

Measuring Tourist Spending Impacts of the October 2013 U.S. Government Shut-down

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Abstract

The U.S. Federal Government shut-down from October 1-15, 2013 caused major public outdoor recreational venues to be shut-down during the most visited month of the year in October. In western North Carolina, the publicly owned recreational activities closed and shut-down in 16 counties bordering the Great Smoky Mountains National Park and containing recreational activities in three U.S. National Forests. The purpose of the study was to use and evaluate two methods to measure the impact of this 15 day U.S. Federal Government shut-down on tourist spending in the 16 county focus area of western North Carolina. The first method used taxable sales data adjusted for inflation obtained from the North Carolina Department of Revenue for October 2013 and were compared to taxable sales for the five year average period 2008-2012. Analysis shows that 7 out of the 16 counties saw decreases in taxable sales for October 2013 over the five year average, and 9 counties saw increases in taxable sales when comparing the two periods. The overall 16 county regions experienced a 2.28 percent increase in taxable sales over the two periods. The second method used October daily data on hotel room demand from Smith Travel Research for five selected counties during the shutdown period (October 1-15), and after the shutdown ended (October 16-31). When October 2013 hotel room demand is compared to the same period 2012, the analysis showed three of the five counties saw decreases in hotel room demand during the shutdown period, and all five counties experienced increases in hotel room demand after the shutdown ended. In evaluating the two methods used to measure tourist spending in the area, while both methods have limitations, the second method using Smith Travel Research data offered a more robust analysis because it reported daily hotel rooms sold.

Keywords: Government shut-down; Tourist spending; Taxable sales; Hotel demand

Introduction

In October 2013, the U.S. Federal Government shut down and all non-essential operations and spending by the U.S. government ceased for the period of October 1, 2013 to October 15, 2013. The reason for this federal government shut-down was that the U.S. Congress could not agree on elements in an unrelated bill being considered by both the U.S. House of Representatives and the U.S. Senate. So both the House and Senate refused to fund budgets of non-essential agency operating funds in protest of the deadlock in Congress.

The purpose of this study is to use and evaluate two methods in measuring if tourist spending changed in area with tourist activities and recreation amenities in and near a National Park and U.S. Forest Service as a result of the U.S. Federal Government shut-down. The specific reasons for this Federal Government shut-down are not the purpose for this study.

Federal agencies categorized as “non-essential” and left without funding to pay for operations and personnel were forced to cease all operations. Those federal agencies deemed “essential” were continued to be funded and were not shut-down. Essential agencies included those related to law enforcement, emergency management, federal aviation and operation of air traffic control towers, aviation safety and maintenance, the U.S. military, and other agencies essential to the safety and well-being of citizens in the U.S. and abroad.

In addition to many federal agencies, two federal cabinet level agencies important for this study were impacted by the shutdown, 1) The U.S. Department of Interior, and 2) The U.S. Department of Agriculture. The U.S. Department of the Interior is the cabinet agency operating all U.S. National Parks and their units, while the U.S. Department of Agriculture operates the U.S. Forest Service including

all the recreational activities and facilities located in or near National Forests.

During the 15 days of the shut-down period between October 1, 2013 and October 15, 2013, all recreation and leisure activities in U.S. National Parks were shut-down and all activities on U.S. Forest Service lands were shut-down. This study will focus on western North Carolina and area bordering the Great Smoky Mountains National Park.

Previous Studies

Previous studies of impacts on tourism demand of exogenous factors and shocks such as government shut downs are few. Beirman examined marketing strategies for tourism destinations after events that impacted tourism beyond their direct managerial control such as political instability, epidemics, war, crime waves, political instability, terrorism and natural disasters [1]. In Montana USA, researchers concluded that as a result of the October 2013 Federal Government shutdown Montana National Park visitation decreased 64 percent [2].

In North Carolina, the North Carolina Department of Commerce’s Division of Tourism commissioned a study after a 2009 rock slide on the main connection of Interstate 40 near the Tennessee and North

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Carolina state line. A consumer survey was used to measure awareness and perception of the rock slide location and its impact on travel. In addition, the North Carolina survey also gathered information of potential impact of travel in the area that would help in formulating message strategy plans in the future [3].

In examining the federal government shutdown occurring between December 16, 1995 and January 6, 1996, Kosar gathered from congressional hearings, press and agency accounts about the impact of this shutdown on 368 National Park Service sites and local communities surround these sites. Estimates of lost tourism businesses at these sites ranged from a loss of 7 million visits to National Park Service sites that did not occur, local communities near national parks losing an estimated \$14.2 million per day in tourism revenues, and 2 million visitors lost by the closure of national museums and monuments [4].

