# Task Force to Study a Post-Labor Day Start Date for Maryland Public Schools 

## Appendix VII



## June 2014

# Task Force to Study a Post-Labor Day Start Date for Maryland Public Schools <br> Materials of Interest <br> January 7, 2014 Meeting 

## Materials of Interest by Speaker

Dr. Lillian M. Lowery, State Superintendent, Maryland State Department of Education

Dr. Michael J. Martirano, Superintendent, St. Mary's County Public Schools<br>November 6, 2013 Letter from the Public School Superintendents' Association of Maryland<br>Refer to document provided at the November 12, 2013 meeting.

## Mr. Franklin Chaney, Chief of Recreation Services, Anne Arundel County Department of Recreation and Parks

## Various Newspaper Articles Concerning Task Force to Study a Post-Labor Day Start Date for Maryland Public Schools

"Task Force Debating Delaying School Year to After Labor Day," Fox 45 News, November 12, 2013
News clip featuring Senator Jim Matthias, Mr. Howard M. Mosner, and Dr. Carl Roberts. Link to the news clip is http://foxbaltimore.com/news/features/featured/stories/task-force-debating-delaying-school-year-after-labor-day-2403.shtml.
"Muslim holidays not added to Montgomery school calendar," Gazette, November 12, 2013 Article provides follow up to the September 18, 2013 article that the Equity for Eid Coalition's efforts to persuade Montgomery County Public Schools to close school for the Muslim Holidays was unsuccessful. Montgomery County Public Schools will not be adding Eid al-Adha and Eid alFitr to their calendar as official holidays.
"Montgomery Schools take no action on Muslim holidays," the Washington Post, November 16, 2013
Article reports that the Montgomery County school system adopted its calendar for next year without voting on the question of giving students off for the major Muslim holidays. However, members of the Montgomery County Board of Education indicated that they would continue to study the issue. Next school year the holidays of Eid al-Adha and Eid al-Fitr fall on non-school days.
"Franchot continues push for post-Labor Day school start," Southern Maryland News Papers
Online, December 13, 2013
Article reports that at a recent event to promote his art initiative, Franchot continued to seek support to push back the start of schools and indicates that , "it's a great idea...it's ultimately going to happen.... it is very popular with parents." Superintendent Michael Martirano reported "it is not a sound instructional decision." He further indicated that the Maryland Superintendents have come out against the idea and (Martirano) has sent a letter to the committee advising against the change.

## "Franchot should stop meddling," Southern Maryland News Papers Online, December 18, 2013

Letter to the editor from Terri Van Asdlen, concerning the December 13, 2013 article, "Franchot continues push for post-Labor Day school start." Ms. Van Asdlen expresses her concern about, "how the duties of the comptroller have a bearing on school year start dates." She further questions the job duties of the state comptroller and state, "that other than state taxes supporting public education; she fails to see how the comptroller's office and the Department of Education are connected." Finally she states, "Franchot's statements that the, "education bureaucracy will put up a lot of resistance" and "it's a great idea, it's ultimately going to happen" are divisive, insipid, and egotistical."

## Documents from Mr. Thomas Noonan, CEO, Visit Baltimore

## "An Economic Analysis of the Changing School Start Date in Texas," Susan Combs, Texas Comptroller of Public Accounts, December 2000

The purpose of this report was to study how a uniform start date would affect education and the economic issues surrounding that decision. The findings of this report indicate that in tourist destination areas there was at least $\$ 332$ million dollars lost due to an early school start date. Furthermore, $65 \%$ of Texans indicated that parents would prefer a uniform start date and that the children of migrant workers would benefit most from that decision.

## "South Carolina Early School Start Dates and the South Carolina Travel and Tourism Industries: An Analysis of Economic \&Tax Revenue Impacts," Stephan C. Morse, Ph.D., Professor \& Economist School of Hotel, Restaurant and Tourism Management, University of South Carolina, August 2002

The purpose of this report is to examine the effects and impacts of early school start dates in South Carolina on the Travel and Tourism economy of the State. This report concludes that South Carolina schools have moved start dates up by as much as three weeks and that this shift in start date has been associated with lower tourism activity in August, which has not been offset by an increase in June. Furthermore, schools have incurred higher utility costs associated with cooling school buildings due to the hot weather in August. Finally, under one scenario it is estimated that if $40 \%$ of families took one more vacation in the year the impact would be $\$ 180$ million in tourism related spending, \$6 million in new state tax revenue, and \$2.3 million in new local tax revenue.
"Impact of a Uniform School Year on Florida's Economy," The Florida Senate, Interim Project Report 2003-112 Committee on Commerce and Economic Opportunities, January 2003 The purpose of this interim report was to examine whether or not later school start dates would benefit the state's economy, specifically the tourism industry, without harming the public school system. It was determined that there was not any currently available data that indicated starting schools later would benefit the state's economy. If fact it was found that, the current early start dates may have only changed the timing of tourism revenue and expenditures. Therefore, the committee recommended against enacting uniform school start date or calendar at this time.
> "Post Labor Day School Start Dates in Tennessee: An Analysis of the Economic and Tax Revenue Impacts on Tennessee Travel and Tourism Industry," Steve Morse, Ph.D., Director \& Economist Tourism Institute Department of Retail, Hospitality, and Tourism Management, University of Tennessee, January 2008

The purpose of this report was to 1) determine if a post labor day start would influence Tennessee residents' summer travel plans, and 2) to estimate potential economic impact on state tax, local tax, and payroll. The report concluded that approximately 463,000 Tennessee residents would take an additional vacation during the summer if school started after Labor Day and approximately 223,000 residents would extend their vacation through the holiday weekend. It is anticipated that extending the summer would generate $\$ 189$ million in tourist spending, $\$ 73$ million in statewide payroll, and create more that 2600 jobs.
"Do families vacation more in the summer when school starts after Labor Day?" Elton Mykerezi, Assistant Professor, Department of Applied Economics, University of Minnesota and Genti Kostandini, Assistant Professor, Department of Agriculture and Applied Economics, University of Georgia, July 23, 2012
This study indicates that states have historically struggled to accommodate the competing interests of the varied stakeholders in determining whether to mandate a post Labor Day start to schools. This study used data from the American Time Use Survey (ATUS) to examine the differences in family travel patterns from 2005-2010 in five states that have mandated start times. Some of these start times are pre-labor day and some are post. Findings indicated families were 50\% more likely to take a two night or more trip in August or September if there was a post Labor Day start date.

Special Note: Mr. Noonan referenced the aforementioned studies in his testimony on November 12, 2013 and asked that all provided documents be copied and be distributed to task force members. Due to the size of the documents, it was agreed by all members that copies would be provided at the January meeting. If outside entities are interested in obtaining a copy of a specific report please contact Dr. Kristine Angelis at Kangelis@msde.state.md.us.


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 delay starting their school year until after Labor Day. Currently all MD public schools open well before Labor Day and some state officials say that decision is costing the state in lost revenue.

Eastern Shore Senator Jim Mathias is the former mayor of Ocean City and is a member of the task force.
"It would be terrific to have the families be able to continue to vacation through that last week," Mathias said. "If you look al how many small businesses in the community are really predicated on summer employment...these are the benefits and this is how we see a positive economic impact."

But critics say if the school year starts after Labor Day it won't end until late June. Local school officlals also say they also don't want to be forced by the state to delay starting their school year.

The task force is expected to submit its recommendations to the general assembly by the end of the year.


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## Maryland Community News

## Published: Tuesday, November 12, 2013

## Muslim holidays not added to Montgomery school calendar by Lindsay A. Powers Staff writer

Eid al-Adha and Eid al-Fitr won't be official school holidays next year, but some school board members say a change needs to be made in determining the basis for adding new holidays to the county schools' calendar.

While the decision won't affect the next school year, the Montgomery County school board didn't amend the school calendar Tuesday to give students and staff in Montgomery County Public Schools the day off on two Muslim holidays.

Among other information, the board considered absenteeism data from Eid al-Adha, which fell on Oct. 15 this year, before voting to approve the 2014-15 school year calendar.

School system officials have said the system needs a secular reason, such as high absenteeism rates from students and staff, to legally justify closing schools on a holiday.

Board members Michael Durso and Justin Kim voted against the calendar's approval.

Before the vote, school board President Christopher S. Barclay said he thinks the public school system needs to develop "a realistic and fair measure" for determining when student and staff absenteeism on a holiday is high enough to justify closing schools.

In next school year's calendar, the holidays - Eid al-Adha and Eid al-Fitr - would not have conflicted with classes. The holidays change each year as they follow the Islam lunar calendar.

Eid al-Adha marks the Hajj pilgrimage to Mecca. Eid al-Fitr celebrates the end of Ramadan.

The issue of closing schools on the holidays is at the heart of the Equality for Eid Coalition - sponsored by the Maryland chapter of the Council of American Islamic Relations - which has called for an amended school calendar.

The coalition also called for students and staff members to skip school on Oct. 15 and instead celebrate Eid al-Adha.

The school system recognizes both Muslim holidays by declaring them non-testing days and giving Muslim students excused absences.

On the Oct. 15 holiday, and on several days around it, the school system tracked absenteeism.

According to a Nov. 7 letter from Superintendent Joshua P. Starr to County Councilman George Leventhal, about 5.6 percent of students and 5 percent of teachers were absent on Eid al-Adha this year compared to about 3.2 percent of students and 4.2 percent of teachers the same day the previous week.

The letter also said that about 5.5 percent of students and 6.3 percent of teachers were absent the day before the holiday (which was Columbus Day) and about 3.9 percent of students and 4.6 percent of teachers were absent the day after the holiday.

School system officials have previously said the school system did not have the records showing how it came to its decision regarding the Jewish holidays.

But, school board Vice President Phil Kauffman said the school system recently located some of the files related to its decision to close on the Jewish holidays. A Nov. 5, 1973, memo, he said, shows the decision was made based on high absenteeism that hindered schools' ability to teach students.

That memo, he said, looked at about five years worth of data, and showed about 15 percent of both students and professional staff were absent on the first day of Rosh Hashanah.

The school system decided to close on the first day but not on the second day of Rosh Hashanah - when it found between 10 and 12 percent of students were absent and about 12 percent of professional staff were absent.
"Clearly we did make these decisions based on statistics back in 1973," he said.

At this point, he said, it does not appear the school system has seen the amount of absenteeism necessary to justify closing schools on the Muslim holidays.

Durso said, however, that he thinks the school system might be applying different standards for the Jewish and Muslim communities.
"I'm not sure 40-year old data still necessarily speaks to maybe what we're dealing with in 2013," Durso said.

Durso said there are other days during the school year when a significant number of people are absent.
"We have one coming up," he said. "It's called the day before Thanksgiving."

Samira Hussein - a long-time advocate for school closures on the Muslim holidays and a family service worker for the school system - said the school system can continue to gather absenteeism data for the Eid holidays, but she doesn't think it will be accurate, in part because the data doesn't encompass absences from all types of school staff.

Hussein said she doesn't think the 1973 memo is relevant anymore.
"If (Kauffman) wants to live 40 years ago, that's his choice," she said.

Leventhal, who has supported closing schools on the holidays, said he doesn't understand "what's magic about 15 percent" and that he thinks that the recent 5-percent absenteeism rate on Eid al-Adha is significant.
"I think the inequity continues," he said.
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## The Cuashington post

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# Montgomery schools take no action on Muslim holidays 

## By Donna St. George, Published: <br> November 16

Montgomery County school leaders adopted a calendar for next school year without voting on the broader question of giving a day off to students for one of the major Muslim holy days.

But members of the Montgomery County Board of Education also signaled that they would continue to study the issue and asked that school staff look into creating fixed standards for granting such requests.

The decision to adopt the calendar, in a 5 to 2 vote, followed a strong push by Muslim community leaders in recent months to request that schools be closed for the Islamic holiday of Eid al-Adha, which fell on Oct. 15 this year. Muslim leaders pointed out that Montgomery schools are closed for Christian and Jewish holidays, arguing that it was a matter of fairness.

But as the issue was considered last week, school leaders noted that Islamic holidays will fall on non-school days in 2014. Eid al-Fitr, which marks the end of Ramadan, will be celebrated in July. Eid al-Adha, known as the festival of the sacrifice, falls on Oct. 4, a Saturday.

Still, the board's discussion illuminated enduring questions about how and when schools decide to shut their doors for a religious holiday.

School officials have said the operational impact of a holiday is key. They say they cannot legally observe a religious holiday and instead look to factors such as high absenteeism. Muslim leaders had urged Muslim families and non-Muslim supporters to keep students home from school this year on Eid al-Adha as a display of the holiday's impact.

But district figures showed that the effort fell short, with 5.6 percent of students and 5 percent of teachers not in school on Eid al-Adha. On the previous Tuesday, a normal school day, 3.2 percent of students and 4.2 percent of teachers were absent.

Though it was a slight increase, Montgomery officials said it was not out of the normal range. This underscored the question: How much absenteeism is enough to qualify for a school holiday?

State law provides for school holidays timed with Christmas and Easter. Closing schools for Jewish holidays began in the 1970s in Montgomery.

At Tuesday's meeting, Philip Kauffman, the board's vice president, said the district had documents from 1973 that showed high rates of absence for Jewish holidays. The documents suggest that 15 percent or more of students and staff were absent for the first day of Rosh Hashanah in 1973 and previous years.
"It has been suggested that we're asking for something different from the Muslim community that we did not do for the Jewish community," Kauffman said. But, he said, "clearly we did make the decision based on statistics back in 1973."

Board Member Michael Durso said the figures did not resolve the issue for him, saying that the situation creates a difficult scenario for Muslim families.
"What do we say to Muslim parents who have to explain to their children the intricacies of how this decision is made when in the eyes of those families they're not being dealt with in the same fashion as others?" Durso asked.

Board President Christopher Barclay said the school system needs set methods to use in considering the issue. "I am not prone to do something quickly, but I am prone to have a clear standard," Barclay said.

Amal Muhtaseb, a Montgomery mother of three, told board members that her eldest daughter was not able to enjoy her holiday because she was missing a math test. She said she wanted her children to be treated "the same way their Christian and Jewish classmates are."

