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# Hotel Tax Collections and a Local Mega-Event

Dennis Coates[†]

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**Abstract**

Cities compete for the opportunity to host events that draw large crowds of visitors. The argument is that these visitors bring with them lots of spending in hotels and restaurants, providing jobs for workers in the service industry, and generating sales tax revenues for the city. In many places, there is also a separate tax on hotel and motel accommodations. Indeed, taxes on accommodations are one example of jurisdictions exporting their tax burdens, as people who pay the accommodations taxes are visitors. This paper looks for the beneficial impact of a megaevent by focusing on the accommodations tax collections in and around the jurisdiction that hosts the event.

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[†]Department of Economics, University of Maryland, Baltimore County, 1000 Hilltop Circle, Baltimore, MD 21250, (410) 455-3243 (office), coates@umbc.edu

Cities compete for the opportunity to host events that draw large crowds of visitors. The argument is that these visitors bring with them lots of spending in hotels and restaurants, providing jobs for workers in the service industry, and generating sales tax revenues for the city. In many places, there is also a separate tax on hotel and motel accommodations. Indeed, taxes on accommodations are one example of jurisdictions exporting their tax burdens, as people who pay the accommodations taxes are visitors. This paper looks for the beneficial impact of a mega-event by focusing on the accommodations tax collections in and around the jurisdiction that hosts the event.

Purists may object that the events examined here are not truly mega-events, such as the Super Bowl, World Cup, or Olympic Games. In this paper, the events whose impact is assessed are two major NASCAR races held at Darlington Raceway and home football games of Clemson University and the University of South Carolina. In the context of the locations where these events occur, they are very large. Consider that Darlington Raceway has a seating capacity of 65,000, while Darlington county had a population of 67,300 in 2005. Similarly, Pickens County's population in 2005 was about 113,600 and the capacity of Frank Howard Field at Memorial Stadium (commonly known as Death Valley) at Clemson University is 80,300. Richland County, home of the University of South Carolina, had 340,100 residents in 2005, while Williams-Brice Stadium had a capacity of 80,250. In each case, there is the distinct likelihood that each event produced a substantial influx of visitors relative to the population of the host community, and so while these events are not the standard examples of mega-events, they are referred to as such in this study.

The precise context is the 40 (of the 46) counties in South Carolina over the period from

July 2000 through June 2008 for which accommodations tax revenues are reported. The choice of South Carolina for this study is a result of data availability and fortuitous circumstances. During the period for which the data is available, race dates at Darlington Raceway were moved within the year and even taken off the NASCAR calendar altogether. This variation in the race schedule, which does not occur for other major races, makes it possible to identify race effects as distinct from month effects. For example, Rockingham Speedway in North Carolina lost its NASCAR events, but tax revenues by month and county are not available.[1] Moreover, there was no moving around of the races at Rockingham from month to month as occurred at Darlington.

Bernthal and Regan (2004) studied the track at Darlington for its effects on the Pee Dee region of South Carolina, reporting an influx of 156,700 out of region visitors, over $6 million in additional lodging expenditures, and more than $520,000 in business lodging related tax revenues in the region as a consequence of races held there over two weekends in 2002. If these figures are correct, then the decision of NASCAR to move one of the two major races held at Darlington Raceway would have major financial repercussions for the region. NASCAR held the Southern 500 at Darlington in early September for about 50 years, before taking the race to Texas Motor Speedway in Ft. Worth for the 2005 race season. The Rebel 400, which has gone through a variety of name changes, has been held at Darlington in the spring for almost as long as the Southern 500 was there. The Rebel 400 moved between March and May during the period of this analysis.

Coates and Gearhart (2008) examined the impact of NASCAR events on the rents for residential units in a hedonic price analysis. Using the rents and housing characteristics reported

[1]Tax revenues by county are available on an annual basis for North Carolina.

in the American Housing Survey (AHS) for the years 1993, 1995, 1997, 1999, 2001, 2003, and 2005 for a sample of 141 Standard Metropolitan Statistical Areas, and identifying those that had NASCAR tracks and the types of events held at the tracks (Truck Series, Busch or Grand National Series, or Cup Series races), they found little evidence that the events influenced rents generally. The mere presence of the tracks had little effect on rents in their results. In general specific events also had no impact on rents, but in some specifications events affected rents on properties identified by the AHS as within the central city and properties outside the central city about equally but in the opposite direction. For example, in the full sample of over 67,000 observations, a Grand National race outside the central city was associated with rents about 18% higher, but that same race was associated with rents about 18% lower on units in the central city. Overall, Coates and Gearhart (2008) conclude that there is little evidence that NASCAR tracks or events have substantial positive or negative effects on rents. The implication is that there is no implicit evidence that local citizens are willing to pay statistically significant sums to live in a community that hosts a NASCAR track or for the events at the track.

Baade and Matheson (2000) evaluated the impact of the Daytona 500 on Volusia County, Florida. The Daytona 500 is the premier NASCAR event and opens the NASCAR season each year in February. They estimated that the event raised taxable sales across Volusia County and its neighboring counties by about $40 million for the month of the race.

At the same time, monthly data on the home football contests of Clemson University and the University of South Carolina, the only two Football Bowl Subdivision institutions in South Carolina, enable us to examine the home counties of those two institutions for evidence that these events draw sufficient visitors to cause spikes in the accommodations tax collections.

Recent research has addressed the impact of college football on the home communities of the colleges and universities. Baade, Bauman, and Matheson (2007), Lentz and Laband (2008), and Coates and Depken (2006, 2008) have all examined the relationship between college football and the local economy. Baade, Bauman, and Matheson (2007) focus specifically on the impact on the income of the community while Lentz and Laband (2008) assess the influence of collegiate athletics on employment in the hotels and restaurants. Lentz and Laband (2008) report a positive association between collegiate athletics revenues and hotel and restaurant employment. Presumably, this relationship indicates that where accommodations taxes are collected, bigger tax collections should accompany greater collegiate sports activity. Coates and Depken (2006) examines sales tax data from cities in Texas for the influence of a variety of sporting events, including Division I, Football Bowl Subdivision, games, reporting some evidence that sales tax revenues are larger when more major college football games are played. Coates and Depken (2008) focuses specifically on the role of college football, limiting the analysis to four major institutions, the University of Texas, Texas Tech University, Texas A & M University, and Baylor University, that are close geographically, strong rivals, and in the same conference.

Rees and Schnepel (2009) also address the impact of college football on the host communities. Their question is whether there is evidence that crime is greater on home football days than on other days. They find evidence that there is more crime on game days, especially if the home team loses.

None of the existing evidence addresses the impact of NASCAR events or collegiate football games on accommodations and accommodations tax revenues. There is, however, evidence on the impact of mega-events on local hotels more generally. Phil Porter and Deborah

Fletcher (2008) examined the impact of the Atlanta Summer and Salt Lake City Winter Olympic Games. They found little evidence that hotel occupancy was greater during the Olympics than during the same weeks in other years. They also found no evidence of increased arrivals at local airports. What they did discover was that the price of accommodations was substantially higher during the two weeks of the Olympics than at other times. In a related study, Mike Leeds (2008) examined activity at ski resorts in Colorado during the Salt Lake City Winter Olympics, finding increased revenues at those venues. Leeds' finding suggests that skiers displaced from the Utah resorts because of the Olympics substituted stays at the Colorado resorts for their lost Utah ski vacations.

