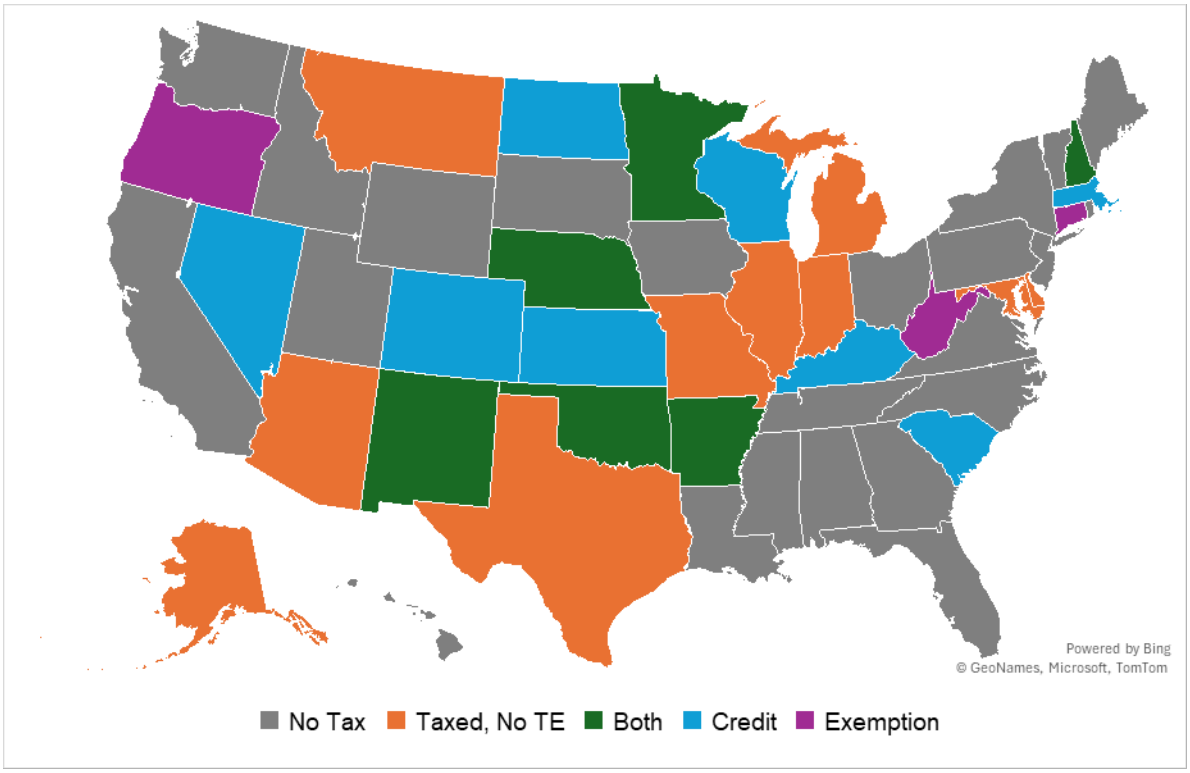
State-level and federal-level taxation does not capture the whole picture. For example, California does not impose an excise tax but does not prohibit local units of government ability to do so.[207] In a different case, Nevada does not impose taxes on qualified organizations conducting charitable bingos or raffles; however, bingos and raffles conducted by casinos (or other non-charitable organizations) are subject to tax. See Figure 7 for an overview of which states impose a gambling excise tax and Figure 8 for states that impose a tax and offer some type of tax expenditure.

Figure 11. Imposition of Gambling Excise Taxes



[207] Bloomberg Tax Research, accessed 5-15-2025.

Figure 12. Types of Tax Expenditures (TE)



The cumulative fiscal impacts of other state and federal taxes providing benefits to taxpayers for similar activities

Exclusions (11.1.01-11.1.04) and Exemption (11.1.05)

There were no other programs targeting lawful gambling in Minnesota available for taxpayers for similar activities identified. An environmental scan was conducted for programs that simplify compliance with and enforcement of lawful gambling and reduce administrative burden, but no other unique programs were identified.

Credit (11.2.01)

Two relevant programs were identified. At the federal level, an exempt organization "may deduct from its unrelated business taxable income the contributions and expenditures made from gaming proceeds as ordinary and necessary business expenses under section 162, if the organization was required to donate those proceeds to charity in order to retain its gaming license".[208]At the state level, exempt qualifying organizations may deduct gambling fund transfers on their Unrelated Business Income Tax return following specific guidelines. Organizations must be tax exempt 501(c)(3) or

[208] "Deductibility of Contributions from Gaming Proceeds as Section 162 Business Expenses for Calculation of Unrelated Business Taxable Income by an Exempt Organization," Internal Revenue Service, accessed September 23, 2025, https://www.irs.gov/charities-non-profits/deductibility-of-contributions-from-gaming-proceeds-as-section-162-business-expenses-for-calculation-of-unrelated-business-taxable-income-by-an-exempt-organization.

501(c)(4) festival organizations licensed to conduct lawful gambling.[209] No other programs were identified as targeting taxpayers for similar activities.

The Federal Government imposes an excise tax on state authorized and unauthorized wagers at a rate of 0.25 percent and 2 percent, respectively.[210] Several exemptions and one credit are available for different wagering activities. Parimutuel wagering, coin-operated devices, and state-conducted lotteries are all exempt from the federal excise tax.[211] A credit is allowed if a person overpays the tax imposed under section 4401.[212]

Comparing the effectiveness of the tax expenditure and a direct expenditure

Exclusions (11.1.01-11.1.04) and Exemption (11.1.05)

Upon conducting a review of other states, no other states have direct expenditures targeting any of the exempt or excluded populations for lawful gambling purposes. Additionally, upon conducting a review of other Minnesota direct expenditures, Minnesota does not have any direct payment programs targeting lawful gambling.