Another parent, Khaled Abuhatab, said his 7-year-old stayed home for Eid al-Adha but the next day stepped off his school bus complaining that he had double the homework because he had not been in school on the holiday.

Under district policy, students are excused for religious holiday absences, and teachers are not supposed to give tests. But Muslim families say their sons and daughters should not have to miss instruction and that the conflict is especially hard on older students.

Saqib Ali, a former state lawmaker and co-chair of the Equality for Eid Coalition, said he was pleased that two board members - Durso and student member Justin Kim - indicated support by voting against the county's school calendar.

Ali said he was also heartened by the decision to look into what it would take to grant a day off and hoped his group might be involved in finding a creative solution. "There is definitely some progress since last year," Ali said.

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Published: Friday, December 13, 2013
Franchot continues push for post-Labor Day school start by Jesse Yeatman Staff writer
Comptroller Peter Franchot (D) is gathering support to push back the start of school years to after Labor Day.

County school superintendents have come out against the idea, however, saying that a shorter summer break is academically beneficial to students, especially those from low-income families, who have limited opportunities for academic enrichment over the summer.
"It's just not a sound instructional decision," Superintendent Michael Martirano said.

Martirano last year set up a committee to study an even earlier start time for St. Mary's public schools, which now begin in the last part of August. That idea was not moved forward, Martirano said, adding that "the timing wasn't right." However, he still supports the move, pointing toward a model used by the Chesapeake Public Charter School, which opens two weeks before other public schools in St. Mary's and builds in week-long breaks in October and February.

Gov. Martin O'Malley (D), however, has shown some support for moving school start times to after Labor Day, and the state legislature has put together a task force to study the change. The group, which includes business leaders from the Eastern Shore and Western Maryland who have an interest in summer tourism, has met several times.

The task force is expected to submit a report to the governor next summer.

Martirano said he has sent a letter to the committee advising against the change to school start times. He said student learning can regress during a long summer break, particularly those from families without resources or abilities to find summer activities for children like camps or visits to museums.

The assumption of an economic boon by people taking more than one vacation to areas like Ocean City doesn't take into account people who can't afford even one vacation, let alone two, Martirano said.
"Obviously, the education bureaucracy will put up a lot of resistance," Franchot said last week during a visit to St. Mary's County.

His plan includes keeping the overall number of school days at 180, but condensing the school year between Labor Day and Memorial Day. He said that could mean shorter breaks and fewer professional days.
"It's a great idea," Franchot said. "It's ultimately going to happen."

He said he believes the idea of pushing back the start of school to after Labor Day is "very popular with parents."

He also said it will benefit businesses in Maryland, including those in Ocean City and Deep Creek Lake in Western Maryland, which rely on summer tourism.

He pointed to the idyllic scenes of artist Norman Rockwell as his inspiration for longer summer breaks. "That's what resonates with me," he said.

He said there will be a need for more summer programs, and that it would be less expensive for schools to fund summer programs than bringing back all teachers in August.

Franchot was in St. Mary's County last week to promote his art initiative.

He presented his Maryland Masters Award to St. Mary's school students Avery Kent, Taylor Bahen and Jessica Burroughs, whose works of art will hang in the comptrollers office for two months.

Franchot said the arts and creative spirit are needed by businesses, including technology jobs.
"The future of the state's economy is going to require a marriage of technology ... and creativity," Franchot said.

Martirano said the arts continue to thrive in St. Mary's public schools, pointing to his proposal to add a high school arts and dance academy at Chopticon High School next year.
jyeatman@somdnews.com

Task force to study post-Labor Day school year start

Information on the task force looking at pushing the start of the school year to after Labor Day can be found at www.msde.maryland.gov/taskforce/postlabordaystart.

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# Gazette.Net 

## Maryland Community News

Published: Wednesday, December 18, 2013

## Franchot should stop meddling

While reading the article "Franchot still pushing later school start" in the Dec. 13 Enterprise, I became increasingly perplexed, wondering why the comptroller is concerned about school year start dates.

I decided to do some research and went to the Comptroller of Maryland's website (www.comp.state.md.us). There I found a compilation of the duties and responsibilities. It states the principal duty of the comptroller's office is to collect taxes. It also states "acting as Maryland's chief accountant, the comptroller pays the state's bills, maintains its books, prepares financial reports and pays state employees."

Perhaps I'm being dense, but I fail to see how the duties of the comptroller have a bearing on school year start dates. Other than the fact that taxes support public education, there is no connection between the comptroller's office and the State Department of Education. The comptroller's duty is merely to collect taxes rather than decide how they are spent, and to expend those taxes as directed.

It appears he believes it is his duty to promote business in Maryland (one assumes to collect even more taxes), but surely that is the domain of the Maryland Department of Business and Economic Development. The dotted line Franchot is trying to draw between summer jobs and school year start dates have absolutely nothing to do with the comptroller's duties.

Franchot's statements that the "education bureaucracy will put up a lot of resistance" and "it's a great idea, it's ultimately going to happen" are divisive, insipid and egotistical.

I won't even go into the puzzle of why the comptroller has an art initiative, although that has piqued my curiosity also. It is enough that the comptroller does not seem to know what his job is.

Since my taxes pay his salary, I request Mr. Franchot stop meddling in the business of other departments and instead mind his own. Marylanders are constantly beaten and bruised with taxation; collecting all those taxes surely must be a full-time job.

Terri Van Asdlen, Hollywood

# Window on State Government <br> Susan Combs Texas Comptroller of Public Accounts 

## An Economic Analysis of the Changing School Start Date in Texas

December 2000

Early school start dates and a shortening summer tourist season annually cut an estimated \$332 million out of tourist economies in Texas and migrant farm workers lose out on another \$27 million in earnings foregone. The present structure of the school year may also be costing the districts as much as $\$ 10$ million in higher cooling costs each year.

According to a 1999 Scripps Howard Texas Poll, a majority of Texans (64 percent) favored a uniform start date. Sixty-five percent of parents favored a uniform date, while about 44 percent of all Texans, and 46 percent of parents, favored a start date after Labor Day. In addition, early-August school start dates present unusual difficulties for migrant families.

On average only 52 cents of every dollar Texas spends on public education goes into the classroom. That's unacceptable. One of my ten principles for the 21st Century is to drive more of every education dollar directly into classroom instruction where it belongs.

- Carole Keeton

Rylander

Some state officials have questioned the advisability of continuing the current system.

## Background

In May 1999, State Senator Eddie Lucio wrote to the Commissioner of Education (COE) requesting that the Texas Education Agency (TEA) study the issue of setting a uniform date for public schools to begin their school year. In the letter, he requested that the COE join with Comptroller Carole Keeton Rylander to perform the study. Representatives from the agencies met, and determined that TEA would look at how a uniform start date would affect education, while the Comptroller's office would look at economic issues surrounding school start dates.

The Comptroller's office commissioned two questions in a summer 1999 Texas Poll regarding the uniform start date for school calendars. Comptroller's office staff also met with travel and tourism industry representatives to better understand the effects of school calendars on that industry. In addition, the Comptroller's office contacted Tina Bruno of Texans for a Traditional School Year, and Missouri legislator, Gracia Backer, who had proposed repealing that state's uniform start date law.

Comptroller's office staff contacted the Public Utilities Commission, the State Energy Conservation Office (now within the Comptroller's office), TXU Electric \& Gas and the Energy Systems Lab at Texas A\&M University to determine the effect of a uniform school start date on school energy costs. Comptroller's office staff also contacted the Texas Department of Economic Development (TDED) and a private economic consultant, Dr. Charles de Seve of American Economics Group, to better understand the economic issues surrounding school calendars.

## History of School Start Dates in Texas

In a 1984 special session, the Texas Legislature required all schools to open after September 1. The law became effective on September 1, 1985, was amended to allow schools to start on any day during the week in which September 1 fell in 1989, and was in effect for five years. Schools adhered to the law during school years from 1985 to 1990. The Legislature repealed the start date law in another special session in 1991.

Although Texas had a six-year period during which it could have investigated the benefits of a uniform start date, no data were collected with the specific intent of investigating the effects of school start dates.

Even data as simple as when school districts began their school years in the past is scarce. TEA does not collect data on school start dates or school holidays. A TEA survey of the 50 largest school districts in the state in 1999 did yield some historical information on school start dates (see Table 1). The 50 largest districts make up more than half of the state's total student enrollment.

In 1990, the last year of Texas’ uniform start date requirement, 34 of what are currently the largest 50 districts started school on August 27. Six of these districts did not report their start date in 1990, but the remaining 10 districts started their year after August 27. In contrast, the most common start date in 1999 was August 16, when 14 of the largest 50 districts started school. Twenty-eight districts started school even earlier. Only eight of these districts started school after August 16. Five did not report their 1999 start dates. The earliest start date in the 1999-2000 school year was in Plano ISD, which began the school year on August $2^{\text {nd }}$.

Table 1
Start Dates for the 50 Largest School Districts in
Texas

| District | $\mathbf{1 9 9 0}$ | $\mathbf{1 9 9 9}$ | 1999 Enrollment |
| :--- | :---: | :---: | ---: | ---: |
| Houston | Aug 27 | Aug 16 | 210,179 |
| Dallas | Aug 27 | Aug 16 | 159,908 |


| Austin |  | Aug 27 | Aug 11 | 79,496 |
| :---: | :---: | :---: | :---: | :---: |
| Fort Worth |  | Aug 27 | Aug 9 | 77,956 |
| El Paso |  | Aug 28 | Aug 12 | 62,945 |
| Northside | (San Antonio) | Aug 27 | Aug 11 | 61,308 |
| San Antonio |  | Aug 27 | Aug 9 | 59,080 |
| Cypress-Fairbanks | (Houston Area) | Aug 27 | Aug 11 | 58,044 |
| Arlington |  | Aug 27 | Aug 12 | 55,709 |
| Fort Bend | (Houston Area) | Aug 27 | Aug 12 | 50,890 |
| Aldine | (Houston Area) | Aug 27 | Aug 16 | 49,453 |
| Garland | (Dallas County) | Aug 27 | Aug 9 | 47,967 |
| North East | (San Antonio) | * | * | 47,732 |
| Ysleta | (El Paso) | * | * | 47,238 |
| Plano |  | Aug 27 | Aug 2 | 44,229 |
| Pasadena | (Houston Area) | Aug 27 | Aug 16 | 41,240 |
| Alief | (Houston Area) | Aug 28 | Aug 16 | 41,056 |
| Corpus Christi |  | Aug 27 | Aug 10 | 40,290 |
| Brownsville |  | Aug 27 | Aug 16 | 40,262 |
| Lewisville | (Denton County) | Aug 27 | Aug 11 | 34,870 |
| Richardson |  | Aug 27 | Aug 16 | 34,202 |
| Conroe | (Houston Area) | Aug 27 | Aug 11 | 32,290 |
| Klein | (Houston Area) | Aug 28 | Aug 12 | 31,446 |
| Mesquite | (Dallas County) | Aug 27 | Aug 11 | 31,379 |
| Spring Branch | (Houston Area) | Aug 27 | Aug 17 | 31,104 |
| Katy | (Houston Area) | Aug 29 | Aug 11 | 30,126 |
| Lubbock |  | Aug 27 | Aug 16 | 29,565 |
| Amarillo |  | Aug 29 | Aug 16 | 29,150 |
| Killeen |  | Aug 27 | Aug 10 | 28,533 |
| Round Rock |  | Aug 27 | Aug 11 | 28,464 |
| Ector County |  | * | Aug 16 | 28,389 |
| Clear Creek | (Galveston County) | * | * | 28,205 |
| Irving |  | Sep 4 | Aug 18 | 27,651 |
| United | (Laredo) | Aug 27 | Aug 16 | 24,194 |
| Humble | (Houston SMSA*) | Aug 27 | Aug 11 | 23,855 |
| Socorro | (El Paso) | * | * | 23,566 |
| Midland |  | Aug 27 | Aug 10 | 22,911 |
| Laredo |  | Aug 28 | Aug 15 | 22,601 |
| Carrollton-Farmers Branch | (Dallas County) | Aug 28 | Aug 9 | 22,420 |
| Spring | (Houston Area) | Aug 27 | Aug 11 | 21,863 |
| McAllen |  | Aug 27 | Aug 9 | 21,254 |
| Pharr-San | (Hidalgo County) | Aug 27 | Aug 12 | 21,050 |
| Juan-Alamo |  |  |  |  |
| Birdville | (Tarrant County) | Aug 27 | Aug 10 | 20,861 |
| Beaumont |  | Sep 3 | Aug 9 | 20,748 |
| Edinburg Cons | (Hidalgo County) | Aug 27 | Aug 23 | 20,563 |
| Hurst-EulessBedford | (Tarrant County) | Aug 30 | Aug 12 | 19,364 |
| Abilene |  | Aug 27 | Aug 16 | 19,300 |
| Grand Prairie | (Dallas County) | Aug 27 | Aug 16 | 19,183 |
| Galena Park | (Houston Area) | Aug 27 | Aug 16 | 18,167 |
| Goose Creek | (Houston Area) | Aug 27 | Aug 11 | 18,152 |
| *Data not provided |  |  | Source: Texas Education Agency |  |

An April 2000 survey by the Texas Association of School Administrators (TASA) of 1,000
school districts yielded 546 responses. Of these, more than 96 percent stated that school would begin no later than August $18^{\text {th }}$ in 2000. Data from the TEA and TASA surveys indicate that school districts begin their school years on different days in August, with a trend toward ever earlier start dates. Accordingly, school years not only start, but also end over a range of dates, anywhere from May 10 to June 8. The average end date across school districts in Texas is May 25.

Not only do districts start their school years earlier, the school years are also consuming more of each calendar year than in the past. Part of this is due to changes in statute. Mandatory days of instruction have increased over the last two decades from 170 days to 180 . There are seven days of mandatory staff development, though another day is often added. However, the TASA survey also indicates that there is now an average of 12 days of student/teacher holidays in a school year in addition to the 10 to 14 days off for Christmas.