Background on Area of Study

In the area of the study along eastern border of the Great Smoky Mountains National Park and includes 16 North Carolina counties. In this area of western North Carolina there are three U.S. National Forests: 1) Cherokee National Forest, 2) Pisgah National Forest, and 2) Nantahala National Forest. All three National Forests are popular with tourists seeking a wide variety of recreational activities. Activities offered in these three National Forests include bicycling and mountain biking, cabins and camping facilities, fishing, hunting, hiking, horseback riding, nature viewing, outdoor learning, picnicking, rocks and mineral hunting, scenic driving, zip lining, and water activities like rafting, boating and kayaking [5]. Some of these recreational activities are operated and maintained by National Forest Service personnel, while other activities are operated by approved private sector operators and outfitters like the Nantahala Outdoor Center in Bryson City, NC and other private sector operators using National Forest resources offering rafting, biking and hiking trips. In addition, a portion of the Appalachian Trail goes through these National Forests too.

Also along the western border area to these North Carolina gateway counties in the most visited National Park in the U.S. – the Great Smoky Mountains National Park (GSMNP). This park shares a border with both North Carolina and Tennessee, includes 522,419 acres encompassing 816 square miles and in 2013 hosted 9.68 million visitors [6]. On the west side of the GSMNP along the Tennessee border are the gateway cities in Tennessee of Knoxville, Townsend, Maryville, Sevierville, Pigeon Forge and Gatlinburg. On the east side of the GSMNP forming the North Carolina border are the lesser populated North Carolina gateway cities of Bryson City, Cherokee, Robbinsville, and Murphy.

In addition, the Blue Ridge Parkway, another unit of the National Park system is in the area and is well traveled by tourists during the fall foliage season. The Blue Ridge Parkway was also shut down during the period October 1-15 in 2013.

Methods of Analysis

The purpose of this study is to use and evaluate two methods in measuring if tourist spending changed in areas with tourist activities and recreation amenities in and near a National Park and U.S. Forest Service as a result of the U.S. Federal Government shut-down. In this case, 16 counties near or bordering National Park and U.S. Forest Service lands were examined

Analysis of county taxable sales

In the first method, monthly taxable sales were analyzed for the

16 counties in western North Carolina forming the east border of the GSMNP and in or near the three previously mentioned National Forests. In order to use county taxable sales data to measure the change in tourist spending in the 16 counties in the area of focus, monthly taxable sales data from the North Carolina Department of Revenue were collected and compared for the period of October 2012 versus October 2013 [7]. These taxable sales data reflect seasonal and monthly period of taxable sales by both local residents and visiting tourists.

The state of North Carolina levies a general retail sales and use tax of 4.75 percent. The general rate applies to purchases of tangible commodities, certain digital property, room and cottage rentals, and laundry and dry cleaning services. The tax does not apply to prescription drugs, gasoline, coin-operated laundries, or motor vehicles. The state exempts food from state sales and use tax except for certain classifications, including dietary supplements, food sold from vending machines, soft drinks, candy, and prepared food (other than certain bakery items sold by qualifying artisan bakeries). Alcoholic beverages are not food items. A local sales and use tax of 2 percent applies to all food that is exempt from the state sales and use tax [8].

To control for inflation over the time period of analysis, all taxable sales were adjusted to constant 2014 dollars using the Consumer Price Index for the U.S. as determined by the U.S. Department of Labor's Bureau of Labor Statistics [9]. In this analysis, October 2013 taxable sales were compared to the five year average October taxable sales for the county from 2008-2012. The percent change between the two time periods (Oct. 2013 deflated taxable sales over the deflated taxable sales in a five year average Oct. 2008-2012) were analyzed for all 16 counties in the focus area. Instead of comparing Oct. 2013 deflated taxable sales to the previous year 2012 deflated taxable sales, and to control for unusual 2012 one year increases or decreases in taxable sales, the five year average of October deflated taxable sales for the years 2008 to 2012 were used to compare with October 2013 deflated taxable sales. This analysis was performed for each of the 16 counties in the study, shown in Table 1, and will be discussed later in the study.

Limitations of the first method using taxable sales per county include the fact that taxable sales include taxable sales from locals and travelers to the area. While difficult to separate, we do know that the October period is a heavily traveled and visited with the fall foliage mountain colors attract major numbers of travelers during this period. Also, sales of gasoline are not included in the taxable sales figure, thus one of the major spending categories of travelers is excluded from the data. Only monthly totals of taxable sales are reported and not daily taxable sales, making a limited comparison to method 2 where daily hotel room sold. Thus, the monthly comparison of taxable sales during the two periods October 1-15 vs. October 16-31 is not possible.