In this study, 96 months of data on hotel tax revenues for 40 of the 46 counties in South Carolina are analyzed for the impact of the NASCAR mega-events and the home football games of the University of South Carolina Gamecocks and the Clemson University Tigers. The accommodations tax data is examined using several econometric approaches. The first approach pools all 96 time periods from each of the 40 counties explaining the level of accommodations tax revenues using the lagged value of those revenues, county dummy variables, and variables identifying the months when races were held at Darlington. In addition, this approach identifies Darlington County, Darlington County in the month of a race, the counties that border on Darlington County in the month of a race, and the counties of the Pee Dee region of South Carolina. Next, variables identifying Pickens and Richland counties are introduced, picking them out when Clemson University and University of South Carolina had home football games. Finally, year to year differences in tax revenues are explained using year to year differences in races and football games. The analysis is done on the full data set and on Pickens and Richland

counties, for the effects of football games, and on Darlington County, the Pee Dee region, and the counties contiguous to Darlington County.

There are two general results. First, races have little impact on accommodations taxes and the impact is sensitive to specification and sample. Largest effects occur when the analysis focuses on the level of collections and uses all counties for which accommodations tax data exist; the results are smallest, and even negative, when examining de-seasonalized data or those counties that border Darlington County or are in the Pee Dee region. Second, football games at Clemson University are generally associated with a slight increase in real accommodations taxes for Pickens County, about $3000 relative to a monthly average of $11300, but University of South Carolina games have no effect or even a harmful effect in Richland County, where average real accommodations tax revenues are over $81000 per month. Interestingly, the effects of both Clemson and USC games do not appear to spread into neighboring counties.

The rest of this paper is divided into three parts. In the first part, the data is discussed in more detail. The second part reports on regression analysis and the final section is a conclusion.

## Data

The main variable in the analysis is accommodations tax collections in each of 40 South Carolina counties over 96 months from July 2000 through June 2008. Data for six counties is missing for some or all of the time period, so those counties are excluded from the analysis. For Calhoun and Saluda, counties, no accommodations tax data are available at all; for Union, Marion, Edgefield, and Williamsburg counties, the accommodations tax data is missing for two or more months.

The Code of Laws of South Carolina lays out the accommodations tax in Title 12: Taxation, Section 36: South Carolina Sales and Use Taxation.

> SECTION 12-36-920. Tax on accommodations for transients; reporting. [SC ST SEC 12-36-920]
>
> (A) A sales tax equal to seven percent is imposed on the gross proceeds derived from the rental or charges for any rooms, campground spaces, lodgings, or sleeping accommodations furnished to transients by any hotel, inn, tourist court, tourist camp, motel, campground, residence, or any place in which rooms, lodgings, or sleeping accommodations are furnished to transients for a consideration. This tax does not apply where the facilities consist of less than six sleeping rooms, contained on the same premises, which is used as the individual's place of abode. The gross proceeds derived from the lease or rental of sleeping accommodations supplied to the same person for a period of ninety continuous days are not considered proceeds from transients.

The distribution of the revenues from the accommodations tax is also described. The seven percent is split into three pieces, four percent goes into spending on buildings for public education, one percent goes into an education improvement fund and may only be spent for "elementary and secondary school purposes". The remaining two percent of the accommodations tax "must be credited to the political subdivisions of the State in accordance with Chapter 4 of Title 6. The proceeds of this tax, less the department's actual increase in the cost of administration and the expenses of the Tourism Expenditure Review Committee established pursuant to Section 6-4-35, must be remitted quarterly to the municipality or the county in which it is collected." Chapter 4 specifies the uses to which the accommodations tax revenues may be put. The first $25,000 go into the general fund, as must five percent of the excess over $25,000. Thirty percent of the excess must be spent on the promotion of tourism and advertising. The remainder may be used for tourism or to cover general expenses of the jurisdiction that may arise

from tourism including public safety, traffic control, and the like.

Over the sample period, only five counties did not average $25,000 in accommodations taxes per year. These counties are Abbeville, Allendale, Bamberg, Barnwell, and Lee. Of these, Allendale averaged the least accommodations tax collections, about $7760 per year, and Barnwell averaged the most, just under $23,900. By contrast, six counties averaged more than a million dollars in accommodations tax collections per year: Beaufort, Charleston, Georgetown, Greenville, Horry, and Richland. Of these, Horry County, home to Myrtle Beach, has far and away the greatest annual accommodations tax collections with an average over $13 million. Charleston is next with over $7.6 million annually in accommodations tax collections.

Table 1 provides descriptive statistics for the variables used in the analysis and the Data Appendix gives information on the sources of the data as well as complete variable definitions.

Because the accommodations tax data is a time series, it is necessary to ensure that it is stationary for the estimates to be valid. The Im, Pesaran, and Shin (2003) panel unit root test is utilized. Under this test, the null hypothesis is that all of the individual time series are non-stationary. Rejection of the null hypothesis for the data in this study signals that at least some of the counties' accommodations tax collections are stationary. The Im, Pesaran, and Shin (2003) test clearly rejects the null; the test statistic W(t-bar) has a value of -19.375 and a p-value of 0.000.

The next section describes the regression models and the results.

## Models and Results

Before estimating the relationship between races at Darlington Raceway, football games at

Clemson University or the University of South Carolina, and accommodations taxes, a first pass at assessing the influence of the events on tax receipts is to use simple difference of means tests. The null hypothesis of each test is that the mean accommodations tax collections are the same with or without the races or games; these are two tail tests as the null does not specify if tax collections are larger or smaller in the event months than in non-event months. A rejection of the null hypothesis is evidence that tax revenues are different in the month of the events than in other months. The null could be stated as a one tail test, with the alternative hypothesis that revenues are greater in the event months than in other months.

For each of the three types of events, Clemson and USC football games or races at Darlington Raceway, Table 2 reports the mean real accommodations tax collections and the difference between the mean real accommodations tax collections from those months without an event and those months with an event. The table reports the one and two tail p-values as well. Each test is conducted for the home county, Pickens for Clemson football, Richland for USC football, and Darlington for races, and for each county that borders on one of the three home counties.

Consider first the impact of home college football games. The difference of means tests indicate that only in Pickens County, home to Clemson University, and to a much lesser extent in Oconee County, is there a significant difference in accommodations tax collections between home football months and all other months. In Pickens County, the mean tax collection is $12989 in football months but only $10662 in other months. The $2327 increase in football months relative to non-football months is small in absolute terms, but is nearly 22% of non-football month collections. For Oconee County, the average monthly figures are $5826 and

$5104, respectively, indicating game months produce about $723 additional accommodations tax revenues over non-game months. The dollar value is quite small, and only significant at the 10% level, and the figure is only a 14% rise over the non-game month collections.

The value of the difference in means for Richland County, home to USC and Columbia, South Carolina's capital, is coincidentally also $2327, but game month collections average $83067 and non-game months $80740. This difference is not remotely statistically significant. Moreover, none of the counties that border on Richland has a difference between game and non-game months that is statistically significant. Additionally, some of the estimated differences are even in the wrong direction, indicating greater revenues on average in non-game than in game months. These results suggest that Clemson games generate a small increase in accommodations tax revenues for Pickens County, and an even smaller increase for Oconee County, while USC games produce nothing additional for Richland County and its neighbors.

