Evaluating Economic Policy Responses to Appease Growing Dissent in Tourism

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ABSTRACT

Tourism is a major driver of global and local economies, yet rapid and uneven destination growth has intensified resident opposition and contributed to rising anti-tourism sentiment. These reactions stem from externalities such as congestion, housing pressures, and declining quality of life. Although prior research has examined these issues conceptually, progress has been limited by methodological complexity and the scarcity of comparable datasets across destinations. Traditional destination lifecycle models and economic frameworks offer only partial explanations, often overlooking the political and social mechanisms through which residents influence tourism development. A carrying-capacity perspective suggests that residents do not merely respond to tourism growth but actively shape it through political participation and social influence.

Policymakers have increasingly adopted tourism taxation to balance economic benefits with community needs, yet persistent challenges, such as short-term political incentives, weak alignment between tax instruments and underlying externalities, and the absence of long-term stewardship frameworks, constrain policy effectiveness. This research advances the field by integrating resident sentiment data, tourism tax structures, and lifecycle dynamics into an applied analytical framework. By refining and extending traditional models with new novel data, the study demonstrates how tourism economic policy can serve not only as a fiscal tool but as a core element of governance aimed at sustaining resident well-being and supporting the long-term resilience of destinations.

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1 Executive Summary

Tourism remains a vital contributor to both global and local economies, yet the rapid and often unsustainable growth of destinations has intensified resident opposition and fueled anti-tourism sentiment. This backlash is largely driven by externalities such as congestion, housing pressures, and declining quality of life. Although researchers have explored these dynamics conceptually, much of this work has remained theoretical due to methodological complexity and limited availability of consistent data that can be compared across multiple tourist destinations.

Traditional destination lifecycle models and economic concepts provide only partial insight into these processes, yet often fail to capture the political and social dimensions of anti-tourism sentiment. When examined through a carrying capacity lens, it becomes evident that residents do not simply react to tourism growth; rather, they actively constrain or enable it through political participation and social influence.

In response, policymakers have increasingly turned to tourism taxation as a strategy to balance economic benefits with community needs, directing revenues to policy priorities. While these policies can help alleviate tensions by reframing how tourism's costs and benefits are distributed, persistent challenges remain. These include political short-termism, weak alignment between tax mechanisms and the externalities driving discontent, and the absence of long-term destination stewardship frameworks.

This paper advances the discussion by translating these academic concepts into an applied framework that integrates data to examine how tourism taxes, resident sentiment, and lifecycle dynamics interact. By evaluating and refining traditional models with new novel data, this research argues for an updated and more practical approach to address overtourism, one that positions tourism economic policy not merely as a fiscal instrument but as part of a broader governance strategy designed to sustain resident well-being and safeguard destinations for future generations.

2 Introduction

2.1 Tourism's Dual Role: Economic Growth and Overtourism Pressures

2.1.1 Economic Significance

Travel and tourism is a significant economic driver for both global and local economies. As of 2017, the travel and tourism sector generated about $7.9 trillion U.S. dollars in revenue for the global economy and accounted for approximately 10.2% of global gross domestic product (GDP) (Nepal and Nepal 2021). In addition to GDP, travel and tourism serve as a substantial source of employment. By 2025, travel and tourism will provide over 357 million jobs worldwide, or approximately 1 in 10 jobs globally (WTTC 2025). While GDP contribution and employment generation are the two most common measures of tourism's overall economic impact, they do not illustrate the full scope of tourism's economic influence.

Another way in which travel and tourism greatly contribute is by generating taxes from tourists. The WTTC (2025) also estimates that travel and tourism generate between $800 and $900 billion in annual global government tax revenues. Although this estimate is speculative, there are numerous examples of how tourism-generated tax revenues support public services at the local and state levels. For example, in Bend, Oregon, travel and tourism-generated tax revenues provided the city with approximately $9 million for the city's general fund (Wyeth 2025). This constituted almost 5% of the city's total tax revenue. Most of Bend's tourist tax revenues go toward the city's general fund, which supports basic public services such as fire protection, emergency response, and public safety.

In many areas, tourism not only boosts economic activity but also often serves as the engine of the local economy, providing job opportunities, infrastructure development, and other social and economic benefits. Additionally, travel and tourism often boost community vitality and attract new residents and businesses to the area by generating both direct and indirect job opportunities and economic growth.

2.1.2 Tourism as an Export Industry

One often overlooked fact about tourism is that it functions as an export industry. In today's climate of global geopolitical tension, especially regarding trade, there has been a national discussion about strengthening domestic manufacturing in the United States. Yet amid ongoing debates over tariffs and traditional exports, tourism is frequently excluded from discussions of an export-driven economic strategy.

However, tourism is, in fact, the third-largest export category (after fuels and chemicals) and accounted for 7% of global trade in 2019 (United Nations 2020). Likewise, the World Trade Organization reported in 2020 that tourism accounted for 7% of global exports. These figures typically refer to spending by international visitors who travel to the United States and purchase goods and services, such as lodging, dining, attractions, and transportation. In effect, the U.S. is exporting services to foreign consumers. This export revenue is heavily concentrated in a few major global entry points, such as California, Hawaii, and New York.

Exports are appealing, both economically and politically, because they bring new money into communities. This new money stimulates local economies through increased tax revenues, higher wages for those directly and indirectly employed in tourism, and supports infrastructure development that may not have occurred without outside investment.

At the local level, much of this new money comes not just from international visitors but also from domestic travelers visiting from outside the community, typically defined as beyond a 50-mile radius. While this doesn't meet the traditional definition of an export where new local revenues act as a net increase in national income, it functions similarly: money enters a community from outside and stimulates economic activity, much like an international export would. [1]

Given the economic significance outlined above, this paper will demonstrate that residents primarily view the benefits of tourism in economic terms for their community. These include increased tax revenues, job creation, and support for local businesses. But unlike many other industries, tourism has a unique capacity to generate considerable external revenue for a community, often at relatively low production costs. This is especially true during economic downturns when communities with tourism assets often rely heavily on it to generate urgently needed revenue.

2.1.3 Examining the Promotion and Regulation of Tourism

Historically, tourism has developed organically without the benefit of a long-term vision or institutional structure to handle the long-term effects of such growth. Although there are several well-known destinations, such as Disney World, that were specifically planned to accommodate mass tourism, most communities grew incrementally as visitors expressed interest in visiting them.

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[1] To date, no widely accepted term accurately captures this type of domestic tourism export. In research, phrases such as intra-regional trade, intercity trade, or domestic trade describe similar flows but don't fully encapsulate the idea around tourism-driven revenue from across subnational boundaries. This absence of a precise term may be one reason tourism is often underappreciated as an export-like activity.

Before the advent of the internet, tourism development was a decade-long process. For example, a small fishing village or popular backpacker site might gradually gain popularity through word-of-mouth referrals and/or printed guidebooks. In response to growing tourism demand, residents would provide basic services to tourists, such as home-stays, small hotels, restaurants, and guided tours. Over time, after tourist demand was established, outside investors and international hospitality companies would build larger, more globally recognized tourist amenities.

Initially, tourism destination promotional efforts were typically organic or housed within local Chambers of Commerce or similar economic development organizations. These organizations would be given a charge to develop and grow tourism. At this early stage of tourism development, the focus remained on basic destination marketing, with little attention given to destination management or planning regulations.

After destinations reach the growth phase of the tourism business cycle, they implement tourism-specific taxes, primarily hotel occupancy taxes, which fund improved infrastructure or enhanced marketing campaigns. With additional tax revenues and digital marketing tools, the first stand-alone Destination Marketing Organizations (DMOs) were formed, each with its own governance, staff, and funding. DMOs were typically responsible for destination branding, attracting media events, participating in trade shows, and conducting advertising and other promotional activities. Almost all of their work was aimed at increasing the number of visitors to the destination.

Between approximately 2000 and 2019, this model of destination promotion expanded rapidly as tourism tax revenues increased. Tourism was among the earliest industries to take advantage of the internet to scale its business. Additionally, social media shortened the time required for tourism development; previously unknown destinations could suddenly receive international publicity after being featured in a single viral video or post by an influential person. For example, public land managers observed a related trend, noting that social media has fueled the rise of “selfie traps” of scenic locations that draw large crowds of visitors eager to capture and share self-portraits online (Mackenzie et al. 2023). The instant and widespread publicity that often resulted from such viral posts, prior to the creation of infrastructure plans to accommodate the increased visitor numbers, often placed significant strain upon the local community.

By the end of the 2010s, the negative effects of unchecked tourism growth became evident. Communities began experiencing the unintended consequences of their tourism successes. Consequently, some destinations transitioned from a destination marketing model to a destination management model that attempted to manage tourism. Traditionally, destination marketing was a pure economic development function focused on promoting a destination and attracting visitors. In

contrast, destination management emphasizes maintaining or improving the destination itself. At its core, management seeks to balance and shape visitor demand, protect the destination's natural and cultural assets, and ensure visitors have a high-quality experience. In other words, Marsiglio (2017) explains that effective destination management requires that "tourist flows are carefully controlled, balancing economic benefits and environmental costs." However, transforming agencies from promoters to regulators has been challenging. Many agencies lack the authority, independence, or organizational resources to effectively manage tourism's negative externalities.

The rapid growth in tourism, driven by the information age, has heightened the challenges of managing it. Today, communities face shorter timeframes, greater public scrutiny, and a louder voice from residents increasingly concerned about the growth of tourism and greater control over its promotion and regulation. This tension between tourism stakeholders and residents is a recurring theme in the growing body of research on resident sentiment, which will be examined later in this paper.

2.1.4 Unsustainable Growth Trends

Successful tourism development depends on maintaining equilibrium among visitors, the communities and environments they interact with, and the institutions and businesses that deliver tourism services (Sharpley 2013). For years, the tourism industry has followed an unsustainable trajectory, largely due to the negative externalities it produces. The vast majority of destinations were never designed with tourism in mind, and as a result, few have considered, let alone measured, their capacity limits. This has left communities vulnerable to unchecked growth.

Traditionally, tourism has been treated with a laissez-faire mindset, regarded almost universally as a positive economic force. Even in progressive destinations that recognize the need to manage tourism's impacts, the lack of tools and standards to estimate carrying capacity has made effective management unattainable. In a system that doesn't understand its limits, sees all growth as positive, and lacks metrics, it becomes impossible to distinguish between healthy and harmful expansion. But as will be discussed in this paper, tourism growth is not cost-free. Economists have long acknowledged that firms and households in markets such as tourism often do not internalize all the costs and benefits associated with their resource-allocation decisions (Bailey and Richardson 2010).

2.2 Literature Review

The following literature review applies an economic lens to the study of tourism. Tourism accounts for a significant share of many regional and national economies, and economic theory offers valuable insights into the forces that shape tourism systems, particularly the supply-and-demand dynamics that shape residents' perceptions of tourism. In fact, as one scholar points out, participation in tourism is fundamentally driven by economic factors, making economics a valuable framework for examining and interpreting many dimensions of tourism (Bailey 2025).

2.2.1 Destination Lifecycle

Just as manufactured goods like an iPhone follow a predictable lifecycle, tourism destinations also develop and change over time. Yang et al. (2023) emphasize that tourism destinations develop and change over time in much the same way that products progress through a lifecycle. One of the best-known models for explaining how tourism destinations develop over time is the Tourism Destination Lifecycle (TALC). This model, first introduced by Butler (1980), describes a clear and orderly progression through six stages of development: exploration, involvement, development, consolidation, stagnation, and, finally, either decline or rejuvenation (Figure 1). The TALC model has the same sequential characteristics as a traditional product lifecycle model.

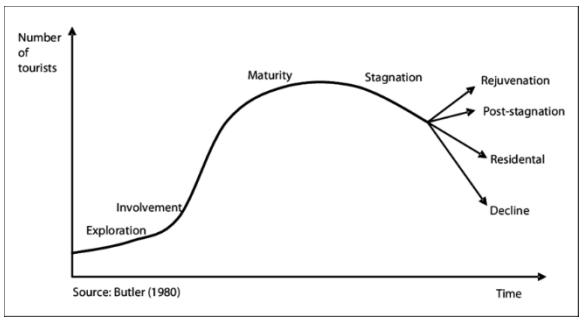

Figure 1: Tourism Destination Lifecycle (TALC)

According to Butler, there are identifiable changes in visitor numbers as the destinations mature. Despite widespread acceptance, this model has been criticized for neglecting the impact of political, cultural, and institutional factors on a tourist destination's development trajectory. These critiques will be expanded upon later in the paper.

2.2.2 Welfare Analysis

The destination lifecycle establishes a natural link to welfare economics, where tourism's impacts on

destinations are evaluated not only by growth metrics but by their effects on the destination's collective community. To understand the rise of anti-tourism, welfare economics provides a useful framework. Shavell (2003) explains that welfare economics offers a normative lens for evaluating the choices a society can make. This approach assesses social outcomes by first establishing the utility or well-being of every individual and then summing those values to produce a collective welfare measure.

To evaluate the relationship between tourists and residents, welfare analysis is a valuable tool because microeconomic theory generally holds that individuals acting in a free market maximize their utility. This idea of an individual making rational choices to maximize his personal utility was first introduced by John Stuart Mill, who characterizes a hypothetical individual as a self-interested actor seeking to maximize his personal utility (Wheeler 2024).

In general, utility is considered synonymous with an individual's satisfaction, which, for purposes of this research, is relevant as I attempt to measure residents' utility and overall satisfaction with tourism in their community. Tourists decide on where to vacation based on the perceived net benefit (utility) derived from a destination, weighed against travel and accommodations costs. For residents, however, the utility experience of tourism is more complex.

An important dimension of resident welfare involves negative externalities that affect the community. A common externality is the impact of tourism on a destination's infrastructure. Tensions between residents and visitors are intensified because both groups are attracted to the same amenities, public spaces, natural attractions, and community resources. These are often public goods or common-pool resources: non-excludable and accessible to all. As a result, tourists can enjoy them without directly contributing to their maintenance. For instance, in Bend, Oregon, transportation infrastructure is partially funded by resident home utility fees rather than by sales taxes paid by users (tourists), placing disproportionate costs on locals.

This paper will examine how residents maximize utility and evaluate the positive and negative impacts of tourism on resident welfare. It is important to note that in this context, utility maximization refers to maximizing social utility, which is the combined satisfaction of visitors and residents.

2.2.3 Social Exchange Theory

In broad terms of welfare economics, Social Exchange Theory (SET) provides a framework for how residents assess the overall welfare impacts of tourism. SET builds on early economic ideas about exchange and rational decision-making introduced by John Stuart Mill (1865). The theory, which is

founded on the assumption of rational choice, prescribes that individuals act to maximize perceived benefits and minimize perceived costs. This reflects the broader economic perspective that when numerous independent actors pursue their own interests, the interaction of supply and demand tends to generate outcomes that approximate economic efficiency and enhance overall social welfare (Bailey 2025).

In tourism, residents' evaluation of tourism is viewed as a form of exchange in which perceived benefits, such as jobs and tax revenue, are weighed against costs, including overcrowding and environmental problems. That is, social exchange theory focuses on understanding interactions as exchanges of valued resources, whether physical goods or symbolic rewards, between individuals or groups (Sharpley 2013).

From the point of view of welfare economics, these behaviors could also be viewed as an informal benefit-cost calculation by the community. Residents living near or around tourist amenities evaluate both the marginal benefit from tourism and the marginal cost. If they perceive net benefits from tourism activity to be greater than its costs, they will have higher social utility and will likely support expansion of tourism development. However, if they perceive their tourism costs exceed their benefits, residents may seek to constrain tourism to restore the destination to a social equilibrium.

2.2.4 Pareto Frontier

Building on Social Exchange Theory, Vilfredo Pareto recognized that welfare outcomes are influenced not just by rational decision-making, but by social context and behavior (Pareto 1906). Therefore, welfare outcomes can be examined using the concept of a Pareto frontier to understand how total destination welfare is shared between residents and tourists. The Pareto frontier represents the set of feasible welfare combinations that can be achieved given existing constraints (Figure 2). Points on this frontier illustrate the boundary beyond which gains for one group can occur only at the expense of the other.

In a destination context, the Pareto frontier reflects the feasible combinations of resident and tourist welfare given economic, social, environmental, and political conditions. Outcomes inside the frontier indicate situations in which total welfare is not fully realized, suggesting that tourism policies or management interventions could improve outcomes for both residents and visitors simultaneously. This is likely to happen more often in early stages of tourism development.

In this paper and in subsequent analysis, the Pareto frontier is used to illustrate how resident–visitor

relationships evolve over the destination lifecycle, ultimately contending with organic or policy-driven binding constraints. As these limits are reached, tourism policy decisions increasingly involve trade-offs rather than shared gains. Although the primary focus of this paper is resident welfare, the Pareto frontier highlights that tourist welfare remains a component of total welfare, particularly in more mature destinations.

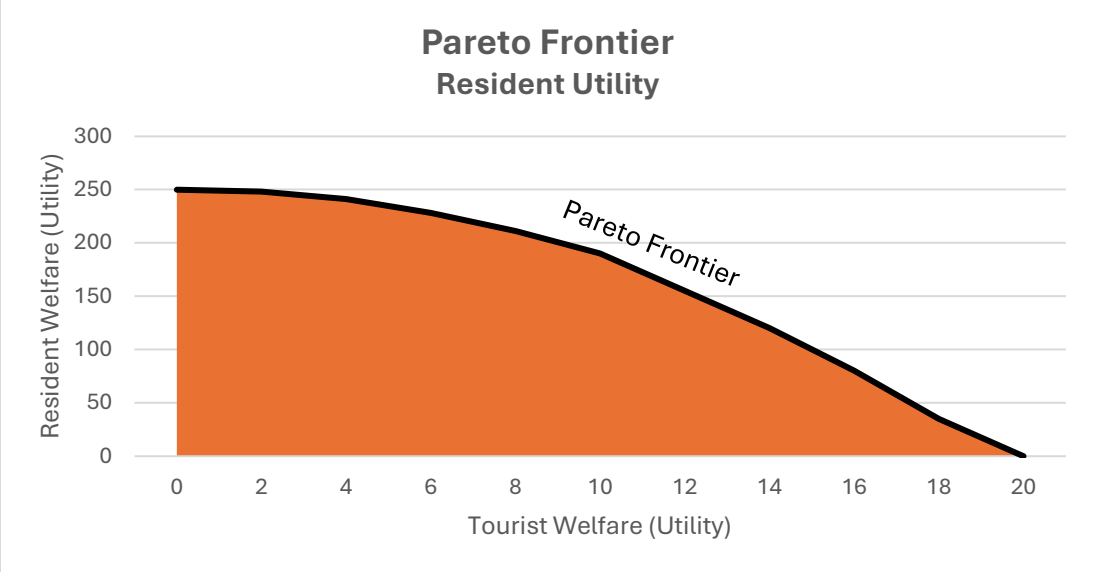

Figure 2: Pareto Frontier Graph

2.2.5 Measuring Utility

Advancing the idea of Pareto efficiency raises a key issue: what is the best method to measure and compare changes in the welfare of residents and visitors? Measuring utility is not a new challenge, and it has been widely explored across disciplines using a range of methods. Meleddu (2014) reviews several approaches to evaluating residents' utility and overall satisfaction with tourism, including attitude and perception surveys, structural equation models, revealed-preference methods, stated-preference methods, and discrete-choice experiments. Yet even with these tools, the broader task of translating individual utilities into a collective measure remains unsettled. Shavell (2003) concludes that welfare economics offers many ways to aggregate individual utilities and lacks a single, agreed-upon standard.

Meleddu's (2014) main critique of survey-based approaches to measure utility is that “on the whole, most of the studies examining residents’ perceptions are mainly descriptive and are aimed at establishing residents' support, generally lacking of supportive theories.” Meleddu goes on to

highlight discrete choice experiments as the most effective tool for measuring welfare, while also acknowledging their limitations. Meleddu (2014) notes that the approach is difficult and costly to implement because it requires extensive expertise and resources.

Much of the referenced literature does not fully address the practical feasibility of these methods in real-world applications. In practice, resident utility measurement would likely fall to destination management organizations to design and administer such studies. Yet, few have the budget, expertise, or time to implement discrete choice experiments at scale. It would also be necessary to continually monitor sentiment for it to have practical value. In other words, although this framework has merit as an academic concept, it does not account for the realities of implementing it in the field.

To assess resident utility in the field, two survey questions have become the most widely used (Figure 3). Their application as a key performance indicator in tourism economic development is increasingly common, as reflected in more recent destination surveys. The first question compares the perceived benefits versus the costs of tourism, providing a community-level indicator of net utility. This question is framed at the destination level, capturing whether tourism is, overall, viewed as having a positive or negative impact on the community. The second question, which asks whether tourism has a positive or negative impact on a person's quality of life, offers a more individualized measure of utility or satisfaction.

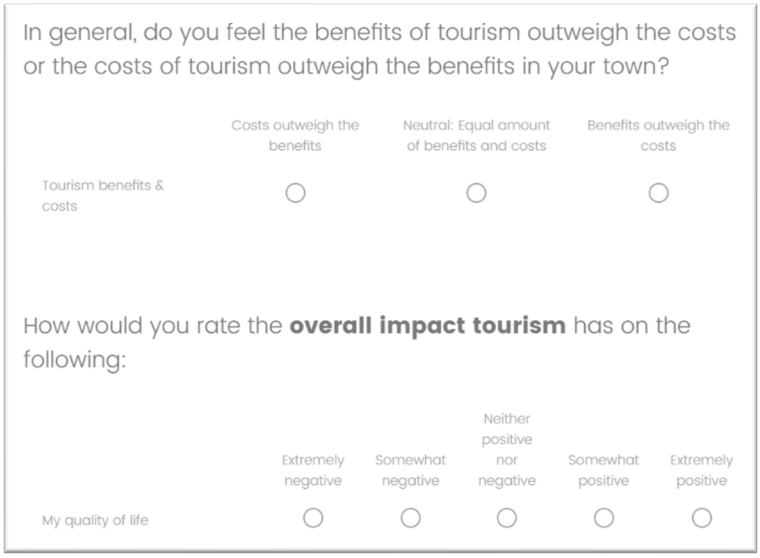

Figure 3: Utility KPI Questions

Previous research has shown that quality-of-life measures often function as leading indicators of a resident's overall cost–benefit evaluation. When residents perceive improvements in their quality of

life, their assessments of tourism's benefits tend to follow the same direction (Montgomery 2023). In other words, when a resident believes that their personal quality of life (or utility) has decreased because of tourism, but their community as a whole may be better off, they will eventually have more negative feelings overall. This example illustrates trade-offs between an individual's collective utility and individual utility within tourism-impacted communities.

Although attitude and perception surveys are less common in economics, this paper draws on hundreds of resident perception surveys conducted across global tourism destinations, including several authored by the researcher. One frequent critique of using perception-based tools in economics stems from Paul Samuelson's (1938) foundational paper, in which he advocates for shifting away from introspective or psychological concepts of utility toward observable behavior.

However, the use of perception data is still widely utilized in economics, particularly in macroeconomics. For example, consumer confidence surveys are a central tool in measuring economic expectations. It is also worth noting that these perception-based indicators influence both market behavior and national policy decisions. In this way, survey tools are not merely theoretical constructs; they are important to real-world economic analysis and this paper.

While observable behavior remains the ideal in economics, in some applied settings, such as this study, it can prove impractical, particularly due to constraints on data availability, time, and budget. As a result, survey-based perception tools, while imperfect, are the most feasible and informative option available at this time.

2.2.6 Production Function

Measuring utility provides insight into connecting individual preferences to broader economic systems. By modeling destinations as production functions, it can better explain how inputs such as labor, capital, natural resources, and policy alter tourism outputs. Interestingly, these outputs then shape the utility and welfare of residents and visitors alike.

Bailey and Richardson (2010), in *A New Economic Framework for Tourism Decision Making*, propose a production function as a means of evaluating utility. Building on this, Melleddu (2014) references their work, noting that resident attitudes toward tourism can be interpreted economically by assessing how people weigh the benefits and costs generated by tourism-related externalities. In their framework, Bailey and Richardson (2010) specify that the production function is subject to constraints imposed by physical, environmental, and sociocultural carrying capacities.

