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The economic impact of rezoning to increase tourism

Abstract

This paper provides an economic analysis of a proposed zoning change that will enable the City of Treasure Island, Florida, to attract more tourists. The proposed zoning change would result in hotel renovations and new hotel construction in Treasure Island, Florida. The study uses tax analysis to see how the change would increase taxable property values as well as increase revenues from the tourism development tax. The study then uses the REMI model to analyze the changes to the economy that result from the ensuing increase in tourists. The results suggest that if the proposed zoning change comes to fruition and hotels build out to the maximum, the City will gain at least $920,919 in increase property tax revenues, while the County will gain at least $1.6 million in increased bed taxes (some of which will return to Treasure Island in the form of tourism support). Overall, over 813 jobs would result in the County, with an increase in Regional Gross Domestic Product of $46.2 million in the first year. This is the first economy-wide analysis of a zoning change that specifically impacts the hotel industry. The study provides a deeper understanding of the revenue-raising options for a tourism-dependent economy and then analyzes a unique proposed solution to its budgetary dilemma.

Key words: economic impact; tax analysis; tourism development tax; zoning changes; hotel industry; USA

Introduction

The city of Treasure Island is located on the central west coast of Florida. It is on a barrier island in the Gulf of Mexico, connected to the mainland by a short (1.3 miles/ 2 kilometers) causeway. Treasure Island has a population of just under 7,000 people. Given its prime location on the beach and its proximity to other popular Florida destinations (e.g., Disney World in Orlando, the Salvador Dali Museum in St. Petersburg, Busch Gardens in Tampa, etc.), tourism is Treasure Island's largest industry. Lodging revenues alone totaled $636 million in 2013, generating almost $32 million in hotel occupancy tax revenues (Pinellas County Tax Collector, 2015).

Like most municipalities, Treasure Island's finances are precarious, subject to many forces beyond its control. The City's revenues come from a share of the sales tax, collected at the County level, a property tax, and fees, licenses and permits. While Treasure Island hotels and other temporary lodging charge a "bed tax," these funds are earmarked for county-wide tourism promotion activities, which do benefit the City, but only indirectly. Until 2006, the City also collected a toll on vehicles coming into the City via the Treasure Island Causeway. All of these revenue sources depend on the vagaries of the macroeconomy beyond the City's geographic limits – including the global macroeconomy, given the high number of international visitors. Property values in Florida have been volatile since the Global Financial Crisis, so property tax collections, borne by residents, in Treasure Island have been similarly unsteady.

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Literature review

The decision to implement a tax must take into consideration three different goals that do not always align with one another: *efficiency*, that is minimizing the distortions in economic behavior caused by taxation; *equity*, which is concerned with the distributional impacts of taxation; and *political feasibility*, that is, the likelihood of a tax (and/or the proponents of a tax) making it through the political process. These three goals, in turn, must be weighed against a particular tax's ability to raise needed revenue.

Most taxes have a distortionary effect, meaning that they change the behavior of economic actors (e.g., consumers, workers, businesses, investors, etc.) as they try to avoid the burden of the tax. This inefficiency leads to a decline in economic activity and, therefore, a decline in growth. Public finance theory, starting with Ramsey (1927) suggests that it is most efficient to tax activities (e.g., goods, services, income, etc.) with lower elasticities, or sensitivities, to price changes (Gruber, 2013). On the other hand, Ramsey's Rule also suggests that it is more efficient to maintain lower taxes on a broader tax base – i.e., tax previously untaxed activities – than to raise already-established taxes when trying to reach a particular revenue raising goal. Optimal taxation will find a way to balance these two ideas; taxes should be higher for goods with lower price sensitivities, but other goods should also be taxed to maintain a broad base (Kaplow, 2015).

The concept of equity considers that taxes should be fair. One view of equity, the benefits principle, suggests that those who benefit from the use of the tax revenues should be the ones who pay the tax. The ability-to-pay principle takes a different tact: those with a higher ability to pay should pay more in taxes (so-called "vertical equity") while those who have a similar ability to pay should pay the same amount in taxes ("horizontal equity") (Gruber, 2013).