## Economic Issues

The three primary economic impacts - each in the millions of dollars - from the shifting school start dates are reduced tourist activity, higher school cooling costs, and lost income to migrant working families. The changing demands for childcare also negatively impact both productivity and tourism, though the financial impact cannot be precisely known.

Establishing a uniform start date would require all schools in the state of Texas to begin classes on the same day. Moving the school start date to where it was in 1990 would increase seasonal economic activity for the month of August in tourist destinations, and would reduce the use of school facilities in that month statewide.

If the uniform start date were set near the first day of

Table 2
I ndustries Heavily I mpacted by Hotel Occupancy

Eating and Drinking Places
Amusement Services and Sports Venues
Air Transportation
Personal Services
Auto Rental and Leasing
Apparel and Accessory Stores
Other Retail
Hospitals
Business Services
Real Estate
Maintenance and Repair

Source: United States Bureau of Labor Statistics

September and the number of days given as holidays remained unchanged, schools would close in mid-June. The length of summer vacation would remain unchanged but school attendance would shift from what is, on average, one of the hottest months in Texas (August) to two months that are comparatively cooler (May and June).

However, if there were fewer state-mandated days for staff development, instruction, or holidays, there would be no need to run classes into June. Texans could have three full months of savings.

## Shortened Texas Summer Season

The most noticeable results of changes in the school calendar have been the negative effects on the state's summer seasonal industries such as travel, tourism, amusements, and summer camps. Travel industry representatives widely share a belief that a uniform school start date in September would improve the tourism sector of the state's economy. The Comptroller's Office estimates that tourist destinations lose $\$ 332$ million in visitor spending each year.

Representatives from Schlitterbahn Waterparks in New Braunfels stated that the period during which they can operate at peak capacity has shrunk by two weeks since 1987. Although Schlitterbahn started full operations a week earlier in 1999 than in 1987, it ended full operations three weeks earlier.

| Table 3 <br> Top Texas Tourist Attractions |  |  |  |
| :---: | :---: | :---: | :---: |
| Rank | Attraction | City | Percent of Texas Visitors |
| 1 | Alamo | San Antonio | 38.8\% |
| 2 | River Walk | San Antonio | 34.1\% |
| 3 | Six Flags Over Texas | Arlington | 26.6\% |
| 4 | San Marcos Outlet Malls | San Marcos | 25.1\% |
| 5 | State Capitol | Austin | 23.1\% |
| 6 | Fort Worth Stockyards | Fort Worth | 21.2\% |
| 7 | Padre Island National Seashore |  | 20.4\% |
| 8 | Astrodome* | Houston | 20.4\% |
| 9 | Sea World of Texas | San Antonio | 18.8\% |
| 10 | San Antonio Zoo | San Antonio | 17.2\% |
| 11 | Six Flags Fiesta Texas | San Antonio | 14.8\% |
| 12 | Texas Stadium | Irving | 14.7\% |
| 13 | Texas Aquarium | Corpus Christi | 14.0\% |
| 14 | NASA Space Center | Houston | 13.8\% |
| 15 | Six Flags Astroworld | Houston | 13.5\% |
| 16 | Moody Gardens | Galveston | 12.7\% |
| 17 | Fort Worth Zoo | Fort Worth | 11.4\% |
| 18 | USS Lexington | Corpus Christi | 11.3\% |
| 19 | Dallas Zoo | Dallas | 10.6\% |
| 20 | Texas Motor Speedway | Denton County | 9.8\% |
| 21 | Houston Zoological Garden | Houston | 9.1\% |
| 22 | San Jacinto Battleground | Houston | 8.4\% |
| 23 | The Ballpark in Arlington | Arlington | 7.8\% |
| 24 | Wet 'N Wild | Arlington | 6.8\% |
| 25 | Admiral Nimitz Museum | Fredericksburg | 6.8\% |
| 26 | Enchanted Rock | Fredericksburg | 6.7\% |
| 27 | Schlitterbahn | New Braunfels | 6.4\% |
| 28 | LBJ Library | Austin | 6.2\% |
| 29 | Big Bend National Park |  | 6.1\% |
| 30 | Inner Space Cavern | Georgetown | 5.5\% |

Travel industry information indicates that changes to school calendars have shortened the peak summer season from three months to two. The Texas Hotel \& Motel Association provided evidence that in recent years, revenues have fallen in August, compared to June and July. For example, Galveston's hotel occupancy rate falls 30 percent from July to September, with the latter half of August believed to resemble September. And the impacts go beyond the hotel industry itself. As depicted in Table 2, many business sectors are affected by hotel occupancy. State records from other revenue sources show that other consumption tax collections fall measurably each August in the major tourist destinations in Texas.

Six Flags provided evidence that August business has been reduced considerably since 1990. The Texas Department of Economic Development (TDED) published a report in February 1999 showing the same phenomenon at Texas state parks.[1] Sea \& Ski, which makes skin care products such as sunscreen,

| *Enron Field may replace a significant amount of Astrodome <br> visitation. | also reports a shortened summer shelf <br> space season at major retailers in Texas. |
| :--- | :--- |
| Source: Texas Department of Economic <br> Development | A perusal of summer camp schedules for <br> the 2000 season posted on the Internet | indicates that camping season lasts only two months. One newly opened camp ended its last session on August 13. The remaining camps closed by late July or early August. Only a few camps open in May. Most do not begin camp operations until the first week in June. A few camps only operate for a single month, from the middle of June to the middle of July.

As school districts have started the school year earlier, they have not started the school year uniformly. School districts begin their school years throughout August, and end it in May and June. Amusement parks and water parks are an excellent example of how school start dates are squeezing the peak summer period. First, significant school closures do not occur until the middle of May, meaning that school children and their families will not be able to visit parks until that time. It also means that a large proportion of the potential employees of these establishments - high school and college age summer employees - will not be available for training until the middle of May. Thus, these businesses find it difficult to fully open until early June.

Sherrie Brammall, communications director for Schlitterbahn Water Parks, says the park is now closed during the last two weeks of August, once their busiest time. "If starting school in August was any better for education we would be all for it," Brammall says. "But the calendar shift has nothing to do with education. The biggest effect the change has here is on our employees, many of whom are students, teachers, or school bus drivers. They lose the opportunity to work all summer." As many as 100,000 working Texas teens may be affected.

The same thing happens at the end of the peak summer season for amusement and water parks. Many districts begin the school year during the first week of August. Many students report early for extra-curricular activities such as band and football even earlier than their school's official start date. This means that the base of potential customers and employees for summer-season establishments begins to disappear as early as the last week of July.

To make up for the shortened peak summer season, amusement and water parks have made greater efforts to operate on weekends and during early September holidays. These efforts certainly add to their operating costs, but they have also helped limit the damage from the squeezing of their season. This damage includes some loss of business, and the costs associated with more intensive use of equipment with more business being compacted into a shorter period of time.

## Other Economic Effects of a Shortened Summer Season

Travel and tourism occurs year-round, but most travel occurs during the summer months. This period also represents all or most of the yearly business done by businesses associated with beach tourism, amusements and water activities.

Peak periods in the travel and tourism industry are unavoidable and costly. Capital resources that stand idle in off-peak periods represent a drain on producers - and on the economy. Consequently, investment in an industry with a peak period is intentionally limited. This, in turn, causes prices to be high during periods of high demand. One example of this phenomenon is the normal, seasonal increase of gasoline prices during the summer travel season.

Shortening the summer season magnifies the existing peaking problem. Travel and tourism industries have to support their investment during a peak season that is two to four weeks shorter than in the past. The result is more crowding at these businesses, higher prices and more intensive use of capital resources.

## Summer Employment

Another effect of the compressed summer season is that overall employment of high school and college students by seasonal establishments is reduced. High school students forgo employment to return to school while college students and other seasonal workers are no longer needed when demand collapses for lodging and other business and retail services. This employment loss equates to a reduction in personal income for those individuals.
W. Marshall Barber, Director of Finance for Six Flags, states that the number of seasonal working hours for Six Flags employees, after adjusting for the effect of new rides, has decreased by more than 50 percent. Chaille Hawkins with Camp Rio Vista, a summer camp for youth, stated that the camp season has been shortened so that, on average, the college students who serve as counselors are employed two to three fewer weeks than in the past when schools began the school year later. Where the camp once operated throughout the month of August, this is no longer possible. June and July are the only months of operation.

Another effect is that summer seasonal businesses must arrange their training schedules to take place during less-preferred times. The net result is that activity required to open these establishments is compressed into a shorter time period, adding to overtime costs and generally making conditions less than ideal.

In order for seasonal businesses to successfully operate in a relatively short time span and employ adequate numbers of high school and college age employees, they must offer relatively high wages. This is necessary in order to lure quality employees away from other businesses, and quality employees are important for amusement parks, water parks and
camps, where safety is paramount. By squeezing the summer season, high school and college-age workers are, as a group, forced to work fewer hours during the year, and their average total wages are reduced as well.

## Regional Effects

While Texas' biggest cities receive most of the travel spending in the state, the summer season is essentially the entire business season for coastal areas and water and theme parks.

But of the 30 top Texas travel and tourism attractions, all are affected by the length of the summer travel season. Dallas, Houston, San Antonio, Austin-San Marcos, and Fort WorthArlington account for more than half of all travel spending in the state.

Six of the top 30 attractions in Texas, including the top two, the Alamo and the River Walk, are in or near San Antonio. Three of the top attractions are on the South Texas coast, two in Corpus Christi and one on South Padre Island (see Table 3). Economic activity lost by tourist destinations is not only lost to areas like Austin and Dallas. San Antonio, which depends heavily on travel and tourism, and other common travel destinations are differentially affected by the shortened summer season. For San Antonio and South Texas, which have some of the state's major attractions, a shortened season represents a considerable net reduction of economic activity. San Antonio alone dropped nearly 1,800 jobs - more than $15 \%$ - in amusement and recreation from July to September last year. Corpus Christi lost 500 restaurant jobs.

## Child Care

Also squeezing the summer season is the growing number of holidays enjoyed during the school year. There is some evidence from the TASA survey of school administrators that the number of days designated as holidays during a school year have increased. When these holidays occur, children who would otherwise be in school have to be cared for by someone. Working parents are generally faced with three options: 1) having someone care for the child, 2) caring for the child themselves, or 3) leaving the child home alone or with siblings.

The first option faced by parents when confronted with short holidays often involves expense. Caregivers are often paid for the care that they provide. Although this is a very real expense to a parent, it does not constitute a cost to the state's economy. Instead, it is a redistribution of income from parents to care givers.

The second option for parents may, in fact, be a source of economic cost to the state. When a parent stays home from a job for one or two days to care for a child during a school holiday, productivity can suffer, increasing the costs of goods produced in the state and making Texas industries marginally less competitive. Given the fact that many parents who take time off to
care for children use vacation time that they would otherwise take off at some other time, the lost productivity is likely to be very small. But again, some of the days at home come at the expense of what would otherwise be summer travel days, pinching the tourist season a little more.

## Electricity Use in the Schools

In 2000, school districts’ electricity bills were as much as $\$ 10$ million a year higher as a result of early start dates. Although August is typically one of the hottest months of the year in Texas, in any particular year June, July, August or September could be the month with peak electricity use for the year.[2] However, May has never been the hottest month of the year, and the last two weeks of June are typically the warmest of that month. This means that a shift of the school year from the last two to three weeks of August to the end of May and early June should result in lower air conditioning costs for schools.

TEA collects data for total utility costs for the Public Education Information Management System (PEIMS). It does not include separate information on electricity use. The TXU Electric \& Gas Company has provided data on total electricity use by its public school customers. The TXU service area includes 92 counties, covering a large and diverse area of the state (see Map 1). Total monthly electricity use by public school customers for April through September of 1997 and 1998 are shown in Table 4.

July is typically the month with the lowest electricity use during the warm months, because most schools are out for the summer. There are some year-round schools operating in Texas during June, and school administrators work year-round, so their offices and buildings will be cooled in July. Few cooling systems are shut down completely in the summer, due to the need for humidity control. This means that July electricity usage, though reduced, is still substantial.

September is the first month when all or most schools are operating for the entire month. This would not change with a uniform school calendar, so September electricity usage in 1997 and 1998 would have been the same as that reported. If a uniform start date on the first of September had been in place in 1997 and 1998, electricity use in August would be roughly the same as that in July if the weather were similar.

## Table 5

## Average Monthly Temperatures by Texas Region April - September, 1997 and 1998

| 1997 |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Climate Regions April | May | June | July | August | September |  |
| High Plains | 51.1 | 64.6 | 72.9 | 79.1 | 76.8 | 72.5 |
| Low Plains | 56.4 | 67.9 | 76.1 | 82.4 | 81.0 | 77.0 |
| North Central | 59.5 | 69.6 | 77.7 | 83.7 | 82.4 | 79.5 |
| East Texas | 60.0 | 70.2 | 77.4 | 83.2 | 81.1 | 77.9 |
| Trans-Pecos | 60.2 | 72.7 | 78.7 | 81.9 | 80.8 | 77.5 |
| Edwards Plateau | 60.5 | 71.3 | 77.9 | 83.3 | 83.5 | 79.5 |
| South Central | 64.6 | 74.1 | 80.1 | 84.6 | 85.0 | 81.4 |
| Upper Coast | 65.0 | 74.3 | 80.8 | 84.5 | 84.4 | 80.6 |
| South Texas | 67.3 | 76.9 | 82.5 | 87.1 | 88.0 | 83.7 |
| Lower Valley | 69.7 | 77.7 | 83.2 | 86.1 | 86.8 | 83.3 |
| Simple Avg. | 61.4 | 71.9 | 78.7 | 83.6 | 83.0 | 79.3 |
|  |  |  |  |  |  |  |
| 1998 |  |  |  |  |  |  |
| Climate Regions April | May | June | July | August | September |  |
| High Plains | 55.2 | 71.5 | 78.7 | 82.6 | 77.3 | 75.8 |
| Low Plains | 60.2 | 76.7 | 83.9 | 87.8 | 82.7 | 80.6 |
| North Central | 62.5 | 77.0 | 83.9 | 88.7 | 85.2 | 81.5 |
| East Texas | 62.6 | 76.3 | 84.2 | 88.3 | 84.9 | 80.9 |
| Trans-Pecos | 55.5 | 76.9 | 84.1 | 83.9 | 79.6 | 77.8 |
| Edwards Plateau | 65.5 | 79.3 | 84.5 | 87.1 | 81.6 | 78.7 |
| South Central | 67.4 | 79.5 | 86.2 | 87.5 | 84.8 | 81.9 |
| Upper Coast | 67.6 | 78.8 | 84.7 | 86.1 | 84.7 | 82.4 |
| South Texas | 72.0 | 83.3 | 89.4 | 89.6 | 86.2 | 82.9 |
| Lower Valley | 72.9 | 81.6 | 87.7 | 87.8 | 87.5 | 83.1 |
| Simple Avg. | 64.1 | 78.1 | 84.7 | 86.9 | 83.5 | 80.6 |

Source: Texas Almanac, 2000-2001, pp. $85 \& 86$

In 1997, the weather in July and August was similar in terms of average temperature as can be seen in Table 5. Had schools not been in session in August, electricity use would have been about 98 million kwh instead of 135 million kwh, a difference of 37 million kwh. If the cost of each kilowatt-hour were 8 cents[4], the schools in TXU's service area would have saved $\$ 3$ million in 1997. Doing the same calculation in 1998, TXU's public school customers could have saved $\$ 2.2$ million, although this estimate is low since July was warmer than August in 1998, causing July electricity needs to be unusually high in comparison to August.