Bailey and Richardson (2010) introduced the following production function to illustrate the economic

trade-offs associated with tourism and their impact on the environment and the community:

$$\text{Max } \prod = P.\ f\ (l, k) - wl - r\ k \text{ s.t. } Y = f\ (l, k, \mu, \xi, \boldsymbol{\upsilon})$$

Where:

- P = price of output - the market price at which the good or service is sold.
- Y = output level - the total quantity of goods or services produced.
- l = labor input - the quantity of labor employed, typically measured in hours or workers.
- k = capital input - the quantity of physical capital used in production.
- w = wage rate - the price of labor, typically measured as the cost per unit of labor input.
- r = rental price of capital - the price of using one unit of capital, such as interest or depreciation.
- μ = physical carrying capacity - the maximum number of visitors or volume of activity that physical infrastructure can accommodate without deterioration.
- ξ = environmental carrying capacity - the maximum level of visitor use or development that the natural environment can absorb without permanent ecological damage.
- **υ = sociocultural carrying capacity -** the maximum level of tourism activity that local communities can tolerate without experiencing unacceptable social or cultural disruption.

The sociocultural carrying capacity, denoted by υ, is of particular importance to this paper as it directly relates to anti-tourism sentiment and tourism tax policy. Within the production function framework, this dimension provides an effective variable of whether residents perceive tourism as beneficial or detrimental to their community. Unlike physical or environmental limits, which can be quantified at great expense, sociocultural capacity requires measuring resident attitudes and perceptions.

Figure 4 illustrates that communities serve as the earliest and most sensitive indicator of destination strain. Doxey's (2010) and Saveriade's (2000) research on carrying capacity referred to social thresholds that are often reached before physical or ecological limits are. In other words, long before physical or environmental limits become visibly measurable, residents experience and report emerging pressures through shifting sentiment. This real-time awareness enables communities to detect constraints earlier than traditional technical assessments, making social carrying capacity the first threshold to signal imbalance. As concerns intensify, they foreshadow the eventual manifestation of physical and environmental constraints, underscoring the importance of monitoring community sentiment for proactive tourism planning and governance. As one researcher notes,

“Vast amounts of funding have been poured into identifying ecological carrying capacities in other areas of the country but, as Stimpson points out, the social limit of an area is often reached first” (Springuel 2000).

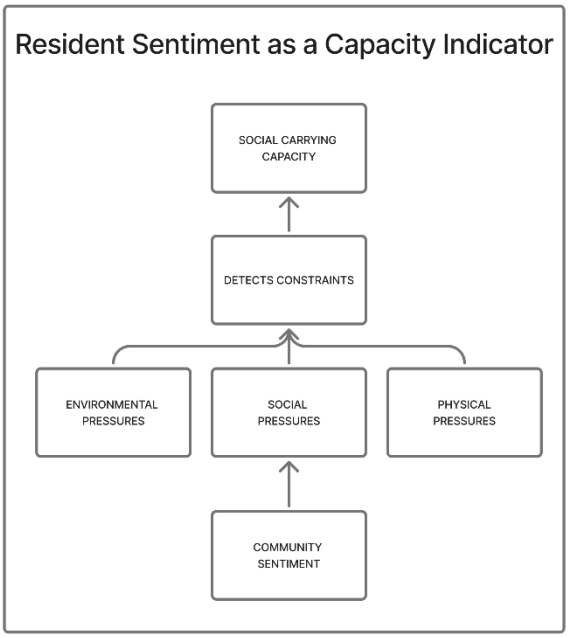

Figure 4: Resident Sentiment as a Capacity Indicator

As discussed in the earlier section, survey tools that ask residents to weigh the benefits against the costs of tourism provide a practical method for capturing this constraint. The results offer not only an accessible and cost-effective way to operationalize the concept of sociocultural carrying capacity but also a means to translate it into real-world decision-making.

Figure 5 below illustrates the tourism production function under multiple capacity constraints, demonstrating that destinations often don’t encounter physical or environmental limits first. As tourism input expenditures increase, tourism output initially rises steeply before tapering due to diminishing marginal returns. However, the production curve intersects the community carrying capacity threshold well before reaching the environmental or physical carrying capacity levels. This indicates that resident tolerance, social infrastructure strain, housing pressures, congestion, and perceived quality-of-life impacts become binding constraints earlier than ecological degradation or built-environment limitations. In practice, community carrying capacity functions as a warning sign, implicitly reflecting both physical and environmental pressures as experienced by residents.

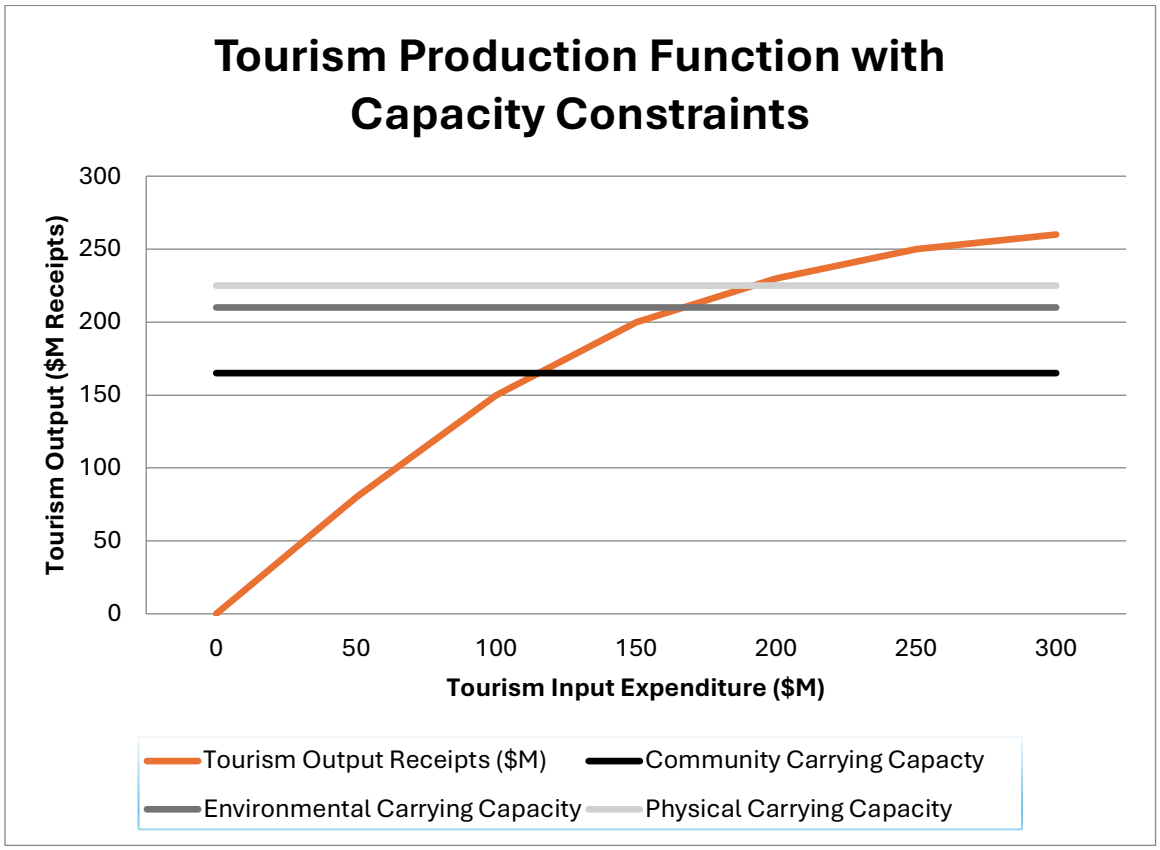

Figure 5: Tourism Production Function with Capacity Constraints

To reflect the prominence of Community Carrying Capacity and the role of ongoing monitoring via resident polling, the expanded formula becomes:

$$v_t = \frac{1}{n_t} \sum_{i=1}^{n_t} 1_{i,t}$$

- **v =** Sociocultural capacity — the proportion of residents who believe that the benefits of tourism outweigh the costs. Ranges from 0 (no support) to 1 (full support).
- **n =** The total number of residents who answered the survey.
- **I =** Index for each individual resident, from *i = 1* to *i = n*.
- **1_i =** An indicator variable for resident *i*.
- **1_i** = 1 if the resident's response is that costs exceed benefits.
- **1_i** = 0 if the resident is neutral or benefits exceed costs.

For example, if 101 respondents out of 200 indicate that the costs of tourism outweigh the benefits, then this means that just over 50% of residents perceive the costs of tourism as greater than their benefits. In terms of the production function, this marks a decisive sociocultural or community constraint on tourism output. As tourist arrivals increase (moving along the x-axis), more residents view tourism negatively. Once the majority of the local population sees that tourism's disadvantages outweigh the benefits they receive, the local community's tolerance has been reached. Therefore, additional growth is likely to meet increasing resistance, either through new political restrictions or through loss of public support for the tourism industry.

In short, Figure 6 demonstrates that once resident sentiment crosses the majority threshold, tourism growth becomes socially unsustainable around 50,000 tourists in this example, regardless of physical or environmental capacity. The graph also illustrates that tourist numbers cannot grow indefinitely. Just as physical infrastructure or the natural environment imposes limits, resident sentiment also creates a ceiling. When too many residents perceive costs as outweighing benefits, tourism becomes socially unsustainable.

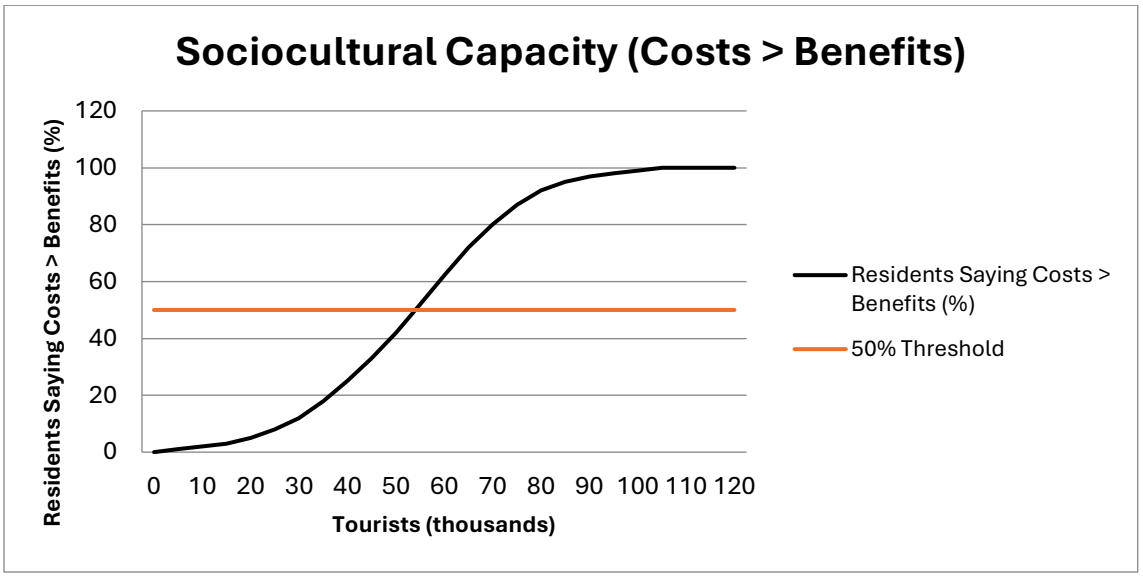

Figure 6: Sociocultural Capacity (Cost > Benefits)

The updated production function now incorporates resident sentiment as an additional constraint. Resident sentiment is measured through survey responses based on the costs-versus-benefits question, where the share of residents indicating that tourism's costs outweigh its benefits defines the sociocultural capacity parameter υ. By embedding this measure into the production function, the model now captures how community support (or opposition) acts as a binding constraint on tourism

output, alongside physical (μ) and environmental (ξ) capacities.

$$\boldsymbol{max\_\{l,k\}\ \Pi\ =\ P\,f(l,k)\ -\ w\,l\ -\ r\,k}$$

$$\boldsymbol{s.t.\ Y\ =\ f(l,k,\mu,\xi,\nu)},\ \ \nu_t = \frac{1}{n_t}\sum_{i=1}^{n_t} 1_{i,t}$$

2.2.7 Doxey's Irridex

One of the earliest researchers to model residents' negative perceptions of tourism was the introduction of the Irritation Index in 1975. This index argued that tourists can generate escalating "irritations that prove harmful in the long run to tourist development (Doxey 2010)." His research suggested that residents' attitudes toward tourism progress through a sequence of stages, starting with enthusiasm and ultimately culminating in hostility. The framework illustrates how host communities' tolerance and perceptions shift as tourism activity scales up and intensifies.

Doxey conceptualized this trajectory as a four-stage continuum: euphoria, apathy, annoyance, and antagonism. In the euphoria stage, residents welcome tourism with optimism, viewing visitors as sources of economic opportunity and cultural exchange. According to Doxey (2010), the early phase of tourism development is usually marked by residents welcoming both visitors and new investment. As tourism activity increases, these positive sentiments gradually diminish in response to growing commercial pressures. By the apathy stage, tourists are no longer viewed with the same warmth, and local–visitor interactions shift toward more detached and formal exchanges.

With continued growth and the emergence of externalities such as congestion, communities enter the annoyance stage. Eventually, when perceived costs outweigh benefits, the community reaches the antagonism stage, where these irritations become noticeable to residents and visitors. At this point, visitors are viewed as a direct threat to residents' way of life.

Doxey's framework has faced several critiques, many of which parallel those directed at Butler's Tourism Area Lifecycle. The model assumes a linear, homogeneous progression across the community, implying that all residents experience and internalize tourism impacts at the same pace. Subsequent research, however, demonstrates that attitudes toward tourism are highly heterogeneous and shaped by factors such as proximity, economic dependence, and personal values (Sharpley 2013; Meleddu 2014). Additionally, like Butler's lifecycle, the Irridex does not account for policy interventions or community adaptations that may halt, reverse, or stabilize negative sentiment, which is a key area this paper seeks to address.

2.2.8 Community Attachment Theory

While Doxey's Irridex provides insight into the evolution of resident sentiment, Community Attachment Theory helps to understand how social and emotional factors influence residents' sentiment. Community Attachment Theory, which is related to the Endowment Effect, emphasizes that individuals with a strong connection to their community (destination) are more likely to be sensitive to tourism's disruptions. Yet also more motivated to engage in its stewardship and planning.

Attachment theory offers a framework for explaining how tourists experience and respond to tourism development. The bonds formed through attachment will also influence how well residents accept changes in their neighborhood (such as those brought on by increased tourism) and whether they are willing to support or oppose the activities of the tourist industry. Kasarda and Janowitz (1974) argue that residents' perceptions are shaped by their level of concern for the community, their emotional connection to it, their environmental awareness, and the extent to which they rely on the same resources as tourists.

2.2.9 Growth Machine Theory

While Community Attachment Theory focuses on the emotional and social aspects of residents' connections to their community, Growth Machine Theory emphasizes how the political and economic systems governing an area shape its growth. This theory was first developed by Molotch (1980), who argues that local elite groups and pro-development alliances are likely to emphasize land development and expanding tourism as means of wealth generation. These priorities are often at odds with residents who are attached to their community and prioritize well-being over financial gain. Urban elites, such as developers, landowners, and business leaders, seek to grow their communities by leveraging increased property values and wealth creation through active support of community growth initiatives.

The Growth Machine Theory can help explain how destinations typically grow their visitor economies at the expense of residents' quality of life and long-term sustainability (Logan 1987). Logan further explained the concept by noting that local development coalitions mobilize political and cultural resources to create an image of consensus around growth, which masks the underlying conflict and inequality in the process. This has been seen in tourism-related policies that favor short-term economic gains and capital investment.

2.2.10 Political Economy & Related Concepts

Political economy explores how rules, incentives, and power structures influence economic decisions and their outcomes. Central to democratic governance is the principle that institutions should act in accordance with citizens' preferences. Scholars argue that such responsiveness is not optional but intrinsic to how democracy is defined and evaluated (Hobolt and Klemmemsen 2005).

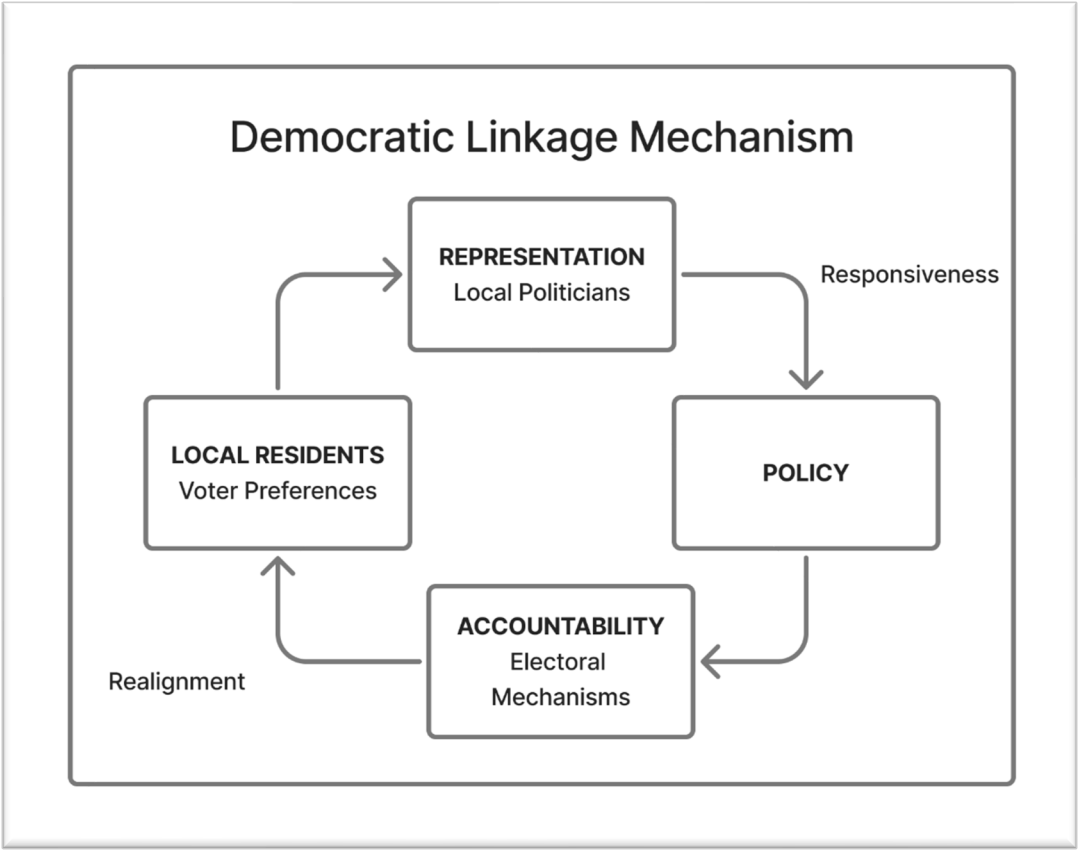

Figure 7: Democratic Linkage Mechanism

Applied to the tourism industry, a common theme emerges: unbalanced destinations and declining tourist sentiment are not moral failures but expected outcomes of rational incentive systems. Nordhaus's (1975) Political Business Cycle shows how electoral pressures push politicians to prioritize short-term gains over long-term stability (Figure 7). Buchanan and Tullock's (1962) Public Choice Theory frames politics as a marketplace where self-interested actors aim to maximize votes and influence, often by placating vocal minorities rather than implementing efficient reforms. Taken together, these perspectives illustrate that tourism policy often struggles to achieve a socially optimal balance of tourism activity because political incentives reward short-term visibility over long-term welfare.

3 Analysis

This section examines how tourism, often viewed as a powerful engine of economic growth and community development, can over time, become a source of tension and conflict. Although the benefits of tourism are well known, they increasingly come with high costs that communities must absorb.

Additionally, the analysis will examine the limitations of Butler's Destination Lifecycle Model, reviewing the relationships between destination attributes and resident sentiment, as well as the responses of both communities and policymakers when tourism growth appears to exceed a destination's carrying capacity. These analyses collectively provide a basis for proposing new tourism governance models that maintain tourism's economic viability while ensuring long-term social and environmental sustainability.

3.1 Overtourism and the Rise of the Anti-Tourism Movement

In national news media, there are almost daily reports of residents opposing tourist activity. From Europe to Asia to North America, stories abound of communities experiencing excessive tourism, a phenomenon known as "overtourism." Nepal and Nepal (2021) define overtourism as a phenomenon in which a popular destination becomes overrun with tourists in an unsustainable way.

Amid heightened media attention to overtourism in recent years, a common theory holds that resident pushback started during the COVID-19 pandemic. According to this view, the pandemic functioned as a large-scale, unintended experiment that allowed communities, many for the first time, to experience daily life without tourism. During the pandemic, reports emerged of nature rebounding in areas that had historically attracted large crowds of tourists. For example, in Waikiki, residents experienced beaches largely devoid of people, much as they may have been before the advent of mass tourism. Similarly, other coastal communities reported seeing an abundance of marine life not seen for many years. Locals who had previously avoided tourist areas due to overcrowding began to revisit them for the first time in decades. The money generated by tourism was replaced with government stimulus funds to help keep families financially afloat. As such, residents were able to enjoy a respite from their community's reliance upon tourism and continue to appreciate the natural beauty of their area.

To better understand when overtourism became more prevalent in communities, I examined four distinct data sources:

Global News Media Mentions and Google Search Trends

The first is a global database of news articles available at the GDELT Project (2025) that referenced the term “overtourism.” This data source provides insight into how often and when the issue entered public discourse. The results show a sharp spike in mentions of overtourism in the two years leading up to COVID-19, followed by a dip during the pandemic. However, mentions of overtourism had a strong resurgence in 2024, approaching 2019 peak levels.

To cross-reference this data with a similar data source, I exported data from Google.com to calculate the frequency of search terms like “overtourism” and “anti-tourism." The orange line in Figure 8 shows that the frequency reflects public interest and awareness of overtourism trends. These trends mirror media coverage, with a slight lag and lower intensity during the pandemic years. However, the relative upward trajectory remains consistent in 2024.

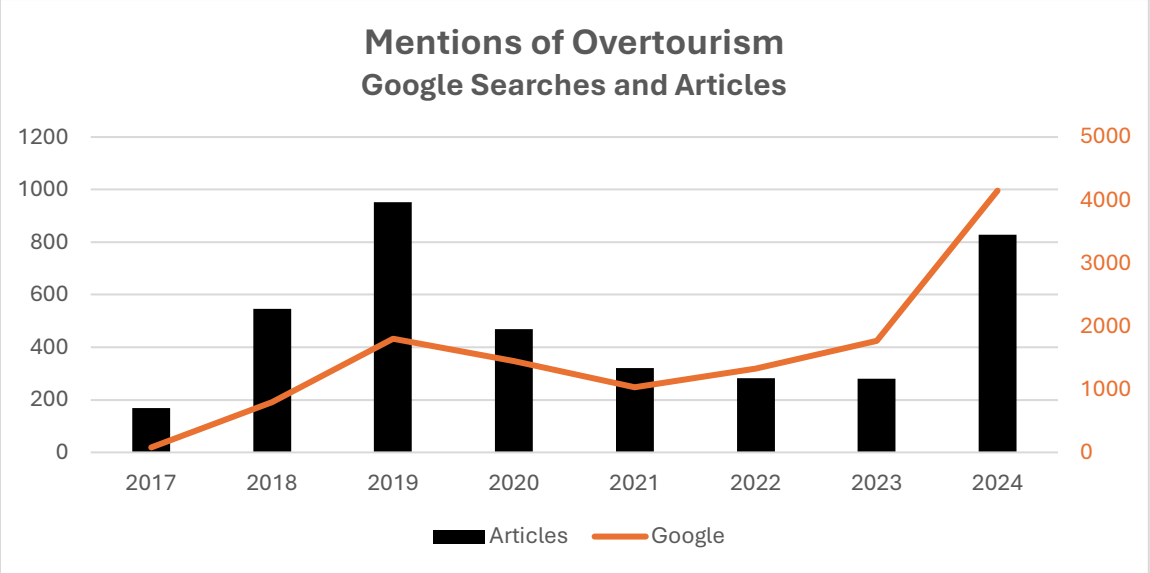

Figure 8: Mentions of Overtourism

Resident Sentiment Data (OSU Sustainable Tourism Lab)

Starting in 2022, the OSU Sustainable Tourism Lab developed an extensive database of resident sentiment surveys conducted at over 300 destinations. These surveys often ask a core question about community sentiment toward tourism, such as: Do the costs of tourism outweigh the benefits? In 2016, the aggregate results across destinations showed that 18.4% of surveyed residents said the costs of tourism exceeded its benefits in their communities (Figure 9). By 2023, this number had grown to over 30%, representing growing dissatisfaction with tourism. While early tourism sentiment

data was rare (limited to destinations already struggling with overtourism), this data source provides a useful benchmark for measuring perceptions of overtourism over time. Later in the paper, this data and the resulting research will be expanded upon.