Likewise, evidence for an impact of the NASCAR events at Darlington Raceway on accommodations tax revenues in the environs of the track is weak. Only for Dillon County are real accommodations tax revenues significantly higher in race months than in non-race months. The former produce an extra $1740 over the $5006 collected on average during non-race months, an increase of just under 35% . In three of the seven counties around or including the track, non-race months have an average collection higher than during the race months, though none of these is remotely statistically or practically significant as none is more than a few hundred dollars.

The difference of means tests are, of course, only suggestive. Nonetheless, these tests are difficult to reconcile with the belief that premier NASCAR races held at Darlington have a large impact on either Darlington county or the Pee Dee region of South Carolina. These difference of

means tests do not control for other factors that influence accommodations tax collections in the counties. To do this, a regression framework is necessary, and that is what follows.

The econometric analysis estimates the relationship between 1) races at Darlington Raceway and accommodations taxes in Darlington County, the counties with which Darlington shares a border, and the counties of the Pee Dee Region of South Carolina, and 2) football games at Clemson University and the University of South Carolina and accommodations taxes in Pickens and Richland Counties as well as in the counties that border on Pickens and Richland. There are two distinct empirical approaches. In the first approach, all 40 counties for all 96 months are pooled in a panel regression which explains the level of accommodations taxes within the county, using a variety of explanatory variables detailed below. In equation form, this model is:

$$tax_{it} = a_0 + a_1 tax_{it-1} + a_2 race_{it} + a_3 football_{it} + \sum_{i=1}^{40} d_i cnty_{it} + \varepsilon_{it}$$

where the $a_i$ are either individual parameters or vectors of parameters, $d_i$ are parameters, and $\varepsilon_{it}$ is a mean zero random error whose variance may be county specific and serially correlated within a county. In the equation above, $race_{it}$ and $football_{it}$ may be vectors indicating, for example, both the month an event occurs but also an interaction term between the month and the counties that border on the host county or the counties of the Pee Dee region. The $race_{it}$ could be specific to the Southern 500 or the Rebel 400, or indicate any race, though for this analysis all races are forced to have the same effect. The $football_{it}$ may indicate a game is played or may be the

number of games played and also may indicate Clemson or University of South Carolina games. These also include game month interactions with county indicators for those counties that border on Pickens (Clemson) or Richland (USC) Counties. The $cnty_{it}$ are county specific dummy variables, one for each of the 40 counties in the data.

In the second approach, the dependent variable is the difference between accommodations tax collections in a given month and the level of accommodations taxes 12 months earlier. This 12 month differencing approach has been utilized by Coates and Depken (2006, 2008) as a means of de-seasonalizing the monthly tax collections data. The same 12 month difference is computed for the race and football game variables as well. If there is no difference in the races or games held in a month from year to year, then the impact of races or football games would be swept out of the accommodations tax by the differencing. Fortunately, over the period of the analysis, there are different numbers of home football games from September to September, or October to October, and November to November. In addition, the NASCAR calendar has shifted the spring race at Darlington (originally called the Rebel 400) from March to May, and the Southern 500 has taken place in August, early September, November, and been removed from the schedule all together. This variation allows for an estimate of the impact of the race on accommodations tax collections. The equation is:

$$\Delta tax_{it} = b_0 + b_1 tax_{it-1} + b_2 \Delta race_{it} + b_3 \Delta football_{it} + v_{it}$$

where $\Delta tax_{it} = tax_{it} - tax_{it-12}$, and similarly for the $\Delta race_{it}$ and $\Delta football_{it}$ variables. The coefficients $b_2$ and $b_3$ indicate how an extra race or game in month t relative to the same month

last year alters the difference in accommodations tax collections this month relative to the same month a year earlier. The county dummy variables wash out of the model because of the differencing. However, if the original model allows for individual county time trends, then the differenced model includes county dummies. In the equation above the one month lagged value of the accommodations tax collections is kept in the model rather than the 12 month difference in the lagged accommodations tax. However, the model is estimated three ways, including the one month lagged value, omitting it, and with the 12 month difference of the accommodations tax from one month previous to the current period. The results are not materially different across the three specifications.

Under all specifications of the regression model, the estimator is the panel generalized least squares model. This model has the advantage that it allows the errors to be heteroschedastic and serially correlated for a given county's observations and cross-sectionally correlated at a point in time. Heteroschedasticity is likely because of the vast differences in the sizes of the counties. Receipts from month to month within a county are potentially correlated. Finally, receipts in each county at a given point in time may experience the same shock or surprise, though in differing degrees. If these are not accounted for, then standard errors are potentially poorly estimated and hypothesis tests are unreliable.

The first estimation results are reported in Table 3 which uses the full sample of 40 counties and explains the level of accommodations tax.[2] The full model, reported in the first column, finds a race at Darlington associated with about $445 of additional real accommodations

[2]Table A3 in the appendix shows the results for the specifications in Table 3 when omitting the lagged tax variable.

taxes in Darlington County, as well as a $67 increase in Lee, a $283 increase in Chesterfield, a $341 boost in Kershaw, a $1,299 bump in Dillon, and a $2,483 rise in Florence Counties. None of these is especially impressive from a fiscal perspective, but all except Lee are statistically significant at the 5% level or better. The result for Lee County is significant at the 10% level.

The full model results include two measures of the effects of football games at Clemson and USC. The first of these is the number of games at home in a month. For each of these, the effect of an additional game is negative; it is significant at the 5% level for Clemson, and at the 10% level for USC. The Clemson University coefficient indicates that an additional Tigers home game in a month reduces real accommodations tax collections in Pickens County by just under $1000. The effect of a USC Gamecocks game is a reduction in Richland County accommodations tax collections of over $1700.

The second means of capturing the effects of football games is the series of dummy variables indicating a county in a month when games are played. Of these variables, Pickens, Richland, and Kershaw Counties have measured effects statistically different from zero at the 5% level or better. Anderson County sees an effect of about $500 that is significant at the 10% level. The effect of USC games on Kershaw County is actually negative, indicating that revenues are lower by $250 in the autumn months when games are played than in the rest of the year. The impact of Clemson games on Pickens County is estimated at $3950; the effect on Richland County of USC games at $4850.

Combining the effects of an additional game with the effects of games in the month, the evidence is that both Pickens and Richland Counties experience a small increase in real accommodations tax collections from football so long as they do not host more than 3 or 4 games

in a month. For example, using the figures for Clemson, the real accommodations tax revenues associated with football games equal -995*number of games + 3949. As long as Clemson hosts fewer than 4 games in a month, this accommodations tax revenue is positive. For USC games the same computation is: -1705*number of games + 4847. USC must host fewer than 3 games in a month for accommodations tax revenues attributable to games to be positive. Over the years of this data, Clemson never hosted more than 3 games in a month. USC did so twice.

The second through fourth columns in Table 3 show the results when the variables for one type of event are dropped, placing focus on the other event. For example, the third column, No Football 2, drops football variables while including the most general set of race variables. Comparison to the full model of column one shows there is little difference to the full model. Similarly, comparing the fourth column with the first column reveals that including the race variables has little impact on the estimated effects of football games.

The final point about the results in Table 3 is that it does not make sense to restrict the effects of races to be the same on all counties in the Pee Dee Region. In fact, in this analysis, doing so presents misleading result about the influence of the races. Looking at a map of South Carolina one would see that Interstate 95, a major North-South route for travelers along the eastern seaboard of the US, passes through both Florence and Dillon Counties. Interstate 20 goes from Florence through Darlington, Lee and Kershaw Counties on its way to Columbia (Richland County) then on to Atlanta. These results in Table 3 show that the accommodations tax increases are strongest in those counties that serve as primary conduits for travelers, some of whom are possibly attendees at races.