Analysis of hotel room demand

In the second method, tourist spending is attempted to be captured by using hotel room demand for five selected counties in the area. Hotel room demand data were obtained from Smith Travel Research [10]. The data includes hotel room demand (i.e. number of hotel rooms sold) for each day of the 31 days in October for both 2012 and 2013 for the NC counties of Cherokee, Haywood, Henderson, Swain, and Watauga. Hotel occupancy rates were available but not used because occupancy rates can change with changes in the supply of hotel rooms and not reflect true travel demand. Therefore, the measure of hotel room demand (number of hotel rooms sold) are independent of changes in the supply of hotel rooms.

Only five counties out of the sixteen counties in the study area

NC County	Oct. 2013 Taxable Sales (\$) Adj for inflation with constant 2014 \$	Five year Avg Oct. 2008-2012 Taxable Sales (\$) Adj for inflation with constant 2014 \$	Percent Change in Taxable Sales Oct. 2013 over Avg. Oct. 08-12
Ashe	17,038,893	16,740,490	+1.78%
Avery	16,372,572	17,243,342	-5.05%
Buncombe	326,638,509	305,124,618	+7.05%
Cherokee	18,433,231	19,711,507	-6.48%
Clay	5,081,552	5,430,184	-6.42%
Graham	4,734,712	4,443,569	+6.55%
Haywood	50,573,280	52,827,009	-4.27%
Henderson	76,822,264	76,523,490	+0.39%
Jackson	31,894,369	31,606,283	+0.91%
Macon	37,498,382	37,373,195	+0.33%
Madison	7,015,667	7,322,284	-4.19%
Mitchell	11,574,341	11,371,223	+1.79%
Swain	9,224,290	9,046,160	+1.97%
Transylvania	21,478,494	23,428,381	-8.32%
Watauga	65,556,162	64,479,912	+1.67%
Yancey	8,633,293	10,090,492	-14.44%
Total	708,570,012	692,762,138	+2.28%

Source: NC Dept. of Revenue; Taxable sales adjusted for inflation, converted to constant 2014 dollars using the U.S. Consumer Price Index, U.S. Dept. of Labor, Bureau of Labor Statistics; www.bls.gov

Table 1: Western NC counties taxable sales for Oct. 2013 vs. Five year average for Oct. 2008-2012, and percent change Oct. 2013 over five year average.

Oct. Date	No. Rooms Sold	
	2013	2012
Oct. 1	772	848
Oct. 2	891	1,010
Oct. 3	996	1,031
Oct. 4	1,352	1,550
Oct. 5	1,480	1,603
Oct. 6	769	945
Oct. 7	920	1,007
Oct. 8	995	1,116
Oct. 9	1,070	1,100
Oct. 10	1,224	1,261
Oct. 11	1,581	1,527
Oct. 12	1,670	1,639
Oct. 13	1,158	980
Oct. 14	1,276	1,187
Oct. 15	1,289	1,288
Total	17,443	18,092
Percent change hotel rooms sold 2013 over 2012 for period Oct. 1-15	-3.59%	

Source: Smith Travel Research

Table 2: Daily no. hotel rooms sold, Haywood Co., NC; Oct. 1-15, 2013 and 2012.

were included in the hotel room demand data. Other counties were not included in the five selected counties because many of the rural counties have less than four reporting hotels. To protect the confidentiality of the data for hotel properties, Smith Travel Research will only report data for counties having four or more hotels in the hotel census. Also, Smith Travel Research agreed to provide complementary data for only five counties in the area. Thus, the five counties were included in the

analysis for the second method used in the study.

To analyze the effects of the government shutdown, hotel room demand for each county was summed for the first 15 days of October (Oct. 1-15 during the shutdown) for both 2013 and 2012. Then hotel room demand was summed for the second 15 days of October (Oct. 16-31 after the shutdown). The percent change in hotel rooms sold was compared for the first 15 days of October 2013 over the first 15 days of October 2012, for each county.

For the 15 day period in October after the government shutdown ended (Oct. 16-31), hotel rooms sold were summed for the 15 day period for both 2012 and 2013. For each of the selected counties, the percent change in hotel rooms sold was compared for the second 15 days in October 2013 over the same period in October 2012. As an example using Haywood Co., NC, results of the daily October analysis hotel room demand during the two time periods in 2012 and 2013 are shown in Tables 2 and 3. Using Haywood Co., NC as an example, Table 2 shows hotel room demand for each day of October 1-15, while Table 3 shows hotel room demand for each day of October 16-31, with the percent change between the two time periods also shown.