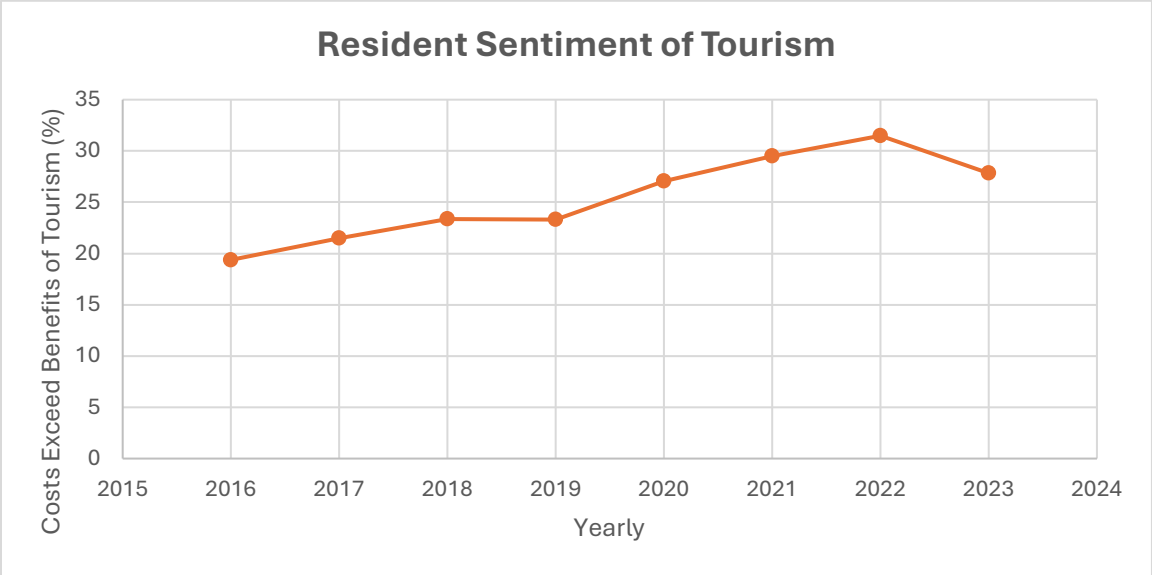

Figure 9: Resident Sentiment of Tourism

State-Level Tourism Legislation (U.S.)

Using the legislative tracking website BillTrack50.com, I reviewed state-level bills related to tourism introduced in the U.S. from 2017 to 2025 (Figure 10). Each bill was coded with dummy variables (e.g., tourism taxes, revenue reallocation, regulation). This analysis provides insight into how resident sentiment towards tourism may influence political action to constrain tourism. While policy changes tend to lag, a notable spike in tourism-constraining bills occurred in 2019, plausibly an early reaction to rising concerns of tourism.

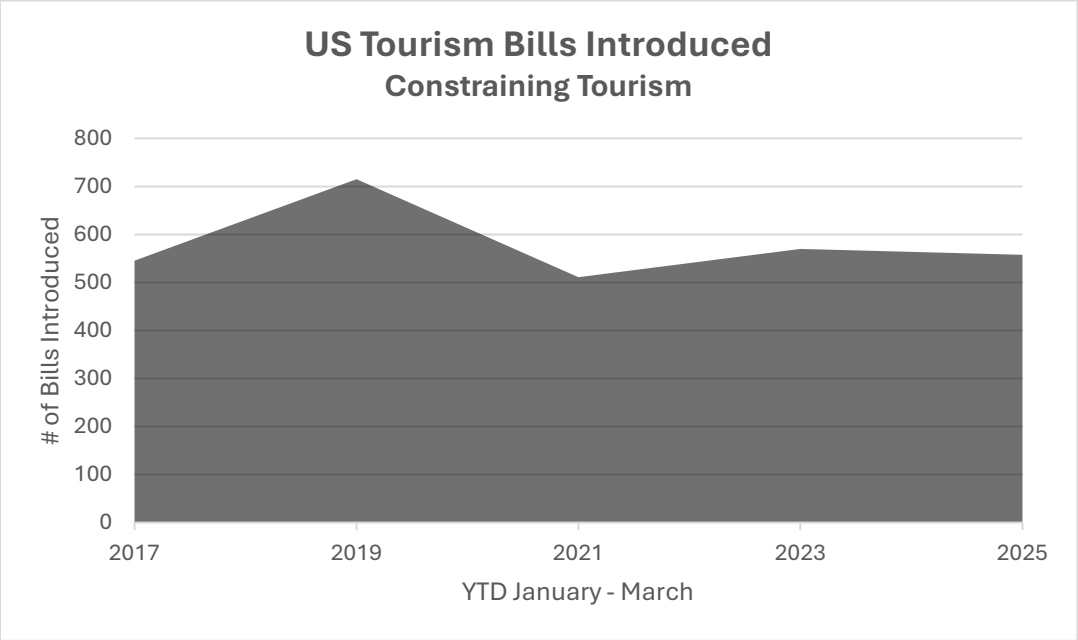

Figure 10: US Tourism Bills Introduced

Key Findings Across All Sources

When we triangulate evidence from media coverage, search trends, legislation, and resident sentiment, a consistent pattern emerges. Opposition to tourism was already rising before COVID-19. The pandemic did not create anti-tourism sentiment, but it likely amplified existing concerns and delayed a coordinated political response.

Notably, the analysis also suggests that tourism legislation lags behind resident sentiment, which would make sense in a democracy. So, with anti-tourism sentiment peaking again in 2024, we could see another legislative surge in 2025–2026, much like we did leading into 2019. In fact, many of the new bills under consideration focus on two main areas: constraining tourism and reallocating tourism-generated revenue away from marketing/economic development and toward core community services.

3.2 Analyzing and Measuring Tourism Externalities

Many of the ideas explored in the literature review are directly or indirectly tied to negative externalities. So far, the discussion of externalities has focused on issues such as congestion and other impacts on residents' quality of life. To effectively manage these impacts, however, it's important to better understand what externalities are and which are most common across different types of destinations. To explore this, I draw on key findings from the resident sentiment database,

collected as part of the OSU Sustainable Tourism Lab, as well as insights from partner organizations that collect resident sentiment data.

3.2.1 Research Methodology With Novel Data

Beginning in 2022, the OSU Sustainable Tourism Lab launched a multi-year, mixed-methods research program to measure resident sentiment toward tourism across global destinations. The study combines quantitative and qualitative methods to capture residents' perceptions of tourism's economic, social, cultural, and environmental impacts. Surveys were administered using a hybrid model: in-person intercept surveys conducted at community events, public spaces, and other high-traffic locations to reach a broad cross-section of residents, along with online surveys distributed through community partners, local organizations, social media, and email lists to expand reach and demographic diversity. The final dataset includes more than 9,500 valid resident responses from destinations at various stages of tourism development, from early-stage to mature. Survey items measured perceived benefits and costs of tourism, impacts on quality of life, support for future tourism development, trust in local government, attitudes toward visitor behavior, and concerns related to housing, traffic, infrastructure, environmental conditions, community identity, cultural integrity, and place attachment.

To ensure representativeness within each destination, the study used a stratified random sampling design based on U.S. Census benchmarks. Key demographic strata included age, gender, and income. After data collection, the research team conducted proportional downsampling and reweighting to align the survey sample with destination-level Census distributions.

This dataset fills an important gap in this area, as I know of no prior research that uses resident sentiment data at this scale across this many destinations. While there are case studies focused on individual destinations, these projects are often limited by small sample sizes, inconsistent data, and a lack of uniformity across locations.

The standardization of sentiment data from a variety of sources enables an uncommon ability to recognize general trends, analyze how communities respond similarly and differently to issues, and ultimately understand the factors contributing to how local communities feel about tourism.

3.2.2 Key Findings of Externalities and Sentiment

Regional vs. Local Community Sentiment

Regional tourism reports often show higher overall support for tourism. It is often the case because these broader regional samples include respondents living at varying distances from popular tourist amenities and therefore experience lower tourism-related costs. For instance, Sharpley (2013) suggests that residents' attitudes toward tourism tend to become more negative the closer they live to areas of concentrated visitor activity. This implies that regional-level analyses can mask the specific concerns of residents in tourist zones, who experience the most direct and immediate effects.

Tourism Perceptions by Age Group and Length of Residency

To better understand the factors shaping resident sentiment toward tourism, responses were analyzed by age and length of residency. One pattern emerged: older respondents were more likely to believe that the costs of tourism outweigh the benefits.

Length of residency also showed a relationship with sentiment (Figure 11). Among residents who had lived in the community for less than two years, 86% believed tourism brought benefits. In contrast, only 56% of those who had lived in the community for more than 21 years felt the same. This suggests that older and long-term residents may be more aware of tourism's cumulative costs over time.

Community attachment theory offers one possible explanation. Residents with deeper roots in the community often express stronger emotional ties and, consequently, greater sensitivity to changes brought by tourism. Many long-term residents shared open-ended comments reflecting nostalgia, reminiscing about how the community "used to be," implying that it was better before tourism growth accelerated.

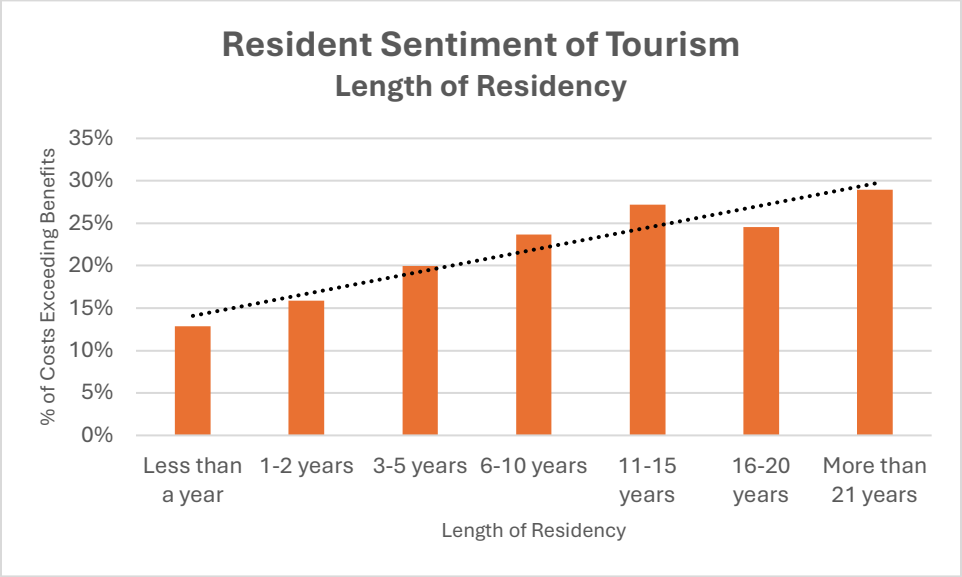

Figure 11: Length of Residency – Resident Sentiment

Another important factor influencing this difference is economic dependence. Long-term residents often remember what the community was like before tourism expanded, and many no longer rely on the tourism industry for their personal or household well-being. From a social equity perspective, people naturally seek to maximize their own welfare, so when tourism no longer contributes to their economic stability or their sense of belonging in the community, their attention shifts toward its drawbacks. As a result, long-established residents are more likely to focus on how tourism affects their daily quality of life, local identity, and the fairness of how costs and benefits are shared. In contrast, newer residents may view tourism more favorably because they arrived after many of the benefits, such as amenities, services, and public investments, were already in place, and they often have less personal experience with the cumulative effects that longer-term residents have observed over time.

3.2.3 Most Cited Negative Externalities of Tourism

Traffic, Overcrowding, Parking & Vacation Rentals

Residents' complaints about traffic are among the most common negative impacts of tourism in the sentiment database. Fifty-two percent (52%) of residents believed that tourists caused the most traffic in their town. Residents frequently expressed frustration with crowding and the difficulty of finding parking near attractions and downtown shopping areas, particularly during peak tourist seasons. Residents in destinations that believe the cost of tourism exceeds its benefits reported stronger views than residents in other destinations.

While short-term vacation rentals offer additional options for travelers, the majority of residents surveyed did not report feeling that short-term vacation rentals added any value to their neighborhoods. Residents of non-tourism areas or in the early stages of the lifecycle tend to favor vacation rentals over residents of tourism areas. Eighty-seven percent (87%) of respondents who reported criticizing short-term vacation rentals felt that short-term vacation rentals contributed to increasing the cost of housing in their area. Given that affordable housing is currently a national issue, several residents appear to link the increase in housing costs to the number of short-term vacation rentals, inferring that vacation rentals are reducing the supply of housing for permanent residents.

Policies restricting vacation rentals have grown over the last five years. While some tourist destinations have established regulatory policies for short-term vacation rentals, several residents in these areas have expressed a desire for more restrictive policies.

3.3 Traditional Economic Policy Approaches to Managing Tourism

3.3.1 Can Tourism Be Managed?

Communities around the world are increasingly concerned about the impacts of tourism. A common theme across these protests is the perception that the costs and benefits of tourism are out of balance. This raises a critical question: despite decades of tourism policy, have policymakers and tourism leaders identified and implemented effective strategies for managing tourism?

This debate gained renewed urgency during the COVID-19 pandemic. As communities feared the arrival of potential superspreaders, many popular tourism destinations attempted, often for the first time, to limit or even shut down visitor access. What became clear during this period was that unless a destination was gated in some form or had physical entry controls, such as airport screening or

border enforcement, it was nearly impossible to “turn off” tourism demand. Ironically, many outdoor-focused destinations saw the opposite of what they intended, which included a surge in visitation during these vulnerable periods.

3.3.2 Traditional Approaches Using the DMO

Destination Marketing Organizations (DMOs) have responded to the rise of anti-tourism sentiment by evolving beyond their traditional focus on economic promotion and development. Some are now attempting to play a broader role in tourism management. However, this shift has produced mixed results, and widespread adoption remains limited.

The first approach involves responsible messaging and efforts to educate visitors on how to travel respectfully. These campaigns typically encourage basic behaviors such as “pack out your trash,” “respect the locals,” or “stay on marked trails.” While this type of messaging can be effective for certain visitor segments who are already motivated to behave responsibly, there is little evidence that it can meaningfully influence behavior on a large scale, particularly when viewed through a social equity lens.

A second approach, adopted by more forward-thinking DMOs, is securing a seat at the table alongside key policy and community leaders. Although DMOs are rarely the authors or enforcers of tourism policy, their involvement has helped inform and educate decision-makers. Still, the effectiveness of this approach has yet to be determined, and quantifying its impacts is difficult.

The third approach shifts the focus away from visitor behavior and instead aims to reshape local understanding of tourism through broader community-wide education efforts. These initiatives are often designed to highlight the value of tourism, explain how visitor spending supports public services, and clarify DMOs' roles within the tourism system. However, because many DMOs have historically emphasized the economic benefits of tourism while downplaying its costs, these public education campaigns are sometimes viewed with skepticism. Both residents and tourists may perceive them as self-serving rather than informative, making it challenging for DMOs to build trust or meaningfully influence community perceptions.

The three DMO approaches above are all examples of "soft" policy approaches, which include educational, communicative, and cooperative approaches rather than "hard" policy approaches (such as taxation, regulation, or restrictions on access) used to address issues related to anti-tourism sentiment. While "soft" policy approaches may be effective in increasing awareness and fostering a sense of cooperation among residents, they remain untested methods for creating long-

term solutions to mitigate anti-tourism sentiment.

3.3.3 Supply and Demand: The Power of Price

Given that DMOs primarily rely on soft policies and lack the authority to implement and enforce hard policies, another fundamental question arises: can a DMO, a largely external organization, influence market forces as complex as those in tourism, where supply and demand dictate outcomes?

This question does not lend itself to a simple answer, especially given the few clear examples of success. As a result, many destinations have either deliberately or by default come to rely on market forces for control over tourism. The power of price in supply-and-demand equations has become a de facto solution for governing tourism.

Hotel, meals, and other tourism product prices are largely determined by competition, internal costs, and profit expectations. These prices do not include the additional costs of negative externalities, such as traffic, residential environments, and general degradation of living conditions. Since these externalities are not reflected in the price, demand exceeds the socially optimal level. But using the price to constrain demand raises questions about the effectiveness of these taxes in addressing externalities and about whether pricing lower-income tourists out of destinations is ethically or morally sound.

A related practical challenge is the issue of price discrimination. The travel industry has long been an early adopter of price discrimination, particularly in airline pricing, which historically differentiated between leisure and business travelers based on booking lead time. This approach has been adopted across other sectors of the hospitality industry for decades and has often straddled a very fine line. For example, in the early 2000s, some businesses used different menu languages to distinguish between Japanese tourists, who were perceived as having a higher willingness to pay, and visitors from other Asian countries.

Applying price discrimination at the destination level, however, is still an emerging and largely experimental practice. In theory, a destination could charge higher prices to visitors who generate greater external costs or lower prices to those who are more sensitive to price changes, thereby creating a more equitable system. In practice, though, it is extremely difficult to implement differentiated pricing without raising significant logistical, privacy, and ethical concerns. Tourists are not a homogeneous group, and destinations currently have no reliable or acceptable method for identifying a visitor's income level or willingness to pay, aside from seasonal price increases during peak periods. Although this could change as new technologies develop, the complexity and ethical

implications make true price discrimination an unlikely solution for most destinations.

3.3.4 Tourism Tax & Fees

Taxes and fees are not the same. Taxes are compulsory payments not linked to a specific service, whereas fees are charges associated with access to or use of a particular resource. Although both instruments can internalize externalities, they differ in important ways, including legal authority, voter-approval requirements, implementation mechanisms, and the degree of compulsion. These differences create distinct opportunities and constraints depending on the destination's tourism policy context.

Nonetheless, for the purposes of this paper, both taxes and fees are treated as potentially effective tools for managing tourism-related externalities, particularly when employed as part of a broader portfolio of complementary policy instruments. While the distinction between the two is important, from a tourism-policy standpoint there are cases in which taxes and fees can function in similar ways and, under certain conditions, be thought of as interchangeable in achieving desired policy outcomes.

Within this broader policy landscape, governments and public authorities most commonly intervene by taxing markets to internalize external costs, which, in theory, should shift demand toward a new, socially optimal level. However, depending on the type of tourist attraction, these tourism taxes are problematic for the destination because public attractions, such as beaches, parks, and forests, are a primary reason visitors come to a destination. These attractions are public goods; both residents and visitors have access to them, and this public access cannot be restricted. If tourists visit a destination in large numbers or in harmful ways, it can impose an additional burden (cost) on the attraction, diminishing it over time.

Figure 12 illustrates a popular microeconomics textbook example that illustrates this market failure. When market failure exists, there is a welfare loss or deadweight loss, resulting in economic inefficiency. This takes place when the marginal social benefit does not equal the marginal social cost. The figure illustrates both concepts. When there is no social equilibrium in tourism, the prices tourists pay do not internalize these additional social costs, which results in overtourism (the gap between Q1 and Q). This is often caused by the free rider problem, which is "when an investment has personal costs, but common benefits" (Gruber 2022). In the case of tourism, visitors enjoy public goods without paying the full social costs their visits impose on them.

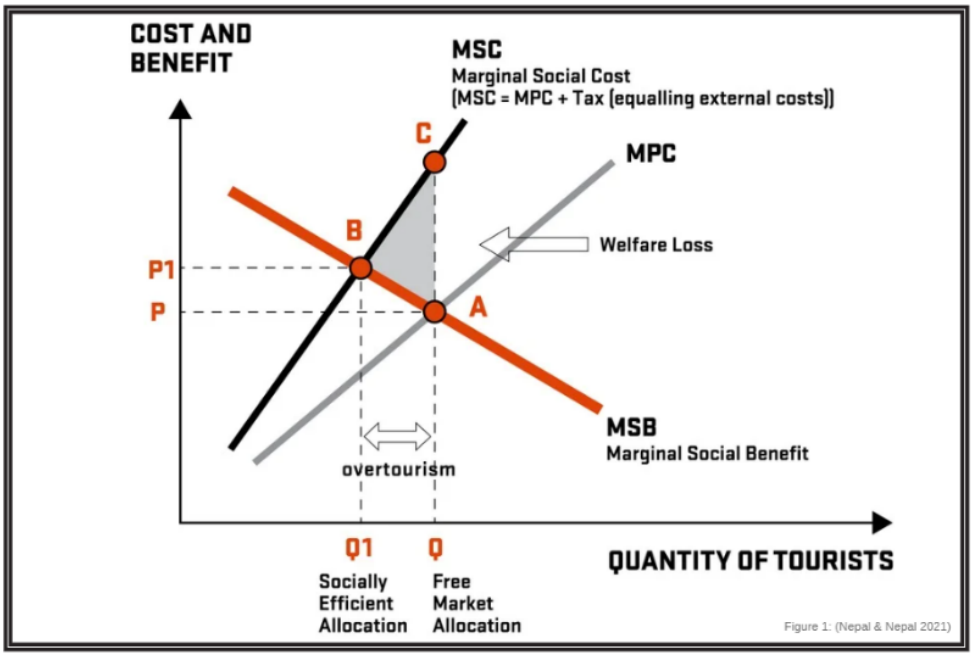

Figure 12: Market Failure

To address this social welfare loss, governments apply a Pigouvian tax on market transactions that cause negative externalities. Examples of other applications of a Pigouvian tax include alcohol and tobacco taxes. The goal "for selecting a tax is to maximize the likelihood of choosing a welfare-enhancing tax" (Sheng 2017). How best to structure this tax is difficult at best. Sheng (2017) notes that determining appropriate tax levels for the tourism sector has been a longstanding point of debate among scholars and industry actors. Tourism businesses typically argue for lower taxes, while many community stakeholders advocate for higher rates, making it difficult to identify an optimal taxation approach. This debate is unfolding globally in major tourist destinations, where policymakers are grappling with how to ensure that visitors help cover the negative externalities they generate and how to distribute the resulting tax revenues.

3.4 Tourism Tax & Fee Policy Challenges

3.4.1 Challenge One - Short-Termism

Destinations, and specifically the DMOs, face tremendous short-term pressures. Whether responding to an economic downturn, a natural disaster, or community pushback against tourism policies, DMOs can struggle to balance short and long-term needs. This short-termism reflects the well-established idea that politicians invest more in short-term public goods because, by so doing, they expect to increase their reelection chances (Nordhaus 1975; Buchanan 1962).

However, making decisions under immediate pressure can have a profound effect on the destination's lifecycle. These choices can further exacerbate social welfare losses, as discussed earlier. The literature notes that political short-termism typically undermines social welfare, a dynamic that often coincides with the generation of negative externalities (Garrì 2010).

Given the difficulty of measuring and monitoring tourism externalities, the result of this internal political motivation is that politicians often invest in visible projects that do not address the underlying costs of tourism. This tendency also discourages the development of tax policies or regulatory measures that could mitigate these less visible but significant social and environmental costs.

3.4.2 Challenge Two – Who Protects the Destination's Long-Term Interests When Politicians Can't or Won't

To preserve the destination for future generations of residents and visitors and to put it on a sustainable path throughout its lifecycle, the destination needs a long-term vision and a protector. DMOs were intended to be primarily economic development organizations, but they can often succumb to the immediate need to preserve themselves and remain relevant. Also, the current structures of many DMOs lack the incentives, authority, and expertise to serve as long-term protectors. Fyall and Garrod (2019) highlight this dynamic, noting that DMOs are challenging to manage because they involve intricate networks of stakeholders. This complexity means that destinations are influenced by numerous forces operating within both their internal and external environments. As a result, they can also devolve into political and bureaucratic entities they hoped to overcome.

3.4.3 Challenge Three – Tax Collection Often Does Not Address Negative Externalities

Tourism tax revenue allocation varies, in some cases significantly, across communities. It also varies if and how the tax revenue's intended purpose is stated in the law or municipal code. This is largely because taxation policy emerges from a complex political process in which different interest groups advocate policies that advance their own interests (Sheng and Tsui 2009).

In cases where tax revenue allocation is stated in law, it can be vague or overly broad. There are also cases where the allocation is deferred to a separate party, such as a City Council. Regardless of how the laws are written, specific negative externalities or the costs associated with tourism are almost never stated outright. For instance, in Cancun, Mexico, roughly 80 percent of tourism revenues have historically been directed to the national tourism authority rather than to local governments. As a

result, municipalities have had to rely on federal transfers to cover local expenses related to health, welfare, and environmental management—areas that were often neglected at the local level (Travel Foundation 2019). The result is that tourism tax revenue allocation rarely addresses externalities, even when the law intends to do so. It can lead to misinterpretation or even abuse by political entities.