TXU’s service area includes about 440 school districts with an enrollment of about 1.4 million

## Map 1 <br> Current TXU Service Area

students.[5] The savings per student of reducing school electricity usage in the TXU service area by 37 million kwh would have been about $\$ 2.10$ in 1997. The savings from using 27 million kwh less in 1998 would have been about $\$ 1.52$ per student. Extrapolating these savings to all of the students in the state results in a total potential statewide savings of $\$ 8$ million in 1998. If 2000 temperatures are repeated, the
 annual effects could exceed $\$ 10$ million.

This estimate, however, does not take into account many factors, including additional school days necessary in May and June, the unpredictability of the weather from year to year, and different weather patterns outside the TXU service area. Table 5 demonstrates how much the weather can vary from one year to another.

## Migrant Students

Migrants begin to leave the state as early as March. Most start their annual migration in April and May. Some begin to come back in August but many return in September and October. The vast majority of migrant families with school-age children, however, evidently do not leave Texas until late May and early June, when schools dismiss for the summer. Most come back in August, too, just in time for their children to start school with their peers. This is evidenced by monthly school enrollment and withdrawal figures (see Exhibit 1).

School districts with large numbers of migrant families have generally moved up their school start date along with other districts in the state. The earlier school start dates affect migrant families in different ways. For the large majority of migrant families, the earlier school start date and the extension of the school year shortens the period of time over which they earn the bulk of the family's yearly income. For those who must choose to continue working to support their families, the early start date is tougher on their children in their educational pursuits; they have to adjust to school transfers and the uneven coverage of material across districts and states.

According to the Texas Education Agency, Texas has the second-largest Migrant Education

Program in the United States. In the 1998-99 school year, the Texas Migrant Education Program identified 123,000 migrant children 3 years of age and older.[6] Texas also has the largest population of students who migrate with their parents to other states. The state's migrant population poses a unique educational challenge that is not made easier by the early school start date and extension of the school year.

Alicia Mendoza of Crystal City, Texas and her family, until this year, annually migrated to Montana to work the fields. Mrs. Mendoza is a second-generation American whose parents emigrated from Mexico. As a child, she accompanied her family on their yearly trek to work in the fields of northern states, leaving in June or July and not
 returning to Texas until

November. She remembers what it was like to have to catch up in school upon her return to Texas. Realizing the value of education, she has insisted that her children be home in time to begin school with their peers. Her determination not to disadvantage her children educationally, however, has not come without a financial cost.

Mrs. Mendoza and her husband have a combined income of about $\$ 14,000$ to $\$ 15,000$ per year. By choosing to come back to Texas in August for school instead of October when work in the fields and canneries comes to an end, the Mendoza family sacrifices over $\$ 2,000$ in lost wages - 13 percent of their yearly family income. If the Mendoza family could extend their stay working out-of-state for two more weeks, their yearly income would increase by $\$ 600$.

While $\$ 600$ may not seem like a lot of money, it should be remembered that this represents 4 percent of the Mendoza family's income, and the Mendoza family is only one of thousands. Recall that 123,000 migrant children have been identified in Texas. About 95 percent of these are from Hispanic families who typically average 2.2 children per family. This means there are approximately 55,900 migrant families with children who call this state home.

According to the Exhibit 1, some 79 percent of migrant families enroll their children in school in August, in time for the first day of classes, just like the Mendoza's. Also just like the Mendoza's, each of these families stand to lose about \$600 in income compared to what they
would make if schools started in early September. This represents a total of $\$ 27$ million in lost direct income to migrant families from Texas. But this is not all. Money earned out-of-state and spent here has a more far-reaching effect in stimulating the economy, meaning that the total loss to the Texas economy is almost $\$ 84$ million.

Because so many families are forced to sacrifice income for a policy whose benefits are difficult to identify, the United Farm Workers of America endorses a later school start date.[7]

Even if school began as late as the day after Labor Day, many migrant children would miss the beginning weeks of the school year. Many migrant students continue to be enrolled in the months of September, October, November, and December - a total of 17,972 in 1998. The earlier school begins, the more weeks of school these migrant children miss, making it more difficult for them to catch up with their peers who have attended school for better than two weeks by the time Labor Day rolls around.

Roberto Rodriguez chooses to remain in Minnesota, where he works in a cannery, into early October. There, he enrolls his nine-year-old son in school, which starts in September after Labor Day. No more than two days of schooling is lost in the trek back to Texas, but Mr. Rodriguez's son is still behind his peers in Texas who started school in August.

While the federally funded Migrant Education Program seeks to move additional resources into the education of migrant children in order to help them keep up, the fact is that migrant children still lag significantly behind the state as a whole in TAAS passage rates. Only 78.4 percent of migrant students pass the TAAS math exam as compared to 85.7 percent of all students in the state. The passage rates of migrant students in reading and writing are 72.8 percent and 76.8 percent respectively, compared to passage rates of 86.5 percent and 88.2 percent for all students in the state.

The TAAS passage rates reported above are for the 1998-99 school year and they reflect significant improvement over the previous year's results, for migrants as well as for the state's overall student population. Nevertheless, migrant students are not performing at the state's average level. There are many reasons for this, but being two or more additional weeks behind their peers cannot have a positive effect on academic performance.

## Conclusions

There are clear economic disadvantages imposed on tourist-destination areas of the state related to the early school start date. At least $\$ 332$ million is lost from the annual shriveling of visitor spending in these places. Although these are not statewide economic impacts, in tourist destinations the shocks are real. Teenage employment declines. Hotel rooms go unfilled; other businesses experience similar slumps. Electricity costs climb for all school districts, whether in
tourist destinations or not.
Equally clear is that large numbers of Texans do not favor the current practice. Sixty-five percent of parents favor a uniform date. And perhaps most deeply affected are many children of migrant farm workers - those who could better their lives more profoundly than most - by having to begin every school year at least two weeks behind everyone else.

## Endnotes

[1] Texas Department of Economic Development, The Effects of Alternative Academic Calendars on the Texas Travel Industry, (Austin: February 1999).
[2] Interview, Mike Sherburne, TXU Electric \& Gas employee.
[3] Source: Mike Sherburne, Clyde King, and Denise Miller, TXU Electric \& Gas employees.
[4] Rate provided by TXU employee, Clayton Zachary, and is only a rough estimate.
[5] Texas Education Agency, Snapshot '99, based on enrollment in school districts in counties serviced by TXU.
[6] Texas Education Agency, Program Summary: Division of Migrant Education, 1999-2000, unpublished document.
[7]Juanita Valdez-Cox, UFW Regional Coordinator, San Juan, TX, letter dated August 21, 2000.

# South Carolina Early School Start Dates and the South Carolina Travel and Tourism Industries 

An Analysis of Economic \& Tax Revenue Impacts

## Report for:

Uniform School Start Date Task Force<br>South Carolina Department of Education

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Executive Summary

# South Carolina Early School Start Dates and the South Carolina Travel and Tourism Industries 

Purpose of the Study
The purpose of this report is to examine the effects and impacts of early school start dates in South Carolina on the Travel and Tourism economy of the State.

## Findings of the Study

$\checkmark$ South Carolina public schools have begun earlier and earlier in August, taking away up to 3 weeks of summer August vacation time from families with children in South Carolina public schools.
$\checkmark$ Early school start dates shorten the August vacation season in South Carolina and is associated with decreased August tourism demand, costing the State's largest industry - tourism - millions in lost economic activity and millions in lost State and local tax revenues.
$\checkmark$ Early school start dates in South Carolina are associated with lower August tourist business activity including decreased August hotel occupancy rates, decreased August State and local accommodations taxes generated, decreased State and local sales tax generated, and decreased August employment in tourist areas.

Decreased August tourist activity as schools start earlier, is not off-set by increases in tourist activity in other summer months.
$\checkmark$ Starting schools in August mean schools must cool facilities for children during the hottest month of the year - August, costing unnecessary utility expenses by starting early, as opposed to starting after Labor Day in September.
$\checkmark$ One conservative scenario estimates economic and tax revenue impacts where as little as 4 out of 10 families with children in South Carolina take one additional vacation if August summer vacation were restored; plus induced additional families from in-state and out-of-state family vacations, would generate $\$ 180$ million in total economic impact, $\$ 6.03$ million is State tax revenues, $\$ 2.34$ million in local tax revenues, and $\$ 8.37$ million in total State and local tax revenues.

# South Carolina Early School Start Dates and the South Carolina Travel and Tourism Industries 

## Purpose of Study

The purpose of this study is to examine the effects and impacts of early school start dates in South Carolina on the Travel and Tourism economy of the State. In August 2002, the South Carolina Department of Education requested Dr. Steve Morse, economist and professor in the School of Hotel, Restaurant and Tourism Management at the University of South Carolina conduct an impact study to examine the effects of early school start dates on the State's travel and tourism industry.

## Background

In 2002, the South Carolina state legislature examined the possibility of establishing a uniform school start date for SC public schools. To examine the issue further, the legislature directed the SC Department of Education to establish a task force. The SC legislative bill establishing the task force is below:
"Section 59-5-71. The General Assembly declares that it is in the best interest of the students of South Carolina for a uniform beginning date for the annual school term to be developed and adopted by the State Board of Education to be implemented in all public schools of the State. Therefore, the State Board of Education is directed to establish a task force comprised of superintendents, principals, teachers, parents, school board members, and representatives of business and industry, including tourism-related industries no later than July 1, 2002. The task force to the fullest extent possible shall be equally divided among proponents of existing or earlier starting dates for schools, proponents of later starting dates for schools, including proponents for dates after Labor Day, and persons who legitimately have no preferences. The task force shall make recommendations to the board including, but not limited to, the desirability of and if agreed upon a suggested uniform beginning date for the annual school term. The task force shall report its findings to the State Board of Education no later than October 15, 2002." (Source: SC State Legislature \& SC Department of Education)

## History of South Carolina School Start Dates

The table below shows South Carolina public school start dates for nine academic years from $94-95$ to 02-03. The average school start date has become earlier in August from a 1994 average of August 20 to a 2002 average of August 11. The earliest start data in 1994 was August 16, and in 2002 earlier at August 5.

South Carolina Public School
Start Dates, 1994-2002

| Academic <br> Year | Average <br> School <br> Start <br> Date | Latest <br> School <br> Start Date | Earliest <br> School <br> Start Date |
| :---: | :---: | :---: | :---: |
| $94-95$ | Aug. 20 | Aug. 26 | Aug. 16 |
| $95-96$ | Aug. 19 | Aug. 28 | Aug. 10 |
| $96-97$ | Aug. 17 | Sept. 3 | Aug. 9 |
| $97-98$ | Aug. 17 | Sept. 2 | Aug. 11 |
| $98-99$ | Aug. 14 | Aug. 24 | Aug. 6 |
| $99-00$ | Aug. 15 | Sept. 7 | Aug. 5 |
| $00-01$ | Aug. 11 | Aug. 21 | Aug. 3 |
| $01-02$ | Aug. 12 | Aug. 20 | Aug. 6 |
| $02-03$ | Aug. 11 | Aug. 26 | Aug. 5 |
| Source: SC Dept. of Education |  |  |  |
|  |  |  |  |



## Early School Start Dates and Statewide Tourism Demand

As South Carolina school start dates have been earlier and earlier since 1997, more and more of the August vacation season has been lost. In 1997 the earliest school start date was August 11, while in 2002 the earliest school start date was August 5. Below, the South Carolina statewide hotel and lodging occupancy rates are shown for August and May over a five-year period from 1997 to 2001. The data indicate that since schools starts dates have become earlier and more of the August summer vacation season is lost, August hotel occupancy rates have decreased statewide.


In addition, less summer vacation opportunity in August and lower August hotel occupancy rates statewide are reflected in the $2 \%$ State Accommodations Tax revenue collected. In particular, the graphs below shows that since 1997, August state tax revenue generated from the $2 \%$ accommodations taxes have decreased.

Since 1997, August statewide 2\% accommodations taxes have deceased.


Below, August percent share of summer hotel taxes decrease while June \& July share increases. Total summer hotel taxes equal June + July + August taxes generated. Less vacation time for SC residents is associated with decreasing share of August hotel taxes generated.


The graph below shows the change in attendance from month to month at SC amusement and theme parks. In 2001, attendance at SC amusement and theme parks decreased by the largest percent (13\%) in August. This decrease in attendance also results in less SC admissions tax revenues not generated by this decreased August attendance.