As Treasure Island leaders look to raise revenues, it is natural to try to shift the burden away from local residents and on to tourists. From a political perspective, elected officials would much rather keep taxes low on those who will vote for them rather than on transients who have no say in the political process. The political economy approach to determining optimal taxation also incorporates an objective function of maximizing votes (Hettich & Winer, 1984; Hettich & Winer, 1988). As a corollary to this idea, as demonstrated by Gill and Haurin (2001), when making the decision of which type of taxes to levy, local authorities take into consideration the probability of a particular tax being approved by voters.

There are three feasible sources of local revenue raising for a municipality like Treasure Island: raising property taxes; enacting a new user fee, such as a toll road; and increasing tourism to generate more income from a hotel occupancy tax. Each of these is addressed in the literature with regard to efficiency, equity and political feasibility, as described above.

Property taxes

The Global Financial Crisis and its negative impact on property values has caused many to speculate that it is unwise to rely on property taxes, let alone raise them. However, Alm, Buschman and Sjoquist (2011) show that this is not always borne out by the data. Indeed, they note that many municipalities – including those that they focused on in Georgia – raised their property tax rates in the face of declining property values. This may be a good short term fix for raising revenues.

In terms of efficiency, many economists consider property taxes to be one of the less distortionary ways to raise revenue. This concept follows the Tiebout (1956) model, by presuming that prospective home buyers choose to locate in communities that provide the tax-expenditure combination that suits them best (Hamilton, 1976). An empirical study by OECD (2010) shows that property taxes are least harmful for economic growth because they minimize changes in behavior.

From an equity perspective, at least in theory, property taxes appear to be proportional to a household's income, rather than being redistributive in nature (Oates, 1999). In reality, because they are based on estimated assessments, the property tax may be levied unevenly within a jurisdiction (Oates, 1999). This may raise equity concerns. Still, a desirable quality of the property tax is that they tend to be tied to particular local expenditures, and voters are well-informed of the uses of the revenues (Oates, 1999).

Finally, raising the property tax rate has obvious political difficulties associated with it, as residents who would be affected by it also have voting power (Combs & Elledge, 1979). The Tiebout hypothesis, as originally stated (Tiebout, 1956), considers that consumer-voters will "vote with their feet" and leave their municipality if they are not satisfied with the combination of publicly provided goods and services and local taxes.

User fees

User fees are fees or taxes that are applied only to those who benefit from publicly provided goods or services. A user fee, such as a toll road or bridge, is attractive because it suggests that the users of the taxed service are the ones that pay for that service. This is the concept of tax-benefit linkage, also derived from the Tiebout hypothesis mentioned above. Benefit taxes are sometimes confused with user fees; the distinction is that benefit taxes are applied to a broad category of persons who are assumed to benefit from the good or service (for example, road maintenance), whereas user fees are only charged at the specific point of consumption (for example, a toll road). Nevertheless, the differences are not always clear (Duff, 2004). The downside to a user fee, from a budgetary perspective, is that its revenues may be spent only on the goods and services (which may be widely defined) from which they were levied.

A new user fee is very appealing from the efficiency argument. Developing a new source of revenue, as Gruber (2013) points out, is more efficient than raising an already-existing tax. This occurs because if the tax base is broader, economic actors have fewer opportunities to change from a taxed activity to a non-taxed activity. In addition, raising an already-existing tax may disproportionally heighten the distortion caused by the original tax. Moreover, because user fees are paid by choice, it is assumed that the user fee reflects the consumer's willingness to pay for the good or service. This also implies that the public expenditures are being allocated to their most efficient use (Duff, 2004). In the specific case of a toll road or bridge, the toll may help to relieve congestion and also help to put a market price on some of the other externalities associated with transportation such as smog, greenhouse gas emissions, and accidents (Anas & Lindsey, 2011; Glazer & Proost, 2007). In this instance, the fee returns the market to a socially efficient outcome.

While the users of a good or service are the ones who pay for it, there still may be some equity concerns associated with a user fee. In particular, a user fee may be regressive, i.e., those with lower incomes may pay a higher proportion of their income for the user fee than those with higher incomes. However, this may be assuaged by the design of the fee. For example, the overall system may be designed to eliminate a different regressive tax, or poorer households may be given tax rebates or credits or an exemption from the fee (Duff, 2004).

Duff (2004) suggests that user fees may have some political obstacles to overcome. If they are imposed on a good or service that was previously provided for with a general tax (such that users did not recognize the source of payment for their provision), citizens are likely to oppose them. In addition, if they impose a heavier burden on one group of economic actors (e.g., a particular socio-economic group), user fees may cause further social and political tensions.