3.4.4 Challenge Four - Lack of a Mechanism to Tax the User

From an economic perspective, the most effective form of taxation is one that targets the user, such as a Pigouvian tax that internalizes the external costs generated by tourism. However, in many states, including Oregon, the absence of a general sales tax limits this approach. As a result, most destinations rely on hotel occupancy or lodging taxes, and in some cases, airline or car rental taxes.

While these taxes capture revenue from overnight visitors, they fail to account for the many tourists who drive to a destination and do not stay the night. Although precise data is lacking, this group represents a substantial share of total visitation in many destinations. Communities located near major urban centers, such as McMinnville, Oregon, just outside Portland, illustrate this challenge.

3.5 Limitations of the Traditional Destination Lifecycle Framework

3.5.1 Understanding the Evolution of Tourism Destinations

During community presentations across North America as part of my work with the OSU Sustainable Tourism Lab, I've seen how powerful the Destination Lifecycle concept can be in shifting perspectives and sparking a paradigm shift when discussing a destination and its future (Figure 13). There is a widespread belief during these community engagements that the natural beauty, infrastructure, and cultural character that attract visitors will endure regardless of use or volume. By framing tourism destinations through the lens of a product lifecycle, a familiar concept for consumers, it has the power to shift perspectives in ways that influence both community understanding and external tourism policy.

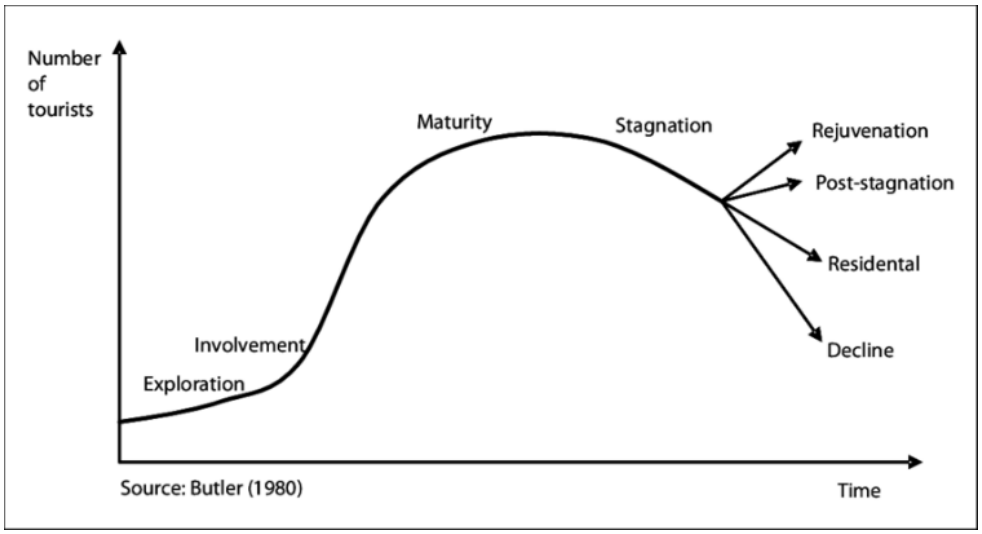

Figure 13: Evolution of Tourism Industry

Although both Butler's and Yang's lifecycle models offer powerful frameworks, they have limitations when applied to real-world destinations. The evolution of the tourism industry, especially since the advent of the Internet, has exposed these shortcomings, which I examine in the following sections.

3.5.2 Limited Real-World Application

While the destination lifecycle model provides a valuable conceptual framework, it is difficult to apply in real-world decision-making. Nordin and Westlund (2009) note that while the lifecycle model can serve as a useful overarching framework for analysis, actual development patterns in some areas diverge from the model's predicted trajectory. So at best, Butler's lifecycle serves as a lagging indicator, offering hindsight rather than foresight. By the time a destination is identified as having entered a particular stage, the underlying issues may already be deeply entrenched, reducing the model's usefulness for proactive planning and policy development.

The model also offers limited insight into capacity constraints or sustainable thresholds for tourist numbers. This is particularly problematic during the growth stage of the lifecycle, when destinations experience year-over-year increases in arrivals. At that point, destination leaders have little clarity about whether their community has reached maturity or if continued growth remains feasible in the near future. Consequently, because they do not know what stage they are in, they find it challenging to implement an adaptive policy.

3.5.3 Flawed Y-Axis Assumptions

Historically, destination lifecycle models have used total tourist arrivals as the dependent variable (y-

axis), serving as an implied measure of tourism success. This approach suggests the possibility of infinite growth while ignoring the fact that few destinations know or can even estimate their true ecological and social capacity for sustainable visitation. Without a baseline capacity, destinations risk exceeding their limits unknowingly. Furthermore, the assumption that arrivals are the single most dependent variable of lifecycle progression is overly simplistic. Tourist arrivals data are also far from universally accessible; unless a destination controls its borders, uses ticketed entry, or collects mandatory visitor registrations, the numbers are often rough estimates extrapolated from hotel tax collections and average length of stay. In many cases, those datasets are incomplete or unreliable, undermining the axis on which the model rests.

3.5.4 Absence of Stage Shift Metrics

Another weakness of the lifecycle is the absence of clear, standardized metrics to indicate when a destination transitions from one stage to the next. As Sheng and Tsui (2009) argue, this ambiguity weakens the model's usefulness for policy development. Governments and destination managers may interpret stages differently, leading to inconsistent policy responses. Worse, because these indicators lag, it could take years to realize that a stage shift has occurred. By that point, corrective actions may be too late to prevent high economic, social, or ecological costs.

3.5.5 Ignores Destination Depletion and Its Feedback Effects

The model fails to adequately account for how tourism externalities, such as congestion, housing pressures, pollution, or cultural erosion, directly reduce a destination's attractiveness. The assets that first drew tourists may degrade while policymakers wait for confirmation of a stage shift. This creates a dangerous lag: each day a destination operates out of balance between costs and benefits, the social and environmental structure may deteriorate further.

3.5.6 Overly Linear and Static Assumptions

The lifecycle model assumes destinations move predictably from left to right along a single linear path. In reality, destinations are subject to dynamic and nonlinear shocks. Natural disasters, pandemics, political unrest, or macroeconomic downturns can abruptly push a destination backward or even reset its trajectory. For instance, destinations exposed to typhoons or earthquakes, such as those in Micronesia and the Caribbean, may lose infrastructure, jobs, and visitor flows in ways the lifecycle model cannot accommodate. This rigidity makes the framework ill-suited for planning in volatile environments.

3.5.7 Excludes Resident or Political Influence

The model implicitly assumes that market forces alone determine a destination's growth, while ignoring the critical role residents play in shaping carrying capacity and lifecycle dynamics. In democratic societies, communities exert influence through public sentiment, local politics, and tourism taxation policies. When residents feel overwhelmed, they can impose restrictions, cap visitor numbers, or redirect tourism revenues toward mitigation. This political dimension fundamentally alters carrying capacity but is absent from traditional lifecycle models. Around the world, communities rising up against tourism provide clear examples of residents directly shaping tourism management through policy and planning interventions.

3.5.8 Misinterprets Stagnation as Failure

Finally, the model infers stagnation as a negative outcome, implying that destinations must either pursue further growth or face inevitable decline. This pro-growth bias obscures the possibility that stagnation may represent a sustainable balance. In reality, a plateau in visitation can signal that a destination has achieved equilibrium, where visitor levels, community well-being, and environmental health are aligned. Rather than a failure stage, post-stagnation could be reframed as a steady-state scenario where destinations thrive without perpetual growth.

Due to the limitations above, traditional destination lifecycle models primarily serve as conceptual frameworks and lagging indicators. It may help explain how a destination has arrived at its current state, but it provides little guidance for real-time decision-making or for supporting proactive tourism management strategies.

3.6 Assessing the Relationship Between Destination Attributes and Resident Sentiment

3.6.1 Relationships of Costs to Negative Resident Sentiment

When this project was first conceived, prior to the development of this paper, its primary objective was to systematically collect a first-of-its-kind database of resident sentiment toward tourism from a diverse set of global destinations. With a few exceptions, such as Hawaii, Montana, and Juneau, Alaska, few destinations had initiated a systematic process to monitor and quantify resident sentiment. Prior to COVID-19, primarily due to resident pushback against tourism, a few early-adopter destinations began to engage their residents.

Once the data were assembled, the underlying assumption was that this dataset would enable the

identification of meaningful relationships between destination characteristics and community sentiment toward tourism. The working belief centered on the existence of a consistent set of explanatory variables, such as density ratios, tourists-per-capita measures, and other quantifiable indicators, that could foretell community sentiment. Identifying these relationships at an aggregate level was expected to offer actionable insights, enabling communities to address the structural or environmental attributes contributing to negative sentiment. Although the initial list of variables is not exhaustive, it provides a robust framework for exploring sentiment drivers (Table 1).

3.6.2 Data Dictionary

Table 1: Destination Attributes - Data Dictionary Table

Variable Name	Description
MoreCosts	Percentage of respondents who perceive more costs than benefits of tourism.
MoreBenefits	Percentage of respondents who perceive more benefits than costs of tourism.
NeutralCB	Percentage feeling tourism brings equal costs and benefits.
Positive	Percentage feeling tourism positively impacts their community.
NeutralQoL	Percentage indicating tourism has neither harmed nor improved their quality of life.
Negative	Percentage indicating tourism has negatively impacted their quality of life.
DestID	Unique identifier for the destination.
DestinationName	Name of the destination.
State	U.S. state or region where the destination is located.
Country	Country where the destination is located.
Geography	Administrative level where the survey was conducted (city, county, state).
GeographySize	Physical size of the survey area in square miles.
DestinationSize	Physical size of the destination's main attraction area.
Population	Population of the survey area.
AnnualVisitors	Average annual number of tourists.
Cruise	Indicates if the destination is a cruise port (1=yes, 0=no).
DMOEstablished	Year the DMO was established.
DMOBudgetUSD	Annual budget of the DMO in USD.
DMOHeadcountTeam	Number of DMO staff.
TotalHotels	Total number of hotels in the area.
FirstInternationalHotelBrand	Year first international hotel brand opened.
FirstAntiTourism	Date of the first anti-tourism article/event.
HotelFirst	Year the first hotel was established.
TourismTax	Indicates if a tourism tax is implemented (1=yes, 0=no).

OutdoorRecreation	Outdoor recreation is a main attraction (1=yes, 0=no).
Ski	Snow skiing is a main attraction (1=yes, 0=no).
Beach	Beaches are a main attraction (1=yes, 0=no).
Mountain	Mountains are a main attraction (1=yes, 0=no).
OceanLakeRiver	Ocean, lake, or river is a main attraction (1=yes, 0=no).
Urban	Urban/city attractions are a main draw (1=yes, 0=no).
Naturebased	Nature-based attractions are a main draw (1=yes, 0=no).
Wine	Wine attractions are a main draw (1=yes, 0=no).
Countryside	Countryside attractions are a main draw (1=yes, 0=no).
WarmWeather	Warm climate is a main attraction (1=yes, 0=no).
Snow	Snow-based attractions are a main draw (1=yes, 0=no).
TouristsPerCapita	Ratio of tourists to population.
ResidentDensity	Residents per square mile.
TouristDensity	Tourists per square mile.
TouristsPerStaff	Tourists per DMO staff member.
TourismTaxAmount	Tourism tax amount (percentage or numeric).
AnnualAverageDailyRate	Average hotel daily rate across a year.
AnnualAverageHotelOccupancy	Average hotel occupancy rate across a year.
AverageIncome	Average resident income.
MedianIncome	Median household income.
HMGDPPercent	Hospitality/tourism GDP as percent of total GDP.
HMRank	Ranking of hospitality market performance.
HHIIndex	Herfindahl-Hirschman Index of economic concentration.
PercentageTourismJobs	Percentage of local jobs in tourism.
HotelsPerCapita	Hotels per resident population.
Greenspace1985	Greenspace level in 1985.
Greenspace2000	Greenspace level in 2000.
Greenspace2023	Greenspace level in 2023.
PoPGrowthRate	Population growth rate.
GINIIndex	Income inequality index.
GINIGrowthRate	Rate of change in inequality (GINI).
GS20231985GR	Greenspace growth 1985→2023.
GS20232000GR	Greenspace growth 2000→2023.
PoP1980	Population in 1980.
PoP2000	Population in 2000.
PoP2024	Population in 2024.
Pop19802024	Population change 1980→2024.
Pop20002024	Population change 2000→2024.

Considerable time and effort were devoted to collecting resident sentiment data with the expectation that it would reveal clear, statistically meaningful relationships between community attitudes and

measurable destination attributes. The findings, as shown in the Figure 14, revealed some intriguing patterns worth further exploration but no immediately definitive indicators.

This underscores the complexity of the issue, suggesting that a destination's individual attributes cannot adequately explain community sentiment, and that a one-size-fits-all solution is unlikely to exist that all destinations can apply with guaranteed success. It also implies that these challenges cannot be easily addressed through isolated policy choices, such as one approach for coastal communities and another for urban tourism centers, or through simple management interventions aimed at balancing the needs of tourists and residents.

3.6.3 Correlations Analysis

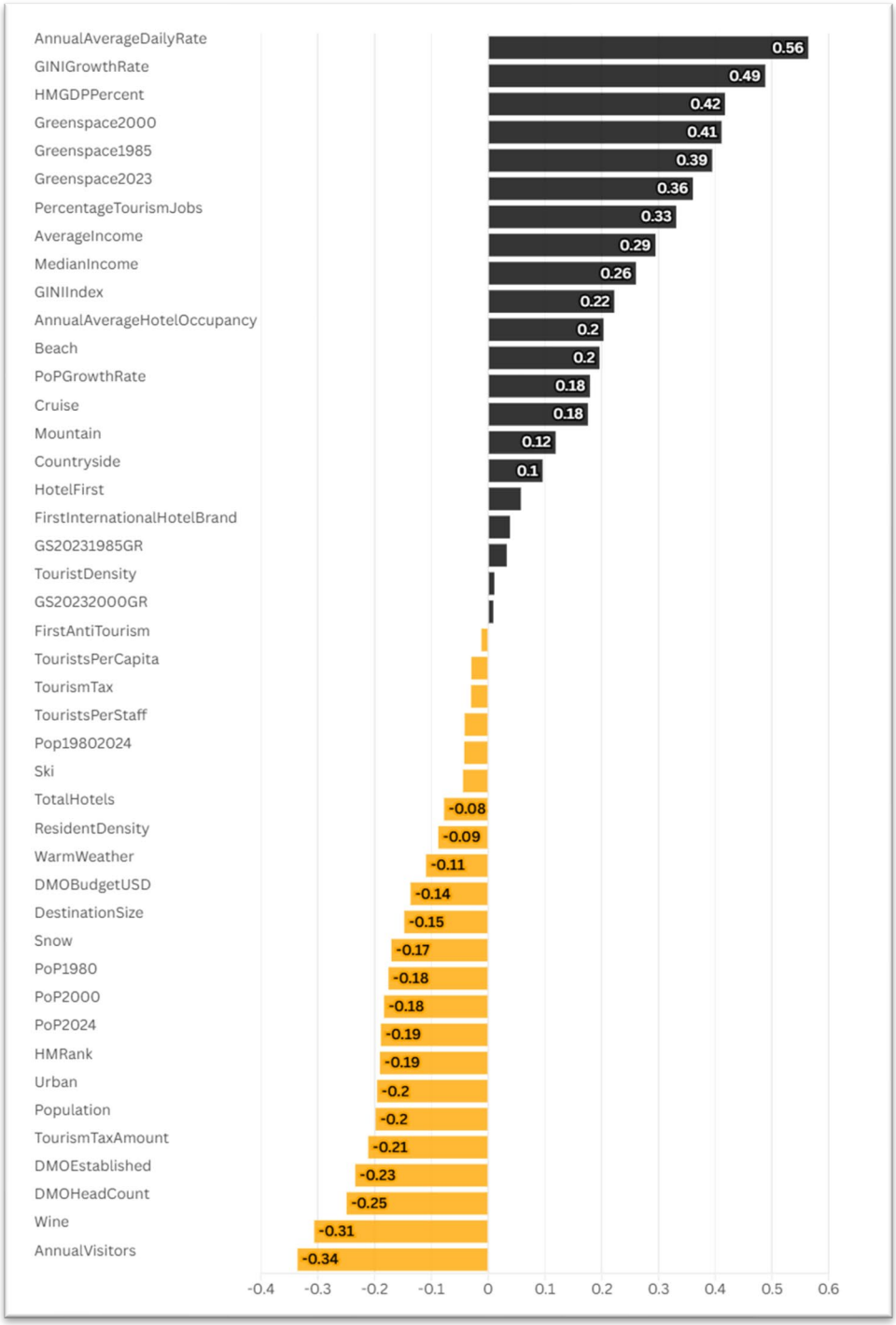

Figure 14: Correlation Results of Destination Attributes

3.6.3.1 Impact of Wealth Gap Between Visitors and Residents

Although the correlation results did not identify strong correlations, several findings were intuitively consistent and exhibited moderate associations with negative sentiment. One of the strongest relationships observed was with the destination's annual Average Daily Rate (ADR) for lodging, included in the model as a proxy for visitor affluence, under the assumption that higher hotel rates signal a wealthier tourist base. My prior experience in hotel development suggests that when lower-income communities cater to disproportionately affluent visitors, resentment can develop over time, sometimes manifesting in service challenges or broader social tensions.

A second notable finding involved the growth rate of the Gini coefficient, which measures income inequality. This variable exhibited the second-highest correlation with negative sentiment, suggesting that widening disparities between residents may exacerbate community tensions. Although this relationship appears theoretically plausible, further data collection is required to assess its significance. Some destinations have begun to use cell phone-based data services to estimate visitor income levels, which may help clarify this dynamic.

Although the overall correlations were modest, the results provide valuable directional insight. Indicators linked to visitor affluence and local income inequality, such as higher lodging rates and rising Gini coefficients, appear to correspond with stronger negative sentiment. This pattern suggests that widening economic gaps between residents and visitors may foster perceptions of inequity within host communities.

From the perspective of social equity theory, these dynamics reflect a perceived imbalance in the distribution of tourism's costs and benefits. When residents observe affluent visitors engaging in forms of consumption beyond their reach, it can heighten feelings of inequity. In destinations where tourism employment is concentrated in lower-wage or seasonal jobs, this inequity becomes more visible, reinforcing the belief that tourism serves outsiders more than locals. Over time, such perceptions can erode community trust and social cohesion, driving calls for regulation, redistribution, or limits on tourism growth. In this way, the findings underscore how resident sentiment toward tourism is shaped not only by economic outcomes but also by the perceived fairness of those outcomes, which are core to the principles of social equity theory.

3.6.3.2 DMO Impact on Sentiment

The presence and size of a Destination Marketing Organization (DMO) also demonstrated a potentially meaningful association with resident sentiment. Two DMO-related variables, the

existence of a DMO and the size of its staff, were negatively correlated with negative sentiment, suggesting that destinations with established and well-resourced DMOs tend to report lower levels of resident dissatisfaction. However, this relationship may be bidirectional. In some cases, the creation of a DMO may have been a response to rising resident discontent. This potential endogeneity highlights the need for further exploration.

3.6.3.3 Lifecycle Stages and Negative Sentiment

Despite a few correlations warranting further exploration, the overall results offer limited actionable insights for practitioners or policymakers when examined at the level of individual variables. In recent years, I have increasingly emphasized, in community reports and presentations, grouping or benchmarking destinations by their position in the tourism lifecycle. This approach acknowledges that comparing emerging destinations with more mature ones can be misleading, as resident dissatisfaction typically increases as destinations progress through the lifecycle.

Taken together, these findings suggest that the tourism lifecycle model may provide a reliable framework for understanding resident sentiment and benchmarking destination performance from both community and sentiment perspectives. Although individual destination attributes have limited explanatory value on their own, lifecycle-informed approaches appear to offer greater promise for interpreting and responding to resident concerns.

3.7 Assessing Policy and Community Reactions to Overtourism

Early in this paper, it was noted that each stage of the destination lifecycle may require different policy responses. Unless a community was a purpose-built tourist destination such as Disneyland, tourism growth typically occurred organically, and policy development often lagged behind that growth.

3.7.1 Legislation Data Methodology

Historically, there has been little data available to validate how these policy decisions were made or to track how tourism-related revenues were allocated. This is critical because resident sentiment helps foresee whether communities will push for policies that restrict or encourage further tourism. This is why tracking actual policy action becomes so valuable. Using BillTrack50.com, a legislative tracking platform, I searched all state-level legislation in the United States using tourism-related keywords, including:

“lodging tax, room tax, transient room tax, accommodation tax, hotel tax, tax on hotels, short term

rentals, occupancy tax, hotel transient, tourist, tourism”

This search produced more than 70,000 bills introduced between 2017 and the end of 2024. To assess their relevance, I conducted a manual review of every tourism-related bill introduced in 2023 and 2024 and assigned labels indicating whether each bill had a direct impact on tourism activity, tourism management, or tourism policy. To verify the accuracy of this manual coding, I compared my classifications with an AI-based review of the same set of bills. The AI review was conducted using a custom implementation of the ChatGPT API built on the GPT-4 model, which was prompted to determine whether each bill had a direct connection to tourism policy, tourism activity, or community impacts related to visitation (OpenAI 2025). The two assessments aligned 94.2 percent of the time, which suggests that the coding criteria were sufficient for the level of reporting in this study and that the labeling process was applied consistently. A closer examination of the remaining discrepancies showed that these bills often contained ambiguous language or lacked a clear statement of intent, making their classification inherently subjective.

After confirming that the results were consistent, I applied the same review procedure to bills introduced in earlier years, moving backward from 2022 to 2017. This ensured that the full period of legislative activity was evaluated using a consistent set of criteria and analytic methods, which, in turn, allows for meaningful comparisons across years and supports longitudinal interpretation of tourism-related policy trends.

All reviewed bills were organized and stored using a structured database schema that tracks key elements such as whether the bill constrained or expanded tourism, reallocated tax revenue, or created new revenue streams (Figure 15).

Table 2: Legislation Labels

Field Name	Econometric Data Type
ID	Integer
Url	String
AI Summary	String
Name	String
State	Categorical String
Bill Number	String
Sponsor List	String
Created	Date
Added	Date
Does the bill impact tourism?	Dummy (0/1)
Does the bill reallocate tax revenue funds?	Dummy (0/1)
Does the bill add or remove a regulation?	Dummy (0/1)
Tell where allocated funds come from?	Categorical String
Tell where allocated funds going to?	Categorical String
Taxes	Dummy (0/1)
Does the bill increase oversight of the tourism industry?	Dummy (0/1)
Does the bill address tourism's economic externalities?	Dummy (0/1)
Does the bill increase tourism industry's reporting requirements	Dummy (0/1)
Does the bill add protection tourism customers?	Dummy (0/1)
Does the bill restrict or unrestrict tourism development?	Dummy (0/1)

Although not a perfect dataset, this process provides a novel policy-level view of how residents and their legislators act to adjust tourism in their communities. These legislative actions offer a measurable signal of where residents perceive tourism costs or benefits to be out of balance and where they expect adjustments through the legislative process.

The following analysis presents the results of this legislative review, offering insight into the types of policy interventions communities are using to either constrain or encourage tourism growth.

3.7.2 Overview of Findings

In most states, state legislatures meet and hold sessions every year. However, four states, Montana, Nevada, North Dakota, and Texas, meet only every other year, specifically during odd-numbered years.