For comparison, each of the five counties hotel room demand were analyzed during two periods in the same manner as the example used for Haywood County: 1) hotel room demand during the first 15 days of the shutdown (Oct. 1-15), and 2) hotel room demand after the shutdown (Oct. 16-31). These two time periods are compared in Tables 4 and 5 and will be discussed later.

One limitation of the Smith Travel Research data is that the hotel performance measures reported in the county destination reports include mostly chain hotel participation in the census and fewer independent hotels. Also, the data does not include lodging rental from travelers in cabins or condominiums. Thus the hotel room data is limited in the measurement.

Oct. Date	No. Rooms Sold	
	2013	2012
Oct. 16	1,313	1,284
Oct. 17	1,299	1,343
Oct. 18	1,661	1,624
Oct. 19	1,639	1,675
Oct. 20	1,066	1,068
Oct. 21	1,214	1,284
Oct. 22	1,205	1,324
Oct. 23	1,224	1,265
Oct. 24	1,355	1,264
Oct. 25	1,591	1,498
Oct. 26	1,645	1,469
Oct. 27	770	586
Oct. 28	930	675
Oct. 29	962	571
Oct. 30	847	597
Oct. 31	748	605
Total	19,469	18,132
Percent change hotel rooms sold 2013 over 2012 for period Oct. 16-31	+7.37%	

Source: Smith Travel Research

Table 3: Daily no. hotel rooms sold, Haywood Co., NC; Oct. 16-31, 2013 and 2012.

NC County	No. hotel rooms sold Oct. 1-15 (during shutdown)		Percent change 2013 over 2012
	2013	2012	
Cherokee	3,435	3,225	+6.51%
Haywood	17,443	18,092	-3.59%
Henderson	17,008	16,959	+0.29%
Swain	35,527	35,820	-0.82%
Watauga	19,626	20,141	-2.56%

Source: Smith Travel Research, Hendersonville, TN; Oct. daily hotel room sales, 2012 and 2013 in five selected western NC counties

Note: Tables 1-4 for Government Shutdown Article by Steve Morse and Eva Smith (revised 6/8/15)

Table 4: Percent change in no. of hotel rooms sold during first 15 days of October (Oct. 1-15) in 2013 over 2012 in selected Western NC counties.

NC County	No. hotel rooms sold Oct. 16-31 (after shutdown)		Percent change 2013 over 2012
	2013	2012	
Cherokee	3,734	3,483	+7.21%
Haywood	19,469	18,132	+7.37%
Henderson	18,608	17,792	+4.59%
Swain	39,479	36,063	+9.47%
Watauga	20,352	19,479	+4.48%

Source: Smith Travel Research, Hendersonville, TN; Oct. daily hotel room sales, 2012 and 2013 in selected western NC counties

Table 5: Percent change in no. of hotel rooms sold during second 15 days of October (Oct. 16-31) in 2013 over 2012 in selected Western NC counties.

NC County	Percent change hotel room sales Oct. 1-15 2013 over 2012 (during shutdown)	Percent change hotel room sales Oct. 16-31 2013 over 2012 (after shutdown)
Cherokee	+6.51%	+7.21%
Haywood	-3.59%	+7.37%
Henderson	+0.29%	+4.59%
Swain	-0.82%	+9.47%
Watauga	-2.56%	+4.48%

Source: Smith Travel Research, Hendersonville, TN; Oct. daily hotel room sales, 2012 and 2013 in selected western NC counties. Data from Tables 2 and 3.

Table 6: Percent change in no. of hotel rooms sold during Oct. 1-15 vs. Oct. 16-31 in 2013 over 2012 in selected Western NC counties.

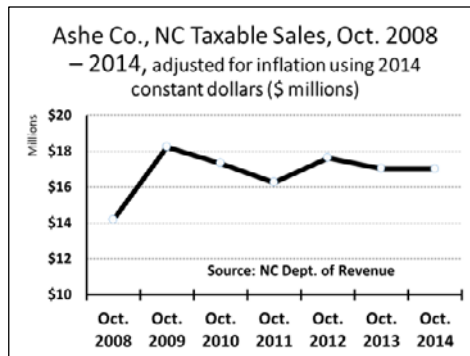
Limitations on Comparing Methods

A limitation to this study is that the second method using hotel room demand does not include data for each of the 16 counties included in the first method of analysis. Ideally, a better assessment of each method could be made if all 16 counties were included in both the first and second methods. However, Smith Travel Research provided complementary data on the five selected counties and that is the data that will use in the second method.