Credit (11.2.01)

The credit for certain raffles has the objective to direct a higher amount of net raffle proceeds to be used exclusively to relieve the effects of poverty, homelessness, or disability than would occur but for the credit. There are numerous direct expenditure programs that are aimed at relieving the effects of poverty, homelessness, or disability. However, most programs are not hosted through lawful gambling activities. The only comparable type of direct payment program identified was a charity sweepstakes targeted to relieve the effects of poverty, homelessness, or disability. These activities are available to any individual who chooses to participate for the chance to win some monetary valued prize with funds from entries going to a listed charity and must include a free method of entry.[213] As charity sweepstakes can be sponsored by any entity, there is no available data on the frequency or funds raised in Minnesota through this method of proceed donation.[214]

---

[209] "Deductibility of Gambling Fund Transfers," Deductibility of Gambling Fund Transfers | Minnesota Department of Revenue, December 11, 2024, https://www.revenue.state.mn.us/deductibility-gambling-fund-transfers.
[210] Internal Revenue Code, Subtitle D, Chapter 35, Subchapter A, Section 4401.
[211] Internal Revenue Code, Subtitle D, Chapter 35, Subchapter A, Section 4402.
[212] United States Code of Federal Regulations (CFR), Title 26, Chapter I, Subchapter D, Part 44, Subpart E section 44.6419-1. https://www.ecfr.gov/current/title-26/chapter-I/subchapter-D/part-44/subpart-E/section-44.6419-1
[213] Jessica Fox, "Charity Sweepstakes Drawings vs. Raffles-Which Is Better?," Eventgroove, May 6, 2025, https://www.eventgroove.com/blog/charity-sweepstakes-or-raffles-which-is-the-better-nonprofit-fundraiser/.
[214] Minnesota Statutes 2024, Section 609.75. https://www.revisor.mn.gov/statutes/cite/609.75

Conclusion

The four tax exclusions (11.1.01-.04), one tax exemption (11.1.05) and the Credit for Certain Raffles (11.2.02) all meet their stated objectives. Based on the interview with the GCB, the exemption and exclusions do reduce administrative burden at the agency. If the tax expenditures were to be repealed, and the GCB was required to enforce the tax on the currently exempt activities, they estimate an additional two FTE would be required to reasonably enforce the tax. The Credit for Certain Raffles likely meets its objective by simply existing. Claimants of the credit must contribute the net proceeds exclusively to relieve the effects of poverty, homelessness, or physical or mental disability for an individual or family, thus achieving the objective of directing a higher amount of net raffle proceeds to such causes. In light of these findings, no potential modifications to increase the tax expenditures efficiency or effectiveness were identified.

Appendix A. Methodology

Exclusions and Exemptions Methodology

The LBO requested summary filing data from DOR Tax Research documenting approximate claims for all exclusions and exemptions from 2014-2024. Additionally, the LBO reached out to the GCB for an interview to understand compliance with and enforcement of lawful gambling in the state and what enforcement would look like but for these exclusions and exemptions. Questions were intended to understand both the enforcement process and administrative burden associated with each exemption. Prior to the interview, the GCB was asked to respond to a questionnaire on administrative burden. The written responses were used to estimate the impact these tax expenditures have on reducing administrative burden and to help guide in-person interview questions.

Review of Summary Tax Filing Data and the Schedule ER Credit Form Methodology

The DOR Schedule ER, Lawful Gambling Tax Credit for Exempt Raffles form was reviewed to understand the credit calculation and qualifications. The LBO received summary data from DOR Tax Research documenting claims from Schedule ER, Lawful Gambling Tax Credit for Exempt Raffles for 2024. Data was separated into gross receipts for exempt raffles, prizes awarded for exempt raffles, net receipts, and the exempt raffle tax credit value by claim. The LBO further requested credit summary data dating back to 2014 to understand claims trends and summary statistics about gross and net receipts for exempt raffles. Claims data was then analyzed to understand trends in credit value claimed over time. It was presumed that the larger the claimed credit amount, the larger the value of exempt raffle proceeds going directly to the individual or family for the purpose of relieving the effects of poverty, homelessness, or physical or mental disability.

Appendix B. Exempted Lawful Gambling Conditions

- Lawful gambling, with the exception of linked bingo games, may be conducted by an organization without a license and without complying with Minnesota Statutes 2024, section 349.168, subdivisions 1 and 2; section 349.17, subdivision 4; section 349.18, subdivision 1; and section 349.19, if:
    - The organization conducts lawful gambling on five or fewer days in a calendar year.
    - The organization does not award more than $50,000 in prizes for lawful gambling in a calendar year.
    - The organization submits a board-prescribed application and pays a fee of $100 to the board for each gambling occasion and receives an exempt permit number from the board. If the application is postmarked or received less than 30 days before the gambling occasion, the fee is $150 for that application. The application must include the date and location of the occasion, the types of lawful gambling to be conducted, and the prizes to be awarded.
    - The organization notifies the local government unit 30 days before the lawful gambling occasion, or 60 days for an occasion held in a city of the first class.
    - The organization purchases all gambling equipment and supplies from a licensed distributor.
    - The organization reports to the board, on a single-page form prescribed by the board, within 30 days of each gambling occasion, the gross receipts, prizes, expenses, expenditures of net profits from the occasion, and the identification of the licensed distributor from whom all gambling equipment was purchased.
- No more than one organization exempted or excluded from licensing requirements may conduct an individual raffle.
    - Exempted or excluded organizations may not combine the use of raffle tickets.
    - Raffle tickets must not be attached to or combined with other exempted or excluded organizations' raffle tickets and must be sold separately from other exempted or excluded organizations' raffle tickets.
- If the organization fails to file a timely report as required by paragraph (a), clause (6), the board shall not issue any authorization, license, or permit to the organization to conduct lawful gambling on an exempt, excluded, or licensed basis until the report has been filed and the organization may be subject to penalty as determined by the board. The board may refuse to issue

any authorization, license, or permit if a report or application is determined to be incomplete or knowingly contains false or inaccurate information.

- Merchandise prizes must be valued at their fair market value.
- Organizations that qualify to conduct exempt raffles under paragraph (a) are exempt from Minnesota Statutes 2024, section 349.173(b)(2), if the raffle tickets are sold only in combination with an organization's membership or a ticket for an organization's membership dinner and are not included with any other raffle conducted under the exempt permit.
- Unused pull-tab and tipboard deals must be returned to the distributor within seven working days after the end of the lawful gambling occasion. The distributor must accept and pay a refund for all returns of unopened and undamaged deals returned under this paragraph.
- The organization must maintain all required records of exempt gambling activity for 3-1/2 years.

Appendix J

Minnesota Tax Expenditure Evaluation: Heating Fuel and Utility Service

Prepared for the Tax Expenditure Review Commission

By the Legislative Budget Office

November 28, 2025

Prepared by the Legislative Budget Office on behalf of the Tax Expenditure Review Commission.

For comments, questions, or concerns regarding this review, please contact the Legislative Budget Office:

658 Cedar St. Centennial Building, 1st floor, St. Paul, MN 55155

E-mail: lbo@lbo.mn.gov

Phone: 651-297-7146

Evaluation Team:

Vlad Fleurimond

Carlos Güereca

Jordan Peoples

Table of Contents

This page is left intentionally blank.

Introduction

Minnesota law exempts residential heating fuels, residential water services, and sewer services from the state's general sales and use tax. A unique exemption is established in statute for each utility type. Residential heating fuels include coal, wood, steam, hot water, propane gas, fuel oil, and liquified petroleum gas. Natural gas and electricity used as the primary sources of residential heat are exempt for only six months out of the year, from November to April.