Hotel occupancy tax

A hotel occupancy tax is often referred to as a "bed tax" or, in the State of Florida, as a "tourism development tax". A fixed percentage of the value of a hotel room rental or other short term rental is levied as the tax. For example, in Pinellas County, where Treasure Island is located, the tax is 5%. Because the demand for tourist lodging is inelastic (i.e., insensitive to price changes), particularly in the long run (Arguea & Hawkins, 2015), this seems like an easy way for a municipality to raise revenue. However, policymakers must bear in mind that the revenues raised from a hotel occupancy tax are earmarked for certain types of expenditures. For example, in Florida, expenditures tend to be restricted to tourism marketing, tourism facilities, and maintenance of attractions. County representatives and a county tourism board have the final say in how these funds will be used (Arguea & Hawkins, 2015).

The literature on the efficiency of a hotel occupancy tax is mixed in terms of the extent to which tourists change their behavior as a result of the tax. Tourists in the US and other countries are sensitive to changes in a hotel occupancy tax, if they have other options. For example, if a nearby municipality has a lower bed tax, would-be tourists will substitute between the higher taxed hotel area and the lower taxed one (Fujii, Khaled & Mak, 1985; Gago, Labandeira, Picos & Rodríguez, 2009; Hiemstra & Ismail, 1993; Lee, 2014). On the other hand, if there is no possibility for substitution because the geographic area in which the tax is imposed is large enough, Aguilo, Riera and Rossello (2005), Bonham, Fujii, Im and Mak (1992) and Bonham and Gangnes (1996) show that changing that tax has very little effect. In addition, as shown in their theoretical general equilibrium model, Sheng and Tsui (2009) note that the market power of the tourism destination has a role to play in the results of a change in tourism taxation.

A caveat to this literature is worth mentioning: A tax is considered efficient if it minimizes distortions in a "perfect" market, but taxes also can correct problems in more realistic markets. For example, if tourism activity generates external effects on a location's natural environment and physical infrastructure, as well as impacts such as noise pollution and congestion, a tax specifically directed at tourists can ameliorate these impacts (Cetin, 2014). This is considered an *improvement* in efficiency by correcting what is considered to a "market failure".

In terms of equity, a hotel occupancy tax may be considered progressive to some extent, since it is paid for by those who can afford to stay in a hotel. Of course, among those who do pay the bed tax – which is a fixed percentage of the hotel bill - it may be thought of as proportional, if hotel consumers tend to stay in hotels whose rates are commensurate with their incomes.

Of the three options for raising revenue presented here, the hotel occupancy tax has the highest chance of political success. A hotel occupancy tax has the obvious advantage of raising tax revenues without increasing the tax burden on local residents (Combs & Elledge, 1979; Gooroochurn & Sinclair, 2005), making it a more viable candidate for politicians to espouse. Indeed, on all three measures of evaluation, the hotel occupancy tax appears to be most desirable; it is relatively efficient and equitable, while being politically feasible. In the case of Treasure Island, City leaders are considering expanding its potential for raising revenue by changing the zoning ordinance so that more hotel rooms can be developed. The current analysis continues by examining the impacts of such expansion on tax revenues and economy-wide effects.

Treasure Island's budget, challenges and options

Like many aging beach communities dependent on tourism for a large part of its economy, the City of Treasure Island is in need of revitalization. The City's budget has been precarious, largely due to forces beyond its control. City leaders have several revenue raising options, as mentioned in the literature review, including raising property tax rates, reinstating the toll on the bridge, and changing the zoning ordinance on hotels to attract more tourists.

Budget

The City of Treasure Island's budget is comprised of "general" or operating funds, as well as restricted funds whose revenues are directly tied to their related expenditures (e.g., user fees for sewage service pay for water pollution control). The City's general funds consist of moneys used for the daily operations, maintenance and administration of the City. In order of importance, this includes activities such as police and fire services; upkeep of buildings and roads; recreation services; and management of the City. Importantly, since 2006, much of the maintenance and operation of the bridges now falls under general funds, because there is no longer a toll and corresponding restricted fund for this. According to records, Treasure Island's general fund expenditures steadily rose from 1999 through 2008, when they reached a high of $10.089 million for the fiscal year (City of Treasure Island, 2009). General fund expenditures then fell as the economy sank into recession and the City was faced with lower general revenues. Budget cuts occurred across the board, but particularly in areas deemed "non-essential" (City of Treasure Island, 2008, p. iii). General fund expenditures have just begun to recover in 2014 (City of Treasure Island, 2014).