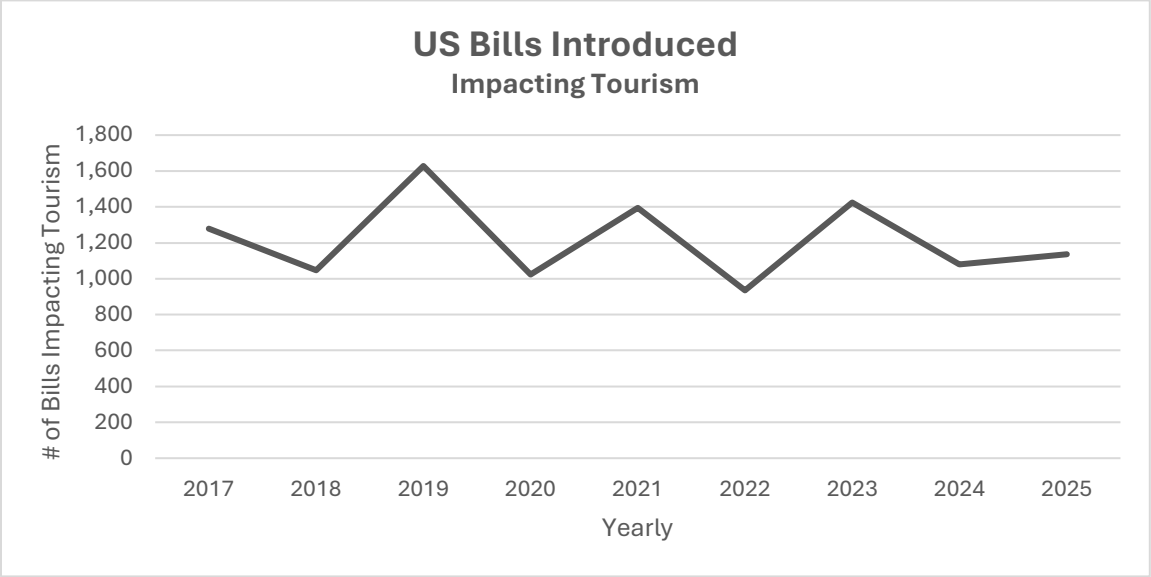

Figure 15: US Bills Introduced

As a result, some graphs will display tourism-related bills introduced from 2017 through 2025 (Figure 16). To ensure an accurate comparison of legislative volume in charts, at times, odd-numbered years will be used in the trend analysis. It is also worth noting that 2019 could be considered an outlier. However, because COVID-19 had such a profound impact on tourism and travel, it remains an important year to include. During the pandemic, some destinations experienced overtourism while others, traditionally reliant on tourism, were devastated by its collapse. Including 2019 provides valuable insight into how different states responded to these shocks. Still, when interpreting long-term trends, 2019 should be viewed with caution.

Over the nine-year period analyzed, 10,948 tourism-related bills were introduced across all 50 U.S. states. These bills covered a wide range of topics, from adjusting tax rates and reallocating tourism revenues to changing oversight and reporting requirements. On average, about 1,200 tourism-related bills were introduced each year, with that number rising to roughly 1,400 in odd-numbered years when every state legislature is in session.

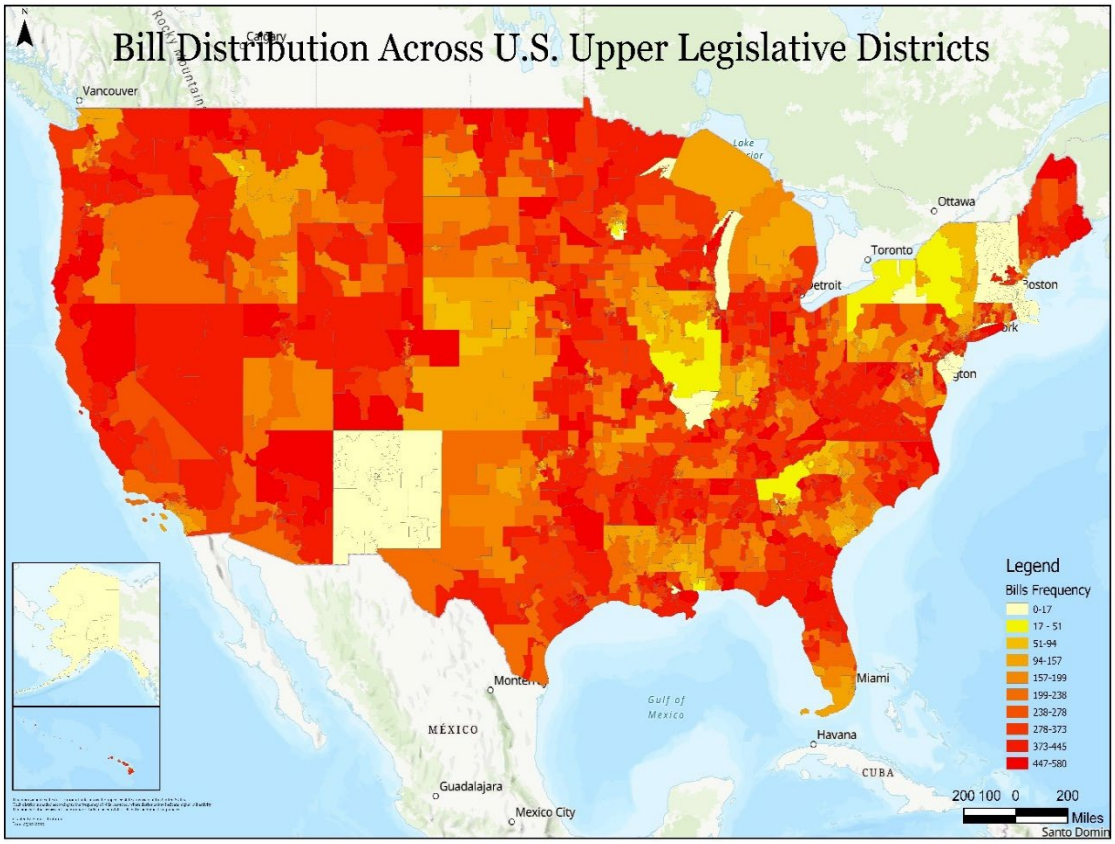

Figure 16: Bill Distribution Across U.S. Upper Legislative Districts

The distribution of these bills, however, is far from uniform. As the GIS map above illustrates, tourism legislation tends to cluster around major destinations, while more rural or non-tourism regions see far fewer related bills (Figure 17). This pattern is most visible in the lower legislative districts, where the data can be viewed at a more detailed scale (Figure 18). These spatial patterns reveal how the politics of tourism often concentrate where visitor pressures and economic stakes are greatest.

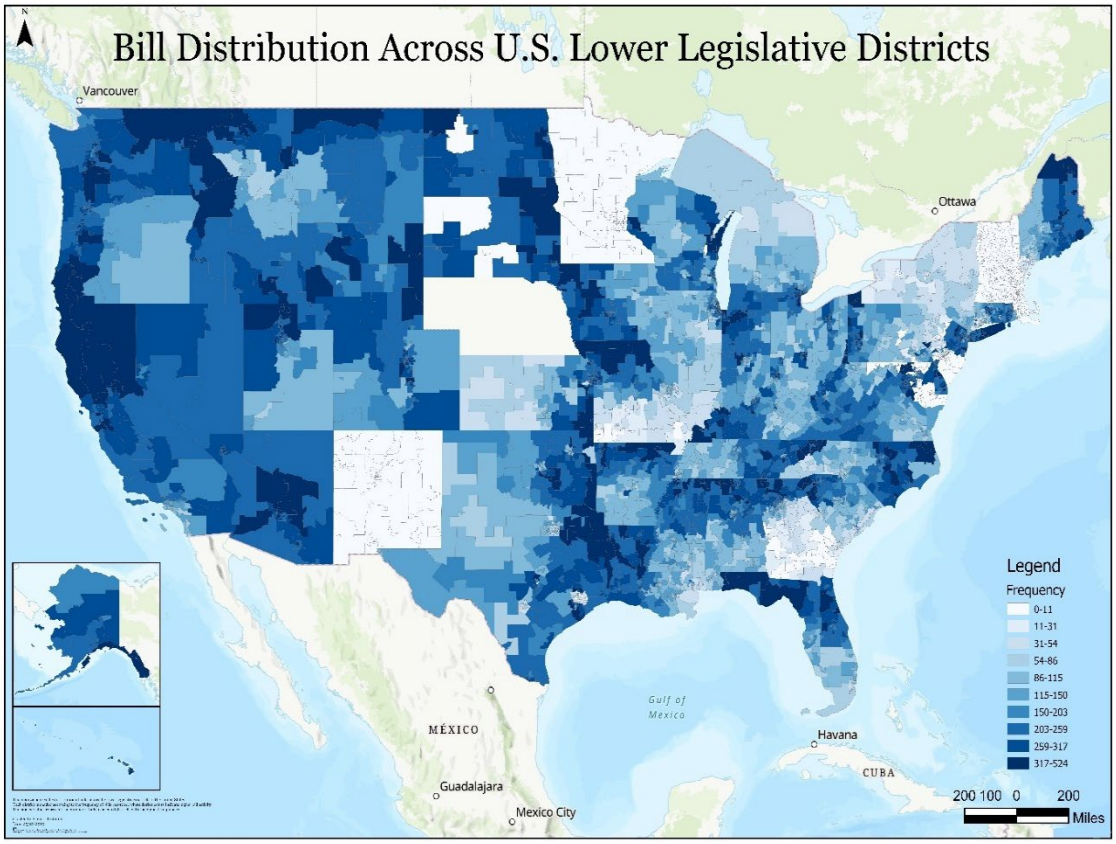

Figure 17: Bill Distribution Across U.S. Lower Legislative Districts

Since 2017, most taxation-related bills have focused on increasing tourism tax rates. Bills aimed at reducing tourism taxes, which would typically expand tourism, are comparatively rare, averaging only about 50 per year in the US (Figure 19). This trend aligns with broader findings on overtourism, suggesting that residents increasingly support higher tourism taxes to offset the costs of tourism. Although the data does not establish a direct causal relationship between tourism externalities and the volume of tax-related bills, it is reasonable to infer that rising tourism costs are motivating legislators to pursue compensatory measures.

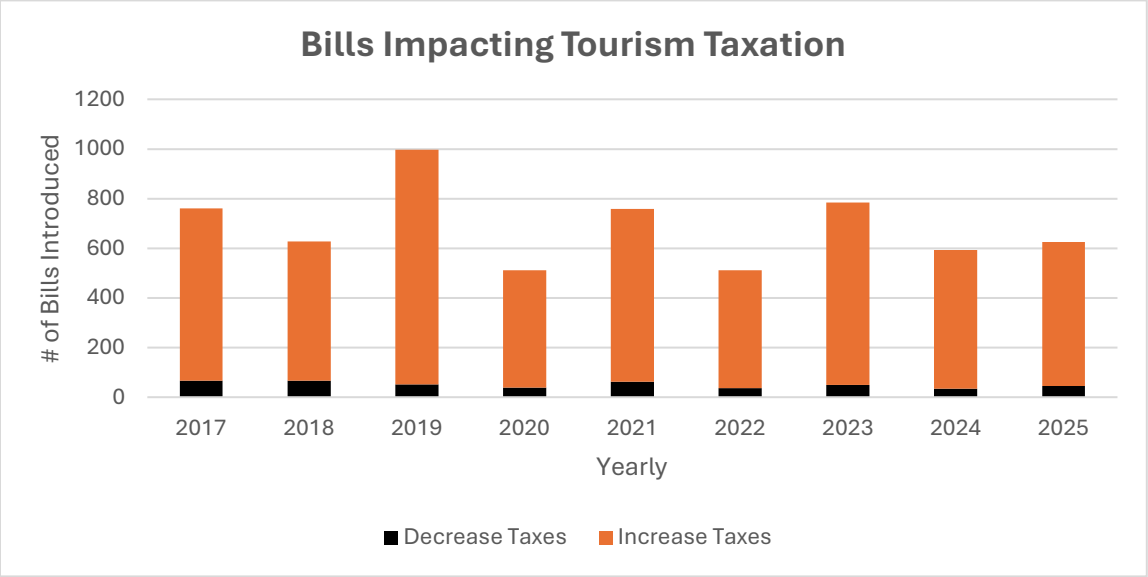

Figure 18: Bills Impacting Tourism Taxation

Historically, tourism tax revenue has been used to fund economic development, most often for marketing and destination promotion in the early stages of a destination's lifecycle. This pattern is reflected in the chart below, where economic development and tourism promotion account for the largest funding areas (Figure 20).

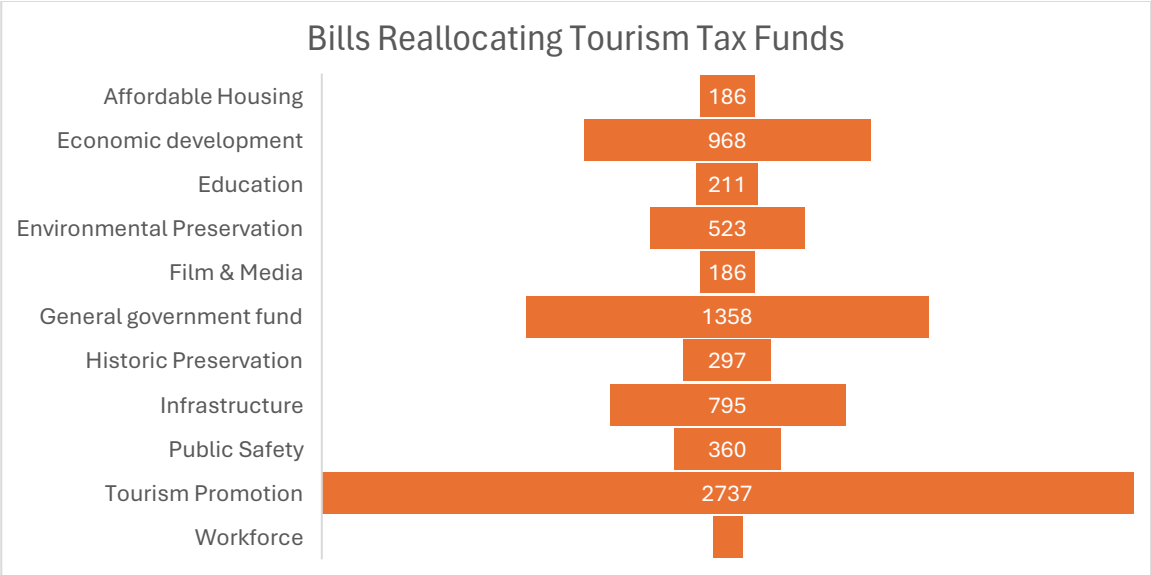

Figure 19: Bills Reallocating Tourism Tax Funds

When growth-oriented categories are excluded, areas such as affordable housing, general funds, and infrastructure emerge as the primary recipients of reallocated tourism revenue (Figure 21). As

destinations mature and resident costs increase, communities appear to redirect these funds to address the negative externalities associated with tourism. Across the United States, more residents are urging policymakers to allocate tourism tax revenue toward affordable housing, infrastructure, and public services. This shift highlights the growing role of tax policy in mediating the balance between the economic benefits of tourism and the social costs experienced by host communities.

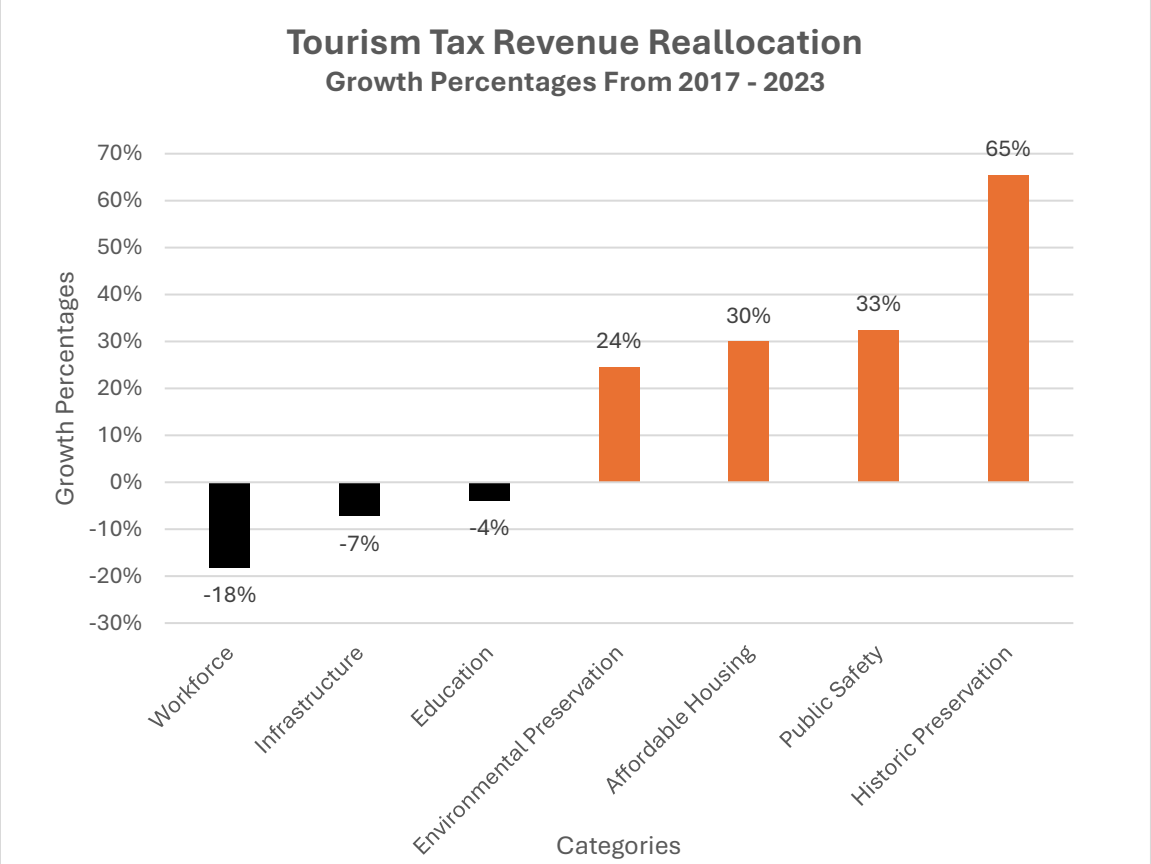

Figure 20: Tourism Tax Revenue Reallocation

The figure above shows that allocations for infrastructure, environmental preservation, and public safety have steadily increased over time. These trends align closely with survey findings from destinations where residents identify these areas as the primary costs of tourism in their communities. In many ways, this sentiment is now being mirrored in legislative priorities. While each community faces its own unique challenges and needs, there is a growing consensus, supported by both sentiment and policy data, about which externalities matter most and how to mitigate the social and economic costs of tourism.

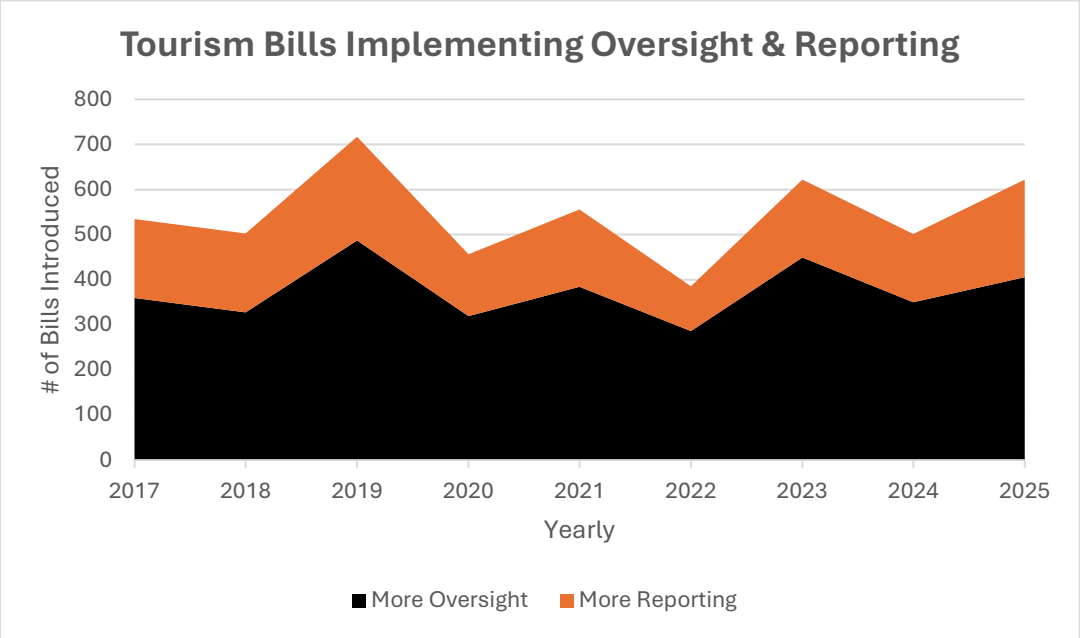

Figure 21: Tourism Bills Implementing Oversight & Reporting

Finally, the data shows a growing number of bills aimed at increasing oversight and reporting requirements within the tourism sector (Figure 22). Many of these measures focus on improving transparency, particularly in how tourism tax revenues are allocated and how related policies are implemented. Although the 2025 data is incomplete at the time this report is being prepared, early indications suggest that this trend is gaining momentum. In conversations with industry leaders and policymakers, several noted that increased oversight often serves as an early step toward broader legislative change and can set the stage for future adjustments in tourism taxation and revenue allocation.

4 Policy Implications

The previous analysis examined the rise of tourism-related externalities and historical policy choices, and identified the most common pain points for communities. It also illustrated how public sentiment can influence the political process to rebalance tourism activity. However, as overtourism intensifies and negative sentiment grows, important questions emerge about the effectiveness of current tourism tax policies and whether they can address today's challenges. This tension between visitor demand and resident well-being continues to strain destinations, often leading to a deteriorated destination long before equilibrium is achieved. Taken together, these findings suggest that rising anti-tourism sentiment is a warning signal: existing tourism policy frameworks are becoming ineffective and outdated in managing the externalities of modern tourism.

Most current policies were designed for an earlier phase of tourism growth, focused primarily on promotion, visitor volume, and short-term economic gains, rather than on managing resident well-being, environmental limits, or community equity. However, earlier studies indicate that expected tourism tax levels tend to align with how destinations evolve over the tourism lifecycle, lending support to the proposed model's usefulness. At the same time, these studies emphasize that the optimal tourism tax is a theoretical benchmark, and actual tax levels in practice may vary around that ideal point (Yang et al. 2023). As destinations evolve into more complex systems, these legacy policies fail to internalize the full social and environmental costs. The growing backlash among residents represents not merely discontent but a rational response to market and policy failures.

Butler's lifecycle provided a useful framework for understanding how destinations evolve, yet its linear and growth-centric assumptions no longer fit today's tourism landscape. Rapid globalization, digital platforms, and sustained economic expansion have produced nonlinear, feedback-driven patterns of development in which destinations move between growth, saturation, and regeneration.

This section proposes a modernized Applied Destination Lifecycle framework that replaces tourist arrivals as the primary success metric with indicators that better reflect community sentiment, governance capacity, and welfare balance. In doing so, it reframes sustainability not as a static endpoint but as a dynamic equilibrium in which economic gains, resident well-being, and environmental limits are continuously recalibrated.

Building on the preceding analysis, the policy implications integrate economic, social, and policy dimensions to make the lifecycle model operational for real-world governance. Key components include redefining lifecycle stages to align with observed data, incorporating a cost-benefit key performance indicator that captures tourism's true net impact, and embedding adaptive taxation and

governance mechanisms that internalize externalities. The following sections outline how destinations can identify inflection points, measure community sentiment, and design responsive fiscal tools that prevent decline and restore equilibrium. Collectively, these updates reposition the lifecycle as both a diagnostic and a prescriptive framework, enabling tourism growth to remain economically viable, socially acceptable, and environmentally sustainable.

4.1 Sustainable Tourism from a Resident Perspective

The following formula represents a net-zero sustainability condition for tourism, where the total benefits generated by visitors are balanced by the total costs they impose on the destination and beyond. The total benefits part of the equation are the main benefit categories identified earlier: tax revenue (R), jobs and wages (W), local business profit (Π), and visitor fees (F), along with all other possible positive effects of tourism ($\sum b_i$) such as cultural exchange or infrastructure investment. These represent the economic and social gains that flow to residents and local governments from hosting visitors. Together, they capture the monetary and non-monetary value tourism contributes to community welfare.

On the total costs part of the equation are the cumulative costs of tourism: local public service expenses (S), congestion and traffic impacts (C and T), housing pressure (H), and environmental degradation (E), plus an additional variable (X) that accounts for transportation-related externalities from visitors traveling to and from the destination. These include global impacts such as greenhouse gas emissions, road and air congestion, and pollution beyond the local area. By also including $\sum c_j$ to account for any other possible costs, the model allows an infinite number of cost and benefit types. When the total benefits equal the total costs, $B - C = 0$, tourism reaches a sustainable equilibrium, meaning the system generates no net harm while maintaining community welfare and environmental integrity.

$$\textbf{Total Benefits} \quad - \quad \textbf{Total Costs} \quad = \mathbf{0}$$

$$(R + W + \Pi + F + \sum_{i \in B} b_i) \; - \; (S + C + T + H + E + X + \sum_{j \in C} c_j) = 0$$

R = tax revenue
W = wages from tourism jobs
Π = local business profits
F = visitor fees or assessments
b_i = any additional benefit component
S = public service costs
C = congestion costs
T = traffic costs

H = housing pressure costs
E = environmental costs
X = transportation externalities from visitor travel
$\mathbf{c_j}$ = any additional cost component

The following policy implications are intended to advance sustainable tourism while acknowledging the realities of today's tourism economy and environmental context. The proposed formula serves as an aspirational framework, particularly once transportation-related externalities are integrated, because achieving a true net-zero balance becomes significantly more complex when visitor travel emissions are considered. Nevertheless, incorporating these broader costs is essential for a complete understanding of tourism's sustainability. Grassroots efforts in destinations such as New Zealand and Denmark illustrate that community-driven innovation, local stewardship, and adaptive governance can begin to address these transportation challenges and other externalities. These examples highlight that meaningful progress toward sustainable tourism depends not only on economic modeling but also on collaborative action grounded in local values and global responsibility.