Results

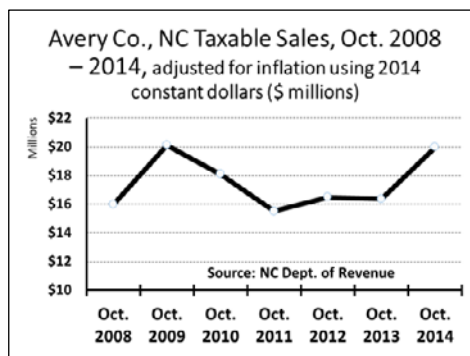
Analysis of county taxable sales

The first method examined county taxable sales for each October during the years of 2008-2014. Taxable sales each year were converted to constant 2014 dollars to adjust for inflation over the period of analysis. Figures 1-16 show the deflated October taxable sales for each county for each of the seven years from 2008-2014. These figures give a relative and visual look at how October 2013 compares to the other October months over the period.



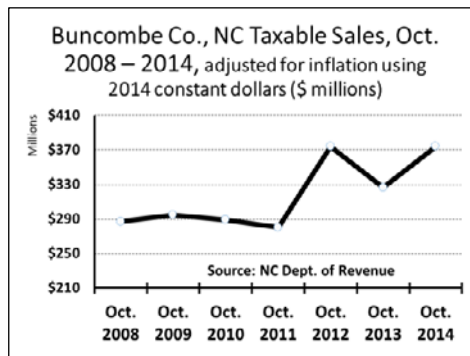
Source: NC Dept. of Revenue

Figure 1: Adjusted for inflation using constant 2014 dollars.



Source: NC Dept. of Revenue

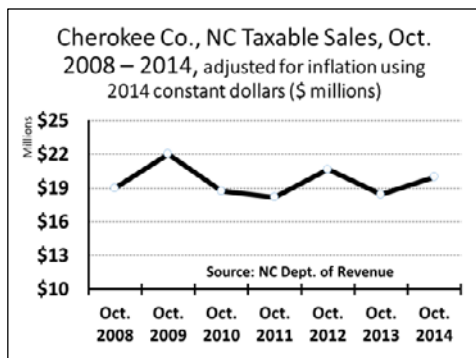
Figure 2: Adjusted for inflation using constant 2014 dollars.



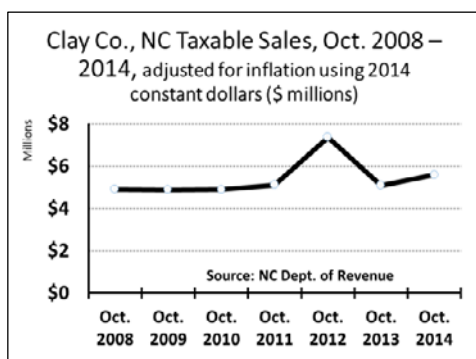
Source: NC Dept. of Revenue

Figure 3: Adjusted for inflation using constant 2014 dollars.

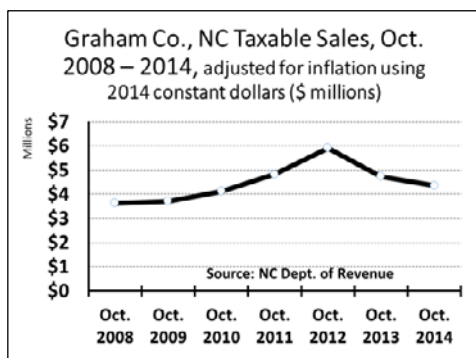
Table 1 shows the comparison between October 2013 deflated taxable sales vs. the five year (2008-2012) average of deflated taxable sales for each of the 16 counties in the study area. Seven of the counties showed decreases in taxable sales for October 2013 over the five year average October taxable sales. Decreases of taxable sales were observed in Avery, Cherokee, Clay, Haywood, Madison, Transylvania, and Yancey counties. Increases in taxable sales for October 2013 over the five year average were observed in 9 of the 16 counties including Ashe, Buncombe, Graham, Henderson, Jackson, Macon, Mitchell, Swain, and



Source: NC Dept. of Revenue
Figure 4: Adjusted for inflation using constant 2014 dollars.



Source: NC Dept. of Revenue
Figure 5: Adjusted for inflation using constant 2014 dollars.