Table 4 re-estimates the models restricting the data set to exclude counties that are not

contiguous to the home county of the event. The first two columns report results for the analysis of races, with and without inclusion of the one-month lagged accommodations tax variable. The key result here is that once the sample is narrowed to those counties that border on Darlington County or are in the Pee Dee Region, only the Dillon County race month variable is significantly different from zero. The coefficient is smaller than in the full sample results by about $300. The suggestion from this finding is that the effects of races may be quite limited not just in magnitude but also in their reach away from the track.

The results in Table 4 for the football only sample of counties produces a similar finding to the race results. Specifically, the effects of football may be more limited than the full sample results indicated. Here, neither USC games nor Richland County in the autumn months when football games are held has a statistically significant coefficient. However, the effect of Clemson University football games on Pickens County is quite similar here and in Table 3. While the negative coefficient on the number of games is bigger in absolute value in Table 4 than in Table 3 (-1538 versus -1042), the game month variable has a larger coefficient as well ( 5515 versus 4059). The overall effects of a game are, therefore, consistent between samples and specifications when analyzing the level of real accommodations taxes in a month.

Tables 5 and 6 report results of estimations when the tax data is de-seasonalized.[3] The dependent variable is now the difference between real accommodations tax revenues in month t and those real revenues from month t-12, that is, the difference between revenues in a month in

[3]Table A5 matches the specifications in Table 5 except omitting the lagged tax variable. Table A5.1 replaces the one month lagged tax collection with the one month lagged 12 month difference in tax collections estimated on the full sample. Table A6.1 reports the analogous regressions on the football and race subsamples.

this year and the same month in the previous year. There are two points evident from these results. First, the effects of events are limited to the counties in which they occur. Only in the full sample of all 40 counties does one of the non-host county event variables become statistically significant, that of Chesterfield County in race months. That variable is, however, negative, indicating that the 12 month difference in real accommodations tax revenues is smaller in the race months than in the non-race months.

Second, the races at Darlington and the football games at the University of South Carolina are linked to smaller revenues while games at Clemson University are linked to higher revenues for Pickens County. Depending upon the specification, an extra race at Darlington reduces the boost in real accommodations tax revenues in this month relative to the same month one year ago between $1200 and $2400. An additional USC Gamecocks game reduces the 12 month difference in Richland County real accommodations tax revenues from $5800 to $6600. By contrast, one more Clemson home game has the effect of increasing the 12 month difference in Pickens County real accommodations tax revenues from $1900 to $3200.

In no case are these large sums in an absolute sense. However, in Darlington County the average monthly real accommodations tax collections over the 96 months in the sample is only $2900, so these estimated losses from the races are quite substantial in this relative sense. The mean monthly real accommodations tax in Pickens County is about $11300, so the $1900 to $3200 boost from a Clemson football game is also a sizable relative bump. By contrast, the Richland County average is $83000, so the $5800 to $6600 loss is a relatively small amount.

## Conclusion

This paper has examined monthly accommodations tax collections for 40 of the 46 counties in South Carolina. The evidence shows that races held at Darlington Raceway are associated with little or no additional accommodations tax revenues and even with slight reductions in revenues. Home football games of the University of South Carolina are linked to reductions in accommodations tax revenues for Richland County of about $6000 while Clemson University home football games are associated with additional real accommodations tax revenues of $2000 to $3000.

The analysis here has focused exclusively on neighboring counties defined as those that share a border or, in the case of the Pee Dee Region, are explicitly defined elsewhere as part of the same region. It is possible that neighbors may be better defined in some alternative way. For example, Horry County, home to Myrtle Beach a popular vacation destination in South Carolina, is about 80 miles from Darlington. It is surely possible that race attendees stay in Horry County to split the difference between the race and the beach. A difference of means tests finds that Horry County collects about $212,000 more in accommodations tax revenues in race months than in non-race months (the mean over non-race months is $561,500), a difference that is statistically significant under a one-tail test at the 5% level and under the two-tail test at the 10% level. Before concluding that this is the effect of races at Darlington Raceway, however, it is important to note that race months are generally strong vacation times and may also coincide with big events in Horry County. For example, the Rebel 400 at Darlington and "Bike Week" in Myrtle Beach, which draws thousands of motorcycle enthusiasts, both occur in May. Regressions using the 12 month difference reveal no impact of race months on Horry County accommodations tax collections. Nonetheless, alternative definitions of "neighbors" may find

that benefits from the track, or the football games, extend away from the host counties in ways that are not modeled here.

Finally, none of the results of this paper should be interpreted as indicating that the track at Darlington or the University of South Carolina have little beneficial effect and possibly even harmful impact on the local economies. Likewise, the results should not be taken to mean that Clemson University has only a $2000 to $3000 per game impact on Pickens County. Instead, the results clearly indicate that given the presence of the track at Darlington and all the attendant regular, daily activity there, and given the presence of USC in Columbia, SC, and all the activity that generates, the extra impact from a race or a home football game is trivial and, in the case of the latter, perhaps even harmful. In other words, Darlington and its environs were not substantially harmed by losing the Southern 500 for a short while nor were they harmed by moving the Rebel 400 from March to May; Columbia has no reason to push for extra home games for the USC Gamecocks football squad, nor any justification to worry about a reduced number of home games in a season. On the other hand, Clemson University does produce for Pickens County a small bonus in terms of accommodations tax revenues with each additional home game. Whether these funds are enough to offset the additional costs to the county of putting on the game is rather doubtful, which is one of the purposes to which accommodations tax revenues may be put. These increases are, however, better than no tax revenue benefits from the games at all.

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Table 1: Descriptive Statistics

| Variable | Mean | St.Dev. | Minimum | Maximum |
|---|---|---|---|---|
| Real Monthly Accommodations Tax Collections | 41778 | 133366 | -81 | 1806154 |
| Darlington Race | 0.004 | 0.064 | 0 | 1 |
| Clemson Football Games (monthly) | 0.014 | 0.176 | 0 | 3 |
| University of South Carolina Games (monthly) | 0.014 | 0.190 | 0 | 4 |
| 12 Month Real Accommodations Tax Difference | 935 | 14200 | -190370 | 240581 |
| 12 Month Race Difference | 0.000 | 0.051 | -1 | 1 |
| 12 Month Clemson Football Difference | 0.000 | 0.088 | -2 | 1 |
| 12 Month USC Football Difference | 0.000 | 0.093 | -2 | 3 |