4.2 Modernizing the Destination Lifecycle for Today's Tourism Landscape

To address these gaps, I introduce the Applied Destination Lifecycle (ADL) framework that both streamlines the stages and incorporates measurable indicators to more accurately assess a destination's position within the cycle. The implications of this revised model will be examined and applied to a novel dataset throughout the remainder of this paper. For now, the following section outlines the updated stages and their defining characteristics.

4.2.1 Refining Destination Lifecycle Stages to Align with Real World Conditions

The first update to the lifecycle model introduces new lifecycle stage names to better reflect the complexities of the real world (Figure 23). They have been selected not only for their conceptual relevance, but also because transitions between stages can be measured and quantified through observable indicators. This makes the framework more practical for researchers, policymakers, and destination managers, enabling it to serve as both an explanatory model and a decision-support tool.

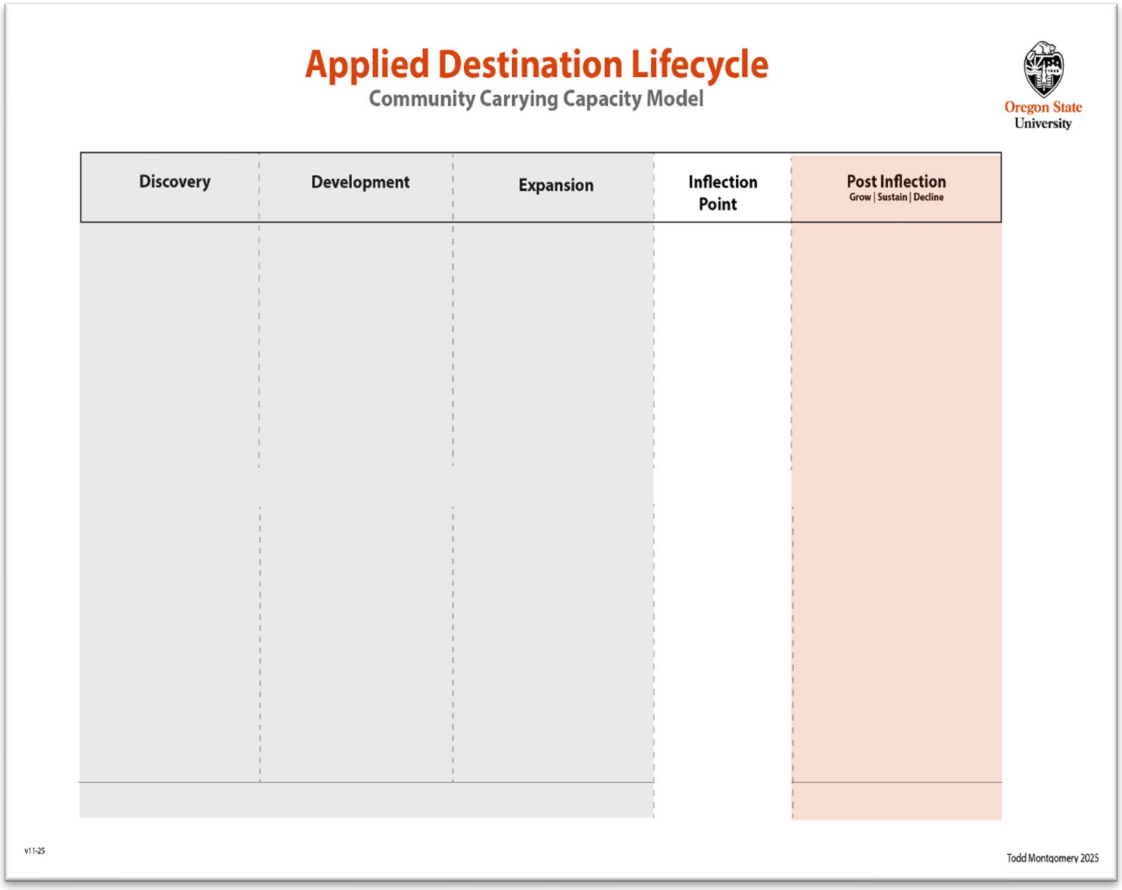

Figure 22: Applied Destination Lifecycle – New Stages

Discovery Stage (1)

This first stage is typically marked by a local economy still dominated by non-tourism industries such as agriculture, fishing, and resource extraction. Tourism remains incidental rather than intentional. The destination is "discovered" by outsiders, often through word of mouth, social media, backpackers, niche travelers, or adventure seekers who are drawn to its natural beauty or cultural uniqueness.

Infrastructure for visitors is minimal, with lodging often limited to spare rooms, informal homestays, or basic campgrounds. The first sign of a transition toward tourism occurs when residents or small entrepreneurs establish accommodation options for visitors beyond family or friends, such as simple guesthouses or bed-and-breakfasts. At this point, tourism promotion is virtually nonexistent, and local authorities may not even recognize tourism as an emerging economic sector.

Prior to the rise of digital platforms and social media, this Discovery stage could last for decades,

with destinations remaining largely unknown to broader markets. In the internet era, however, discovery can accelerate dramatically once a location is featured on travel blogs, social media feeds, or online booking platforms, shortening the duration of this stage and creating earlier pressure for infrastructure development and governance responses.

Development Stage (2)

In this stage, tourism begins to move from an incidental activity to a recognized and intentional part of the local economy. The community begins to see significant investment in infrastructure, including new accommodations, restaurants, and visitor services specifically designed to attract and serve tourists rather than simply accommodating passing-through travelers. Private-sector actors, such as hoteliers, tour operators, and small business owners, begin to emerge and organize around tourism as a viable economic driver.

A key marker of this stage is the establishment of a Destination Marketing Organization or similar entity. This body is often charged with coordinating promotion, branding, and the development of tourism strategies, frequently with the explicit support of local government. To sustain these efforts, municipalities may implement a tax on tourism via lodging or hotel occupancy taxes, channeling the revenue into tourism promotion and infrastructure investment.

At this point, tourism becomes visible as an industry in its own right. Visitor numbers increase, and the community begins to build an identity as a destination. While this growth can bring new job opportunities and local revenue, it also signals rising pressure on infrastructure, housing, and public services. Local residents may begin to recognize both the benefits and the costs of tourism more directly, setting the stage for ongoing debates about the balance between growth and community well-being.

Expansion Stage (3)

During the expansion stage, tourism shifts from a locally driven industry to one increasingly shaped by outside investment and broader market forces. Rising visitor numbers and increased media attention attract the interest of national and international outside investors who see the destination as commercially viable. This often results in the arrival of national and international branded tourism accommodations, such as chain hotels and resorts, or recognizable hospitality brands, signaling the destination's emergence onto a larger stage.

Alongside this investment, transportation infrastructure typically improves. Airlines may add direct routes or increase flight frequencies, while road networks, ports, or regional transit options expand to

handle the growing flow of visitors. The destination's accessibility improves, further accelerating growth and creating positive feedback loops that strengthen its position in domestic and international tourism markets.

Visitor services become more formalized, and tourism promotion expands beyond local or regional campaigns to target national and even international audiences. Employment in the tourism sector rises substantially, and secondary industries such as construction, retail, and entertainment benefit from the spillover effects.

However, this period of rapid growth also brings new challenges. Pressure on housing markets, public services, and natural resources intensifies. Resident perceptions of tourism may begin to shift as the costs of expansion become more visible alongside the benefits. The destination stands at a crossroads where governance and planning decisions will strongly influence whether expansion leads to sustainable prosperity or sets the stage for future tensions.

Inflection Point / Post Inflection (4)

This critical stage marks the end of the rapid growth phase and the beginning of a new period of decision-making that will shape the destination's long-term trajectory. By this point, most major infrastructure is already in place, and marketing awareness has reached its peak. Visitor numbers, while still high, could begin to plateau rather than rise steadily.

At the same time, the costs of tourism become more pronounced and harder to ignore. Congestion, housing pressures, environmental degradation, and strains on public services all intensify. Social tensions may emerge as residents weigh the economic benefits of tourism against impacts on quality of life, culture, and the environment. These externalities can no longer be treated as secondary issues but must be addressed directly.

The defining feature of this stage is that the community, through policy and governance, holds the ability to shape the path forward. Local governments, residents, and tourism stakeholders face a pivotal choice:

- **Reinvention:** A deliberate strategic pivot introduces new tourism innovations, such as marketing repositioning, the development of new amenities, or major tourism investments that reinvigorate the destination from the visitor’s perspective.
- **Steady State (Sustainable):** The community stabilizes at its current levels of visitation and infrastructure, maintaining a steady state that approaches a balance between visitor demands and resident needs.

- **Decline:** If challenges are left unaddressed, visitor numbers fall, the core assets that once attracted travelers deteriorate, and the destination's reputation suffers. This decline often triggers disinvestment, business closures, and worsening infrastructure conditions, creating a downward spiral that makes recovery increasingly difficult.

The inflection point underscores the importance of proactive governance. It is here that the voice of residents, the allocation of tourism revenues, and the design of policies on taxation, zoning, and environmental protection carry the greatest influence. How the destination responds at this juncture often determines whether it transitions to a balanced, sustainable future or slips into decline.

4.2.2 Update Y-Axis: From Total Tourist Arrivals to Community Sentiment

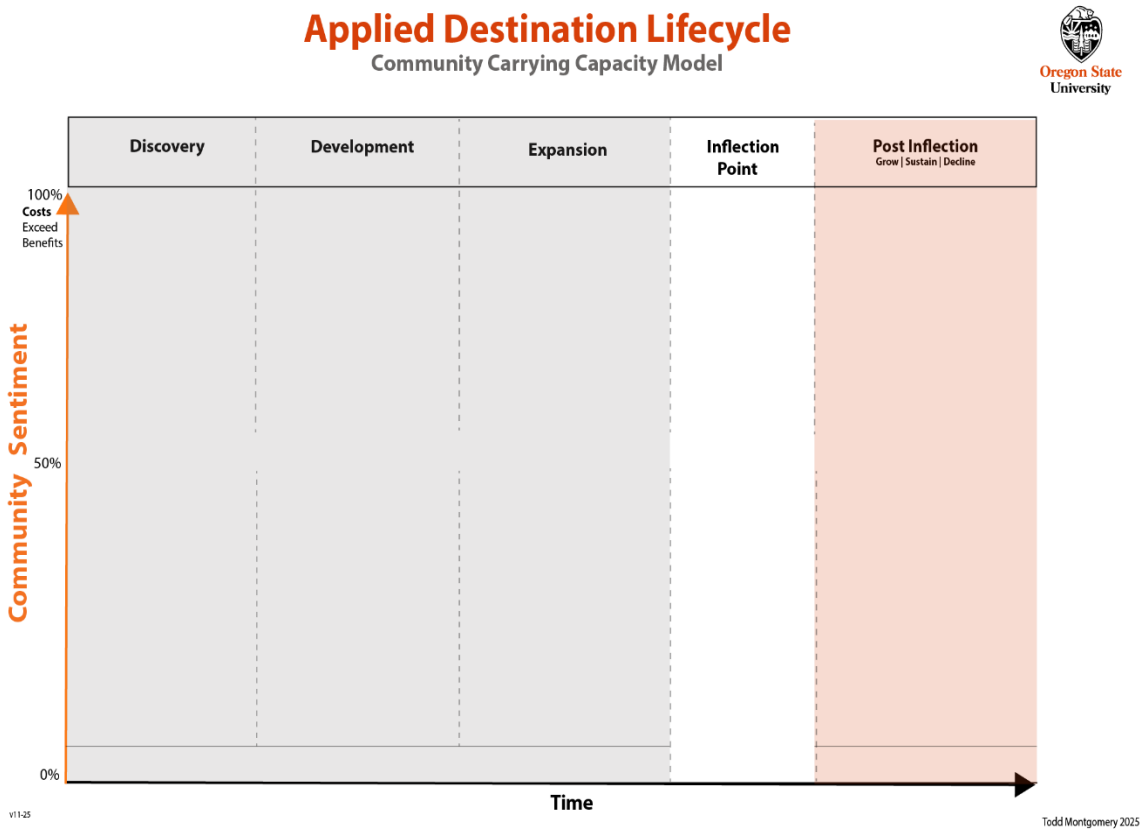

Figure 23: Applied Destination Lifecycle – Y-Axis

Tourism is widely viewed as an economic benefit. However, the costs of tourism are often less visible and far more challenging to measure. Butler's Lifecycle Model assumes that a destination can best be understood by mapping the total volume of tourists on its Y-axis (Figure 24). This assumption is

flawed. It treats visitation as an independent market outcome, driven solely by supply and demand, while ignoring the political and social processes that actively shape it. Research has also highlighted this limitation, noting that while policy debates frequently emphasize tourist numbers, this measure does not necessarily reflect the level of economic welfare a destination generates (León et al. 2007).

Tourist arrivals are not an impartial measure of a destination's lifecycle. They are the result of deliberate community choices, often expressed through policies, taxation, zoning, and investment incentives, that either constrain or expand tourism. By presenting tourist volume as the central metric, Butler's model risks obscuring the fact that visitation levels are a symptom of underlying community dynamics rather than the root driver. In practice, this makes the model less useful to policymakers and community leaders, who must grapple with the contested, negotiated nature of tourism development. To rely on tourist arrivals as the sole indicator of destination health or trajectory is to mistake the visible surface of tourism for its deeper structural determinants.

This brings us to a critical point in this paper and the assumptions underlying the conclusions. Because destinations are ultimately shaped and governed by their residents through the democratic process, the Y-axis of the ADL model should reflect the percentage of residents who believe that the benefits of tourism outweigh its costs or, conversely, that the costs outweigh the benefits in aggregate.

As discussed earlier in the Measuring Utility section (2.2.5), resident sentiment, particularly when measured through surveys that ask about the perceived costs and benefits of tourism, has become an increasingly mainstream indicator of destination success. Collecting this type of data is both accessible and cost-effective, and it aligns well with other economic metrics used to evaluate economic performance. In essence, this approach serves as a practical way to measure utility within the framework of welfare economics, capturing how tourism influences residents' overall well-being and satisfaction.

4.2.2.1 Introduction of the Civic Carrying Capacity Framework

As discussed earlier, each resident makes an internal calculation about the costs and benefits of tourism. This is reflected in the first stage of the Civic Carrying Capacity Framework (CCCF). In the second stage, the aggregated survey results determine whether the community is in balance and whether it perceives more benefits or more costs from tourism (Figure 25). Based on the destination's lifecycle stage, the model predicts that the community will take action to either constrain or expand tourism. In practice, this community action is often subconscious and not explicitly recognized as a constraint or an expansion of tourism. It is more a reflection of market

forces, with individuals seeking to maximize their utility.

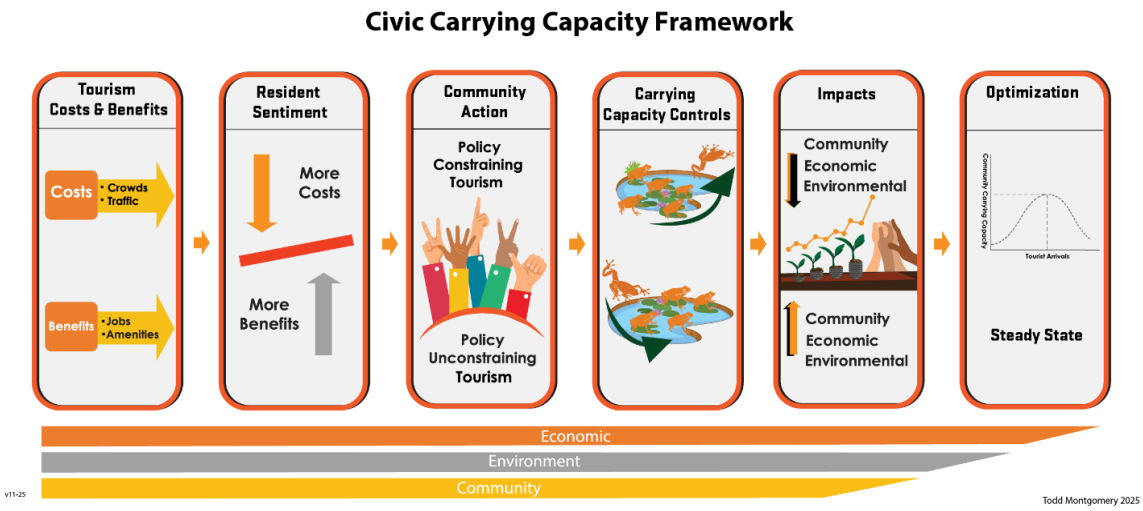

Figure 24: Civic Carrying Capacity Framework

In stage four, this community action leads to carrying capacity controls. These controls vary by destination but often fall into two broad categories. The first category includes actions that constrain tourism. This can take many forms, often through city council decisions to limit growth, or increasingly through tax increases and higher visitor costs. These taxes typically take the form of hotel or other accommodation taxes. If the community seeks to expand tourism, taxes and other investment incentives may be put in place to encourage more visitors.

At stage five, the impacts of tourism policies begin to take effect, usually with a time lag. Depending on the intended and, often more importantly, unintended consequences, these policies will affect the community, economy, and environment in various ways. This leads to the final stage, stage six, where the community, through its actions and other market forces, finds a temporary balance or optimal level of visitation.

4.2.3 Identifying and Measuring Shifts Between Stages

Another weakness of Butler's lifecycle model is the absence of clear, standardized metrics to indicate when a destination transitions from one stage to the next. The inability of destinations to clearly identify themselves via recognized, easily accessible metrics further limits the practical application of Butler's lifecycle. The following stage shift metrics are proposed:

Discovery Stage (1) – First Visitor Accommodations

Tourism begins to take root when residents or small entrepreneurs start offering lodging options beyond staying with family and friends (Figure 26). Modest guesthouses and bed-and-breakfasts emerge, signaling the earliest shift toward tourism. At this stage, promotion is minimal, and local authorities may not yet view tourism as a distinct or important economic sector.

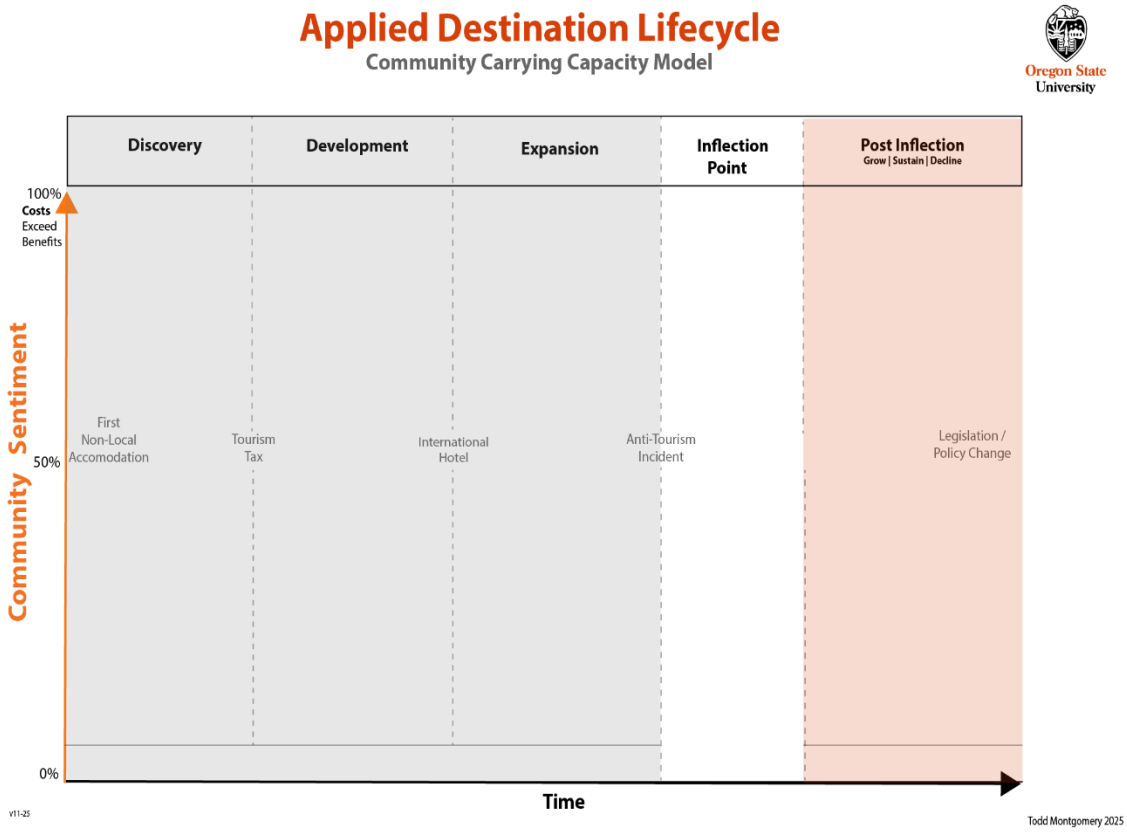

Figure 25: Applied Destination Lifecycle – Stage Shift Metrics

Development Stage (2) – Formation of Tourism Tax / Destination Marketing Office

The establishment of a Destination Marketing Organization or similar body marks a turning point. This entity coordinates promotion, branding, and strategy, often with direct backing from local government. To fund these efforts, municipalities introduce hotel or lodging taxes, channeling revenue into marketing campaigns to promote the destination and increase visitation.

Expansion Stage (3) – Arrival of Branded Accommodation

Tourism moves beyond a locally driven enterprise as national and international investors enter the market. Increased visitor traffic and media attention make the destination commercially attractive, leading to the arrival of recognizable hospitality brands such as chain hotels, resorts, and other large-

scale developments. These investments elevate the destination to a broader stage and accelerate its integration into the global tourism economy.

Inflection Point (4) – Community Policy Response

As tourism intensifies, residents begin to weigh economic benefits against rising costs to quality of life, culture, and the environment. Anti-tourism sentiment is growing more visible, as community groups organize, publish editorials, and lobby elected leaders to limit growth.

4.2.4 As The Destination Develops, Costs & Externalities Increase

Traditional destination lifecycle models often fail to capture the full range of impacts that increased visitor arrivals have on a community. As noted earlier, these models tend to assume a limited set of outcomes, typically that a destination will either be reinvented, stagnate, or decline. This modelling approach seems to imply that the destination is at the whim of market forces, with no ability to put it in balance.