Property taxes ("ad valorem") comprise the major source of revenue for the general funds, comprising about 43% of the total in fiscal year 2015. Other revenue sources, in order of importance, include service charges; utility and other taxes; fees, licenses and permits; inter-governmental transfers, and other smaller items (City of Treasure Island, 2014).

The City had a robust and growing budget from the 1980s through 2007. This was due in large part to steadily increasing property values: assessed values were just under $300 million in 1983 and had doubled by 1995. In 2007, they had reached $1.8 billion (City of Treasure Island, 2014). At the same time, property tax rates were also slowly increasing, ranging from $1.3 per $1,000 taxable value to $1.7 between 1983 and 1998, rising to $2.2272 from 1999 through 2001, and then holding steady at $2.6272 from 2002 through 2007 (City of Treasure Island, 2014).

Rising property tax collections, along with the benefits of other areas of a booming economy, kept the government's coffers in surplus through 2010. However, this surplus was unsteady, reaching $1.192 million in 2006, plummeting to $181,000 the next year, and then falling further to $86,000 in 2008 (City of Treasure Island, 2014). In subsequent years, the City's budget has become increasingly strained. Three major factors are to blame. First, the City has lost about $1.6 million in annual toll revenue since the bridge's renovation and subsequent deal to remove the toll (City of Treasure Island, 2008). Property values fell steadily from 2008 through 2013, due to the nationwide recession, which resulted in a fall in property tax collections. In addition, an amendment to the Florida Constitution came into effect in January 2008. The amendment was designed to provide relief to homeowners through an increase in property tax exemptions, which resulted in decreasing the assessable value of property. Property tax collections are just now approaching 2008 levels, reaching $4.3 million in 2014. As the city's infrastructure ages, costs of making public repairs are increasingly borne by the relatively small residential population – 6,700 – of Treasure Island. In addition to the typical costs found in any municipality,

Treasure Island is further constrained because it is solely responsible for the maintenance (both short term and long term) and operations of the bridges that connect it to the mainland.

Revenue raising options

Treasure Island is confronted with several options for raising revenues. It could raise the property tax rate; it could reinstate a toll on the Causeway (the bridge that connects the City to the mainland); or it could capture more tourism-related taxes by increasing tourism through a change in its current zoning ordinance. Each of these is considered in turn, followed by a thorough economic analysis of the third, and most feasible, option.

The property tax has been raised several times in the last few years, each time to accommodate a particular request. Indeed, the most recent (fiscal year 2015) budget request from the City Manager includes a proposal to raise the property tax rate for future expenses relating to bridge maintenance, in particular, "…larger projects such as replacement of bridge lighting system, refurbishment of the electronics, hydraulic, mechanical components of the bascule bridge, painting and repairs to the bridge structure and of course the eventual replacement of the bridge" (City of Treasure Island, 2015a, p. i). As alluded to in the literature review, raising the property tax rate has obvious political difficulties associated with it, as residents who would be affected by it also have voting power. As a revenue raising tool, the results of raising the property tax are uncertain, given recent national legislation which is leading to the phasing in of higher flood insurance rates for homes along coastlines. The expectation of higher insurance implies that sales prices and thus taxable property values may fall as it becomes more expensive to live in homes in Treasure Island (all of whose properties require flood insurance if they have commercially-backed mortgages). This means that even if the property tax rate were increased, it may be applied to homes with lower assessed values anyway.

A second option is for Treasure Island to reinstate the toll on the Treasure Island Causeway Bridge, the main access road to the City. The Causeway is 1.3 miles/2 kilometers long and consists of two small bridges and one drawbridge. It was renovated in 2007 under a financing deal that included the elimination of a previously-existing toll. As mentioned above, most of the funds to maintain and operate the bridge now come out of the City's general operating funds, further stressing this pool of money. If Treasure Island reinstated the toll on the Causeway, it would be felt by residents and tourists alike, including local day-tourists. As previously mentioned, in theory, this user fee is considered an efficient way to raise taxes. However, there may be political or legal impediments to reneging on the financing deal made during the renovation. Furthermore, there is a drawback on equity grounds, as all residents would pay the same toll, regardless of income level.