Table 2: Difference of Means Tests - Non-Event Month Taxes Minus Event Month Taxes
(Differences are in real dollars)

| | | Clemson University Games | | |
|---|---|---|---|---|
| | Pickens | Oconee | Anderson | Greenville |
| Difference | -2327 | -723 | -212 | -842 |
| One-tail p | 0.001*** | 0.066* | 0.416 | 0.418 |
| Two-tail p | 0.002*** | 0.133 | 0.831 | 0.835 |
| Mean | 11292 | 5300 | 14772 | 85005 |

| | | Univ. of South Carolina Games | | | | |
|---|---|---|---|---|---|---|
| | Richland | Fairfield | Kershaw | Lexington | Sumter | Newberry |
| Difference | -2327 | -88 | 290 | 467 | 869 | 119 |
| One-tail p | 0.271 | 0.207 | 0.791 | 0.607 | 0.892 | 0.674 |
| Two-tail p | 0.542 | 0.415 | 0.419 | 0.785 | 0.217 | 0.652 |
| Mean | 81346 | 1175 | 4497 | 31420 | 10131 | 3300 |

| | | NASCAR Races | | | | | |
|---|---|---|---|---|---|---|---|
| | Darlington | Florence | Dillon | Marlboro | Kershaw | Lee | Chesterfield |
| Difference | 30.4 | -6.0 | -1740 | -45.2 | 367 | 27.6 | -237 |
| One-tail p | 0.527 | 0.499 | 0.003*** | 0.414 | 0.740 | 0.605 | 0.136 |
| Two-tail p | 0.947 | 0.998 | 0.006*** | 0.828 | 0.520 | 0.791 | 0.272 |
| Mean | 2973 | 34595 | 5151 | 1246 | 4497 | 593 | 1975 |

Null: Mean monthly accommodations taxes the same in game and non-game months
Alternative (two tail): Mean monthly accommodations taxes greater or lesser in game than in non-game months
Alternative (one tail): Mean monthly accommodations taxes greater in game than in non-game months

*** indicates significance at the 1% level. ** significant at 5% * significant at 10%

Table 3: Real Accommodations Taxes - Full Sample - GLS

| VARIABLES | Full Model | No Football 1 | No Football 2 | No Race |
|---|---|---|---|---|
| Real Lagged Taxes | 0.478*** | 0.489*** | 0.483*** | 0.473*** |
| | 0.000 | 0.000 | 0.000 | 0.000 |
| Darlington County - race month | 443.735** | -334.932 | 457.503** | |
| | 0.019 | 0.102 | 0.015 | |
| Clemson games | -995.262** | | | -1,042.130** |
| | 0.030 | | | 0.025 |
| USC games | -1,704.965* | | | -1,601.883* |
| | 0.075 | | | 0.097 |
| Oconee - Clemson home | 64.381 | | | 52.537 |
| | 0.769 | | | 0.813 |
| Greenville - Clemson home | 433.442 | | | 413.191 |
| | 0.679 | | | 0.694 |
| Anderson - Clemson home | 499.875* | | | 474.538 |
| | 0.074 | | | 0.102 |
| Pickens - Clemson home | 3,949.077*** | | | 4,058.586*** |
| | 0.000 | | | 0.000 |
| Richland - USC home | 4,846.768** | | | 4,643.834** |
| | 0.032 | | | 0.042 |
| Fairfield - USC home | 67.089 | | | 63.141 |
| | 0.173 | | | 0.204 |
| Kershaw - USC home | -249.917** | | | -211.038* |
| | 0.027 | | | 0.053 |
| Lexington - USC home | 250.618 | | | 287.447 |
| | 0.547 | | | 0.489 |
| Newberry - USC home | 21.222 | | | 32.319 |
| | 0.853 | | | 0.777 |
| Sumter - USC home | -459.014 | | | -506.115* |
| | 0.126 | | | 0.088 |
| Florence - Race Months | 2,482.669** | | 2,770.632** | |
| | 0.025 | | 0.010 | |
| Dillon - Race Months | 1,298.761*** | | 1,314.890*** | |
| | 0.000 | | 0.000 | |
| Marlboro - Race Months | 55.127 | | 55.000 | |
| | 0.505 | | 0.507 | |
| Chesterfield - Race Months | 283.259*** | | 254.081*** | |
| | 0.003 | | 0.008 | |
| Kershaw - Race Months | 341.137** | | 283.693* | |
| | 0.026 | | 0.065 | |
| Lee - Race Months | 67.449* | | 68.261* | |
| | 0.053 | | 0.050 | |
| Contiguous to Darlington - Race Months | | 171.123** | | |
| | | 0.013 | | |
| Pee Dee - Race Months | | 740.743*** | | |
| | | 0.000 | | |
| Observations | 3800 | 3800 | 3800 | 3800 |
| Log likelihood | -33481 | -33575 | -33491 | -33491 |
| Number of county | 40 | 40 | 40 | 40 |

Regression includes county specific intercepts.
p values in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4: Real Accommodations Taxes - GLS

| VARIABLES | Races 1 | Races 2 | Football 1 | Football 2 |
|---|---|---|---|---|
| Real Lagged Taxes | 0.086** | | 0.115*** | |
| | 0.027 | | 0.000 | |
| USC games | | | -33.397 | 584.787 |
| | | | 0.985 | 0.722 |
| Clemson games | | | -1,537.885** | -1,594.720*** |
| | | | 0.011 | 0.005 |
| Oconee - Clemson home | | | 816.939** | 636.836 |
| | | | 0.048 | 0.169 |
| Greenville - Clemson home | | | 2,720.155 | 2,155.956 |
| | | | 0.388 | 0.535 |
| Anderson - Clemson home | | | 741.188 | 484.167 |
| | | | 0.300 | 0.549 |
| Pickens - Clemson home | | | 5,514.601*** | 5,719.394*** |
| | | | 0.000 | 0.000 |
| Richland - USC home | | | 3,562.467 | 2,534.728 |
| | | | 0.469 | 0.608 |
| Fairfield - USC home | | | 128.350 | 102.684 |
| | | | 0.142 | 0.291 |
| Kershaw - USC home | | | -215.363 | -255.234 |
| | | | 0.414 | 0.365 |
| Lexington - USC home | | | -24.730 | -144.759 |
| | | | 0.984 | 0.916 |
| Newberry - USC home | | | -55.818 | -97.777 |
| | | | 0.770 | 0.637 |
| Sumter - USC home | | | -717.276 | -793.853 |
| | | | 0.191 | 0.189 |
| Florence - Race Months | 750.574 | -414.523 | | |
| | 0.712 | 0.837 | | |
| Dillon - Race Months | 1,051.121** | 925.346** | | |
| | 0.013 | 0.036 | | |
| Marlboro - Race Months | -54.492 | -65.973 | | |
| | 0.672 | 0.615 | | |
| Chesterfield - Race Months | 204.013 | 187.012 | | |
| | 0.166 | 0.214 | | |
| Kershaw - Race Months | -92.969 | -117.012 | | |
| | 0.819 | 0.773 | | |
| Lee - Race Months | -9.688 | -23.990 | | |
| | 0.888 | 0.732 | | |
| Darlington - Race Months | -143.620 | -265.175 | | |
| | 0.646 | 0.402 | | |
| Observations | 665 | 672 | 950 | 960 |
| Log likelihood | -5448 | -5504 | -8689 | -8789 |
| Number of county | 7 | 7 | 10 | 10 |

p values in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Regression includes county specific intercepts.