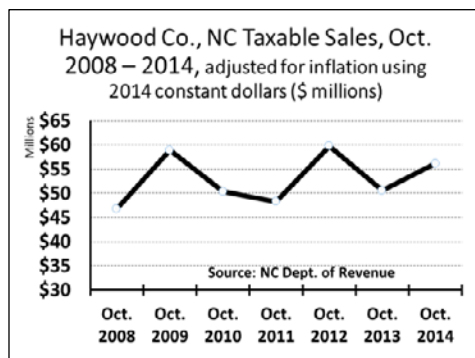
Source: NC Dept. of Revenue
Figure 6: Adjusted for inflation using constant 2014 dollars.

Watauga counties. When looking at the 16 county areas as a region, there was an increase of 2.28 percent in overall taxable sales in the area of October 2013 when compared to the five year average taxable sales.

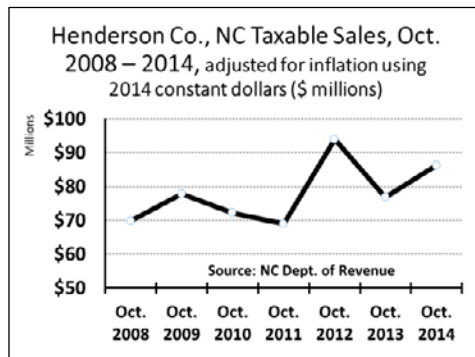
Counties having some of the largest decreases in taxable sales were counties with major highways passing through them. Yancey County had the largest decrease in taxable sales with a decrease of 14.44 percent over the time period. In Yancey County, the popular tourist road Blue Ridge Parkway is routed through the county and is a unit of the National Park system. The Blue Ridge Parkway was shut down during

the first 15 days of October. Tourists using the Blue Ridge Parkway and highway exits in Yancey County were not available for spending during the shutdown period. Also, decreases were observed in Cherokee, Clay, Haywood, Madison and Transylvania Counties – all having major highways and gateway roads to the National Park and U.S. Forest area passing through them that tourists use. However, Henderson County has a major interstate passing through and saw an increase in taxable sales in the area.

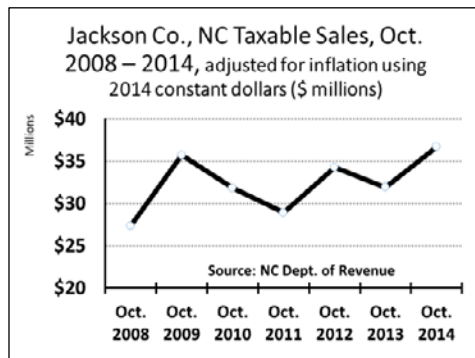
Nine counties had increases in taxable sales in the area include Ashe,



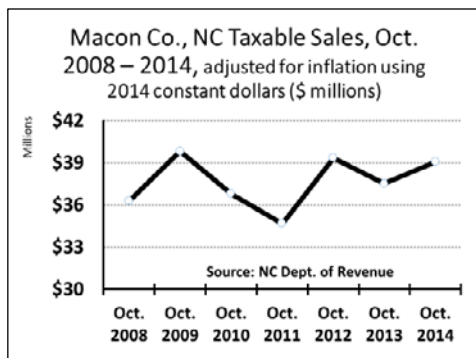
Source: NC Dept. of Revenue
Figure 7: Adjusted for inflation using constant 2014 dollars.



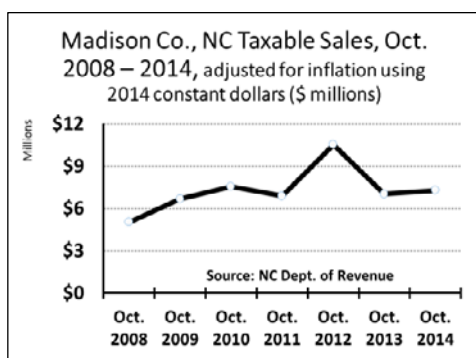
Source: NC Dept. of Revenue
Figure 8: Adjusted for inflation using constant 2014 dollars.



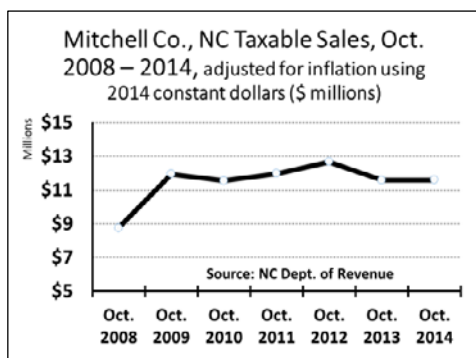
Source: NC Dept. of Revenue
Figure 9: Adjusted for inflation using constant 2014 dollars.