These tax exemptions have a shared objective, as established by the Tax Expenditure Review Commission, which is "to lessen the effective tax burden of lower-income households and reduce the regressivity of the sales and use tax." This shared objective was approved and adopted by the Tax Expenditure Review Commission on August 16, 2024, for the purpose of evaluating the tax exemptions for residential heating fuels, residential water services, and sewer services.[215]

A regressive tax means that as an individual's income increases, the proportion of taxes paid in comparison to income decreases. In other words, low-income earners in Minnesota pay a higher share of their income to sales and use tax than higher-income earners do.

These tax expenditures reduce the tax burden and regressivity of sales and use taxes as lower-income households experience larger savings as a proportion of their income. This evaluation seeks to understand the degree to which these tax expenditures meet that objective for Minnesota households. Figure 7 within the report speaks to the impact these tax exemptions have on the regressivity of the sales and use tax. Figure 8 gives insights into the cumulative impact the three tax exemptions have on household tax burden.

To make that determination, this evaluation consists of an analysis of estimated forgone revenues, the incidence of the forgone revenues by population deciles, and the magnitude of these exemptions in comparison to the sales tax burden of the state.

In addition, the evaluation provides background material on the regressive nature of sales and use tax, insight into which Minnesotans are disproportionately affected by regressive tax policy, and an overview of Minnesota's utility usage and utility price burden compared to other states.

An estimate of the cumulative fiscal impact of other Minnesota and federal policies aimed at addressing the same activities is provided, along with a comparison of similar tax policies in other states across the U.S.

[215] Tax Expenditure Review Commission Meeting. August 16th, 2024. https://www.lbo.mn.gov/TERC/meetings/2024/09_18_2024/(R)TERCDraftMinutes_08_16_2024.pdf.

Background

The sales tax exemption on residential heating fuels, residential water services, and sewer services applies to all Minnesota households. Sewer services are also exempt for businesses. This exemption is analyzed from the perspective of households for this evaluation. Consumption of these utilities by Minnesota households is exempt regardless of volume, location, household income, or any other qualifying characteristic. That applies to over 2.5 million households in 2024.[216] The estimated value of these exemptions is calculated and reported by the Department of Revenue Tax Research Division as forgone revenue. The latest estimates of forgone revenue are provided for each tax exemption for Fiscal Years 2024 through 2027 in Figure 1. An analysis of forgone revenue figures is provided in the Analysis section of this report.

Figure 13. 2024 Tax Expenditure Budget Forgone Revenue Estimates

Fiscal Year	2024	2025	2026	2027
Residential Heating Fuels	$187,900,000	$189,700,000	$199,100,000	$204,600,000
Residential Water Services	$25,500,000	$27,200,000	$28,900,000	$30,700,000
Sewer Services	$107,300,000	$111,600,000	$116,100,000	$120,800,000

Source: 2024 Department of Revenue Tax Expenditure Budget

The administration of these tax exemptions is relatively straightforward. A state sales tax is simply not charged, collected, or remitted to the state. A review of utility bills from six municipalities across the state are consistent in the charges they reflect for residential water and sewer services.[217] Generally, municipal utility bills include a flat service charge and a utilization charge commensurate with a tiered utility rate schedule. No line items are displayed for a sales and use tax charge. Alternatively, electricity and natural gas utility providers operating in the state do itemize sales tax separately from fixed and metered charges. This speaks to the transparency of the application of the sales tax exemptions.

Analysis

The analysis of the tax exemptions for residential heating fuels, residential water services, and sewer services includes an analysis of forgone revenue estimates, tax incidence, and a comparison of these tax expenditures to the sales tax burden of the state as a whole.

All Minnesotans benefit from these tax exemptions to a different degree depending on which population decile a household falls within.[218] In 2024, on average, across all population deciles, Minnesota households saved roughly $109 due to these three tax exemptions. The average

[216] Minnesota State Demographic Center. Historical Estimates of Minnesota and its cities' and townships' population and households, 2000-2024. Accessed on August 4, 2025. https://mn.gov/admin/demography/data-by-topic/population-data/our-estimates/

[217] Sample bills and rate sheets referenced on municipality utility webpages include the cities of Detroit Lakes, Duluth, Ely, Farmington, Minneapolis, and St. Paul.

[218] Population deciles take all of Minnesota's households and divide them into ten equal segments, with the first decile including the ten percent of households with the lowest income and the tenth percentile including the ten percent of households with the highest levels of income. Income includes all cash income, nontaxable social security, interest, pension income, nontaxable worker's compensation, and cash assistance payments from the Minnesota Family Investment Program.

savings for households in the first six deciles (household income under $73,668) was $80.83, and the average savings for households in the seventh through tenth deciles (household income above $73,668) was $151.70. This indicates that higher-earning households benefit more from these tax exemptions than households earning less. Each analysis is described in further detail in the following sections.

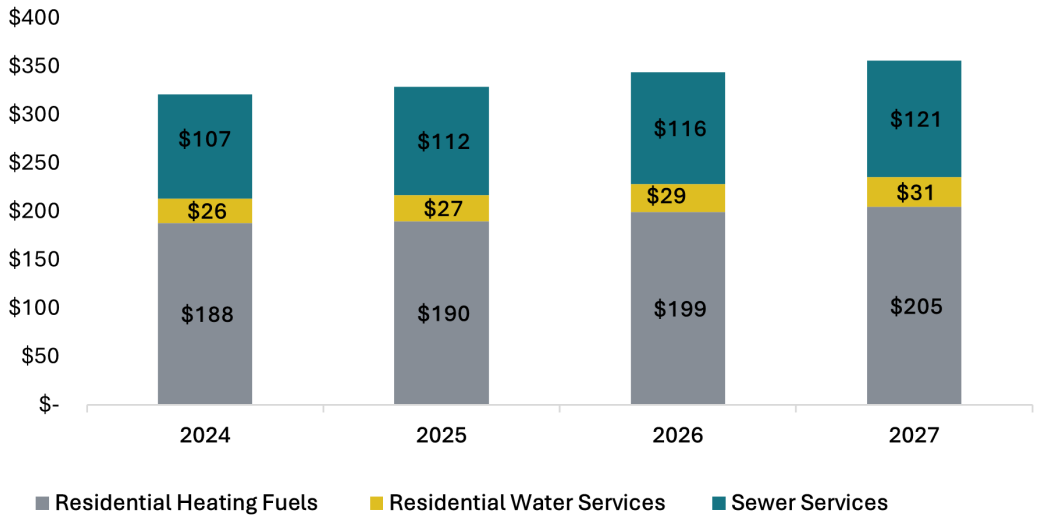
Analysis of Forgone Revenue Estimates

The forgone revenue estimates were evaluated individually and cumulatively to understand the benefits Minnesotans receive from these tax exemptions. Estimates are provided by the DOR Tax Research Division on a fiscal year basis from July 1 through June 30 of the following year. Estimates are driven by consumption projections from the Energy Information Administration and an energy price index provided by S&P Global Market Intelligence. A clear takeaway from the estimates of forgone revenue is anticipated growth in the cost of these tax expenditures.