Table 5: 12-Month Tax Differences - Full Sample - GLS

| VARIABLES | Full Model | No Football 1 | No Football 2 | No Race |
|---|---|---|---|---|
| Real Lagged Taxes | 0.077*** | 0.081*** | 0.080*** | 0.077*** |
| | 0.000 | 0.000 | 0.000 | 0.000 |
| 12 Month Difference - Races | -1,892.072*** | -1,426.019** | -1,761.323*** | |
| | 0.004 | 0.021 | 0.007 | |
| 12 Month Difference - Clemson Games | 2,368.539*** | | | 2,237.908** |
| | 0.009 | | | 0.013 |
| 12 Month Difference - USC Games | -5,836.244*** | | | -5,830.281*** |
| | 0.001 | | | 0.001 |
| Oconee - Clemson Home | 481.118 | | | 490.099 |
| | 0.154 | | | 0.143 |
| Greenville - Clemson Home | 12.461 | | | 116.672 |
| | 0.997 | | | 0.967 |
| Anderson - Clemson Home | 27.485 | | | 78.829 |
| | 0.962 | | | 0.891 |
| Pickens - Clemson Home | 727.808 | | | 731.126 |
| | 0.549 | | | 0.548 |
| Richland - USC Home | 1,249.283 | | | 1,416.020 |
| | 0.625 | | | 0.581 |
| Fairfield - USC Home | 114.177 | | | 127.206 |
| | 0.449 | | | 0.397 |
| Kershaw - USC Home | -252.346 | | | -244.712 |
| | 0.396 | | | 0.401 |
| Lexington - USC Home | -1,083.662 | | | -1,080.955 |
| | 0.327 | | | 0.327 |
| Newberry - USC Home | 62.444 | | | 77.427 |
| | 0.822 | | | 0.780 |
| Sumter - USC Home | 197.051 | | | 166.405 |
| | 0.732 | | | 0.775 |
| Floence - Race Months | -3,418.648 | | -3,507.411 | |
| | 0.140 | | 0.127 | |
| Dillon - Race Months | -396.898 | | -419.982 | |
| | 0.378 | | 0.349 | |
| Marlboro - Race Months | 37.906 | | 46.615 | |
| | 0.850 | | 0.816 | |
| Chesterfield - Race Months | -507.983** | | -509.239** | |
| | 0.028 | | 0.027 | |
| Kershaw - Race Months | 448.485 | | 403.116 | |
| | 0.239 | | 0.292 | |
| Lee - Race Months | -85.875 | | -91.362 | |
| | 0.322 | | 0.296 | |
| Darlington - Race Months | 84.536 | | 98.056 | |
| | 0.890 | | 0.872 | |
| Observations | 3360 | 3360 | 3360 | 3360 |
| Number of county | 40 | 40 | 40 | 40 |
| Log likelihood | -31808 | -31816 | -31812 | -31812 |

*** p<0.01, ** p<0.05, * p<0.1

p values in parentheses

Regression includes county specific intercepts.

Table 6: 12 Month Tax Differences - Subsamples - GLS

| VARIABLES | Races 1 | Races 2 | Football 1 | Football 2 |
|---|---|---|---|---|
| Real Lagged Taxes | -0.093 | | 0.044 | |
| | 0.293 | | 0.511 | |
| 12 Month Difference - USC games | | | -6,479.709*** | -6,621.948*** |
| | | | 0.007 | 0.006 |
| 12 Month Difference - Clemson games | | | 3,075.788*** | 3,216.244*** |
| | | | 0.008 | 0.005 |
| Oconee - Clemson home | | | 479.449 | 563.540 |
| | | | 0.398 | 0.302 |
| Greenville - Clemson home | | | -6,111.425 | -6,067.761 |
| | | | 0.286 | 0.278 |
| Anderson - Clemson home | | | -258.020 | -252.982 |
| | | | 0.863 | 0.863 |
| Pickens - Clemson home | | | 1,082.226 | 1,085.236 |
| | | | 0.490 | 0.479 |
| Richland - USC home | | | -3,379.261 | -3,406.610 |
| | | | 0.496 | 0.483 |
| Fairfield - USC home | | | -16.647 | -15.468 |
| | | | 0.947 | 0.950 |
| Kershaw - USC home | | | -281.683 | -300.713 |
| | | | 0.645 | 0.618 |
| Lexington - USC home | | | -1,494.565 | -1,497.492 |
| | | | 0.522 | 0.513 |
| Newberry - USC home | | | -158.774 | -158.015 |
| | | | 0.696 | 0.692 |
| Sumter - USC home | | | 74.740 | 99.514 |
| | | | 0.944 | 0.925 |
| 12 Month Difference - Races | -2,158.924** | -2,368.414*** | | |
| | 0.019 | 0.009 | | |
| Florence - Race Months | -2,000.987 | -1,284.753 | | |
| | 0.631 | 0.755 | | |
| Dillon - Race Months | 118.609 | 135.005 | | |
| | 0.886 | 0.866 | | |
| Marlboro - Race Months | -59.889 | -42.109 | | |
| | 0.860 | 0.898 | | |
| Chesterfield - Race Months | -353.723 | -350.299 | | |
| | 0.350 | 0.345 | | |
| Kershaw - Race Months | 387.897 | 442.523 | | |
| | 0.639 | 0.586 | | |
| Lee - Race Months | -86.794 | -61.325 | | |
| | 0.616 | 0.721 | | |
| Darlington - Race Months | 348.139 | 421.951 | | |
| | 0.686 | 0.613 | | |
| Observations | 588 | 588 | 840 | 840 |
| Log likelihood | -5298 | -5297 | -8327 | -8328 |
| Number of county | 7 | 7 | 10 | 10 |

*** p<0.01, ** p<0.05, * p<0.1

p values in parentheses

Regression includes county specific intercepts.

Data Appendix

Real Accommodations Tax: Monthly dollar value of accommodations taxes collected in each county in South Carolina deflated using the CPI-U for the South. Tax data comes from multiple sources, but the main source is the South Carolina Department of Parks, Recreation, and Tourism website:
http://www.scprt.com/our-partners/tourismstatistics/monthlyindicators.aspx

Pee Dee region: Counties identified by Bernthal and Regan (2004) as those relevant to the study of effects of races at Darlington Raceway. Counties of the Pee Dee region are Darlington, Dillon, Marion, Florence, Lee, Marlboro, and Williamsburg.

Contiguous to Darlington County: Counties which border on Darlington county. These counties are Florence, Chesterfield, Lee, Marlboro, and Kershaw.

Clemson area: Clemson University is in Pickens County which is bordered by Anderson, Greenville, and Oconee Counties.

University of South Carolina Area: USC is in Richland County, home to Columbia the state capital. Richland shares borders with Fairfield, Newberry, Kershaw, Lexington, Sumter, and Calhoun Counties. There is no tax data for Calhoun County.

Darlington Race Months: Identifies the month the Southern 500 occurred, the month prior, or in the month (sometimes March, sometimes May) the Rebel 400 was run. This variable recognizes that the Labor Day weekend Southern 500 may have a greater impact in August than in September.

Real 12 Month Tax Difference: The difference between real accommodations tax collections in the current month and collections 12 months earlier.

12 Month Race Difference: The difference between the Darlington Race variable in the current month and the variable 12 months earlier.

Contiguous race difference 12: The difference between the contiguous counties race variable in the current month and the variable 12 months earlier.

Clemson Games: Number of Clemson home football games in the month.

USC Games: Number of University of South Carolina home football games in the month.

12 Month Game Difference: The difference between the number of home games in the current month and the number 12 months earlier. Computed separately for Clemson Games and USC Games.

