

The Effect of Proposed Hotel Room Tax Increases in the U.S.: A Review

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Tourism - Nationally

- The U.S. tourism industry generates \$590 billion per year in revenue and is responsible for 5 million in employment.
- It also yields \$160 billion in tax revenues to states and localities.

Purpose of the Research

- This analysis is based upon prior research on whether tourists are sensitive to tax hikes.
- To properly assess the outcome of the tax policy, we first develop an understanding of the elasticity of demand of tourists, then address the effects of the tax policy on tourist expenditure in general.

Price Elasticity of Demand

- The elasticity of demand is the percentage change in demand, per percentage change in price or income.
- Price elasticity of demand determines the sensitivity of demand due to a price change of a good or service.

Categories of Price Elasticity of Demand

- Demand is elastic if $|\epsilon| > 1$
- Demand is inelastic if $|\epsilon| < 1$
- Demand is unit elastic if $|\epsilon| = 1$

Who bears the Tax Burden?

- Elasticity of a good determines who carries the burden of the tax
 - If it is inelastic, the burden is primarily on the buyers(tourists)
 - If it is elastic, the burden is on the suppliers(hotels)
- Based on the body of research about elasticity of demand for hotel rooms, tourism is inelastic.
- Thus, we expect tourists to bear more of the burden of the tax increase.

Estimates for Price Elasticity of Demand for Hotel Rooms

Paper/Source	Elasticity Estimation
Hiemstra and Ismail (1993)	0.44
Canina and Carvell (2005)	0.13
Collins and Stephenson (2018)	0.7

Luxury and other Expensive lodgings

- Cabins and other more expensive lodging are considered as more elastic services, and they tend to be more price-sensitive than other forms of lodging (Corgel et al, 2012).
- However, any detriments of a tax hike can be countered by two factors:
 - High degrees of customer loyalty and satisfaction for lodging reduces price sensitivity (Assaf et al., 2012).
 - Those with high incomes tend to be less price-sensitive to changes in prices (Waqas-Awan, 2020). Tourists who utilize these types of lodging tend to have higher income

Relationship between the Hotel Tax Rate and Hotel Revenue

- Research indicates that there is little evidence of tax rates impacting hotel revenue.
- Additionally, directedly taxing tourism services is the most efficient form of tax collection (Gooroochurn et al., 2005).
- This disconnect was observed in Wisconsin, where tax rates and hotel revenues had an extremely weak relationship (Kashian et al, 2020)

Tax rates and Total Tourism Spending

- There can be a decline in the total spending per tourist due to the increased tax rate (Forsyth et al., 2014).
- However, possible negative effects could be countered by directing more tax revenue into tourism (Mak 1988)
 - But the benefits of the increased spending diminishing with higher levels of spending (Deskin & Seevers, 2010).

Conclusion

- Demand for lodging is inelastic, thus tourists are less sensitive to price changes
- There is no strong relationship between tax rates and hotel revenue
- Earmarking tax revenue to the industry would help reverse any adverse effects on total tourism spending.
- **Based on the research, we can conclude that a tax hike would not harm the tourism industry of Door County.**

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1. Introduction

The U.S. tourism industry generates \$590 billion per year in revenue and is responsible for 5 million in employment¹. It also yields \$160 billion in tax revenues to states and localities. In addition, it is an industry that is to experience annual growth, in terms of number of firms and employment, of over 5% for the next years. This review focuses on the likely effects of increasing a local hotel room tax on tax revenues and hotel revenues. Note that as sales and employment grow, tax revenues independent of changes in the tax rate.

This analysis is based upon prior research on whether tourists are sensitive to tax hikes. To properly assess the outcome of the tax policy, we first develop an understanding of the elasticity of demand of tourists, then address the effects of the tax policy on tourist expenditure in general.

2. Review

Price elasticity of demand determines the sensitivity of a price change of the tourists. When demand is inelastic or less sensitive, the burden of the tax is mostly carried by the consumers, or in this case the tourists. Thus, the vendors have little burden imposed on them from the policy (Combs & Elledge, 1979).