## Early School Start Dates and Coastal Tourism Demand

Coastal areas of South Carolina generate the majority of tourism demand. Of all visitors to South Carolina in 2000, coastal areas generated $64 \%$ of all visitors, the midlands $19 \%$, and the upstate $17 \%$ (Source: SC PRT). This section examines the relationship between early school start dates and effects on tourism in coastal areas of South Carolina.

Since 1997, hotel occupancy rates in Myrtle Beach for August and May have decreased.


Horry County generates the largest share of the $2 \%$ hotel tax in the State. However, since 1997 the August percent contributed to the Horry County yearly total has decreased.


Hotel occupancy rates for SC, Myrtle Beach, Hilton Head Island, and Charleston are shown below from 1997-2001 for May, June July, August and September.

| South Carolina hotel occupancy rates, <br> May <br> Sept., 1997 - 2001 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Month | 1997 | 1998 | 1999 | 2000 | 2001 |
| May | $66.2 \%$ | $64.8 \%$ | $63.7 \%$ | $64.2 \%$ | $61.5 \%$ |
| June | $68.4 \%$ | $69.5 \%$ | $68.5 \%$ | $7.3 \%$ | $66.2 \%$ |
| July | $72.7 \%$ | $73.6 \%$ | $73.8 \%$ | $70.4 \%$ | $67.3 \%$ |
| August | $70.7 \%$ | $67.9 \%$ | $64.7 \%$ | $62.8 \%$ | $60.7 \%$ |
| Sept | $59.5 \%$ | $63.5 \%$ | $57.0 \%$ | $57.3 \%$ | $51.3 \%$ |

- Statewide, August hotel occupancy rates have decreased $10 \%$ since 1997.


| Myrtle Beach hotel occupancy rates, <br> May - Sept., 1997 - 2001 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Month | 1997 | 1998 | 1999 | 2000 | 2001 |
| May | $69.5 \%$ | $66.6 \%$ | $64.8 \%$ | $64.2 \%$ | $61.2 \%$ |
| June | $73.3 \%$ | $75.4 \%$ | $74.9 \%$ | $78.2 \%$ | $70.4 \%$ |
| July | $83.3 \%$ | $83.6 \%$ | $85.3 \%$ | $84.2 \%$ | $79.9 \%$ |
| August | $81.1 \%$ | $73.2 \%$ | $71.3 \%$ | $68.5 \%$ | $68.2 \%$ |
| Sept | $64.8 \%$ | $64.2 \%$ | $55.9 \%$ | $58.2 \%$ | $52.4 \%$ |

- Myrtle Beach hotel occupancy rates for August have decreased $12.9 \%$ since 1997.

| Hilton Head Island hotel occupancy rates, <br> May <br> Sept., 1997 - 2001 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Month | 1937 | 1998 | 1999 | 2000 | 2001 |
| May | $73.5 \%$ | $75.8 \%$ | $73.2 \%$ | $74.9 \%$ | $69.8 \%$ |
| June | $74.8 \%$ | $80.6 \%$ | $76.4 \%$ | $83.4 \%$ | $81.2 \%$ |
| July | $77.1 \%$ | $83.4 \%$ | $83.4 \%$ | $81.1 \%$ | $75.1 \%$ |
| August | $77.1 \%$ | $74.9 \%$ | $70.8 \%$ | $70.6 \%$ | $66.3 \%$ |
| Sept | $66.4 \%$ | $67.4 \%$ | $52.8 \%$ | $64.6 \%$ | $46.7 \%$ |

- Hilton Head Island hotel occupancy rates for August have decreased 10.8\% since 1997.

| Charleston hotel occupancy rates, <br> May <br> Mept., 1997- 2001 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Month | 1997 | 1998 | 1999 | 2000 | 2001 |
| May | $80.3 \%$ | $80.5 \%$ | $74.2 \%$ | $77.7 \%$ | $73.7 \%$ |
| June | $76.1 \%$ | $77.7 \%$ | $74.9 \%$ | $77.9 \%$ | $72.2 \%$ |
| July | $73.3 \%$ | $78.6 \%$ | $75.6 \%$ | $73.1 \%$ | $67.6 \%$ |
| August | $73.7 \%$ | $76.8 \%$ | $64.8 \%$ | $70.9 \%$ | $63.0 \%$ |
| Sept | $67.1 \%$ | $76.5 \%$ | $58.3 \%$ | $69.5 \%$ | $54.9 \%$ |

- Charleston hotel occupancy rates for August have decreased 10.7\% since 1997.

Do early school start dates mean SC tourists shift summer vacation times from August to other months? No. Statewide, the decrease in August occupancy rates since 1997 have not been off-set by gains in other summer months. For example,
from 1997 to 2001 SC August occupancy rates decreased by $10 \%$ while occupancy rates for May, June, July and September did not increase.

Thus statewide, there is no trade-off from lower August occupancy rates and higher rates in other summer months indicating there is no shifting in tourism visitor patterns from early school start dates. The same patterns follow no shifting of vacation time from August to other months for Myrtle Beach, Hilton Head Island, and Charleston.

Below, the August share of summer hotel taxes have been decreasing since 1997 and not off-set by June and July taxes generated, indicating August lost vacation time is associated with lower August business activity.


Below, Horry County's August share of July + August hotel taxes have decreased since 1996.


## Unemployment Trends

Since 1998, August unemployment in Horry County has increased. This effect is in August and reflects the decreased tourist demand and reduced business activity.


August Horry County unemployed workers have increased $40 \%$ from 1998 to 2001, indicating decreased business activity in the county.


## Shorter August Summer Vacation Season and Tourism Attractions

In public hearings held in August 2002 in South Carolina by the SC Department of Education's Uniform Start Date Task Force Committee, several tourist business owners and operators expressed how the shortened August summer vacation season has impacted employment, revenues and seasonal openings.

Mark Lazarus, owner of water theme park attractions in Horry County, SC and Myrtle Beach area said opening schools in SC earlier in August has caused many of his businesses to close early in the season because decreased tourist demand, and decreased labor supply of high school students. Mr. Lazarus said closing his water parks early affects less payroll in the county, less opportunities for meaningful employment for youth, less opportunities for businesses making contributions to local schools, and less sales and amusement taxes generated.

Jodie Roberts Smith, public relations manager with Carowinds theme parks in York County, SC told representatives of the task force that all other theme parks owned by Carowinds in other states have a 12 -week summer season. Ms. Smith said that as a result of early school start dates, Carowinds in York County, SC
operates with a reduced summer season of only 10 -weeks. This reduced summer season generated approximately an extra 100,000 visitors, causing over $\$ 300,000$ less in payroll for youth, and generated less sales taxes and admissions taxes that go to fund education.

Mr. Gary Loftus, hotelier and past president of the Myrtle Beach Area Chamber of Commerce claimed that when school started in August, vacationers throughout South Carolina decrease by two-thirds after August 10. In addition, he said hotel room rates decrease by $25 \%-40 \%$ because of the lower demand in August after schools open.

Although other business owners and managers of tourist attractions stated the shortened August summer vacation season negatively affected revenues, employment and taxes, the key point is that early school start dates negatively impact South Carolina's largest industry - tourism.

## Economic Impact from Families with School Children

With schools starting earlier in August, summer vacation time for South Carolina families have been shortened. Less summer vacation time means less economic impact from SC residents traveling in the State.

To measure the economic impact on early school starts on SC residents with children attending public schools, the number of potential family vacations lost must be estimated. In 2001, there were 669,342 children in South Carolina public schools. Using an average of two children per family, these children represent approximately 334,671 families with school children in the State.

Using average travel patterns reported by surveys from the South Carolina Department of Parks, Recreation and Tourism (SC-PRT), in-state residents take $36 \%$ of their trips as day-trips, and the remaining $64 \%$ as overnight travelers in the State. The SC-PRT also estimates that in-state tourists spend an average of $\$ 122.17$ per trip per party when traveling; while in-state overnighter travelers are estimated to spend $\$ 362.62$ per trip per party. Both estimates exclude transportation costs, assuming day-trippers have $\$ 20$ transportation cost and overnighters have $\$ 75$ transportation costs, this would estimate day-trippers spending to be $\$ 142.17$ per trip per party, and overnighters spending to be $\$ 437.62$.

The following table shows the economic impact of potential spending by South Carolina families with school children. The analysis uses a range of $10 \%$ of
families taking one additional vacation to $100 \%$ of families taking one additional vacation. Using the patterns of average SC residents traveling in-state described above, day-trip and overnight tourist spending is estimated. The total amount of tourist spending by SC families is direct spending in the SC economy, which when re-spent provides a multiplier effect or indirect spending generated. This study uses a multiplier of 2.3 for the statewide indirect effect and is reflected in the total economic impact in column 5. The multiplier of 2.3 is considered a modest multiplier that in some areas can be as high as 3.0 in estimating re-spending effects.

Economic Impact of Potential Vacation Spending by South Carolina Families with School Children

| (Col 1) <br> If this percent <br> of SC families with <br> school children <br> took 1 additional <br> SC vacation... | (Col 2) <br> Then spending <br> from day-trip <br> travelers would be... | And spending <br> From overnight <br> travelers would be... | (Col 5) <br> (day + overnight) <br> direct spending <br> would be... | (Col 4) <br> And total <br> (direct + indirect) <br> economic impact <br> of this much <br> spending generated <br> in the SC economy... |
| :---: | ---: | ---: | ---: | ---: |
| $10 \%$ | $\$ 1,712,881$ | $\$ 9,373,330$ | $\$ 11,086,211$ | $\$ 25,489,283$ |
| $20 \%$ | $3,425,772$ | $18,746,660$ | $22,172,432$ | $50,996,593$ |
| $30 \%$ | $5,138,643$ | $28,119,990$ | $33,258,633$ | $76,494,855$ |
| $40 \%$ | $6,953,887$ | $38,053,474$ | $45,007,361$ | $103,516,193$ |
| $50 \%$ | $8,564,406$ | $46,866,651$ | $55,431,057$ | $127,494,131$ |
| $60 \%$ | $10,277,287$ | $56,239,981$ | $66,517,268$ | $152,989,714$ |
| $70 \%$ | $11,990,168$ | $65,613,311$ | $77,603,479$ | $178,488,007$ |
| $80 \%$ | $13,703,049$ | $74,986,642$ | $88,689,691$ | $203,986,283$ |
| $90 \%$ | $15,415,930$ | $84,359,972$ | $99,775,902$ | $229,484,576$ |
| $100 \%$ | $17,128,863$ | $93,733,582$ | $110,862,440$ | $254,983,610$ |

## Background Information on Tax Revenue Impacts

State Sales Tax
South Carolina levies a 5\% State sales tax on most good and services in the hospitality and tourism industry including food in restaurants, lodging, and shopping purchases which make up most spending by in-state tourists.

## State Accommodations Taxes

South Carolina levies $2 \%$ tax on the price of accommodations (hotels, motels, bed \& breakfasts) in addition to the State sales tax of $5 \%$. Tourist spending estimated to be allocated to hotels and other lodging equal $36 \%$ of spending. Therefore,

State accommodations taxes are estimated based on $36 \%$ of total tourist spending allocated to hotels and lodging expenses.

State Admissions Tax
South Carolina levies a $5 \%$ admission tax on most events and theme parks .
State Income Taxes
The maximum State income tax rate is $7 \%$ on income over $\$ 12,000$ and declining percentages with lower incomes. Because many employees are seasonal, a lower income tax rate of $6 \%$ is used here. The $6 \%$ tax rate is used on the portion of tourist spending that reflects labor costs, here assumed to be $35 \%$ of spending.

## State Beverage Alcohol Taxes

Taxes generated by sales of beer, wine and spirits to tourist are generated as a State tax revenue source for South Carolina. It is difficult to estimate these taxes, but increased tourism demand will certainly increase tax revenues generated from the sale on on-premise and off-premise sales. The tax revenue generated from these beverage alcohol sales are not included in this study.

## State Corporate Income Taxes

South Carolina corporate income tax is $5 \%$, however the contribution of corporate income taxes are not included here as this information is not readily defined or available from the South Carolina Department of Revenue.

## Local Taxes

South Carolina allows counties and municipalities to add on sales and accommodations taxes to required state taxes. Local taxes are retained locally for local spending projects and to help support local education. For this study, local tax rates of $3 \%$ is used to estimate local tax revenues which include an additional $2 \%$ local accommodations tax and $1 \%$ local sales tax.

## State and Local Tax Revenues Generated

The following table estimates State and local tax revenues generated from one additional vacation from portions of SC families with school children.

State \& Local Tax Revenues Generated per year by Vacation Spending of South Carolina Families with School Children

|  | State Tax Revenues Generated per year |  |  |  | Local <br> Taxes <br> Generated per year | Total <br> State + <br> Local <br> Taxes <br> Generated per year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Col 1) If this <br> percent <br> of SC <br> families with school children took 1 additional SC vacation per year | (Col 7) <br> Then this much in State accommodation tax revenue will be generated per year | (Col 8) <br> Then this much in State sales \& admissions taxes will be generated per year | (Col 9) <br> Then this much in State income taxes will be generated per year | (Col 10) <br> Then this much In total State taxes will be generated per year | (Col 11) <br> Then this much in local accommodations and sales taxe revenu will be generated per year | (Col 12) <br> Then this <br> much <br> In total <br>  <br> local <br> taxes will <br> be generated per year |
| 10\% | \$67,487 | \$554,310 | \$232,810 | \$854,607 | \$332,586 | \$1,187,193 |
| 20\% | 134,975 | 1,108,621 | 465,821 | 1,709,417 | 665,172 | 2,374,589 |
| 30\% | 202,246 | 1,662,931 | 698,431 | 2,563,608 | 997,758 | 3,561,366 |
| 40\% | 273,985 | 2,250,368 | 945,154 | 3,469,507 | 1,350,220 | 4,819,727 |
| 50\% | 337,439 | 2,771,552 | 1,164,052 | 4,274,043 | 1,662,931 | 5,936,974 |
| 60\% | 404,927 | 3,325,863 | 1,396,862 | 5,127,652 | 1,995,518 | 7,123,170 |
| 70\% | 472,415 | 3,880,173 | 1,629,673 | 5,982,261 | 2,328,104 | 8,310,365 |
| 80\% | 539,903 | 4,434,484 | 1,862,483 | 6,836,870 | 2,660,690 | 9,497,560 |
| 90\% | 607,391 | 4,988,795 | 2,095,293 | 7,691,479 | 2,993,277 | 10,684,756 |
| 100\% | 674,881 | 5,543,122 | 2,328,111 | 8,546,114 | 3,325,873 | 11,871,987 |

## Additional Tourism Spending by Other In-state and Out-of-state Tourists

Restoration of the full August summer vacation season will not only increase demand from in-state SC families with children, but also will increase demand from other tourists inside and outside the state. With the lost August vacation period restored, more SC tourist related businesses will stay open as the supply of labor is not reduced when school opens. At public hearings, business owners from across the state said early August school starts drained youth employment and forced businesses to close early during August by up to three weeks. Water Parks in Myrtle Beach and amusement theme parks in York County reported shorter August seasons as a result in early August school start dates.