The residential heating fuels sales tax exemption accounts for roughly 58 percent of the cumulative total, exemptions for sewer services account for 34 percent of the cumulative total, and exemptions for residential water services account for 8 percent of the cumulative total. This is the breakdown for Fiscal Year 2024, but these general proportions hold for each fiscal year ranging from Fiscal Year 2024 to Fiscal Year 2027. Overall, the analysis indicates that all three of these tax expenditures have anticipated growth for the foreseeable future. Figure 2 displays the magnitude of each tax exemption from Fiscal Years 2024 to 2027.

Between Fiscal Year 2024 through Fiscal Year 2027, forgone revenue for the exemption on residential heating fuels is estimated to grow by three percent, on average, year-over-year. Over the same time frame, the forgone revenue for the exemption on residential water services is estimated to grow by an average of over six percent year-over-year, and the estimates for sewer services grow by an average of four percent year-over-year.

Figure 2: Fiscal Impact of Residential Heating Fuels, Residential Water Services, and Sewer Services, Fiscal Years 2024 – 2027 (in millions).



Source: Department of Revenue 2024 Tax Expenditure Budget

Based on the DOR Tax Research Division estimates, these three exemptions equate to over $1.3 billion cumulatively in forgone revenue for the state of Minnesota from Fiscal Year 2024 to Fiscal Year 2027. That is equal to an 11 percent increase in estimated forgone revenue from the baseline Fiscal Year 2024 to Fiscal Year 2027. Consumer demand for utilities is expected to rise, but costs for utilities are the main driver of estimates.[219]

Impact to Minnesota's Tax Structure - Tax Incidence

To better understand how these tax expenditures impact Minnesota households, an analysis by population decile was performed on tax incidence data from 2021. This analysis provides insight into how different households benefit at different levels from these tax expenditures. In turn, the distribution of tax savings by population decile can be used to inform findings about tax incidence; in other words, who ends up benefiting and who ends up paying the burden of a sales tax.

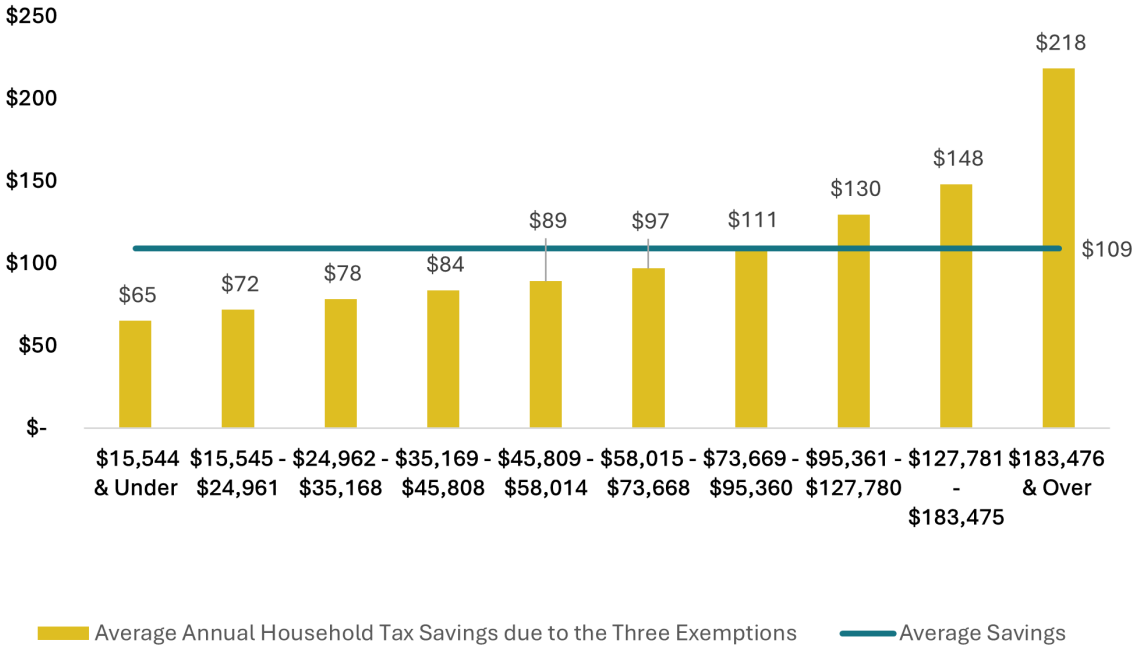
As described, ten population segments referred to as deciles were created, each containing approximately 293,739 households. Households in the first decile, those with annual incomes less than $15,544, received $65 on average in tax savings from the three sales tax exemptions in 2024, based on the effective sales tax rate of 2021. Households in the tenth decile, those with annual income over $183,476, received $218 on average in tax savings from all three tax expenditures. Households in the tenth decile received approximately 235% more in tax savings

[219] Department of Revenue Tax Research Division, Email communication. December 2, 2025.

from these tax exemptions than households in the first decile. The distribution of tax savings by population decile speaks to utilization differences across different levels of income.

The 293,739 households in the tenth decile utilized higher levels of residential heating fuels, residential water services, and sewer services than the same number of households in each of the preceding nine deciles. A gradual upward trend in tax savings is observed starting at the first decile through the ninth decile, then a bigger jump from the ninth decile to the tenth decile. Figure 3 visualizes this trend, displaying the estimated average annual tax savings per household from the three tax exemptions by population decile. The average tax savings from the three tax exemptions was $109 across all deciles in 2024. The overall average is also plotted on Figure 3 to illustrate how different population deciles fare in terms of tax savings.

Figure 3: Estimated Average Annual Household Combined Tax Savings for Fiscal Year 2024 from the Tax Exemptions for Residential Heating Fuels, Residential Water Services, and Sewer Services by Population Decile



Note: Tax savings estimates for Fiscal Year 2024
Source: Department of Revenue 2024 Tax Expenditure Budget; 2024 Tax Incidence Study

Below, Figure 4 displays the cumulative incidence analysis for the tax exemptions on residential heating fuels, residential water services, and sewer services, as well as the average annual household tax savings due to these tax expenditures. The first six deciles have an average estimated annual tax savings below the average household tax savings of $109 in 2024. The last four deciles have an average estimated annual tax savings above the average household tax savings in 2024. Keep in mind the estimates for the exemption of sewer services does include exemptions provides to businesses, not just households, which explains some of the higher use in the top decile.