¹ The numbers for industry revenues and employment have been obtained from IBISWORLD; tax revenue information was obtained from ustravel.org.

There are several key findings in the economic literature that confirm elasticity of demand for tourists and visitors is less than suppliers of accommodation (i.e., hotels, motels, cabins, etc.). Based on the literature the FERC gathered, elasticity of demand typically lied between -0.13 to -0.7 (Canina and Carvell (2005); Collins and Stephenson (2018)). An elasticity value with a magnitude less than one is considered as inelastic. Hence, the FERC can safely conclude that elasticity of demand for tourism is inelastic.

The brunt of the tax burden on accommodations are usually held by visitors; therefore, non-residents significantly contribute to the tax revenue. In Florida, it was found that visitors bore most of the burden of the tax hike. Additionally, tax changes in a given county within Florida did not create significant spillover effects to other counties within the state (Mills and Jakar, 2019). If Door County raises its hotel room tax rate, we mostly expect the tourists to pay the tax revenue, and that they will not seek lodging in other counties in response to the tax raise.

Cabins and other more expensive lodging are considered as more elastic services, and they tend to be more price-sensitive than other forms of lodging (Corgel et al, 2012). In theory, a tax hike should reduce the demand for these types of lodging more significantly than inexpensive services. However, the literature suggests that two forces counter the change in demand. First, high degrees of customer loyalty and satisfaction for lodging decreases the price elasticity of demand, thus reduces their price sensitivity (Assaf et al., 2012). Secondly, those who can afford more expensive forms of lodging tend to be in the higher income strata. Those with high incomes tend to be less price-sensitive to changes in prices (Waqas-Awan, 2020). Thus, it is unlikely that these forms of accommodation would suffer from a tax increase.

The next question we must answer is whether a change in the tax rate would significantly impact hotel revenues. The literature mostly agrees that changes in tax rates do not have a

significant negative effect on hotel revenues. There is also evidence that directly taxing tourism services is the most efficient way to tax the industry (Gooroochurn et al., 2005). A study from Hawaii concluded that there was no evidence of tax rates impacting hotel revenues (Bonhan et al., 1992). Incidentally, the previously cited Florida study supplied more evidence for the weak relationship between tax rates and hotel expenditures (2019).

The disconnect between tax rates and hotel revenues is also present within the Wisconsin economy. Kashian et al. observed the changes in hotel variation concerning tax rates from 280 localities across Wisconsin using simple linear regression and quadratic linear regression methods (2020). They concluded that while tax rates depict a significant effect on hotel revenue, the results show that the explanatory power of the independent variables to describe the variation of hotel revenue was low. The analysis concluded that an increase in tax rates would have a minimal effect to no effect on revenue collection.

When we took into consideration the entirety of the direct spending by tourists at a location, tax hikes have the potential to reduce spending in other areas of tourism, while providing greater tax revenue to the region. From transportation to other activities, tourists may decide to limit their activities based on their budgetary limits (Forsyth et al., 2014). Once again, research suggests that the adverse effects of tax hikes can be countered by directing tax revenue towards the tourism industry (Mak, 1988; Kashian et al., 2020). However, additional benefits to the tourism industry diminish at the margin. When the aggregate tax expenditure for tourism by the county increases, the incremental effects to tourism decreases as the spending increases (Deskin & Seevers, 2010).

In conclusion, based on prior literature, demand for lodging tends to be inelastic. Tax changes and hotel revenues do not have a strong explanatory relationship. In some instances,

there is no evidence for a relationship. While there can be some effects on tourism-related spending, earmarking tax revenue to the industry would help reverse the effects. Based on the research, we can conclude that a tax hike would not harm the tourism industry of Door County. If the county implements the increased revenue effectively, the entirety of the county, visitors, and the state can benefit from this policy.

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