Myrtle Beach tourism officials report tourist activity decreases substantially during the last three weeks of the August. Beginning August $10^{\text {th }}$, Myrtle Beach tourism officials estimate tourists and vacationers decrease by approximately two-thirds. In Myrtle Beach, lower tourism demand in August is reflected in the decrease in August hotel occupancy rates, decreased accommodations taxes collected in Horry County for August, decrease in hotel room rates as demand is lower, higher worker unemployment rates and the early closing of many tourist related businesses in August. In addition, Myrtle Beach tourism officials say both in-state and out-ofstate tourist decreases from 300,000 to 240,000 visitors per day after August $10^{\text {th }}$ each year because of early school openings. This decrease in tourists by 60,000 per day includes both in-state and out-of-state tourists to the area and is estimated to produce a loss of $\$ 178$ million to the Grand Strand area. Myrtle Beach tourist officials state that if this pattern is true across South Carolina, statewide the State could be losing up to $\$ 400$ million per year from both in-state and out-of-state lost tourist revenues from the shorter August vacation season.

Estimating the impact of increased tourist demand from additional in-state and out-of-state tourist is difficult. Also, South Carolina tourist destinations may embark on new marketing campaigns that increase demand from in-state and out-of-state tourist. One method would assume August tourist activity levels in hotels, restaurants, retail shopping areas and attractions would not decease as they do now in August, but be maintained at July levels. Restoration of the full August vacation season to will increase demand for tourism is South Carolina from in-state and out-of-state tourists. Increasing the August tourist season by two weeks will have a substantial impact on state and local revenues generated by this additional tourism period.

## Weather and Heat Related Factors of Early School Openings

Early school starts in August instead of early September, place children into schools during the hottest month of the year. The weather related trade-off to be examined is children starting school during the hottest time of the year the last three weeks in August, and ending school during the cooler weather time of the last three weeks in May. Therefore, the temperature issue of August vs. May must be examined in terms of energy demand during these periods.

From the following table of average maximum temperatures in selected South Carolina cities, August has an average higher temperature than May across all cities shown. Energy costs are difficult to determine as each school district has different energy suppliers and different energy rates. Although a detailed estimate of energy costs in August vs. May requires more data and individual district energy costs during these months, clearly the higher temperatures in August will cost more to cool schools than the lower temperatures in May.

| May \& Au Maximum T SC | gust A <br> emper <br> Cities | erage ures for |
| :---: | :---: | :---: |
| South Carolina |  | rage um Temp 1-2000 |
|  | May | August |
| Columbia | 83.6 | 90.3 |
| Beaufort | 83.1 | 88.8 |
| Charleston | 83.0 | 89.2 |
| Clemson | 79.4 | 87.9 |
| Conway | 82.3 | 89.1 |
| Florence | 82.9 | 89.4 |
| Greenville | 79.2 | 87.0 |
| Orangeburg | 83.7 | 90.3 |
| Rock Hill | 80.1 | 87.9 |
| Source: SC State Climatologist \& National Weather Service |  |  |

## A Sample Scenario of Impacts

Estimating additional tourist spending and associated tax revenue impacts into a prediction of tourist behavior with restoration of the August vacation season required assumptions about the level of tourist activity with an extended August season. However, in the absence of unbiased surveys of tourist propensity of additional vacation travel, one can use previous impacts to predict results of a variety of scenarios.

For example, assuming 4 out of 10 South Carolina families with children in public would take an additional vacation with the restoration of the August vacation season and later school start dates, one can estimate the potential economic and tax revenue impacts from this behavior. Also, if one assumes the additional tourist activity from other in-state and out-of-state tourists during August would increase by an amount equivalent to the level of families with school children, an estimation of potential economic and tax revenue impact under this scenario can be made.

| If this amount of <br> additional tourist <br> activity is <br> generated.. | Then total <br> economic <br> impact of <br> tourist <br> spending is... | Then total <br> South Carolina <br> State tax <br> revenues <br> generated <br> will be... | And total <br> local taxes <br> generated <br> will be... | Then total <br> State + local <br> taxes <br> generated <br> will be... |
| :--- | :---: | :---: | :---: | :---: |
| 40\% of SC families <br> with school children <br> take 1 additional trip <br> (or 133,868 family <br> trips) | $\$ 103.51$ million | $\$ 3.47$ million | $\$ 1.35$ million | $\$ 4.82$ million |
| Demand from <br> 100,401 families of <br> out-of-state \& in- <br> state other tourists | $\$ 76.49$ million | $\$ 2.56$ million | $\$ 0.998$ <br> million | $\$ 3.55$ million |
| Total Impacts | $\mathbf{\$ 1 8 0 . 0}$ <br> million | $\mathbf{\$ 6 . 0 3}$ <br> million | $\mathbf{\$ 2 . 3 4}$ <br> million | million |

To summarize the economic and tax revenue impacts from this particular scenario:
$\checkmark 40 \%$ of SC families with children in school taking one additional vacation in SC plus an additional 100,401 induced family vacations from other out-ofstate and in-state tourists will:
generate an estimated $\mathbf{\$ 1 8 0}$ million of economic impact in tourism areas per year,
generate an estimated $\mathbf{\$ 6 . 0 3}$ million in State tax revenues per year, add an estimated $\mathbf{\$ 2 . 3 4}$ million in local tax revenues per year, and
add an estimated total State and local tax revenues of $\mathbf{\$ 8 . 3 7}$ million per year.

## Geographic Distribution of the Impacts from this Scenario

The South Carolina Department of Parks, Recreation, and Tourism (SC-PRT) tracks tourist spending geographically in the State. Studies indicate tourism spending in South Carolina is divided geographically in the following regions of the State:

| Coastal Region of SC | $64.6 \%$ of all tourists |
| :--- | :--- |
| Midlands Region of SC | $20.0 \%$ of all tourists |
| Upstate Region of SC | $15.4 \%$ of all tourists |
| Total | $100 \%$ of all tourists |

Where:
Coastal SC region includes these counties: Beaufort, Charleston, Colleton, Dorchester, Georgetown, Hampton, Horry, and Jasper.

Midlands SC region includes these counties: Aiken, Allendale, Bamberg, Barnwell, Berkeley, Calhoun, Clarendon, Darlington, Dillon, Florence, Lee, Lexington, Marion, Marlboro, Newberry, Orangeburg, Richland, Saluda, Sumter, and Williamsburg.

Upstate region includes these counties: Abbeville, Anderson, Cherokee, Chester, Chesterfield, Edgefield, Fairfield, Greenville, Greenwood, Kershaw, Lancaster, Laurens, McCormick, Oconee, Pickens, Spartanburg, Union, and York.

Using the above detailed possible spending scenario of increased tourist spending from restoration of August vacation season, the geographic distribution of the total impacts of the economy and tax revenues are as shown in the following table.

| Geographic Distribution of Economic Impacts and Tax <br> Revenue Impacts of Possible Scenario |  |  |  |
| :--- | :--- | :--- | :--- |
| Total State <br> impact from <br> possible <br> scenario | Coastal SC <br> region's <br> contribution to <br> total State <br> impact <br> $(64.6 \%)$ | Midlands SC <br> region's <br> contribution to <br> total State <br> impact <br> $(20.0 \%)$ | Upstate SC <br> region's <br> contribution to <br> total State <br> impact <br> $(15.4 \%)$ |
| \$180 million <br> total economic <br> impact <br> generated | $\$ 116.3$ million | $\$ 36.0$ million | $\$ 27.7$ million |
| \$6.03 million <br> SC State tax <br> revenues <br> generated | $\$ 3.9$ million | $\$ 1.20$ million | $\$ 0.93$ million |
| \$2.34 million <br> of local tax <br> revenue <br> generated | $\$ 1.51$ million | $\$ 0.468$ million | $\$ 0.362$ million |
| $\$ 8.37$ million <br> State + local <br> tax revenues <br> generated | $\$ 5.4$ million | $\$ 1.67$ million | $\$ 1.29$ million |

## Additional Possible Scenarios

The above analysis is but one of many scenarios of the impacts of restoring the August vacation season with later school start dates. There are many other possible scenarios, all dependent on how in-state and out-of-state tourists respond to a longer vacation season in South Carolina.

The above scenario demonstrated uses a conservative estimate of tourist response by assuming only 4 out of 10 families with children in South Carolina school would take an additional vacation in SC and also the longer vacation season would induce approximately 100,000 other in-state and out-of-state family tourists trips. There are scenarios under less conservative assumptions that would estimate higher economic impacts and tax revenues, and scenarios under more conservative assumptions that would estimate lower economic impacts and tax revenues generated.

## Conclusion and Summary

$\checkmark$ South Carolina public schools have begun earlier and earlier in August, taking away up to 3 weeks of summer August vacation time from families with children in South Carolina public schools.
$\checkmark$ Early school start dates shorten the August vacation season in South Carolina and is associated with decreased August tourism demand, costing the State's largest industry - tourism - millions in lost economic activity and millions in lost State and local tax revenues.
$\checkmark$ Early school start dates in South Carolina are associated with lower August tourist business activity including decreased August hotel occupancy rates, decreased August State and local accommodations taxes generated, decreased State and local sales tax generated, and decreased August employment in tourist areas.
$\checkmark$ Decreased August tourist activity as schools start earlier, are not off-set by increases in tourist activity in other summer months.
$\checkmark$ Starting schools in August mean schools must cool facilities for children during the hottest month of the year - August, costing unnecessary utility expenses by starting early, as opposed to starting after Labor Day in September.
$\checkmark$ One scenario estimates economic and tax revenue impacts where as little as 4 out of 10 families with children in South Carolina take one additional vacation if August summer vacation were restored; plus an induced additional 100,000 families from in-state and out-of-state family vacations would generate $\$ 180$ million in total economic impact, $\$ 6.03$ million is State tax revenues, $\$ 2.34$ million in local tax revenues, and $\$ 8.37$ million in total State and local tax revenues.

## Impact of a Uniform School Year on Florida’s Economy

## SUMMARY

Historically, Florida public schools started in lateAugust and ended in early-June. Over the last decade, schools have been starting and ending earlier. As a result, for most students the summer vacation period begins in late-May. Most children return to school in early to mid-August. School district superintendents report that earlier school start dates have been adopted to increase the number of days of instruction prior to the Florida Comprehensive Assessment Test (FCAT) testing dates and to end the first semester of schooling before the winter break. Due to more breaks and holidays within the school year, the summer vacation period in 2002 was 6 days shorter than in 1983.

The change in school calendars has changed the dates when families with school-aged children are able to engage in-state tourism activities and has limited the ability of teachers and high school students to work for the tourism industry after mid-August. This project examines whether later school start dates would benefit the state's economy, particularly the tourism industry, without harming Florida’s public education system. No currently available data shows that returning to later start dates would increase tourism industry revenues or significantly benefit the state's economy. The current, early school start dates may have only caused a change in the timing of tourism revenues and expenditures. As a result, committee staff recommends against enacting uniform school start dates or a uniform calendar at this time.

## BACKGROUND

## School Calendars

Historically, economic interests have influenced school calendars. For example, when agriculture was a larger component of the state's economy, school calendars were based on agricultural schedules of planting and
harvesting. ${ }^{1}$ Today, other factors more directly influence school calendars. Florida school calendars continue to be set at the discretion of the 67 county district school boards. ${ }^{2}$ These calendars must provide for school start and end dates, holidays, vacation periods, and at least 180 days of pupil instruction. ${ }^{3}$ There is no requirement for district school boards to consider local economic interests when adopting school calendars.

## School Start Dates

The average public school student has started school earlier nearly every year since 1991. Figure 1 represents school district start dates weighted by district enrollment for the years in which data is available. (Complete data was not available for years represented by gaps in the graph in Figure 1 and before 1980.) In 1980, the average public school student started school on August 28. In 2002, the average public school student started school on August 14, and students in more than half of the school districts started before August 10.

[^1]

SOURCE: Compilation of school district start dates and school district enrollment data from the Department of Education.

The few school districts that have started after Labor Day since 1980 have done so only intermittently. In 1992, Pasco County was the last Florida school district to start after Labor Day. A review of the limited number of school district calendars available predating 1980 suggests that post-Labor Day school starts occurred more often before 1980. Most of these older calendars, however, showed that school start dates in late-August were the norm. In 1959, the Legislature enacted a law requiring school districts to provide a minimum of 180 days of student instruction beginning in the 1960-1961 school year. ${ }^{4}$ Because there was no statutory requirement before 1960 to provide 180 days of instruction, school start dates after Labor Day may have been more common before 1960 than between 1960 and 1979.

Like Florida, many school districts in states throughout the country are starting earlier in the calendar year. In 1988, 51 percent of all public schools started before September 1. In 2000, 76 percent of all public schools started before September 1. ${ }^{5}$ Some schools continue to start after Labor Day because they are not airconditioned. ${ }^{6}$ Several states, however, have mandated school start dates from late-August to the day after Labor Day because of perceived benefits to their tourism industries. (See a discussion of actions in other states in the "Findings" section of this report.)