Figure 4: Cumulative Incidence Analysis and Average Household Tax Savings in Fiscal Year 2024 for the Residential Heating Fuels, Residential Water Services, and Sewer Services Tax Exemptions

Resident by Population Decile:	Sales and Use Tax:	Cumulative Tax Change:	Cumulative Share of Tax Change:	Combined Average Annual Household Tax Savings:
$15,544 & Under	$275,989,456	$19,134,697	6.0%	$65
$15,545 - $24,961	$321,365,571	$21,091,126	6.6%	$72
$24,962 - $35,168	$369,752,647	$22,993,551	7.2%	$78
$35,169 - $45,808	$417,394,917	$24,583,668	7.7%	$84
$45,809 - $58,014	$465,046,347	$26,189,633	8.2%	$89
$58,015 - $73,668	$526,644,412	$28,464,402	8.9%	$97
$73,669 - $95,360	$641,957,246	$32,543,613	10.2%	$111
$95,361 - $127,780	$802,412,748	$35,782,451	11.2%	$130
$127,781 - $183,475	$988,123,559	$43,489,878	13.7%	$148
$183,476 & Over	$2,041,065,136	$64,131,400	20.1%	$218
Non-Residents	$1,605,124,031	$0	0.0%	
All	**$8,454,876,070**	**$318,404,419**	**100.0%**	**$109**

Note: Each Population Decile contains 293,739 households

Source: Department of Revenue 2024 Tax Expenditure Budget; 2024 Tax Incidence Study

Revenue-Neutral Tax Rate Reduction

The revenue-neutral tax rate reduction estimate indicates the level a tax rate could be reduced to if a particular tax expenditure was repealed and the tax base was expanded to collect the same level of revenue. DOR Tax Research calculated a revenue-neutral tax rate for each of the three tax expenditures, as displayed in Figure 5. DOR calculations for each tax expenditure are done in isolation from one another. The current sales and use tax rate in Minnesota is 6.875%.

Figure 5: Revenue-Neutral Sales and Use Tax Rates with Repeal of Tax Expenditures

Tax Expenditure	Current Sales and Use Tax Rate	Revenue Neutral Tax Rate	Percentage Point Decrease
Residential Heating Fuels	6.875%	6.726%	0.145
Residential Water Services	6.875%	6.854%	0.025
Sewer Services	6.875%	6.789%	0.085

Source: Department of Revenue 2024 Tax Expenditure Budget

Cumulative Fiscal Impacts of Other Minnesota and Federal Programs

There are additional overlapping local, state, and federal incentives that try to work towards the same objective as the tax exemptions for the essential services of residential heating fuels, residential water services, and sewer services. Four federally funded programs were identified that assist community members with covering the costs of essential utility services. Three of these programs are the Energy Assistance Program (EAP), the Weatherization Assistance Program, and the Low-Income Households Water Assistance Program (LIHWAP), which are all funded by the U.S. Department of Health and Human Services and administered by the Minnesota Department of Commerce Energy and Utilities Division. The fourth program is the Minnesota Family Investment Program (MFIP), which is funded through the Temporary Assistance for Needy Families (TANF) federal block grant, the Supplemental Nutrition Assistance Program, and state appropriations. This program is administered by the Minnesota Department of Children, Youth, and Families.

The EAP is supported by the federal grant as part of the Low-Income Home Energy Assistance Program.[220] Beneficiaries of this program (who meet certain eligibility criteria) receive payments that go directly to the household's energy company or their provider of propane, fuel oil, or wood. From October 2023 to the end of September 2024, the Department of Commerce awarded $95,922,054 to households across Minnesota. These funds impacted 129,837 households during that program year, with an average of $740 in assistance per household. Furthermore, this assistance helped prevent 42,833 different electricity disconnections due to non-payment.[221]

The Weatherization Assistance Program collaborates closely with the EAP, with the overarching goal of helping low-income Minnesotans permanently reduce their energy bills.[222] This program has eligibility criteria based on income and household size. The program provides home energy upgrades, such as exterior wall and attic insulation, air leakage reduction, furnace, boiler, and water heater repairs and replacement, in an effort to help reduce a household's energy use. Weatherization services can help reduce a household's annual energy costs by up to 40

[220] Energy Assistance Program, "The Energy Assistance Program helps pay energy bills for eligible Minnesotans", Minnesota Department of Commerce, (2025): https://mn.gov/commerce/energy/consumer-assistance/energy-assistance-program/
[221] Energy Assistance Program Dashboard, "10/1/23 – 9/30/24 Historical Program Data", Minnesota Department of Commerce Energy & Utilities, (2024): https://mn.gov/commerce/energy/policy-data-reports/energy-assistance-dashboard/
[222] Weatherization Assistance Program, "Energy Upgrades", Minnesota Department of Commerce, (2025): https://mn.gov/commerce/energy/consumer-assistance/wap/

percent. Dating back to 2005, 60,826 households have received weatherization assistance from this program, with an average one-time investment of $8,497 per household.[223] From July 1st, 2021, to June 30th, 2022, the Weatherization Assistance Program provided $16,145,162 in assistance funds to 4,122 different households.[224] The program is administered by 22 local service providers statewide and utilizes over 300 different local contractors to perform the weatherization work.

The LIHWAP is administered through different county services across the state to provide eligible recipients with one-time payments up to $2,000 to help reduce their water or wastewater charges.[225] In Fiscal Year 2022, $6,169,353 was utilized to assist 11,550 different households in the state of Minnesota through this program. This financial assistance helped prevent 4,668 water disconnections and helped restore water services to 607 different homes. The average benefit was just under $340 dollars per participant.[226]

In Fiscal Year 2023, MFIP had $157.6 million dollars in expenditures on the cash-assistance and housing assistance portions of program,[227]with 66,671 households, on average per month, in Minnesota receiving some form of assistance.[228] MFIP is designed to provide income assistance for eligible low-income families through cash assistance, food assistance, housing assistance, training, and employment services with funding from state and federal resources. The cash assistance portion of the program is to be used for “basic needs” of the household, which include utility service charges. To receive this assistance, MFIP has eligibility requirements related to income and asset limits. The cash assistance portion of this program is awarded to households once a month based on the number of people living in the household. More recent figures on the cash assistance portion of MFIP show that in the month of September 2025, 21,276 families were enrolled in the program with an average cash grant of $545.[229]

Outside of these federally funded programs, the state of Minnesota has some additional protections for households struggling with utility payments. Households are protected from service shut-off due to non-payment from October 1st to April 30th.[230] This is known as the “Cold

---

[223] Minnesota’s Low-Income Weatherization Assistance Program, “A one-Time Quality Investment”, Minnesota Department of Commerce, (2025): Data Provided by Justin Lindall – MN Dept of Commerce, Weatherization Field Monitor

[224] Weatherization Program All Cost Center Totals/All Events, “Total All Funds”, Minnesota Department of Commerce, (2025): Data Provided by Justin Lindall – MN Dept of Commerce, Weatherization Field Monitor

[225] Low Income Household Water Assistance Program, “Minnesota Department of Commerce LIHWAP Water Bill Pay Assistance”, LIHWAP, (2025): https://www.lihwap.us/state/minnesota

[226] Low-Income Household Water Assistance Program LIHWAP, “How Federal Aid for High Water Costs Helps Struggling Families”, Administration for Children and Families, (2022): https://acf.gov/sites/default/files/documents/ocs/COMM_LIHWAP_Minnesota%20Fact%20Sheet_FY2022.pdf

[227] The MFIP program also receives funding from the federal Supplemental Assistance Nutrition Program, estimated at $154,792,105 for Fiscal Year 2023.