Source: NC Dept. of Revenue
Figure 10: Adjusted for inflation using constant 2014 dollars.



Source: NC Dept. of Revenue
Figure 11: Adjusted for inflation using constant 2014 dollars.



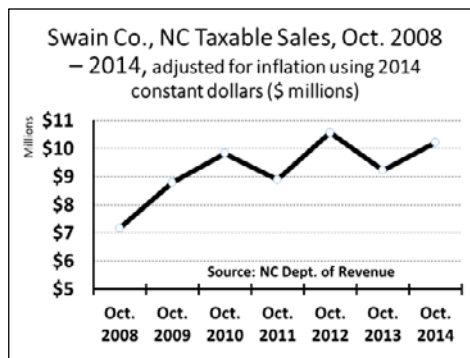
Source: NC Dept. of Revenue
Figure 12: Adjusted for inflation using constant 2014 dollars.

Buncombe, Graham, Henderson, Jackson, Macon, Mitchell, Swain, and Watauga. Five of the counties (Ashe, Buncombe, Henderson, Mitchell, and Watauga) are furthest away from the National Park and U.S. Forests. The remaining four counties with increases in taxable sales (Graham, Jackson, Macon, and Swain) cannot be explained.

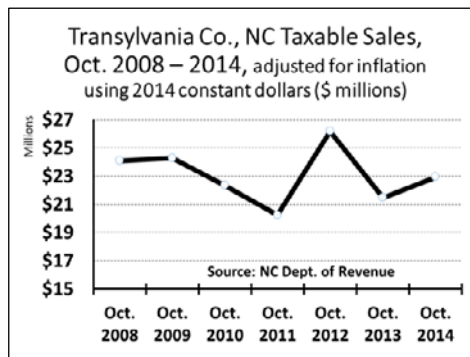
Analysis of hotel room demand

Table 4 shows the results of examining hotel room demand for the five selected counties during the first 15 days of October 2013 vs. the

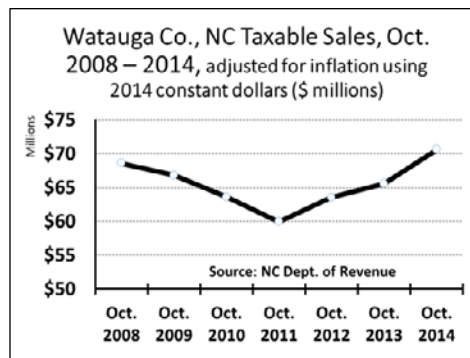
first 15 days of October in the previous year 2012. Two out of the five counties (Cherokee and Henderson counties) saw increases in hotel room sales over the time period. One explanation for the increase in Cherokee county could be that camp sites in the National Park and U.S. Forest land previously available were not available making the use of commercial lodging and hotels an alternative to those visitors that would have used camp sites. Henderson County has Interstate 26 passing through and an increase in hotel room sales were reflective of travelers traveling to other destinations not associated with visits to the National Park or U.S. Forest recreation area.



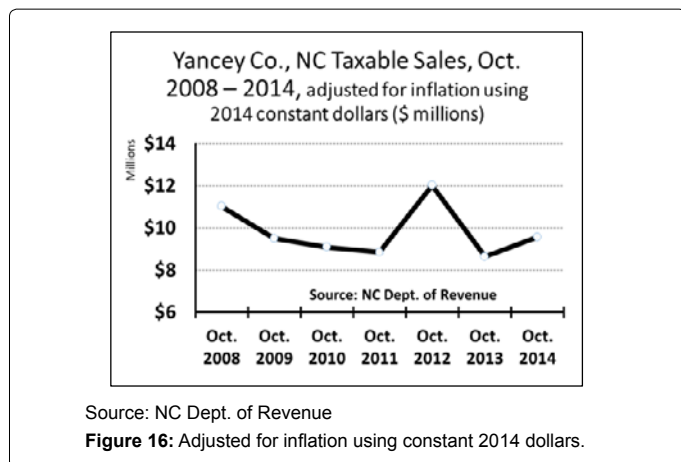
Source: NC Dept. of Revenue
Figure 13: Adjusted for inflation using constant 2014 dollars.



Source: NC Dept. of Revenue
Figure 14: Adjusted for inflation using constant 2014 dollars.