## School End Dates

As a result of earlier school start dates, Florida public schools are also ending earlier. Figure 2 shows how the date of the last day of school has changed for the average student since 1981. Figure 2 represents school district end dates weighted by district enrollment for

[^2]the years in which data is available. (Complete data was not available for years represented by gaps in the graph in Figure 2 and before 1981.) In 1981, the last day of school for the average student was June 8. In 2003, the average student will end school on May 30, and only five school districts will end in June.


SOURCE: Compilation of school district end dates and school district enrollment from the Department of Education.

## Length of School Year

In the 2002-2003 school year, a period of 290 calendar days, including weekends and other breaks, will be used to provide students with the required 180 days of instruction. In 1980, only 285 calendar days were needed. The length of the school session has increased because additional breaks and holidays have been added to school calendars. Most of the increased length can be attributed to the recognition of Veterans’ Day, Martin Luther King, Jr., Day, Presidents’ Day, and Memorial Day. Other factors that have lengthened the school year include lengthened traditional breaks and earlier school start dates. Most school districts currently schedule three or four teacher planning days during the school year - one at the end of each quarter. The number of planning days has not significantly increased since 1980.

## Length of Summer Vacation Period

As a result of the lengthened school calendar, the summer vacation period was reduced from 80 days in 1983 to 74 days in 2002. The length of the summer vacation period may also change as school start dates change. When schools start earlier one year than the start date in the preceding year, the length of the summer vacation period may be shorter. When schools start later one year than the start date in the preceding year, the summer vacation period may be longer.

## Differences among District Calendars

School district calendars also differ in the timing and number of holidays, breaks, and teacher planning days. For example, some school districts have breaks that coincide with county fairs or other local events.

Seminole County has a week-long fall break between the first and second quarters of the school calendar. Some school districts take two days off for Thanksgiving; others take three.

## Tourism Industry

The tourism industry is an important component of the state's economy. The tourism industry generated $\$ 50$ billion in taxable sales and provided more than $\$ 3.5$ billion in tax revenue to the state and local governments in 2000. ${ }^{7}$ Sales taxes generated from tourism activity represented 20 percent of all sales tax collections. In 2000, 71.5 million people visited the state, and 843,400 people were employed by the tourism industry. ${ }^{8}$ Figure 3 shows the growth in monthly tourism and recreational sales and the growth in hotel revenues since 1964.


SOURCE: Office of Economic and Demographic Research, Florida Legislature.

Early school start dates limit the ability of families with school-aged children to travel and limit the ability of teachers and high school students to work for the tourism industry after mid-August. Some representatives of the tourism industry have cited earlier school start dates as contributing to declines in August hotel occupancy rates and to increases in employment-training costs.

## Prior Legislation

The school start date issue previously came to the attention of the Legislature in 1986 through Senate Bill 634 and House Bill (HB) 600. Both bills required all

[^3]public schools and post-secondary educational institutions to begin after Labor Day. The staff analysis for HB 600 stated the following:

The hotel/motel and tourist industry should realize some economic benefits from the extended summer vacation period. However, it is not possible to quantify these benefits at this time. ${ }^{9}$

Both bills died in their first committee of reference.

## Purpose of Interim Project

This interim project considered whether requiring public schools to start in late-August or after Labor Day would produce benefits for the economy, particularly the tourism industry, without harming the public education system.

## METHODOLOGY

Research into the economic impact of a change in school calendars began with consultations with the Legislature's Office of Economic and Demographic Research. These consultations were followed by interviews of tourism industry representatives and professionals, and by requests for tourism statistics and other relevant data. Research into factors influencing school start dates began with interviews of education professionals and representatives. These interviews were followed by a questionnaire to school superintendents. Historical school start date data was gathered for comparison with tourism activity. Florida Comprehensive Assessment Test (FCAT) performance was compared with school start dates. Lastly, states that have considered uniform school start dates were reviewed.

## Findings

## Adoption of School District Calendars

Most of the 48 school districts that responded to a questionnaire from the committee have established calendar committees comprised of parents, teachers, support staff, and administrators to propose calendars for adoption by the district school board. Some calendar committees did not include parents of school students, but the calendar committees received parental input through school advisory councils. Participation in some calendar committees included students and

[^4]members from the local community and business community. Several school districts have surveyed parents for input on school calendars. A few districts reported no direct or indirect parental involvement in the development of the school district calendars.

## Calendar Considerations

The questionnaire to school district superintendents also asked them to describe the factors influencing school start dates. According to the responding superintendents, the desire to increase the number of days of instruction before the Florida Comprehensive Assessment Test (FCAT) and the desire to end the first semester before the winter break are the most important factors influencing school start dates.

## FCAT Preparation

Many school superintendents responding to the committee's questionnaire believe that increasing the number of days of instruction prior to administration of the FCAT will increase student scores. The FCAT is administered to nearly all public school children in grades 3 through $10 .{ }^{10}$ One of the purposes of the test is to assess the annual learning gains of each student toward achieving the Sunshine State Standards appropriate to the student's grade level. ${ }^{11}$ Schools and school districts have the following incentives to ensure that their students perform well on the FCAT:

- FCAT scores determine school and school district grades. ${ }^{12}$
- School grades determine whether teachers are eligible for certain bonuses. ${ }^{13}$
- Funding may be tied to school performance. ${ }^{14}$
- Third grade FCAT reading scores determine eligibility for promotion to the fourth grade. ${ }^{15}$
- Students must pass the tenth grade FCAT to graduate from high school. ${ }^{16}$

The FCAT testing dates are set by the Department of Education and are the same for all school districts. Differences in school district start dates can provide school districts that start earlier than others with more time to prepare students for the FCAT. In 2001, for

[^5]example, Holmes County started school on August 126 days before Dade and Broward counties. School grades and student scores are not adjusted for the number of days of instruction provided prior to the FCAT. School districts that have early school start dates, however, are not guaranteed better FCAT scores than schools with later start dates. Figure 4, for example, compares school district start dates from the 2001-2002 school year with average district scores on the reading section of the third grade FCAT in 2002.


SOURCE: Compilation of Statistical Brief, Florida Department of Education, Series 2002-02B, July 2001, and State and District Scores for All Curriculum Groups. ${ }^{17}$

An analysis of school district start dates and average district scores for other grades and other sections of the FCAT similarly shows that there is no apparent correlation between start dates and scores, suggesting that other variables may have a larger impact on FCAT scores than school start dates.

## Finish First Semester by Winter Break

The other major factor cited by superintendents as influencing school start dates is the desire to end the first semester before the winter break. Mid-term exams are scheduled at the end of the first semester of schooling. If the first semester ends after the winter break, some school districts said, students will forget much of what they were taught prior to the break. Teachers need about a week to review the material forgotten over the winter break to refresh students' memories before exams, school districts reported. When the first semester ends before the winter break, less time is spent reviewing old material and more time is spent learning new material. School districts also reported that it is more efficient for teachers to prepare for the spring semester over the winter break if the first semester ends before the break.

Ending the first semester before the winter break is especially important to schools using block schedules.

[^6]Block schedules restructure the school day into classes with much longer than the traditional 50-minute period. Students on block schedules typically have three or four long class periods per day instead of seven or eight, learning a year's worth of material in a semester. According to the school districts, it is convenient for students on block schedules to start a new schedule of classes after the winter break.

## Critics of Current Calendars

Critics of current school calendars from the tourism industry have suggested that the comparisons among school districts based on FCAT scores would be more accurate if all schools had the same amount of time to prepare for the FCAT. Administering the FCAT later in the spring semester, critics argue, would reduce one incentive to have early school start dates. Critics also suggest that administering first semester exams to students after the winter break will encourage longterm learning instead of cramming.

## Economic Analysis

The Legislature's Office of Economic and Demographic Research (EDR) advised that if the timing of school start and end dates affects the amount of tourism expenditures by Florida families with school-aged children, then there must be a climatological or sociological explanation for the change in tourism expenditures. Climatological factors, for example, explain that people are more likely to snow ski in the winter because winter brings cold weather and snow. Sociological factors explain, for example, that people give gifts to a person on a birthday because of historical traditions. In sum, there must be a reason that explains why tourism expenditures would increase if schools started later in August or after Labor Day. If no sociological or climatological factors can explain why tourism expenditures would increase, then later school start and end dates may result solely in a shift in the timing of some tourism expenditures, rather than an increase in tourism expenditures.

According to the economists at EDR, statistical data such as historical school start and end dates, sales tax revenue, number of tourists, or other statistical data cannot predict the propensity of families with schoolaged children to increase tourism expenditures. The best way to determine whether these families would increase tourism expenditures as the result of later school start dates is to conduct a survey to ask how their tourism expenditures would change.

If climatological or sociological factors can be determined that explain why tourism expenditures will increase as a result of later school start and end dates, then revenues will likely shift from another segment of the state's economy to the tourism industry. Revenue will shift from one segment of the state's economy because consumers must reduce spending in one area if spending is increased in another. As a result, later school start dates are not likely to provide a net economic benefit to the state, according to EDR.

## Issues Raised by Tourism Industry

The issues raised by representatives of the tourism industry regarding the idea of establishing a later school start date can be grouped into three principal categories or theories. First, there may be something that occurs in mid-August through Labor Day that encourages so much tourism activity by families with school-aged children that their reductions in tourism activity in May and June will be more than offset. Second, the tourism industry needs high school labor more in mid-August to Labor Day than in late-May to early-June. Lastly, moving school start dates to lateAugust or after Labor Day would encourage more tourism by enabling families to travel in late-August when prices are cheaper. Each theory will be discussed below.

The first theory is that something occurs in mid-August through Labor Day that encourages tourism. This August occurrence more than offsets tourism that would be lost as the result of later school end dates. Based on EDR's guidance, this August occurrence must be a climatological (weather) or sociological factor.

August weather is hotter and wetter than the weather in June and May. (See Table 1.)

Table 1: Florida Average Temperatures and Rainfall

| Month | Average <br> Temperature | Average <br> Rainfall |  |
| :--- | :---: | :---: | :---: |
| May | $75.43^{\circ} \mathrm{F}$ | 3.87 inches |  |
| June | $79.81^{\circ} \mathrm{F}$ | 7.02 inches |  |
| July | $81.27^{\circ} \mathrm{F}$ | 7.53 inches |  |
| August | $81.34^{\circ} \mathrm{F}$ | 7.27 inches |  |
| September | $79.32^{\circ} \mathrm{F}$ | 6.75 inches |  |
| SOURCE: National $\quad$ Oceanic | and Atmospheric |  |  |
| Administration |  |  |  |

[^7]Additionally, the peak hurricane season begins in midAugust. ${ }^{19}$ (See Figure 5.)

Figure 5: Hurricane and Tropical Storm Frequency


Assuming that hot, wet weather discourages tourism, August weather conditions do not suggest that there is a climatological factor that would cause an increase in tourism. A survey of families with school-aged children could be conducted to determine whether there is a sociological explanation that would validate the theory that something occurs after mid-August that encourages more tourism in August than in late-May to early-June.

The second theory is that the tourism industry needs high school labor more after mid-August to Labor Day than in late-May to early-June. Labor-dependent businesses in the tourism industry, such as attractions and theme parks, seek high school labor during the summer months. When high school laborers return to school in August, replacements must be found who will work through Labor Day. The tourism industry incurs additional hiring and training costs to replace high school students.

Universal Studios in Orlando reported to committee staff that it needs high school labor most from July 1 through Labor Day. Universal begins hiring and training high school students for the busiest part of the summer during mid-May. Last summer, 375 employees quit between mid-May and July 1 because few work hours were available at that time. These employees had to be replaced at a cost of $\$ 350$ each. When these high school students return to school from early to midAugust, Universal must hire and train about 1,000

[^8]workers at a cost of about \$350 each to work through Labor Day. Many of these late summer laborers had to be bussed to Universal from outlying areas at a cost of \$37,500 last summer. Additionally, full time staff was paid an additional $\$ 130,000$ for overtime for the period of time after high school students returned to school through Labor Day. These costs totaled $\$ 648,750$ for Universal last year. According to Universal, if school calendars would permit high school students to work through the month of August, the students would be able to earn an additional $\$ 792$ each during the summer. The Florida Attractions Association reported to the committee that the results of a survey of its members show that many attractions share Universal Studios' need for summer labor.

There may be segments of the tourism industry for which the demand for labor is greater from late-May to early-June than from mid-August to Labor Day. Monthly tourism/recreation taxable sales data for 2000 shows that there were $\$ 4.1$ billion in sales in May, $\$ 4.0$ billion in June, and $\$ 3.7$ billion in August. ${ }^{20}$ The number of Florida welcome center visitors was greater in June than in August in 1998-2000. ${ }^{21}$

The third theory, which was suggested by the Florida Association of Convention and Visitors Bureaus, is that later school start dates would encourage priceconscious consumers to travel in late-August when prices are discounted on tourism activities. Committee staff does not have data to determine how tourism expenditures will change in response to lower prices, or data to determine how prices might change if more families with school-aged children could travel in lateAugust.

## Actions in Other States

Several other states have adopted school start dates for late-August or after Labor Day, including, for example: Texas, Virginia, Missouri, Wisconsin, Minnesota, and Arkansas. In every state that have considered the issue, the tourism industry typically supported the later start dates and the education community almost always opposed a loss of local control over the authority to set start dates. Several states that have adopted or considered legislation mandating later school start dates are discussed below.