[228] Minnesota Family Investment Program, “What are MFIP’s funding streams and expenditures?”, MN House Research (2025): https://www.house.mn.gov/hrd/pubs/pap_mfip.pdf

[229] Minnesota Department of Children Youth and Families. MFIP Monthly Report Dashboard. Accessed November 28, 2025. https://mn.gov/dhs/partners-and-providers/news-initiatives-reports-workgroups/economic-supports-cash-food/

[230] Cold Weather Rule; Public Utility, “2024 Minnesota Statutes”, Office of the Revisor of Statutes; https://www.revisor.mn.gov/statutes/cite/216B.096

Weather Rule" (CWR). All natural gas and electric utility providers in Minnesota must offer CWR protection. There is also the "Extreme Heat Law" that protects customers from utility shut-off when the National Weather Service issues an excessive heat watch, heat advisory, or excessive heat warning.[231] When customers utilize either of these shut-off protections, they must make and follow a fair payment plan that is agreed upon with their utility provider.[232]

On top of these household protection laws, some utility providers in Minnesota offer additional assistance programs for community members. *Xcel Energy*, the state's largest utility company, offers a "Senior Discount Program" that provides $15 each billing period to income-qualified customers over the age of 62. *Xcel Energy* also promotes the "Heat Share" program that is administered by the *Salvation Army* – the goal of this program is to help those in need survive long winters by providing funds for heating bills and heating-related repairs.[233] *Minnesota Power* offers income-based assistance called the "Customer Affordability of Residential Electricity" (CARE) program, which provides discounts to eligible customers who are already receiving assistance from the Energy Assistance Program.

For visualization purposes, the four public direct expenditure programs described above are tabulated in Figure 6. The expenditure estimates are not totaled as program information is available for different fiscal years.

Figure 6. Comparable Direct Expenditure Programs

Alternative Direct Expenditure Programs	Program Expenditures	Number Households Impacted	Data Year
EAP	$95,922,054	129,837	*FFY 2024
MFIP[234]	$313,191,770	66,671	**FY 2023
LIHWAP	$6,169,353	11,550	FY 2022
Weatherization Assistance Program	$16,145,162	4,122	FY 2022

*FFY represents a federal fiscal year spanning October 1 to September 30
**FY represents a state fiscal year spanning July 1 to June 30

Comparison to a Direct Expenditure Program

The four public direct expenditure programs described in the section above represent variations in the program design of a direct payment alternative to these tax exemptions. These programs can be tied to income thresholds, job requirements, limited grant funding, or require the

[231] Disconnection During Extreme Heat Conditions, "2024 Minnesota Statutes", Office of the Revisor of Statutes; https://www.revisor.mn.gov/statutes/cite/216B.0975
[232] Shut off Protection Year Round, "The Cold Weather Rule and the Extreme Heat Weather Rule", Minnesota Public Utilities Commission, (2025); https://mn.gov/puc/consumers/shut-off-protection/
[233] Xcel Energy Assistance Programs, "Senior Discount Program and HeatShare", (2025); https://mn.my.xcelenergy.com/s/billing-payment/energy-assistance/state-resources
[234] Expenditure estimate includes TANF expenditures of $90,606,466; State of Minnesota General Fund expenditures of $67,793,199; and Supplemental Nutrition Assistance Program expenditures of $154,792,105. Estimate of households represents participation of all MFIP benefits; however, families can choose to opt out of cash assistance benefits. Some households may only receive employment services, food assistance, child care assistance, or a combination of these.

beneficiary to opt-in. These characteristics can result in a smaller count of total beneficiaries, but the benefit per beneficiary tends to be higher. In contrast, the tax expenditures covered under this evaluation apply to all Minnesota residents without limit to consumption or funding, and provide a lower benefit per beneficiary. Ultimately, program design should consider the intended outcome of a policy. If behavior change is desired, perhaps a direct payment program with a larger benefit per beneficiary would incentivize participation, which could ultimately lead to behavior change. If the goal of the policy is to provide a larger societal benefit accessible to all Minnesotans, then a tax exemption may be the most efficient design from an administrative perspective. Policymakers should consider the advantages and disadvantages in program design to meet their ultimate policy goal.

Regressivity of Sales and Use Tax

The sales and use tax is a regressive tax, meaning that the cost of the tax reduces as a proportion of income as income increases. This is a result of the fact that the sales and use tax rate is a flat rate applied to the price of the item or service being purchased. The sales and use tax rate in Minnesota is 6.875%. This rate is paid by all purchasers of the specific good, unless the good or service is explicitly exempt from taxation.[235]

On top of the general state sales and use tax, the DOR also administers many local sales and use taxes. These local sales and use taxes apply to the same items and services as the general sales and use tax; the local sales tax rate is then added to the state general sales and use tax rate of 6.875%. Depending on the county or city a good or service is purchased in, an additional 0.5% to 3% is added to the general sales and use tax.

DOR Tax Research Division publishes an Incidence Study, which is a report that highlights how Minnesota's tax structure impacts households and businesses in the state. The Incidence Study provides a Suits Index for a sample of state and local sales taxes together, indicating whether the tax category is regressive or progressive. The Suits Index is displayed by a numerical range from -1 to +1. A proportional tax has a Suits Index equal to zero, a progressive tax has a positive index number between 0 and +1, and a regressive tax has a negative index number between 0 and -1.[236] The latest Incidence Study in 2024 provided a Suits Index of -0.221 for state and local sales taxes, indicating that state and local sales taxes tend to be regressive.[237] In other words, low-income earners in Minnesota pay a higher share of their income to sales and use tax than higher-income earners do. These tax exemptions are designed to address the regressive nature of the sales and use tax. If any of these tax exemptions were repealed, the regressive nature of the sales and use tax would increase. Figure 7 displays the hypothetical Suits Index for the sales and use tax if these expenditures were repealed individually and cumulatively.