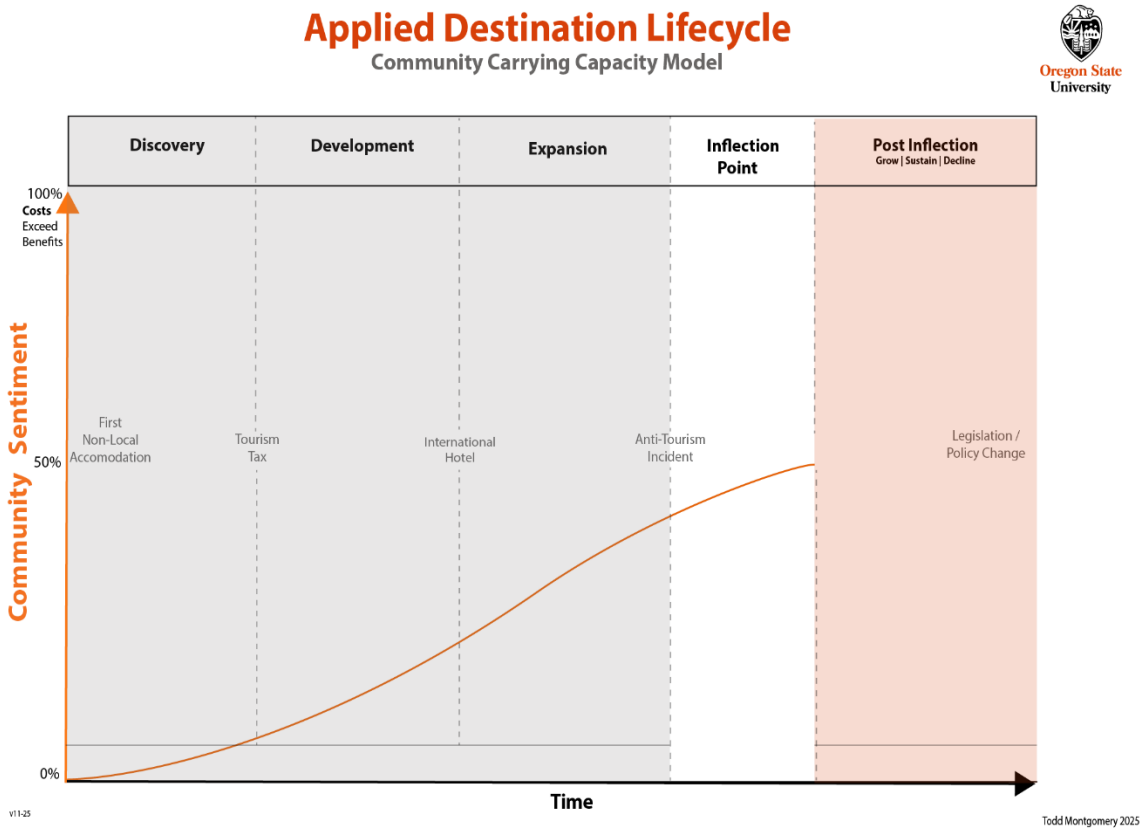

Figure 26: Applied Destination Lifecycle – Cost Line

Over the past several decades, especially in the last five years, the external costs of tourism have become increasingly recognized. Inspired by the Irridex model, the ADL model now represents the Irridex curve (aka tourism's negative externalities line) via an orange cost line (Figure 27). Both observation and data suggest that in the early stages of the lifecycle, resident sentiment tends to be relatively positive. This is largely because residents have not yet experienced the full range of negative impacts that tourism can bring.

However, as the destination progresses through its lifecycle, particularly during the development and expansion stages, those costs begin to rise. Increased visitation leads to greater pressure on infrastructure, housing, the environment, and overall quality of life. At this point, the tourism cost or negative externality curve is still hypothetically drawn as an upward curve. Later in this report, I will compare this estimated cost curve to actual data to assess how closely it aligns with the actual data.

The key takeaway is this: tourism has costs, and those costs have tangible effects on the destination's lifecycle and the local community's well-being. These effects must be included when attempting to model how destinations evolve.

4.2.5 Inflection point

In addition to the cost curve, traditional lifecycle models also fail to account for how residents can shape a destination's direction and influence its democratic processes. In the proposed new model, the destination eventually reaches an inflection point at which the community is evenly divided between the perceived benefits and costs of tourism (Figure 28).

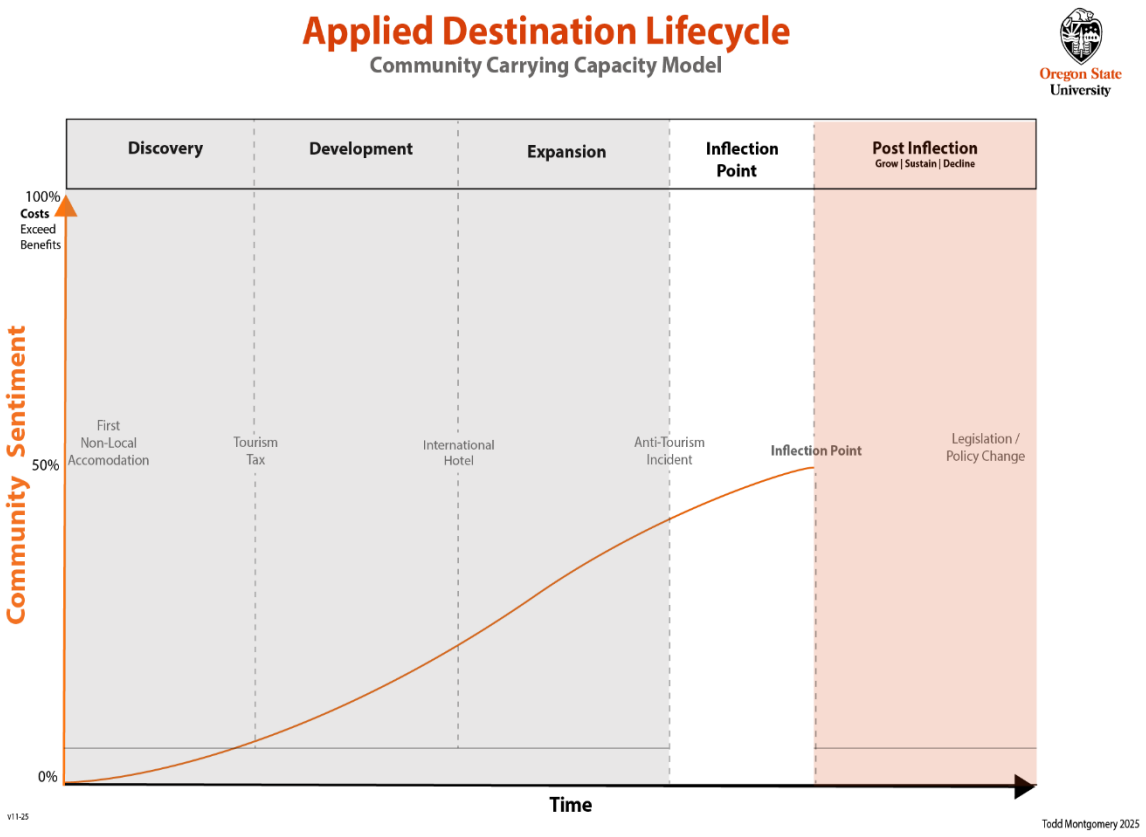

Figure 27: Applied Destination Lifecycle – Inflection Point

This moment of balance is a critical turning point in the lifecycle. It is the stage where residents actively begin to shape the future of the destination through civic action. Although community action is increasing, it is still in its early stages. There is a growing list of destination examples across the globe, such as Hawaii, Costa Rica, Venice, and other heavily visited places, where this process is unfolding.

This can also be a highly contentious stage. Stakeholders who have benefited from the status quo tourism model (status quo bias) often resist change and may come into conflict with residents. These tensions tend to play out in public forums where both groups compete to influence local

decision makers, including city councils and other policymakers.

4.2.6 Destination Depletion: Community & Environment

As the costs of tourism rise, there are growing impacts on the destination as a whole. Destinations exist for many reasons, but they are usually built around something the environment or the local community provides. This could be a natural feature such as a beach, a forest, or a snow-covered mountain. It could also be a cultural asset, such as local traditions, art, or religion. While there are exceptions, the hotels, restaurants, and other businesses that make up the economic side of tourism are often secondary to the natural or cultural elements that draw visitors in the first place.

Unfortunately, both the environment and the community are vulnerable. As Leon (2007) points out, environmental degradation and the loss of natural capital play an important role in shaping the trajectory of the tourist lifecycle and carry significant implications for economic welfare. As the orange cost line rises throughout the lifecycle of a destination, these pressures leave lasting impacts, not only on the community and ecosystem, but also on the very reasons tourists visit in the first place (Figure 29). To capture this dynamic, a third dimension has been added to the ADL model. This new axis, the Z-axis, is intended to represent the level of depletion the destination experiences, primarily from environmental and social perspectives.

At the top of the Z-axis is a fully preserved destination, where the natural environment is pristine and the cultural fabric remains untouched by outside pressures. At the bottom is a fully depleted destination, where the original qualities that inspired tourism have been lost.

A black downward-sloping line (depletion line) has been added to the model to represent this pattern. As the orange line representing the rising costs of tourism continues to move upward, the black line illustrates a corresponding decline in the preservation of the destination. The negative effects of tourism, especially its externalities, contribute directly to this decline.

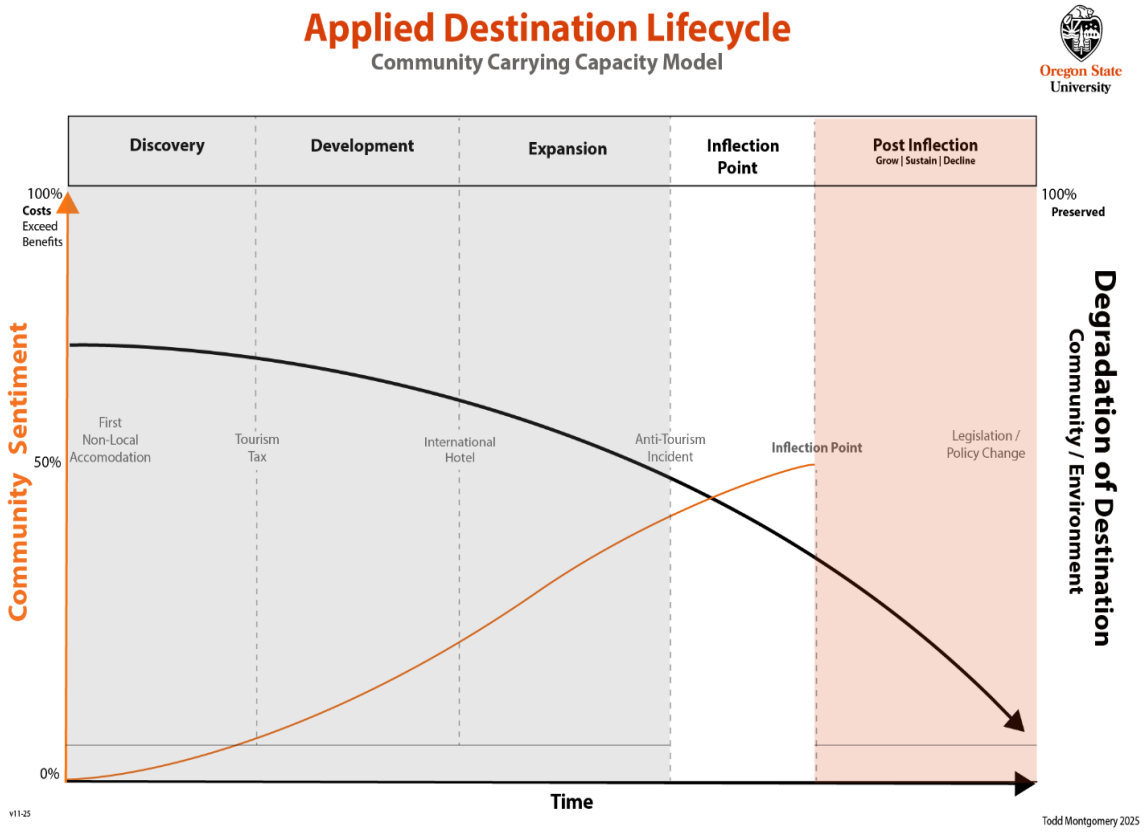

Figure 28: Applied Destination Lifecycle – Z-Axis

It should come as no surprise that depletion increases as a destination moves through its lifecycle, especially from the early stages of discovery to the inflection point. Nor should it be surprising that this inflection point often coincides with community action to preserve what remains. It is at this critical stage that residents begin to mobilize to protect both their community and the destination from further harm.

4.2.7 Sense of Urgency: Digging a Deeper Hole

The Applied Destination Lifecycle, with its updates to the traditional model, illustrates how a once-thriving destination can eventually reach a point of severe decline. A destination that has passed the inflection point but fails to reinvent itself or achieve balance is likely to deteriorate further, ultimately leading to its collapse (Figure 30). Just as many products in the marketplace reach the end of their lifecycle, so too can destinations. However, unlike products, reviving a destination is far more difficult, especially when its primary attractions have been severely degraded.

If the appeal of a destination was based on natural features, the environment may need time to

recover, assuming it is a renewable resource and has not been permanently damaged. If the appeal was cultural, the local identity and traditions may need to be revived. Finally, I know of no example of a destination that has successfully returned from this fully degraded stage.

As stated throughout this report, there are very few destinations that are truly sustainable in terms of inputs and outputs. That conclusion presents an alarming concern: each day that a destination remains out of balance, it moves closer to a point that may be impossible to recover from.

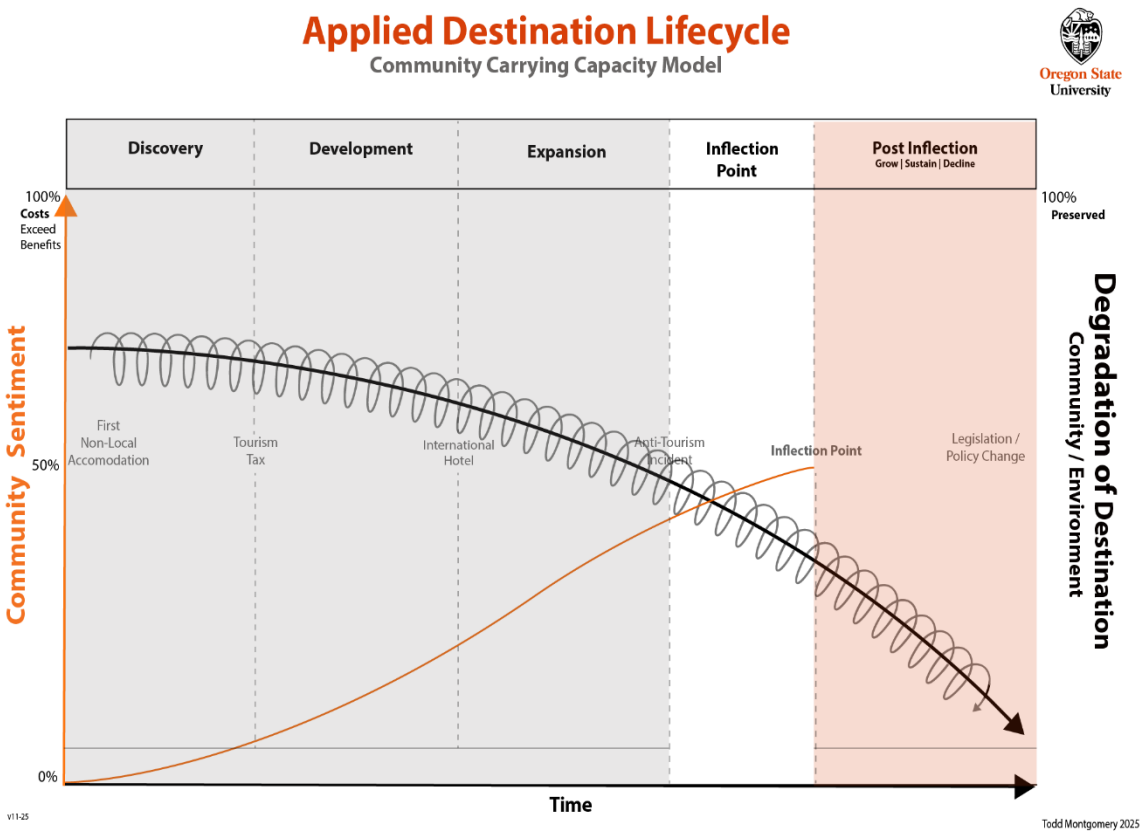

Figure 29: Applied Destination Lifecycle - Final

Therefore, any destination that is currently operating out of balance should recognize the seriousness of this condition. Prompt policy intervention is needed to reduce tourism-related costs and restore the system to equilibrium. Without such corrective action, a destination becomes increasingly likely to enter the decline phase of the post-inflection stage.

4.2.8 Special Note on Real-World Consequences of Decline

When a destination enters decline, the consequences can be particularly painful. The natural and

cultural attractions that originally drew tourists may be degraded or inaccessible. Infrastructure built for peak visitation, like large hotels or casinos, can become derelict. A stark example is Saipan, a Pacific island once known for its pristine beaches. An unfinished casino project now sits abandoned on one of its prime beachfront properties. With no funds to demolish the massive typhoon-proof concrete structure, it remains an eyesore and a cautionary tale of unchecked development and poor lifecycle planning for future generations.

4.3 Advancing the Applied Destination Lifecycle Framework with Applied Data

To evaluate whether the Applied Destination Lifecycle model could serve as a reliable tool for practitioners, the resident sentiment dataset described earlier, encompassing a range of destinations across the United States, was applied to the model. This analysis sought to confirm three key points. First, it tested the earlier assumption in the report that, as a destination progresses through its lifecycle, tourism costs increase. Second, it assessed whether the metrics used to classify lifecycle stages can serve as practical indicators of a destination's current stage. Third, it examined whether the point at which resident sentiment becomes evenly split, where approximately 50 percent of residents believe the costs of tourism outweigh the benefits, serves as a reasonable proxy for the inflection stage. Together, these tests provide additional support for the Civic Carrying Capacity Framework as a useful tool for understanding how residents, through civic processes, constrain or enable tourism, depending on their perceptions of tourism's costs and benefits.

4.3.1 Methodology

To operationalize the Applied destination lifecycle model, the following variables were extracted from the initial dataset (Figure 31):

ADL Data Dictionary

Table 3: ADL Data Dictionary

Field Name	Description
DestinationID	Unique identifier for each destination. Can be numeric or alphanumeric.
DestinationName	Full name of the destination.
LifecycleStage	Stage of the destination's lifecycle.
NonLocalAccommodation	1 if the destination has accommodations for non-locals.
TourismTax	1 if there is an active tourism tax.
InternationalBrand	1 if at least one international hotel brand is present.
AntiTourismIncident	1 if a significant anti-tourism event has occurred.
LegislationPolicyEnacted	1 if new tourism legislation has been enacted.

The dataset was processed by the model using stage-shift metrics. The resulting classifications are presented in the following chart. In this chart, the Y-axis represents resident sentiment as proposed earlier, measured as the percentage of residents who perceive that the costs of tourism exceed its benefits. The X-axis represents time, illustrating the progression of destinations through the lifecycle. The chart also displays the lifecycle stages, including discovery, development, expansion, inflection point, and post-inflection.

4.3.2 Assess Metrics To Classify Lifecycle Stage

Stage-shift metrics are systematically integrated into the lifecycle model to classify destinations based on their current stage of tourism development. This process involves evaluating each destination against a detailed set of criteria aligned with the lifecycle stages: discovery, development, expansion, Inflection, and post-inflection. These criteria include indicators such as the presence of local or non-local accommodations, the existence of a DMO or lodging tax, the emergence of nationally or internationally branded tourism products, and civic action on tourism via the legislative process. For example, a destination that offers accommodations to visitors but has not yet implemented a tourism tax or attracted international hospitality brands is classified as being in the Discovery stage. The model assumes that such destinations are at the very beginning of their tourism lifecycle and are just starting to feel the social, economic, and environmental effects of visitor activity.

To validate these classifications, the dataset was used to train the model, and the results were visualized using a jitter plot (Figure 32). Each destination was assigned a color corresponding to its lifecycle stage, providing a quick visual reference for where it falls on the continuum. This visualization allowed patterns and trends within the data.

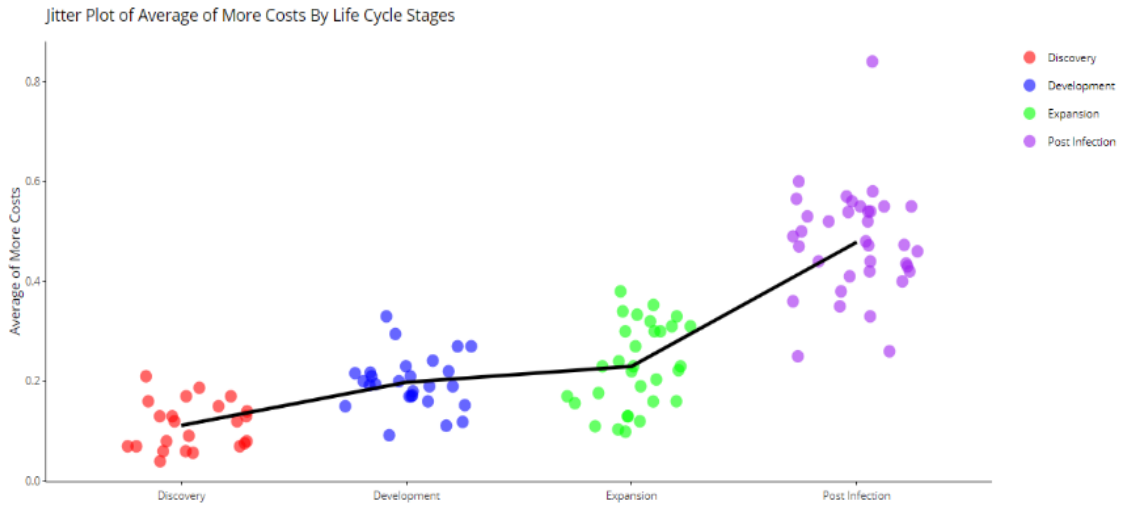

Figure 30: Jitter Plot of Lifecycle Stages

The resulting plot revealed four clusters corresponding to the lifecycle stages, supporting the model's classification logic. However, within each cluster, there was considerable variability in resident sentiment toward tourism. Some destinations within the same stage showed strong community support, while others showed high perceived tourism-related costs. This variation underscores that lifecycle stage alone does not fully explain sentiment, and that additional contextual factors, such as governance, visitor behavior, and growth rates, may influence resident perceptions. The visualization, therefore, serves as both a validation tool for the model and a prompt for further analysis into what drives differences within each stage.

4.3.3 Do Negative Externalities Increase Through the Lifecycle?

When examining the first question, whether the costs of tourism increase as destinations progress through the lifecycle, it is important to note that the proposed destination lifecycle cost curve, shown in orange, was initially drawn as a hypothetical projection based on the Irridex Curve. This is, to my knowledge, the first time an Irridex Curve has been tested across a range of destinations using actual data.

At the start of the report, this curve was set to zero on the Y-axis, assuming that a community with no

tourism activity would incur no tourism-related costs. It is acknowledged, however, that residents with prior experience of tourism might still perceive costs even at the earliest stages of development. Nevertheless, both survey data and my research indicate that very early-stage destinations typically exhibit very low levels of anti-tourism sentiment.

The decision to position the inflection point near 50 percent of residents perceiving that tourism costs outweigh its benefits was grounded in the logic of majority rule in a democracy, consistent with the Civic Carrying Capacity Framework. However, the overall slope of the curve was purely hypothetical and did not have an empirical basis at the time it was proposed.

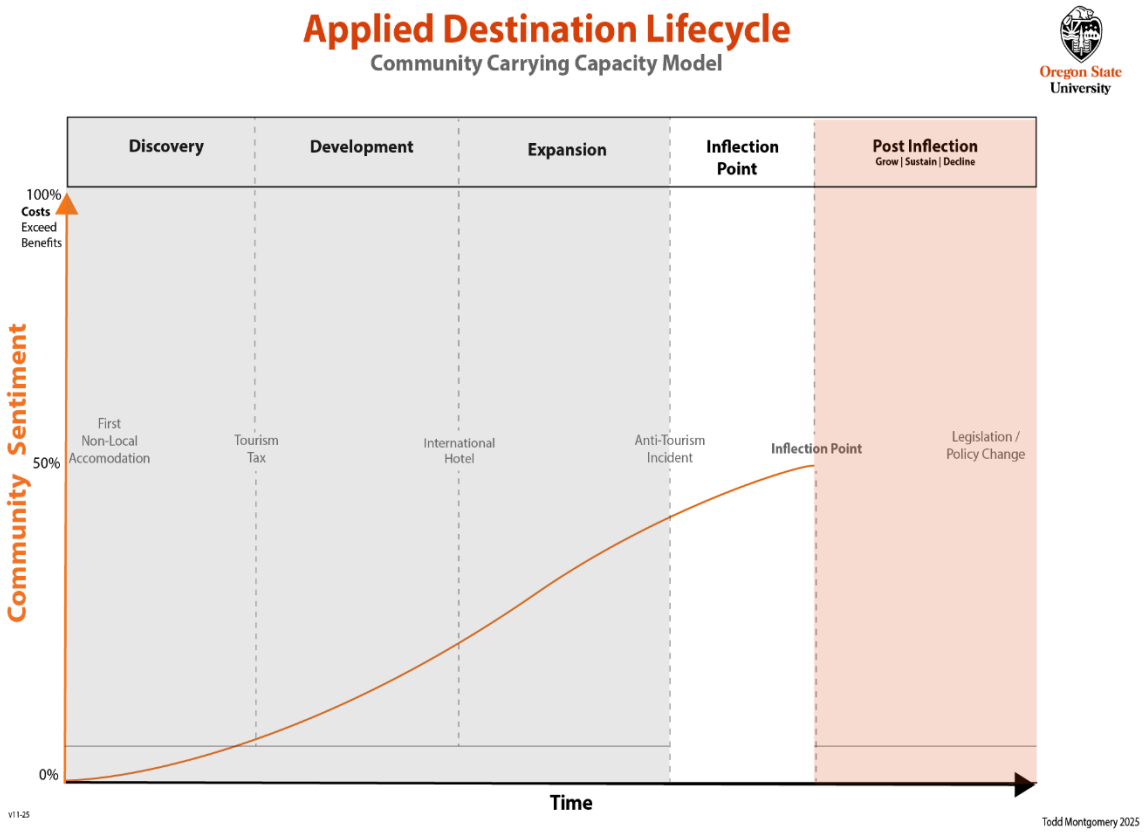

Figure 31: Applied Destination Lifecycle – Cost Curve

To test this conceptual framework, a fitted trend line was added to represent actual data on resident sentiment across destinations (Figure 33). This trend line provides evidence that perceptions of tourism become more negative as destinations mature and approach later stages of the lifecycle. The resulting curve is relatively flat through the development and expansion stages, suggesting that costs rise slowly during these phases, but become noticeably steeper as destinations transition from

expansion to the post-inflection stage. This finding implies that the social, economic, and environmental costs associated with tourism may accelerate most rapidly during this later period, signaling a critical window for proactive management interventions.