Table A3: Real Accommodations Taxes - Full Sample - GLS - No Lagged Tax

| VARIABLES | Full Model | No Football 1 | No Football 2 | No Race |
|---|---|---|---|---|
| Darlington County - race month | -206.679 | -575.039** | -225.943 | |
| | 0.354 | 0.015 | 0.310 | |
| Clemson games | -1,510.924*** | | | -1,514.124*** |
| | 0.000 | | | 0.000 |
| USC games | -475.710 | | | -419.674 |
| | 0.672 | | | 0.710 |
| Oconee - Clemson home | 511.660* | | | 551.241* |
| | 0.083 | | | 0.067 |
| Greenville - Clemson home | -240.635 | | | -230.926 |
| | 0.892 | | | 0.897 |
| Anderson - Clemson home | 155.182 | | | 207.440 |
| | 0.713 | | | 0.626 |
| Pickens - Clemson home | 6,201.630*** | | | 6,183.593*** |
| | 0.000 | | | 0.000 |
| Richland - USC home | 3,443.716 | | | 3,561.067 |
| | 0.242 | | | 0.228 |
| Fairfield - USC home | 3.693 | | | 9.216 |
| | 0.956 | | | 0.891 |
| Kershaw - USC home | -395.961*** | | | -377.393*** |
| | 0.002 | | | 0.003 |
| Lexington - USC home | -489.995 | | | -298.753 |
| | 0.386 | | | 0.597 |
| Newberry - USC home | -29.619 | | | 6.603 |
| | 0.837 | | | 0.963 |
| Sumter - USC home | -577.289* | | | -572.311 |
| | 0.098 | | | 0.100 |
| Florence - Race Months | -1,947.478 | | -1,680.733 | |
| | 0.108 | | 0.162 | |
| Dillon - Race Months | 1,176.335*** | | 1,186.832*** | |
| | 0.000 | | 0.000 | |
| Marlboro - Race Months | 55.695 | | 63.366 | |
| | 0.498 | | 0.444 | |
| Chesterfield - Race Months | 216.538** | | 193.753* | |
| | 0.044 | | 0.070 | |
| Kershaw - Race Months | -93.843 | | -134.352 | |
| | 0.562 | | 0.407 | |
| Lee - Race Months | 24.857 | | 25.053 | |
| | 0.477 | | 0.472 | |
| Contiguous to Darlington - Race Months | | -238.136*** | | |
| | | 0.001 | | |
| Pee Dee - Race Months | | 369.283*** | | |
| | | 0.000 | | |
| Observations | 3840 | 3840 | 3840 | 3840 |
| Log likelihood | -33801 | -33828 | -33821 | -33812 |
| Number of county | 40 | 40 | 40 | 40 |

Regression includes county specific intercepts.
p values in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A5: 12-Month Tax Differences - Full Sample - GLS

| VARIABLES | Full Model | No Football 1 | No Football 2 | No Race |
|---|---|---|---|---|
| 12 Month Difference - Races | -1,892.039*** | -1,420.402** | -1,765.637*** | |
| | 0.004 | 0.023 | 0.008 | |
| 12 Month Difference - Clemson Games | 2,372.498*** | | | 2,259.560** |
| | 0.008 | | | 0.012 |
| 12 Month Difference - USC Games | -5,740.683*** | | | -5,734.615*** |
| | 0.001 | | | 0.001 |
| Oconee - Clemson Home | 742.048** | | | 758.463** |
| | 0.028 | | | 0.023 |
| Greenville - Clemson Home | -1,236.195 | | | -1,091.695 |
| | 0.668 | | | 0.706 |
| Anderson - Clemson Home | -258.580 | | | -203.949 |
| | 0.659 | | | 0.724 |
| Pickens - Clemson Home | 1,137.427 | | | 1,172.103 |
| | 0.351 | | | 0.338 |
| Richland - USC Home | 1,998.618 | | | 2,139.741 |
| | 0.444 | | | 0.414 |
| Fairfield - USC Home | 40.478 | | | 54.137 |
| | 0.788 | | | 0.717 |
| Kershaw - USC Home | -180.422 | | | -172.910 |
| | 0.546 | | | 0.556 |
| Lexington - USC Home | -794.872 | | | -788.132 |
| | 0.476 | | | 0.478 |
| Newberry - USC Home | 19.563 | | | 36.987 |
| | 0.944 | | | 0.894 |
| Sumter - USC Home | 317.719 | | | 292.338 |
| | 0.583 | | | 0.618 |
| Florence - Race Months | -3,639.851 | | -3,706.461 | |
| | 0.118 | | 0.108 | |
| Dillon - Race Months | -329.593 | | -339.252 | |
| | 0.465 | | 0.449 | |
| Marlboro - Race Months | 63.185 | | 64.650 | |
| | 0.752 | | 0.746 | |
| Chesterfield - Race Months | -499.582** | | -499.771** | |
| | 0.031 | | 0.031 | |
| Kershaw - Race Months | 464.162 | | 436.595 | |
| | 0.226 | | 0.255 | |
| Lee - Race Months | -103.774 | | -108.772 | |
| | 0.231 | | 0.213 | |
| Darlington - Race Months | 131.536 | | 147.889 | |
| | 0.831 | | 0.810 | |
| Observations | 3360 | 3360 | 3360 | 3360 |
| Log likelihood | -31821 | -31832 | -31828 | -31826 |
| Number of county | 40 | 40 | 40 | 40 |

Regression includes county specific intercepts.
p values in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A5.1: 12-Month Tax Differences - Full Sample - GLS

| VARIABLES | Full Model | No Football 1 | No Football 2 | No Race |
|---|---|---|---|---|
| Real Lagged 12 Month Tax Difference | -0.436*** | -0.434*** | -0.434*** | -0.440*** |
| | 0.000 | 0.000 | 0.000 | 0.000 |
| 12 Month Difference - Races | -1,654.511** | -1,239.993* | -1,595.842** | |
| | 0.018 | 0.061 | 0.022 | |
| 12 Month Difference - Clemson Games | 1,979.014** | | | 1,916.929** |
| | 0.017 | | | 0.020 |
| 12 Month Difference - USC Games | -5,917.790*** | | | -5,954.696*** |
| | 0.001 | | | 0.001 |
| Oconee - Clemson Home | 882.818** | | | 912.634** |
| | 0.024 | | | 0.017 |
| Greenville - Clemson Home | -1,543.537 | | | -1,389.866 |
| | 0.648 | | | 0.684 |
| Anderson - Clemson Home | -410.665 | | | -334.426 |
| | 0.542 | | | 0.618 |
| Pickens - Clemson Home | 1,844.100 | | | 1,863.925 |
| | 0.179 | | | 0.174 |
| Richland - USC Home | 2,762.880 | | | 2,939.630 |
| | 0.373 | | | 0.344 |
| Fairfield - USC Home | 31.792 | | | 53.534 |
| | 0.851 | | | 0.750 |
| Kershaw - USC Home | -219.917 | | | -198.048 |
| | 0.509 | | | 0.545 |
| Lexington - USC Home | -1,030.651 | | | -1,024.682 |
| | 0.432 | | | 0.433 |
| Newberry - USC Home | 13.104 | | | 41.665 |
| | 0.966 | | | 0.892 |
| Sumter - USC Home | 353.816 | | | 348.835 |
| | 0.579 | | | 0.591 |
| Florence - Race Months | -4,830.613** | | -4,930.782** | |
| | 0.042 | | 0.036 | |
| Dillon - Race Months | -332.417 | | -353.558 | |
| | 0.497 | | 0.468 | |
| Marlboro - Race Months | 121.762 | | 118.626 | |
| | 0.562 | | 0.572 | |
| Chesterfield - Race Months | -488.752** | | -487.848** | |
| | 0.035 | | 0.035 | |
| Kershaw - Race Months | 545.653 | | 525.814 | |
| | 0.152 | | 0.169 | |
| Lee - Race Months | -141.710 | | -144.264 | |
| | 0.111 | | 0.108 | |
| Darlington - Race Months | 229.942 | | 272.168 | |
| | 0.726 | | 0.677 | |
| Observations | 3320 | 3320 | 3320 | 3320 |
| Number of county | 40 | 40 | 40 | 40 |
| Log likelihood | -31434 | -31447 | -31441 | -31439 |

p values in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Regression includes county specific intercepts.