---

[235] Minnesota Statutes 2024, section 297A.62, subdivision 1 and 1a.

[236] 2024 Tax Incidence Study, "Tax Progressivity and the Suits Index", Department of Revenue Tax Research Division, (2024): https://www.revenue.state.mn.us/sites/default/files/2024-03/2024-tax-incidence-study-final-online-revision_0.pdf

[237] Department of Revenue Tax Research Division. 2024 Minnesota Tax Incidence Study. Table 1-3. Page 11. Available at https://www.revenue.state.mn.us/sites/default/files/2024-03/2024-tax-incidence-study-final-online-revision_0.pdf

Figure 7. Suits Index if Tax Expenditures are Repealed

Tax Expenditure	Suits Index
Residential Heating Fuels	-0.232
Residential Water Services	-0.227
Sewer Services	-0.227
All Three Utility Tax Expenditures	-0.234

Source: Department of Revenue Tax Research Division, November 2025.

Another way to analyze these savings is to understand their impact on household tax burden. Figure 8 estimates the change in tax burden if these three policies were to be repealed as a percentage of household income by population deciles. The calculated changes in tax burden indicate that repealing these tax expenditures would increase the tax burden to households in the first six population deciles marginally more than households in the top four population deciles as a percentage of their income.

Figure 8. Changes in Tax Burden by Population Decile if Residential Heating Fuels, Residential Water Services, and Sewer Services Tax Expenditures are All Repealed

Population Decile	Income Range	Change in Tax Burden
First	$15,544 & Under	0.63%
Second	$15,545 - $24,961	0.36%
Third	$24,962 - $35,168	0.26%
Fourth	$35,169 - $45,808	0.21%
Fifth	$45,809 - $58,014	0.17%
Sixth	$58,015 - $73,668	0.15%
Seventh	$73,669 - $95,360	0.13%
Eighth	$95,361 - $127,780	0.12%
Ninth	$127,781 - $183,475	0.10%
Tenth	$183,476 & Over	0.05%
Total	-	2.16%

Source: Department of Revenue Tax Research Division, November 2025

Minnesota - Utility Usage and Utility Price Burden

The consumption of certain utility services varies by region, primarily due to the stark contrast in climate, which can significantly impact household cost burdens for these essential services. Minnesota consumes more site energy[238] than households in warmer states, but it has cheaper residential water prices than many other states.[239]

[238] Site Energy – The amount of heat and electricity consumed by a building as reflected in one's utility bill. (2025): https://www.energystar.gov/buildings/benchmark/understand-metrics/source-site-difference

[239] Site Energy Consumption per Household versus Average State Temperature, " U.S. households in warmer states

In 2020, the average American household consumed 76.8 million BTUs in energy usage. The average household in Minnesota consumed 100.3 million BTUs during this same period.[240] While the average Minnesotan household utilizes more energy than the average American household, the amount of money that Minnesota households spend on energy is very similar to the national average. In 2020, on average, households across the U.S. spent $1,884 on energy charges. In Minnesota, the average household spent $1,833 on energy charges. In terms of residential water service usage, Minnesota falls on the other end of the spectrum in terms of usage compared to energy usage. As of 2010, Minnesota had the 5th least residential per capita water use (gallons per capita, per day). Minnesotans used roughly 60 gallons of water per day, which is about 20 gallons less than the national average.[241] In terms of sewer service usage and costs, they vary from city to city (individual cities set their sewer rates). Generally, it is safe to say that households that consume more water will typically pay more in sewer service charges.[242]

Minnesota's residential electricity and water prices are below the national average. Minnesotans pay an average of 14.05 cents per kilowatt-hour for residential electricity. The average rate across the United States is 16.26 cents per kilowatt-hour.[243] For residential water prices based on average monthly water bills for families, in 2024, Minnesota ranked as the 14th cheapest state at $30 per month. West Virginia was the most expensive state at an average of $105 per month, and North Carolina was the cheapest state for average household water bills at $20 per month. When looking at average monthly water bill prices and the trend across the U.S., prices tend to be lower in the Midwest and Southeast regions of the country.[244]

Review of Other States

Of the 45 states that had sales and use tax in 2024, state sales and use tax rates varied, from the lowest being 2.9 percent in Colorado to the highest being 7.25 percent in California; Minnesota's sales and use tax rate ranked as the 6th highest in the U.S. at 6.875 percent.[245] Five states do not have a sales or use tax.

Some states, such as Illinois, have utility services like electricity and natural gas that are not subject to sales and use tax because electricity is taxed under the Electricity Excise Tax Law,

---

consume less site energy than households in colder states", U.S Energy Information Administration, (2023): https://www.eia.gov/todayinenergy/detail.php?id=56380&src=%E2%80%B9%20Consumption%20%20%20%20%20%20Residential%20Energy%20Consumption%20Survey%20(RECS)-b4#

[240] Annual Household Consumption and Expenditures in U.S. homes by State, "Site Energy Consumption and Energy Expenditures", 2020 Residential Energy Consumption Survey, (2023): https://www.eia.gov/consumption/residential/data/2020/state/pdf/ce1.1.st.pdf

[241] Water Use Trends Report, "Residential Per Capita Water Use, by State", Pacific Institute, (2015): https://pacinst.org/wp-content/uploads/2015/04/Water-Use-Trends-Report.pdf

[242] Measuring Household Affordability for Water and Sewer Utilities, "Basic monthly water and sewer costs", American Water Works Association, (2018): https://awwa.onlinelibrary.wiley.com/doi/full/10.5942/jawwa.2018.110.0002

[243] Electric Power Monthly, "Average Price of Electricity to Ultimate Customers", U.S. Energy Information Administration (2024): https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a

[244] World Population Review, "Water Prices by State 2025", Cost of Water Bills by State (2025): https://worldpopulationreview.com/state-rankings/water-prices-by-state

[245] 2024 Sales Tax Rates, "State and Local Sales Tax Rates, 2024", Tax Foundation, (2024): https://taxfoundation.org/data/all/state/2024-sales-taxes/ ;
Note: Alaska, Delaware, Montana, New Hampshire and Oregon do not administer a sales and use tax

and natural gas is taxed under the Gas Revenue Tax Act or the Gas Use Tax Law in that state. In Washington state, certain services are not taxed under the sales and use tax; rather, they are subject to the public utility tax.[246] Below, Figure 8 displays how many states pay tax on residential heating fuels, electricity, natural gas, and water and sewer, as well as whether Minnesota's neighboring states are paying these taxes.