For comparative purposes, the jitter plot of classified destinations is overlaid on the new ADL model (Figure 34). Unsurprisingly, the actual curve is less smooth and more variable than the hypothetical projection, reflecting the diversity of community experiences and external factors influencing sentiment. However, the overall shape of the fitted curve mirrors the conceptual Irridex model, providing additional support for the assertion that tourism-related costs generally rise as destinations progress through the lifecycle. This convergence between theory and data strengthens the argument that a destination's lifecycle stage is a meaningful guide to understanding resident sentiment.

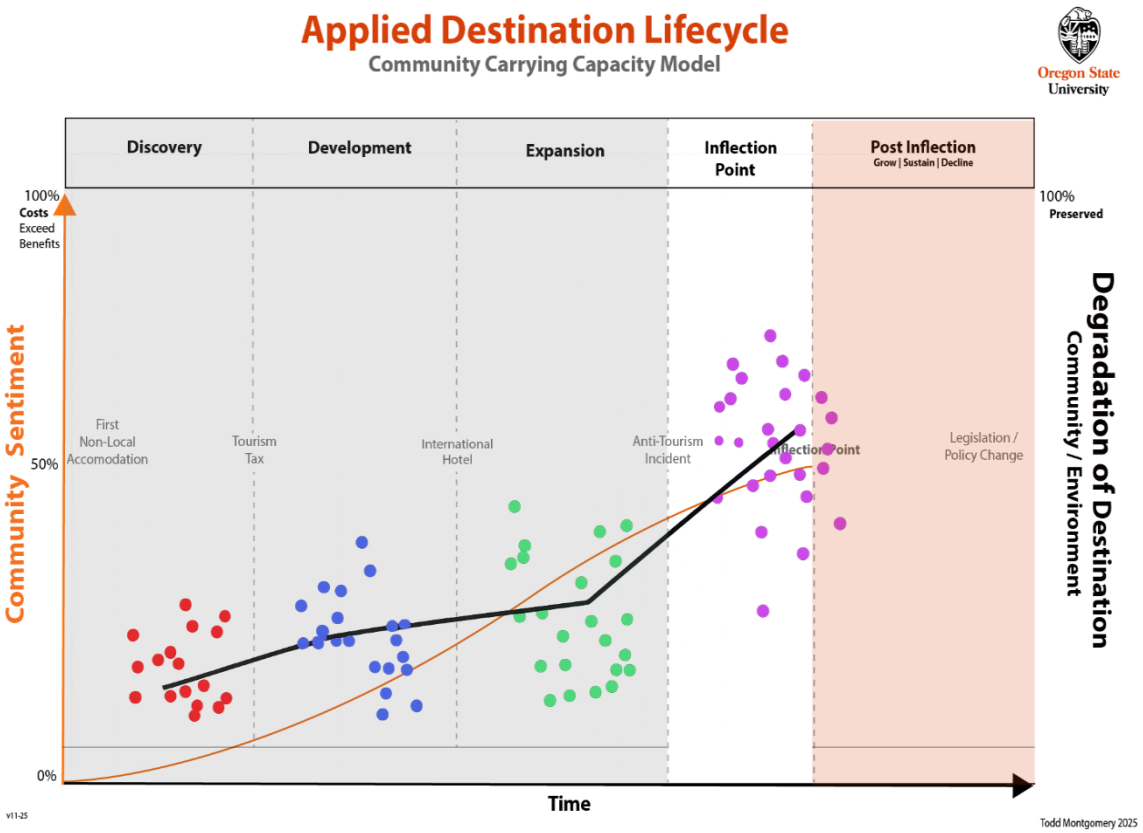

Figure 32: Applied Destination Lifecycle

4.3.4 Evaluating the 50 Percent Threshold as the Inflection Stage

The data points in the inflection stage exhibit the highest variability among the stages of the

destination lifecycle. In this stage, some destinations report extremely high levels of negative sentiment toward tourism, indicating that the majority of residents believe tourism's costs outweigh its benefits. At the same time, other destinations at this stage remain below the 50 percent threshold, suggesting that a significant portion of the community still views tourism positively or sees the benefits outweighing the costs. This wide distribution makes it challenging to pinpoint the exact moment a destination enters the inflection stage and to establish a universally applicable threshold that marks this transition.

This ambiguity underscores the complexity of resident sentiment as a metric for lifecycle classification. It suggests that the inflection stage may not represent a single fixed point, but rather a transitional zone (i.e. > 40%) where perceptions are in flux. External events, such as economic downturns, changes in tourism marketing, or spikes in visitor volume, may temporarily push resident sentiment above or below the 50 percent mark, further complicating the determination of a definitive threshold.

Anecdotal evidence from Oregon provides a practical example of this challenge. Legislators representing several coastal tourism communities in 2025 proposed measures to add flexibility to the use of tourism tax revenues. These proposals appear to reflect growing concern over the impacts of tourism in these communities. The OSU Sustainable Tourism Lab collects resident sentiment data for four of these coastal destinations, all of which currently fall within the 40-50% range of residents who believe tourism costs outweigh benefits. This range suggests that these communities are likely nearing the inflection stage but have not yet collectively crossed the majority threshold. At this stage of the report, the available data is insufficient to establish a definitive determination of where the inflection point lies or to set precise numerical cutoffs.

5 Conclusion: Rethinking Tourism Economic Policy

The findings presented here, combined with the growing prevalence of resident dissatisfaction across destinations, indicate that traditional tourism policy is no longer adequate. Communities are increasingly calling for balance.

Unfortunately, as previously noted, designing taxes to address externalities is complicated. Debates over the appropriate level of tourism taxation have persisted for many years, with industry groups typically advocating lower rates and many community stakeholders advocating higher ones. Determining the optimal tax level remains challenging given these competing interests (Sheng 2017). Researchers have also questioned the effectiveness of traditional tourism tax systems. Evidence does not clearly show that the taxes and fees imposed at destinations accurately capture the external costs created by tourism. The large differences in these charges across locations suggest both that social costs vary by destination and that many taxes are set to meet revenue needs rather than to correct environmental problems (Nepal and Nepal 2021).

For decades, policy frameworks equated success with rising visitor arrivals, expanded lodging capacity, and short-term spending growth. However, research indicates that the guiding principle for selecting a tax should be to choose the option most likely to improve overall welfare (Sheng 2017). This perspective requires both the tourism industry and community leaders to rethink not only the goals of tourism but also the mechanisms used to achieve them.

Although the system is far from perfect, both this paper's findings and prior research suggest that tourism taxation can still improve overall welfare. Even if such taxes appear to reduce a destination’s benefits in strict accounting terms, such as lowering GDP, the broader welfare of the community may still rise (Sheng and Tsui 2009).

Based on these conclusions, the following tourism tax policy guidelines also question whether current tax mechanisms effectively manage tourism impacts (Figure 35). The guidelines encourage a reevaluation of how tax policy can be redesigned to better balance visitor benefits with resident well-being, drawing on the Applied Destination Lifecycle model and economic theory as guiding frameworks.

5.1 Designing Tourism Policy Around the Core Principles of This Paper

5.1.1 Reimagining a Sustainable Destination

The ultimate goal of tourism policy is to support destinations in remaining sustainable over time. A truly sustainable destination would operate much like a closed-loop system: resources consumed by tourism are replenished, externalities are mitigated, and benefits are distributed fairly among all stakeholders. Yet, no modern destination fully meets this standard, particularly when global travel emissions are considered, making sustainability both a challenge and a moving target.

5.1.2 Welfare Economics Framework: Enhancing Resident Utility

In the absence of a perfect example, policymakers can use a simple benchmark: a sustainable destination is one that remains as good as, or better for, future generations than it is today. While aspirational, this vision provides a necessary lens for evaluating tourism policy. When policy frameworks achieve this steady-state balance, destinations can extend their lifecycles indefinitely, avoiding decline and stabilizing prosperity for generations to come.

5.1.3 User-Based Taxation

An effective tourism tax policy should be grounded in the principle that those who generate externalities bear the costs associated with their actions. In economic terms, this internalizes externalities by ensuring that tourism prices reflect true social and environmental costs. Visitors who consume more resources, generate waste, or contribute to congestion help fund the mitigation of those impacts. Revenue from these user-based systems can be reinvested into infrastructure, workforce housing, conservation, and community programs, creating a self-sustaining cycle in which visitors contribute directly to the destinations they enjoy. In this way, the tax framework functions as both a corrective tool and a reinvestment engine for long-term community resilience.

5.1.4 Address Tourism's Externalities

Tourism policy must directly address the external effects created by visitor activity, since these costs are rarely reflected in market outcomes and often fall on residents and the environment. As the literature points out, tourism taxes in many destinations have traditionally been used primarily to raise public revenue rather than to address tourism's external impacts (León et al. 2007). Effective policy must therefore go beyond revenue generation and incorporate tools that directly address these external effects, ensuring that tourism supports long-term community welfare and the

preservation of local resources.

5.1.5 Lifecycle Model-Based Policy

Tourism policy must evolve as destinations progress through their lifecycle. Growth-oriented incentives and infrastructure investments may suit emerging destinations, while mature communities require mechanisms to manage capacity, redistribute benefits, and protect livability. Integrating resident sentiment into decision-making ensures that interventions remain proportionate and adaptive to changing conditions. A lifecycle-based approach helps maintain equilibrium between development, conservation, and community welfare.

5.1.6 Market-Based Efficiency

Harnessing price signals can be one of the most efficient ways to influence behavior and allocate scarce resources. Market-based instruments encourage visitors to make choices that reflect true costs while reducing the need for heavy-handed regulation. These tools should align individual incentives with community goals, supporting a more sustainable consumption of shared assets.

5.1.7 Ability to Differentiate Local from Visitor

Sound policy design depends on the ability to distinguish residents from visitors with minimal friction or privacy concerns. New technologies now enable non-intrusive, user-friendly methods that support differential pricing or fee structures. This distinction allows communities to exempt locals from certain charges or offer resident discounts, reinforcing perceptions of fairness and legitimacy. By accurately identifying user types, policymakers can ensure that tourism management systems target the true externality sources rather than penalizing residents simply for living where visitors stay.

Framework Element	Description	Addressed by Policy?	Explanation of Alignment
Reimagining a Sustainable Destination	The policy should ensure destinations remain sustainable over time by balancing resource use, replenishment, and equitable benefit distribution.	☐ Yes / ☐ No	Policy supports a closed-loop system where tourism revenues and practices maintain or improve environmental and social conditions for future generations.
Welfare Economics Framework	Tourism policy should enhance resident welfare by aligning social and private costs, internalizing externalities, and improving overall community well-being.	☐ Yes / ☐ No	Policy ensures residents do not bear disproportionate costs, improving collective welfare and achieving Pareto enhancement.
User-Based Taxation	Visitors generating externalities should bear associated costs through taxes or fees that reflect true social and environmental costs.	☐ Yes / ☐ No	Policy uses user-based pricing mechanisms to fund infrastructure, conservation, and workforce housing, creating a self-sustaining system.
Lifecycle Model-Based Policy	Policy interventions should evolve according to the destination's lifecycle stage to maintain equilibrium between growth and livability.	☐ Yes / ☐ No	Policy adapts investment and management tools as destinations mature, integrating resident sentiment into ongoing decision-making.
Market-Based Efficiency	Use price signals and market mechanisms to influence visitor behavior and allocate scarce resources efficiently.	☐ Yes / ☐ No	Policy uses differential pricing or congestion fees to reduce overuse and support efficient, sustainable tourism consumption.
Ability to Differentiate Local from Visitor	Systems must distinguish residents from visitors with minimal friction or privacy intrusion to ensure fairness in cost distribution.	☐ Yes / ☐ No	Policy applies technology to identify locals for discounts or exemptions, reinforcing equity and legitimacy.
Applicability to Non–Sales-Tax or Drivable Markets	Policy should provide revenue options in destinations lacking sales or lodging taxes, especially those reliant on day visitors.	☐ Yes / ☐ No	Policy introduces flexible user fees or parking systems to capture revenue from drive markets that bypass lodging taxes.
Political and Social Acceptability	Policy should be transparent, understandable, and defensible to the public to ensure compliance and longevity.	☐ Yes / ☐ No	Policy is clearly communicated, easy to administer, and framed as fair and beneficial to residents.
Generational Perspective	Policy must safeguard resources for future generations and measure success through long-term community well-being.	☐ Yes / ☐ No	Policy prioritizes intergenerational equity, sustainability, and resilience over short-term economic gains.
Fiscal Guardrails and Reinvestment	Revenue systems should include mechanisms ensuring long-term reinvestment in shared assets and mitigation programs.	☐ Yes / ☐ No	Policy earmarks revenues for conservation, workforce housing, and infrastructure, insulating funds from short-term politics.
Wealth-Based Metrics	Redefine success by measuring tourism's contribution to long-term community wealth rather than short-term income.	☐ Yes / ☐ No	Policy tracks impacts on financial, social, cultural, and natural capital to assess true prosperity and adaptive capacity.

Figure 33: Redesign of Tourism Policy

5.1.8 Applicability to Non-Sales Tax or Drivable Markets

Tourism policy must also function in jurisdictions lacking traditional sales or lodging taxes. Many drive-to destinations rely heavily on day visitors who do not contribute to overnight lodging taxes, yet still place demands on local infrastructure and services. These communities need flexible mechanisms to generate resources for management and maintenance.

5.1.9 Political and Social Acceptability

For any policy to succeed, it must be understandable, transparent, and publicly defensible. Simplicity fosters compliance, while clear communication prevents misinformation and resistance. Public engagement builds trust and legitimacy by aligning policy with community values. Ultimately, socially acceptable policies endure because they are perceived as fair, visible, and responsive to both resident and visitor needs.

5.1.10 Generational Perspective

A resilient tourism policy must look beyond short-term growth and adopt a lifecycle and generational perspective. Historically, success is measured by visitor counts or annual tax receipts rather than by community balance and intergenerational well-being. A generational lens prioritizes long-term stewardship for future residents. Research shows that the tourism sector depends heavily on the natural environment to provide its services. Visitor demand responds to the quality and availability of natural resources, while the process of delivering tourism services can, in turn, degrade those same environmental assets (León et al. 2007).

5.1.11 Guardrails in Tourism Taxation and Allocation

Guardrails act as stabilizers within the cyclical nature of tourism. During growth stages, they ensure that rising revenues are reinvested in core assets. In maturity phases, they redirect funds toward mitigation, workforce housing, and conservation to offset negative impacts. And in renewal or recovery stages, they provide the fiscal foundation for diversification and regeneration. Guardrails serve a governance purpose: they insulate tourism revenue from short-term political pressures and ensure long-term reinvestment in public goods. By embedding sustainability commitments into fiscal policy, destinations maintain their capacity to adapt and thrive across the entire lifecycle.

5.1.12 Redefining Success Through Wealth Metrics

Shifting from income-based to wealth-based metrics transforms how destinations define success. Income indicators such as visitor spending, tax receipts, and hotel occupancy capture short-term gains but overlook whether tourism builds lasting community value. Wealth metrics, by contrast, assess tourism's contribution to a destination's long-term prosperity and adaptive capacity. They measure not only financial capital but also social, natural, and cultural assets. This shift reframes tourism as a means of building durable community wealth rather than maximizing transient growth.

5.2 Applied Example: Tax Policy Aligned with Tourism Externality Management

To conclude, it is important to demonstrate how the theoretical concepts discussed throughout this paper can be operationalized in real-world contexts, illustrating the practical applicability of the framework and its relevance for policy and management decisions.

In this applied example, it is useful to focus on some of the most challenging destination scenarios for implementing effective tourism policy. These include destinations that have matured and are

approaching the inflection point in the Applied Destination Lifecycle model, where tourism-related externalities such as congestion, strain on public services, and rising infrastructure costs become more pronounced. Another problematic scenario involves destinations that cannot levy a sales tax or that rely primarily on drive-in markets where visitors do not require overnight accommodation. These destinations have limited options to generate revenue through traditional lodging or sales-based mechanisms, yet they still experience the same congestion, environmental pressures, and infrastructure burdens that accompany high visitation. As a result, they represent some of the most constrained policy environments, requiring creative user-based revenue systems and management tools to address tourism-related externalities while maintaining community support and long-term destination sustainability.

5.2.1 Parking as a Mechanism for Internalizing Tourism Externalities

To illustrate how the insights from this paper can be applied in practice, this section focuses on one of the most common negative externalities faced by destinations worldwide: parking congestion (Figure 36). One way to internalize the cost of a tourist's visit to the destination is through a congestion-based parking policy grounded in the principles outlined in this paper, which are outlined in the diagram below. This approach leverages the power of market forces and differential pricing to manage tourism-related impacts. In many downtown areas, which serve as shared spaces valued by both residents and visitors, the primary strain arises from congestion, parking demand, and infrastructure wear, disproportionately caused by tourists. A well-designed parking policy can internalize these costs while preserving resident welfare and promoting fiscal efficiency.

In this approach, the destination leverages the growing adoption of electronic parking systems, such as mobile applications, that initially served only as parking payment and verification mechanisms. The data already collected through these systems provides a simple, low-cost means of differentiating between residents and visitors through zip code verification or residency confirmation. This ability to distinguish and target tourists specifically remains one of the most challenging tasks in tourism policy.

The proposed policy would provide an additional benefit to residents, who may park for free or at a deeply discounted rate but must still register their vehicle to claim the local credit. Visitors, in contrast, pay a parking fee that reflects their contribution to downtown congestion and infrastructure demand. This market-based mechanism uses the "power of price" to allocate scarce parking resources more efficiently and to ensure that those who generate the externality bear the associated costs.

Framework Element	Addressed by Policy?
Reimagining a Sustainable Destination	☑ Yes
Welfare Economics Framework	☑ Yes
User-Based Taxation	☑ Yes
Lifecycle Model-Based Policy	☑ Yes
Market-Based Efficiency	☑ Yes
Ability to Differentiate Local from Visitor	☑ Yes
Applicability to Non–Sales-Tax or Drivable Markets	☑ Yes
Political and Social Acceptability	☑ Yes
Generational Perspective	☑ Yes
Fiscal Guardrails and Reinvestment	☑ Yes
Wealth-Based Metrics	☑ Yes

Figure 34: Parking Framework Checklist

From a welfare economics perspective, this form of pricing incrementally moves the community's cost-benefit equation closer to equilibrium by aligning costs with use. It also shifts tourism management away from numerous, inefficient volunteer-driven mitigation efforts toward an automated, systematic mechanism for collection and enforcement. The resulting fee revenue, collected automatically through the parking system, can be structured with fiscal guardrails to ensure intergenerational benefits. For instance, a portion of the collected funds could be directed into a local endowment dedicated to long-term community improvements such as infrastructure maintenance, green space preservation, or youth programs.

Importantly, this approach represents a rare and novel means of taxing tourists in drivable destinations, which is a sizable chunk of tourist destinations in the US. For these drivable destinations, many visitors are day trippers who do not stay overnight and thus typically avoid traditional lodging or hotel taxes. By monetizing short-term visitation through parking, this system captures a segment of tourist activity that would otherwise go untaxed, ensuring that even transient visitors contribute to the maintenance of the amenities they use.

Another indirect benefit of the proposed parking fee policy is that it helps reduce demand in already congested areas. By increasing the cost of driving and parking downtown, the policy creates incentives for alternative modes of transportation, such as public transit, biking, or walking, thereby alleviating traffic and improving both residents' and visitors' experiences.

Earlier in the paper, I proposed a zero sustainability formula for tourism, indicating that for a destination to be truly sustainable, the net equation of tourism's benefits minus its costs would have

to equal zero. As discussed, when transportation externalities are included, no destination fully meets this criterion, since the carbon and energy costs associated with visitor travel almost always exceed what a community can offset.

In this context, the applied parking policy example does not claim to achieve sustainability in absolute terms. Instead, it incrementally shifts variables within the equation in a direction that improves resident welfare. Specifically, visitor fees (F) increase the benefit term for residents, while transportation externalities (X) decrease as the policy reduces vehicle use and congestion within the community. The result is movement toward, though never fully reaching, the zero sustainability condition. This reinforces the paper's broader point: no single intervention can resolve the complex externalities of tourism. Progress occurs through multiple, incremental policies that collectively rebalance the cost-benefit relationship and improve resident sentiment over time.

$$\textbf{Total Benefits} \quad - \quad \textbf{Total Costs} \quad = \mathbf{0}$$

$$(R + W + \Pi + F + \sum_{i \in B} b_i) \; - \; (S + C + T + H + E + X + \sum_{j \in C} c_j) = 0$$

R = tax revenue
W = wages from tourism jobs
Π = local business profits
F = visitor fees or assessments
b_i = any additional benefit component
S = public service costs
C = congestion costs
T = traffic costs
H = housing pressure costs
E = environmental costs
X = transportation externalities from visitor travel
c_j = any additional cost component

The resulting shift in community sentiment would then be reflected in the Civic Carrying Capacity Framework and the Applied Destination Lifecycle, where, depending on the intervention's intended and unintended policy consequences, the civic response may evolve to constrain, unconstrain, or stabilize around a new steady-state equilibrium.

5.2.2 Additional Policy Applications Within This Framework

Local discount programs, preferential venue pricing, and resident ski pass pricing are just a few more examples of applications that utilize the same underlying principles of resident differentiation, user-based cost internalization, and market-driven resource allocation. These programs often emerge informally or evolve as intuitive local perks. Yet they are seldom formalized or evaluated within a

welfare-based cost–benefit framework, despite their strong potential to rebalance community well-being.

Moving these organically developed practices into intentional, structured policy instruments requires both innovation and political savvy, as destinations must design mechanisms that are equitable, transparent, and administratively feasible while navigating local politics and stakeholder interests. By using straightforward residency verification to provide reduced rates or no-cost access for locals while requiring visitors to pay prices that more accurately reflect their share of congestion, infrastructure strain, and environmental impacts, these interventions enhance resident welfare, increase perceived fairness, and strengthen political legitimacy. Moreover, because they are easily communicated, technologically feasible, and adaptable to destinations without sales tax or substantial lodging revenue, these resident-focused pricing tools offer practical means to manage tourism pressures while supporting long-term sustainability and community well-being.

6 Conclusion

In conclusion, Butler's first paper, published in 1980 and introducing the lifecycle concept, ended on a notably somber note. He warned, "Unless more knowledge is gained and a greater awareness developed of the processes which shape tourist areas, it has to be concluded, with Plog, that many 'of the most attractive and interesting areas in the world are doomed to become tourist relics'" (Butler 1980). His comments are even more relevant today than in 1980 and can be interpreted as an urgent call to action. Four decades later, destinations continue to struggle with political short-termism, unmanaged growth, declining resident sentiment, and the absence of policy tools designed to maintain long-term social welfare.

The recommendations offered in this paper, including the applied example of a tourism fee policy, represent one of many possible approaches within the broader tourism policy framework proposed here. Such tools are not intended as silver bullets, but as practical mechanisms to help destinations monitor, manage, and rebalance the pressures of tourism over time so they don't become tourist relics.

Ultimately, the enduring relevance of Butler's lifecycle model underscores a critical point: without informed, proactive, and adaptive policy, destinations may inadvertently follow the very trajectory Butler cautioned against. This framework and the policies derived from it offer one pathway to ensuring that tourism remains a sustainable and valued part of a destination's future rather than a force that hastens its decline.

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