Source: NC Dept. of Revenue
Figure 15: Adjusted for inflation using constant 2014 dollars.



Also in Table 4, three counties (Haywood, Swain, and Watauga counties) saw decrease in hotel room sales over the period of comparison. Haywood County has a major gateway highway to the National Park and U.S. Forest lands while Swain County may see increases in hotel demand due to nearby National Park camp sites being closed. There is no explanation for Watauga County.

Table 5 measures that change in hotel room demand for the 15 day period October 16-31 for 2013 over the same period October 16-31 in year 2012. Table 5 shows that all five of the selected counties saw increases in hotel room demand after the shutdown (period October 16-31) 2013 over year 2012. The largest increase was in Swain County at 9.47 percent. Possible explanations for the increases could be the opening of the National Park and Forest Service fishing, rafting, and hiking and biking trails generated non-camping visitors that usually purchase hotel rooms in the area, thus increasing the demand for hotel rooms after the shutdown.

Table 6 is a summary of the analysis in Table 5 and 4 and compares hotel room sales the first 15 days of October during the shutdown (October 1-15) vs. the second 15 days of October after the shutdown (October 16-31) for each of the five selected western NC counties. The analysis reported in Table 4 divides hotel room sales for the October time period into two important periods of analysis: the first 15 days of October during the shutdown vs. the second 15 days of October after the shutdown. Haywood, Swain and Watauga counties had negative growth rates for the first 15 days of October during the shutdown, but saw positive growth in hotel room sales in the second 15 day period of October after the shutdown. Cherokee and Henderson counties increased the already positive growth rates of hotel room sales after the shutdown.

Conclusions

Did the U.S. Federal Government shut-down for the first 15 days of October 2013 impact travel and tourist spending to the outdoor adventure rich portion of western North Carolina? Two methods were used measure if there were changes in tourist spending in 16 western NC counties as a result of the federal government shutdown of October 2013.

The first method used examined the entire month of taxable sales for October 2013 vs. the five year average taxable sales during the period 2008-2012. The data were adjusted for inflation using constant 2014 dollars. Limitations of the first method include the inability to separate taxable sales into periods during the shutdown (October 1-15)

vs. periods after the shutdown (October 16-31). Additional limitations include the inability to separate local spending from tourist spending in examining taxable sales. Also, monthly taxable sales reported do not include gasoline sales- a large portion of travel related sales.

The second method used hotel room demand (measured as the number of hotel rooms sold) divided into two time periods: 1) the first 15 days of the shutdown (October 1-15), and 2) the second 15 days of October after the shutdown (October 16-31). The analysis examined hotel room demand during these two periods during the shutdown in October 2013 and for October the previous year in 2012. The second method shows that hotel room demand was mixed between increases and decreases during the period of comparison during the shutdown, while hotel room demand was seen to increase in all five counties after the shutdown was lifted.

In comparing the two methods used to measure if tourist spending changed during the federal government shutdown, the second method is the most robust. The second method measures hotel room demand for each day in October allowing two time periods to be examined, while the second method using taxable sales measures the entire month of taxable sales. The data in the first method cannot be separated into two time periods of analysis like the second method is able to do.

With limitations on both sets of data used in the first and second method, the method with the most ability to separate data into time periods of analysis is the hotel room demand data from Smith Travel Research used in the second method. However, the Smith Travel Research data has limitations in that a low number of limited number of hotels reporting in rural counties prevent reporting for confidentiality purposes, and mostly chain hotels report demand and few independent hotels report. In addition, hotel room demand is not reported for cabin and condominium rentals.

Future research in measuring changes in tourist spending would be best to include Smith Travel Research daily hotel room demand data aggregated into groups of counties to prevent confidentiality of the data. The second method shows that daily measures of hotel room data offers more insight into tourist spending during specific time periods of analysis.

References

1. Beirman D (2003) Restoring tourism destinations in crisis: A Strategic marketing approach. CAUTHE 2003: Riding the Wave of Tourism and Hospitality Research
2. Nickerson N (2014) Travel and Recreation Outlook
3. (2009) Rock Slide Research, State of North Carolina, USA
4. Kosar K (2004) Shutdown of the Federal Government: Causes, Effects, and Process
5. <http://www.fs.usda.gov/recmain/charokee/recreation>
6. <http://www.nps.gov/grsm/learn/management/visitation.htm>
7. <http://www.dor.state.nc.us/publications/monthlysales.html>
8. <http://www.dor.state.nc.us/publications/stateandlocal.html>
9. <http://www.bls.gov/cpi/>
10. <http://str.com>