Figure 8: Taxation of Utility Services in Other States as of Fall 2025

Essential Service:	Number of states that pay tax on this service:	Neighboring States (North Dakota, South Dakota, Iowa, and Wisconsin):
Residential Heating Fuels	22	All Neighboring States do not pay tax on this service
Electricity	22*	South Dakota and Wisconsin pay tax on this service
Natural Gas	21	South Dakota and Wisconsin pay tax on this service
Water and Sewer	13**	North Dakota pays tax on these services

Note: There is no sales tax in Alaska, Delaware, Montana, New Hampshire, and Oregon

*Some states exempt electricity with certain exceptions. These are not included in this count.

** Includes Washington D.C.

Source: Bloomberg Tax Research, Sales and Use Tax Chart Builder: All Jurisdictions – Utilities, Fuel, Mining and Natural Resource Extraction, Production, Sale

In some states around the U.S., utilities are subject to reduced tax rates; such is the case in Michigan. As of 2023, the sales tax rate in Michigan is 6 percent, but the sale of gas, electricity, and steam is taxed at a reduced rate of 4 percent for residential use.[247]

In the state of Maine, the sale of electricity is subject to sales and use tax, except for the first 750 kilowatt-hours purchased for residential use; these first 750 kilowatt-hours are tax-exempt, and anything on top of that is subject to Maine sales and use tax.[248] Currently, 18 different U.S. states do not collect tax on any utility services, including Minnesota.

Many states in the U.S. offer tax exemptions for some essential utility services, but not all. For example, in Arkansas, residential water usage is subject to sales tax, but sewer services are tax-exempt.[249] In Nebraska, sewer services are subject to sales tax, and residential water usage is tax-exempt.[250] Only seven states, not including the District of Columbia, levy a sales and use

[246] Sales and Use Tax Exemptions, "Sales and Use Tax exemptions for Heating oils, Electricity, Natural Gas, and Water and Sewer", Bloomberg Tax Research, (2025): https://go.bloombergtax.com/product/tax/bbna/chart/2/10071/4857bd3d21fc2657c0a26f22fdf4fcd2

[247] Michigan Sales and Use Tax Information, "Sales Tax", Michigan Department of Treasury, (2023): https://www.michigan.gov/taxes/business-taxes/sales-use-tax/information

[248] Maine Sales of Fuel and Utilities, "Sales, Fuel & Special Tax Division", Maine Revenue Services, (2022): https://www.maine.gov/revenue/sites/maine.gov.revenue/files/inline-files/IB13%20FINAL%20Sales%20of%20Fuel%20and%20Utilities%202022_11_15_0.pdf

[249] Arkansas State and Local Taxes for Water Utility Bills, "Utility Service and Sewer Charges", State of Arkansas Department of Finance and Administration, (2019): https://www.ark.org/dfa-act896/index.php/api/document/download/20190516.pdf

[250] Nebraska Sales Tax Exemptions, "Consumer Goods and Services", Nebraska Department of Revenue, (2021):

tax on all of the different essential utility services. These states are Arizona, Hawaii, Kansas, Michigan, Mississippi, Missouri, and New Mexico.

Limitations

There are several limitations in evaluating the effectiveness of the tax exemptions for residential heating fuels, residential water services, and sewer services. While all Minnesotans receive these tax exemptions, it is unclear how purchases of these essential services vary by region within the state. This evaluation includes the average tax savings per household due to these tax exemptions, but it only takes into account a household's income level, not where the household is located.

There could potentially be different purchasing behaviors related to where a household is located in the state; or varying utility prices, for example, it is unclear if an average household in Ramsey County that is in the 7th population decile would receive more or less benefit than an average household in Koochiching County that is in the 7th population decile as well. This could be useful information in future evaluations to determine which areas of the state benefit the most from these tax exemptions.

This evaluation did not examine the number of properties a certain individual or household owns. Hypothetically, owners of more than one property get to benefit from these exemptions more than a household that only owns or rents one property.

Another limitation of this evaluation is that data of federal, state, and local programs that provide benefits to taxpayers for similar activities, have published data from different years. The most recent data obtained for each program is used to show how these programs affect different households in Minnesota.

Conclusion

The state of Minnesota administers exemptions from the sales and use tax for residential heating fuels, residential water services, and sewer services. The objective is to lessen the effective tax burden of lower-income households and to reduce the regressivity of the sales and use tax.

These tax expenditures do reduce the regressivity of the sales and use tax in Minnesota. A calculation of the Suits Index indicates that if these policies were repealed, individually or all together, the regressivity of the state's sales and use tax would increase. As a proportion of income, lower income population deciles receive a reduction in tax burden that is marginally higher than higher income populations resulting from these three tax expenditures, which also points to a reduction in the regressivity of the state's sales and use tax.

While these tax exemptions help reduce regressivity in Minnesota, the amount that households receive in benefits due to these tax preferences varies across population deciles. Generally,

https://revenue.nebraska.gov/about/information-guides/nebraska-sales-tax-exemptions

higher-income households receive more monetary benefit from these tax exemptions than lower-income households and a larger percentage of the change in tax share.

Appendix A – Literature Review

To evaluate the effectiveness of the Minnesota general sales and use tax exemptions for residential heating fuels, residential water services, and sewer services, a review of published literature was performed on sales tax exemptions for essential goods and services. The literature review included scholarly articles, professional papers, official reports, and publicly available data from national databases published between 2010 to 2025. The literature gathered covered policy-based topics around sales and use tax exemptions for essential goods and services specific to the state of Minnesota, other states, and the U.S. as a whole. The key takeaways from the literature review included the regressive nature of sales and use tax and the disproportionate impact of regressive taxes on certain demographics. The findings from the literature review informed the analysis of these tax expenditures in addition to the components of review required by statute.

Regardless of income level, certain goods and services, like food, prescription drugs, water utilities, or electric utilities, are considered essential. They are consumed and utilized by taxpayers across all income levels as a necessity of life. It is widely understood and accepted that a sales and use tax on essential goods and services is a regressive tax. To clarify, the notion of regressivity applies to any application of a sales and use tax on the consumption of goods, not limited to just essential goods. Discussion of the regressive nature of the sales and use tax in literature aligns with the intended objective of the exemptions on residential heating fuels, residential water services, and sewer services as determined by the Tax Expenditure Review Commission. In other words, the legislature designed these exemptions to directly address the concern of regressivity that is discussed in the literature and widely accepted with respect to sales and use taxes.

Overall, literature and data from the past decade point to the conclusion that the taxation of essential goods and services is regressive and that it negatively affects low-income households disproportionately. The objective of these tax expenditures is to lessen the effective tax burden of lower-income households and reduce the regressivity of the sales and use tax. Literature indicates that exempting essential goods and services like residential heating fuels, residential water services, and sewer services from sales and use tax aligns with efforts to reduce regressivity in the Minnesota tax code.