The third option for the City is to change the current zoning ordinance to increase taxable values of hotel properties as well as generate more sales tax revenues from an increase in tourists. While residential property values are beginning to bounce back following the Global Financial Crisis, tourism and commercial industry growth remains hampered by the current building code restrictions. In the early 2000s, Treasure Island residents, concerned about over-development, changed the City Charter by limiting height and density of new construction. Any exceptions to the limits would have to be approved by voter referendum. Most hotels and motels are in need of upgrades, having been built in the 1940s and 50s. But, because of density and height restrictions, it may not be cost effective for owners to renovate them, since they would also have to abide by new flood codes. The older, smaller hotels have a hard time competing with newer hotels in surrounding beach communities, and thus are unable to charge as high a price as their neighbors. In addition, with a reputation for cheaper lodging, the City

attracts tourists with less disposable income. As a result of these factors, tourism-related tax revenues (from hotel occupancy taxes, hotel property taxes, and tourism-related sales taxes) have stagnated.

By enabling current and future owners of hotel (and other commercial) properties to upgrade their facilities, changing the zoning could raise property values and property tax revenues. With more tourists able to stay in Treasure Island, in facilities that are able to charge a higher room rate, revenues from the hotel occupancy tax rise as well. Given that the hotels will now be of a higher caliber and higher cost, it is reasonable to assume that a new cohort of tourists will now stay in Treasure Island, with more disposable income to spend than current tourists do. As a result, those additional tourists will spend more money in Treasure Island, thus generating extra sales tax as well as creating new jobs for local residents. A cited benefit of changing the zoning, as previously mentioned, is that it raises revenue without increasing the tax burden on City residents. On the other hand, some residents may have non-economic concerns with changing the zoning ordinance. These concerns include aesthetics and loss of water views, and over-burdening the City's infrastructure (roads, water and sanitation, etc.).

Proposed change to the zoning ordinance

City staff proposed adopting a Planned Development (PD) zoning district that would apply to transient lodging units and commercial areas. The PD zoning district would allow modest increases in height and density. Specifically, the PD zoning district would allow building height to increase from five floors above one level of parking to up to eight floors above one level of parking. It would permit density increases for transient lodging units from the current 50 units per acre to up to 75 units per acre (0.4047 ha) for properties 3 acres or less in size; for properties greater than 3 acres, the density could increase from the current 50 units to up to 100 units per acre. The density for commercial properties would increase from the current level of 22 units per acre to 60 units per acre. The proposed changes would be limited to just two distinct areas, comprising 46 parcels, including hotels, restaurants, a marina, a small manufacturing facility, some residential properties (condominiums, timeshare properties, and single-family units) and vacant land.[1]

Methodology

In order to evaluate the proposed PD zoning district, an inventory of parcels located within the two study areas was compiled. The list was culled to only include those parcels with the highest likelihood of redeveloping, should the proposed PD zoning district proceed. Removed parcels include municipal properties, properties with numerous owners (i.e., condominiums or timeshare properties), and properties recently developed. Some adjacent parcels were combined, creating a larger developable area and more realistic outcome. The tax and economic analysis follows the broad outlines of the proposed zoning district change. Each parcel that appears likely to redevelop is assumed to do so following the maximum allowable density under the proposed PD zoning district. The expanded densities resulted in an increase of 1,108 units of capacity. Assuming an annual occupancy rate of 70% (Research Data Services, 2013), this resulted in 279,210 additional tourist days.

The model implicitly assumes that demand will effectively follow supply, that is, if more hotel rooms are built, more tourists will come to Treasure Island. Recent trends and projections suggest that this assumption is realistic. Tourism officials in Pinellas and Hillsborough Counties note that the region is undergoing a tourism boom not seen in years, with no end in sight (Thalji, 2014). City officials in Treasure Island indicate that they are confident that the increase in room capacity would be met by an increase in tourism demand (R. Silverboard, personal communication, August 10, 2016). That

enthusiasm must be tempered somewhat by factors outside of the industry's control, such as weather, gasoline prices, and overall economic conditions. Nevertheless, a variety of planned "big" events, such as the Outback Bowl (an American college football conference), combined with dynamic museum exhibits and aggressive marketing campaigns by tourism professionals suggest that this positive trend will continue for some time.