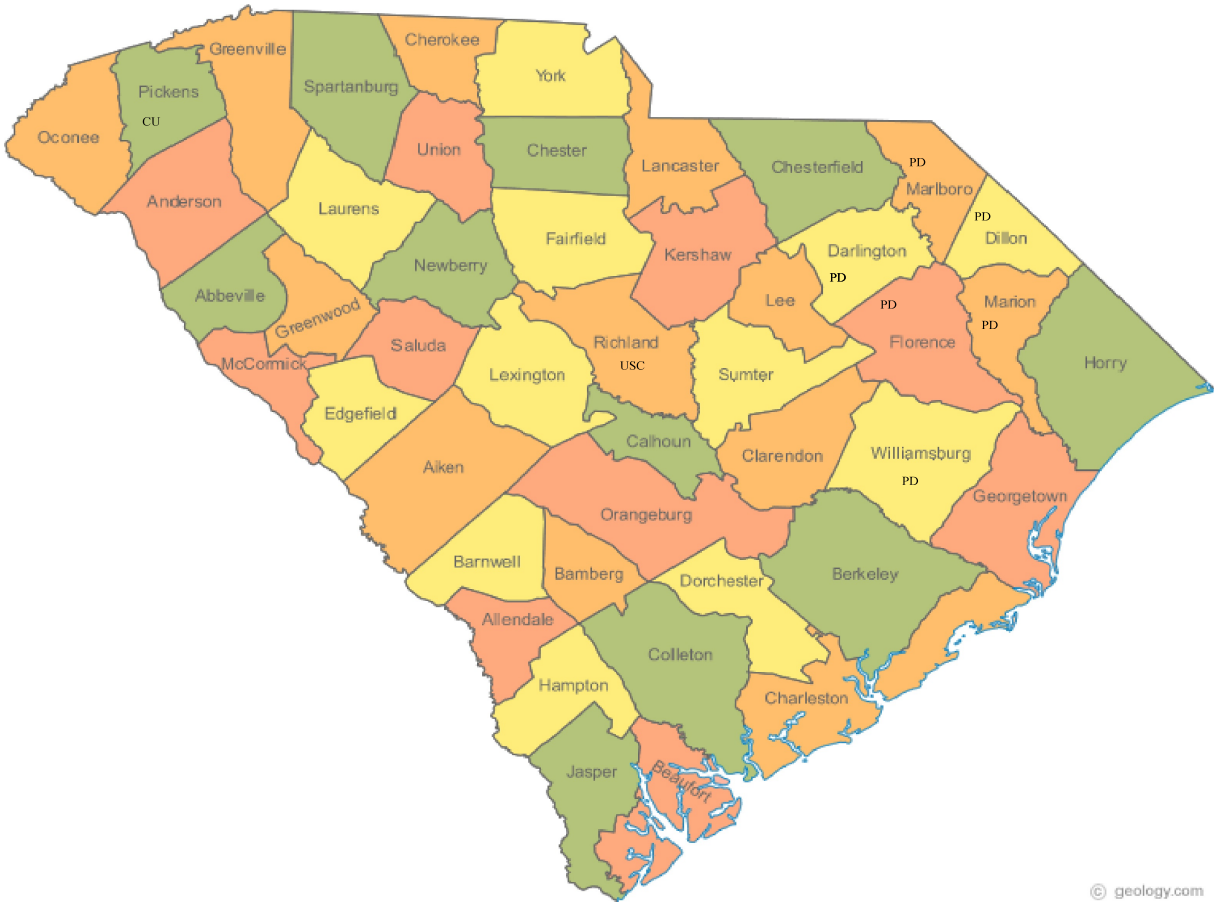
Table A6.1: 12 Month Tax Differences - Subsamples - GLS

| VARIABLES | Races 1 | Races 2 | Football 1 | Football 2 |
|---|---|---|---|---|
| Real Lagged 12 Month Tax Difference | -0.361*** | | -0.416*** | |
| | 0.000 | | 0.000 | |
| 12 Month Difference - USC Games | | | -6,179.369** | -6,621.948*** |
| | | | 0.014 | 0.006 |
| 12 Month Difference - Clemson Games | | | 2,819.139*** | 3,216.244*** |
| | | | 0.010 | 0.005 |
| Oconee - Clemson Home | | | 634.660 | 563.540 |
| | | | 0.322 | 0.302 |
| Greenville - Clemson Home | | | -6,668.192 | -6,067.761 |
| | | | 0.312 | 0.278 |
| Anderson - Clemson Home | | | -204.505 | -252.982 |
| | | | 0.908 | 0.863 |
| Pickens - Clemson Home | | | 1,766.038 | 1,085.236 |
| | | | 0.318 | 0.479 |
| Richland - USC Home | | | -3,134.766 | -3,406.610 |
| | | | 0.580 | 0.483 |
| Fairfield - USC Home | | | 2.840 | -15.468 |
| | | | 0.992 | 0.950 |
| Kershaw - USC Home | | | -273.002 | -300.713 |
| | | | 0.690 | 0.618 |
| Lexington - USC Home | | | -1,585.132 | -1,497.492 |
| | | | 0.552 | 0.513 |
| Newberry - USC Home | | | -148.586 | -158.015 |
| | | | 0.735 | 0.692 |
| Sumter - USC Home | | | 226.368 | 99.514 |
| | | | 0.848 | 0.925 |
| 12 Month Difference - Races | -2,083.767** | -2,368.414*** | | |
| | 0.025 | 0.009 | | |
| Florence - Race Months | -2,712.866 | -1,284.753 | | |
| | 0.513 | 0.755 | | |
| Dillon - Race Months | 249.018 | 135.005 | | |
| | 0.767 | 0.866 | | |
| Marlboro - Race Months | -16.964 | -42.109 | | |
| | 0.960 | 0.898 | | |
| Chesterfield - Race Months | -337.190 | -350.299 | | |
| | 0.384 | 0.345 | | |
| Kershaw - Race Months | 571.193 | 442.523 | | |
| | 0.484 | 0.586 | | |
| Lee - Race Months | -91.387 | -61.325 | | |
| | 0.606 | 0.721 | | |
| Darlington - Race Months | 431.702 | 421.951 | | |
| | 0.622 | 0.613 | | |
| Observations | 581 | 588 | 830 | 840 |
| Number of county | 7 | 7 | 10 | 10 |
| Log likelihood | -5233 | -5297 | -8231 | -8328 |

*** p<0.01, ** p<0.05, * p<0.1

p values in parentheses

Regression includes county specific intercepts.


Greenville
Cherokee
Pickens
CU
Spartanburg
York
Oconee
Union
Chester
Lancaster
Chesterfield
PD
Marlboro
PD
Dillon
Anderson
Laurens
Fairfield
Kershaw
Darlington
PD
Newberry
Abbeville
Greenwood
Lee
PD
Marion
PD
Saluda
Richland
USC
Florence
Horry
McCormick
Lexington
Sumter
Edgefield
Calhoun
Clarendon
Williamsburg
PD
Aiken
Georgetown
Orangeburg
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