Tax analysis

Given the scenario mentioned in the previous section, two tax revenue streams were analyzed. First, if the maximum allowable build-out as described above takes place under the PD zoning district proposal, property values for each renovated property will increase, leading to an increase in property tax collections. While this tax is collected at the County level, the analysis only considered the portion of the tax (3.3368 mill per $1,000) that returns to the City of Treasure Island. The second change in tax revenue comes from an increase in the tourist development tax revenues, the bed tax, which is a 5% tax on transient lodging stays. This tax revenue is also collected at the County level and is used for projects that promote tourism in Pinellas County (e.g., beach re-nourishment, promotional marketing). While it does not all return to Treasure Island directly, it still provides an important source of funds to support Treasure Island's tourism industry.

The property tax analysis began by estimating the average market value of properties similar to those in the potential maximum build-out scenario, based upon information gathered from existing comparable properties, the Pinellas Property Appraisers Office and local commercial real estate agents. Estimates of brand new Gulf front hotel/motels currently range from $200,000-$250,000 per unit. The property tax analysis used the conservative average value of $200,000 per unit and applied it to the estimated potential units for each parcel/site, thereby generating a new assessed (taxable) value. The difference between the current assessed value and the new assessed value was calculated. Treasure Island's current property tax rate of $3.3368 per $1,000 of taxable value was multiplied by the difference to estimate the additional property tax revenue generated from each parcel/site. This results in an increase of nearly $276 million in taxable value, generating an additional $920,919 in property tax revenue to the City.

The potential increase in revenues from the tourist development tax created under each scenario also was estimated. The current five percent tax was multiplied by an average room rate of $115 and by the estimated additional annual tourist days. This results in an additional $1.6 million in bed tax collections.

Although maximum build-out scenarios were used, the estimated increased revenue is based on a conservative analysis using only the most likely parcels to redevelop under the proposed PD zoning district ordinance. Revenues could be significantly higher if all parcels within the PD zoning district were developed. Further, this analysis does not consider any changes to Treasure Island's property tax rate which would affect the result. Other considerations, such as additional retail or related tourist activity, also could generate additional tax revenue.

Economic impact analysis

The economic impact analysis consists of estimating how an increase in tourism translates into economy-wide changes. An increased number of tourists in the area implies an increase in direct spending by those tourists (on items such as accommodations, food, retail, etc.) as well as the "multiplier" or secondary effects of that spending. These secondary effects are two-fold; first, "indirect" effects take place as hotels and other tourist-supporting industries increase the purchases of inputs needed to operate their businesses. For example, restaurants need to purchase more food from their suppliers to

prepare for the increased number of customers. Second, "induced" effects account for the increase in spending by local business owners and workers as they receive extra income from tourists. For example, restaurant wait staff receive extra income which increases their own spending (which then turns into someone else's income to spend, and so on). A complete economic impact analysis of the PD zoning district must take all of these effects into account.

The well-established REMI model was used to estimate the economy-wide impacts of an increase in tourism following the implementation of the PD zoning district. The REMI model is a multi-sectorial general equilibrium model; that is, it includes all sectors of an economy, centered around 5 major "blocks": production and output; labor and capital demand; demographics (impacting the labor supply, such as population, labor market participation rates, and migration); wages, prices and production costs; and market shares (domestic vs. international). Industry structure and inter-industry transactions are captured with an input-output model based on the regional economy of Pinellas County, the county in which Treasure Island is located. The equations of the model are estimated and calibrated with econometric techniques, using regional data. Like all general equilibrium models, the REMI model starts from the assumption that the economy is operating at an equilibrium, which is then subjected to an external event, such as the change in the number of tourists coming to the region. The REMI model then solves for a new equilibrium, as the impacts of the change filter through the entire economy.

The REMI model was run under the zoning district scenario described previously. The analysis started from the point of how many extra tourist-days were generated from the change in zoning. The number of tourist-days was multiplied by the conservative average room rate of $115, to get the change in accommodations expenditures. From here, the researchers derived the change in expenditures by tourists in four other major sectors where tourists spend most of their money locally: food and drink, retail, entertainment, and ground transportation. These amounts were calculated by determining the shares of each in a typical St. Petersburg/Clearwater tourists' budget, as reported in the 2013 Annual Visitor Profile (Research Data Services, 2013) as well as the Federal per diem rates for the area. The resulting changes in expenditures were used as inputs into the REMI model. Given the timeline for redevelopment to occur, new tourism, and thus new expenditures, were assumed to begin in the year 2018.

While the inputs to the REMI model were Treasure Island-specific, that is, dependent on the expenditures of new tourists to the City, REMI is a regional model. This implies that the outputs cannot be attributed to just Treasure Island, but to Pinellas County as a whole. Nonetheless, given the nature of the types of expenditures, it can be assumed that some of the changes take place very locally. The results presented here are for just the first year that establishments redeveloped under the PD zoning district are open and operating (i.e., 2018), but results for subsequent years are available from the authors upon request.

In terms of employment, 813 jobs are created in the first year. Approximately 22 percent of jobs are in the accommodations and food sector industries, which is largely made up of the local hotels and motels, but may include restaurants outside of Treasure Island. The largest increase in jobs is in the Arts, Entertainment and Recreation industries, accounting for 50 percent of new jobs. This might include beach activities on or near Treasure Island, but likely also includes area sporting arenas, movie theaters, live entertainment, museums, etc.

In the first year, Regional Gross Domestic Product (GDP) to the county increases by $46,152,000. Unfortunately, there is no consistent data to measure the GDP of a small city like Treasure Island. Nevertheless, given the small size of the City compared to the County, this appears to be a significant increase. On the other hand, the results for Personal Income, that is, the money received by individuals,

less contributions for government social insurance, are more easily compared. According to the simulation, Personal Income increases by $21,191,000 in 2018. To put in this in perspective, in 2015, Treasure Island's Personal Income measured $321,669,440 (City of Treasure Island, 2015b). So, while not all of the change in Personal Income is destined for the City itself, this still appears to be a significant increase.

Results and recommendations

This study provides a road map on how to think through a policy to raise revenues in a tourist destination such as Treasure Island, Florida. Policymakers must balance the need to raise revenue with the impacts that taxes will have on efficiency and equity, while still being politically feasible. The best option in Treasure Island is to expand the tax base for the hotel occupancy tax by changing the current zoning district ordinance. The proposed PD zoning district ordinance was then analyzed with both a tax analysis and an economic impact analysis.

Our analysis suggests that if the proposed PD zoning district ordinance comes to fruition and the identified transient lodging properties build out to their maximum, the City stands to gain at least $920,919 in increased property tax revenues, while the County will gain at least $1.6 million in increased bed taxes. Some of these proceeds will return to Treasure Island in the form of beach renourishment and tourism support. Overall, over 813 jobs would be created in the County, with an increase in Regional Gross Domestic Product of $46.2 million in the first year.

As mentioned earlier, there are other, non-economic, impacts associated with the PD zoning district, which cannot be ignored. Thus it is important to point out that the carrying capacity of the roads is currently underutilized and thus there is room for additional traffic resulting from more tourism. Similarly, municipal sewers are at just 55% capacity, and increased pressure on water and storm water management does not appear to be an issue. While the analysis cannot account for non-tangible items such as aesthetics or city identity, the proposed PD zoning district is still consistent with the County's Comprehensive Plan.

The estimates presented here should be considered lower-bounds for the proposed change. Indeed, if the current lodging establishments rebuild or renovate, they will be able to charge a higher per-night rate than the county-wide average rate of $115 that was used in this analysis. That implies a higher bed tax revenue than what was estimated. Similarly, the estimate of the value of the properties was purposefully conservative, using the lowest comparable rate of $200,000 per room.

Furthermore, the analysis has not considered how the PD zoning district may also impact other commercial establishments in Treasure Island. It is not a stretch to suggest that redeveloped larger hotels and motels will attract tourists from a higher socio-economic background than currently, with more disposable income to spend while visiting the City. Thus, it is reasonable to assume that once the hotels rejuvenate, restaurants, retail and entertainment establishments will also undergo renovation and expansion. This will raise property values – and therefore property tax revenues – even more and generate even more economic activity. Addressing these issues was beyond the scope of the current research, but could certainly be part of a longer term study.

Note

[1]Specific details on the study areas – including a list of the original parcel inventory and the final list of parcels considered most likely to redevelop under the proposed zoning district - are available from the authors upon request.

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