## Pennsylvania

Legislation filed during the 2002 legislative session

[^9]would have required Pennsylvania schools to start after Labor Day. ${ }^{22}$ According to staff of the House Tourism and Recreational Development Committee, the tourism industry supported later start dates, in part, because some attractions had to close in August or go to a limited schedule due to a lack of high school labor. The legislation mandating later start dates died in committee. A resolution, however, passed which urged school districts to consider the effects of starting school before Labor Day. ${ }^{23}$

## Michigan

In 1997, legislation was proposed that would have required schools to begin after Labor Day. Legislation was also proposed that would have created a commission comprised of education, business, and tourism representatives to study the effect of starting school after Labor Day. ${ }^{24}$ Neither piece of legislation became a law. According to the House Fiscal Agency (HFA):
[I]t is reasonable to assume that increased money spent on tourism would lead to less money spent on other revenue-generating activities, creating a possible "wash" in revenues. ${ }^{25}$

The HFA further opined that shifting start dates may only shift the time when people take vacations or allow Michigan residents to vacation out-of-state. ${ }^{26}$

In 1999, legislation was introduced that would have created a commission to study the effect of early school start dates. ${ }^{27}$ Prior to becoming a law, ${ }^{28}$ the legislation was amended to make the Friday before Labor Day a school holiday, representing a compromise between the tourism industry and the education community. ${ }^{29}$

## Wisconsin

Prior to 1998, legislation had been filed in several legislative sessions providing for later school start dates. In 1998, the Special Committee on the School Calendar was appointed to study the advantages and disadvantages of later school start dates. The committee heard testimony that 67 percent of survey respondents

[^10]were somewhat supportive of legislation that would require all public schools to start after September $1 .{ }^{30}$

In 1999, legislation was enacted that prohibited schools from starting before September 1 unless a school board held a public hearing on the issue and adopted a resolution to start school earlier. ${ }^{31}$ In the 2000-2001 school year, 368 of the 426 school districts opted out of the September 1 start date. ${ }^{32}$ In 2001, legislation was enacted to limit the ability of school districts to opt out of the September 1 start date. ${ }^{33}$ Exemptions from the start date are only available if the Department of Public Instruction finds an extraordinary reason for granting an exemption. ${ }^{34}$

## South Carolina

During the 2002 legislative session, legislation was proposed that would have required Charleston County schools to start school on the day after Labor Day. The legislation would have also required the Department of Education to administer the Palmetto Achievement Challenge Test, South Carolina's version of the FCAT, on the $160^{\text {th }}$ day of student instruction for Charleston County students. ${ }^{35}$ According to the State Board of Education, the bill would have compromised test security by testing Charleston County at a different time than other county schools. As a result, the sponsors tabled the bill in exchange for the Department of Public Instruction's support of an alternative proposal. ${ }^{36}$

Ultimately, s. 59-5-71, South Carolina Statutes, was enacted which created a taskforce of parents and tourism, business, and education representatives to recommend whether a uniform start date should be adopted and to suggest a uniform start date to the Board of Education. The taskforce held several public hearings throughout the state to gather information and gauge public opinion. An economist member of the taskforce determined that tourism revenues would increase $\$ 180$ million if school start dates were later. ${ }^{37}$

[^11]The analysis, however, did not consider the reduction in tourism activity caused by later school end dates.

The taskforce could not reach a consensus on uniform school start dates. Nevertheless, on December 11, 2002, the State Board of Education voted nine to eight to establish a 10-day window in late-August to earlySeptember for schools to open. Some members of the General Assembly believe that the State Board of Education acted without legislative authority. ${ }^{38}$

## Texas

In 2001, the Texas Legislature enacted legislation that prohibited schools from starting "before the week in which August 21 falls" unless, after a public hearing, the Commissioner of Education allows a school to start earlier. ${ }^{39}$ Proponents of later school start dates were supported by a study by the Comptroller of Public Accounts which found: 65 percent of Texas parents supported a uniform date; 46 percent favored a start date after Labor Day; later starts could save $\$ 10$ million in energy costs; and the tourism industry would gain $\$ 332$ million in revenue. ${ }^{40}$ A second study by the Texas Department of Economic Development and Tourism and More Consulting Services found that tourism activity drops after the school year begins and that the tourism industry loses at least $\$ 180$ million in tourism revenue due to early start dates. ${ }^{41}$ Neither study, however, discussed the reductions in tourism activity caused by later school end dates if school calendars remain the current length.

## Virginia

In 1986, Virginia adopted s. 22.1-79.1, Code of Virginia, which prohibits schools from starting before Labor Day. In nearly every year since 1995, legislation has been introduced to either repeal the law, create an exemption, limit an exemption, or to give local school boards discretion over school calendars. Today, the only exemptions from the law are for schools that have been disrupted by severe weather in past years, schools that are dependent on another school that has an exemption, and year-round schools.

[^12]
## RECOMMENDATIONS

Committee staff recommends that district school boards continue to have the authority to set school calendars at their discretion, because currently available data for Florida does not demonstrate that mandating later school start dates would significantly increase in-state tourism or significantly reduce labor costs.

However, because practices currently differ in the extent to which parents and businesses are involved in setting school calendars, the Legislature may wish to ensure that school calendars reflect the needs of the broader local community in addition to the concerns of local educators. One method would be to require all school boards to establish calendar committees empowered to recommend or adopt calendars. These committees could be required to include local business and community representatives in addition to parents and local education representatives. Another possible method to increase community involvement would be to require school districts to survey parents and businesses periodically on preferences for school start dates.

If the Legislature desires further study of the issues, it could follow the lead of some other states and create a temporary commission to hear the concerns of educators, students, parents, and businesses and report its findings. The commission's charge could include: attempting to isolate sociological factors that may produce higher in-state tourism expenditures from lateAugust through Labor Day by families with school aged children; determining whether agreements are possible between high schools in high-tourism areas and labor dependent businesses which will satisfy both labor and educational needs; evaluating community satisfaction with school calendars and the process by which they are adopted; and suggesting methods to increase community involvement in the adoption of school calendars, if warranted.

Lastly, the Legislature could provide for the Office of Economic and Demographic Research or another entity to conduct a survey of families with school-aged children to determine their preferences for school calendars. This survey could also ask whether these families would increase tourism expenditures as a result of later school start dates.

# Post Labor Day School Start Dates in Tennessee: 

An Analysis of the Economic and Tax Revenue Impacts on the Tennessee Travel and Tourism Industry

January 2008

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## Executive Summary

Post Labor Day School Start Dates in Tennessee: An Analysis of Economic and Tax Revenue Impacts on the Tennessee Travel and Tourism Industry

- The purpose of this study was two-fold: 1 ) to determine if post Labor Day school starts for Tennessee public schools would influence Tennessee residents' travel plans for summer Tennessee vacations, and 2) to estimate the potential economic, state tax, local tax, and payroll impacts of post Labor Day Tennessee school starts on the statewide Tennessee economy, and each of Tennessee's 95 counties.
- To determine if post Labor Day school start dates for Tennessee public schools would influence summer travel plans by Tennessee residents in Tennessee, a survey of 1,234 Tennessee residents was conducted by the University of Tennessee Tourism Institute and the Social Science Research Institute.
- The survey found that 462,712 Tennessee residents would take one additional Tennessee summer vacation, and 222,787 Tennessee residents would extend a Tennessee summer vacation if Tennessee schools started after Labor Day.
- The statewide economic, state tax, local tax, payroll, and employment impacts on the Tennessee economy from the new tourist spending is estimated to:
- Generate $\$ 189.89$ million in new statewide Tennessee tourist spending by Tennessee residents taking new or extended Tennessee summer vacations,
- Generate $\$ 9.72$ million in new statewide Tennessee state tax revenues,
- Generate $\$ 5.50$ million in new total local county tax revenues (sum of all 95 county local taxes generated),
- Generate $\$ 72.92$ million in new statewide worker incomes (payroll), and
- Generate 2,619 new jobs statewide in the Tennessee travel and tourism sectors of the economy.
- For each of Tennessee's 95 counties, Table 1 of the study shows the specific new tourists expenditures, new state tax revenues generated, new local county taxes generated, and new worker income (payroll) generated if Tennessee schools started after Labor Day.


## Organization of the Study

## Executive Summary

1. Introduction and Background of the Study
2. Purpose of the Study
3. Methodology and Results of the Study
4. Summary of Statewide Economic and Tax Revenue Impacts
5. Table 1: Estimates of County Specific Economic, State Tax, Local Tax, and Payroll Impacts of New Spending on Tourism by Tennessee Residents if Tennessee Public Schools Started After Labor Day
6. References Used in the Study

# Post Labor Day School Start Dates in Tennessee: An Analysis of Economic and Tax Revenue Impacts on the Tennessee Travel and Tourism Industry 

## 1. Introduction and Background of the Study

Issues concerning Tennessee K-12 public school start dates are currently under public discussion. Over the last ten years, many public schools in Tennessee have chosen to begin their school year earlier and earlier in August, moving away from the traditional post Labor Day school start dates. There are many issues in this discussion including shorter summer family vacation time, school cooling costs, student health and safety issues related to heat conditions, student learning issues, and local control of school calendars.

This focus of this study is on post Labor Day school start dates, and the potential impact on the Tennessee travel and tourism sectors of the State's economy.

## 2. Purpose of the Study

In general, the primary purpose of this study is to examine the potential impact of post Labor Day Tennessee public school start dates on Tennessee resident tourist spending and summer family vacation time on the Tennessee travel and tourism industry.

In particular, the study has the following objectives:

1) To determine if post Labor Day school start dates in Tennessee would influence the number of Tennessee residents taking summer vacations in Tennessee; and
2) For all 95 Tennessee counties, to estimate the impact of early school start dates on the county travel and tourism industry in terms of:
a. Impact on Tennessee resident tourist expenditures,
b. Impact on State tax revenues generated,
c. Impact on local county tax revenues generated, and
d. Impact on local county payroll generated, and
3) For the statewide Tennessee economy, to estimate the impact of early school start dates on the statewide Tennessee travel and tourism industry in terms of:
a. Impact on statewide total Tennessee resident tourist expenditures,
b. Impact on total State tax revenues generated,
c. Impact on total local county tax revenues generated,
d. Impact on total local county payroll generated, and
e. Impact on total statewide jobs generated.

## 3. Methodology and Results of the Study

The following methodologies were used to collect and analyze data, and generate results of the study.

How would post Labor Day school start dates influence the number of Tennessee residents taking summer vacations?

A two-stage statewide survey of Tennessee residents was conducted by the University of Tennessee's Social Science Research Institute during October and November 2004. The purpose of the survey was to two-fold: 1) to investigate summer vacation patterns of Tennessee residents, and 2) to determine if summer vacations patterns would change if school start dates were after Labor Day.

A total of 1,234 randomly selected Tennessee residents over 18 years old were surveyed using a computer-assisted telephone survey and a follow-up mail survey presenting a $95 \%$ confidence level and margin of error of $+/-3 \%$.
Results of the survey indicated:
a. $37 \%$ of Tennessee residents 18 years and older $(1,713,751)$ took summer vacations in Tennessee,
b. $27 \%$ of Tennessee residents taking Tennessee summer vacations $(462,712)$ indicated they would take one additional vacation in Tennessee if schools started after Labor Day, and
c. $13 \%$ of Tennessee residents taking summer vacations $(222,787)$ indicated they would have extended a summer Tennessee vacation by an average of 1.5 days if Tennessee schools started after Labor Day.
d. Summary: 462,712 Tennessee residents would take and additional vacation in Tennessee, and 222,787 would extend a Tennessee vacation if Tennessee schools started after Labor Day.

Note: Tennessee residents are based on 2006 state population estimate of $6,038,803$ by the U.S. Census Bureau. The U.S. Census Bureau estimates that $23 . \%$ of residents in Tennessee are under 18 years old, and $76.7 \%$ of residents $(4,631,761)$ are 18 years and older. (Source: U.S. Census Bureau, Available at http://quickfacts.census.gov.)

How much additional tourist expenditures would be generated by Tennessee residents taking new trips and extending trips if Tennessee schools started after Labor Day?
a. Tourists spending generated in Tennessee from Tennessee residents taking new trips if Tennessee schools started after Labor Day is estimated to be $\$ 121,323,288$ (or $\$ 121.32$ million).

## b. Tourist spending generated in Tennessee from Tennessee residents taking extended trips in Tennessee if schools started after Labor Day is estimated to be $\$ 68,574,032$ (or $\$ 68.57$ million).

c. Summary: Total new tourist spending by Tennessee residents taking new and extended vacations in Tennessee if schools started after Labor Day is \$189,897,320 (or \$189.89 million) (\$121,323,288 + \$68,574,032).

Note: Source for average per trip spending (\$307.80), average party size ( 1.9 people), and average nights stayed of TN residents traveling ( 1.5 nights) used in finding(a), (b), and (c) above is The Tennessee Travel Barometer, 2006. Published by the Travel Industry Association of America, and the Tennessee Department of Tourist Development.

How is the new $\$ 189.89$ million in tourist spending distributed in each Tennessee county?
a. Table 1 shows how the new tourist spending would be distributed in each Tennessee county. This distribution is calculated using 2006 per county share ratio of state tourist expenditures as reported in The Economic Impact of Travel on Tennessee Counties - September 2006, by the Travel Industry Association of America, and the Tennessee Department of Tourist Development.

How much additional state taxes, local taxes, and worker payroll would be generated by the additional Tennessee resident tourist spending?
a. Table 1 shows the additional state and local taxes generated by the new tourist expenditures in each Tennessee county. This distribution is calculated using the per county state and local tax ratio and payroll generated from The Economic Impact of Travel on Tennessee Counties - September 2006 by the Travel Industry Association of America, and the Tennessee Department of Tourist Development.

How should Table 1 be used to find the estimated economic and tax revenue impacts from Tennessee resident tourist expenditures of post Labor Day Tennessee school starts on a specific Tennessee County?

Example: Davidson County: What is the estimated economic and tax revenue impacts of post Labor Day school starts on the Davidson County on the Davidson County travel and tourism economy?

Answer from Table 1: If Tennessee public schools started after Labor Day, then in Davidson County, it is estimated that Tennessee residents would spend an additional \$55.47 million in tourist spending (Col. 1), generating $\$ 2.66$ million in new state tax revenues (Col. 2), generating \$1.39 million in new local Davidson County tax revenues (Col. 3), resulting in new worker incomes (payroll) of $\$ 24.38$ million (Col. 5).

## 4. Summary of Statewide Economic and Tax Revenue Impacts

If Tennessee schools started after Labor Day, it is estimated that statewide in Tennessee:
a. Tennessee residents would spend an additional $\$ 189.89$ million in tourists expenditures taking new and extended vacations in Tennessee,
b. $\$ 9.72$ million in total new state tax revenues would be generated, (sum of all state taxes collected in 95 counties)
c. $\$ 5.50$ million in total local - county taxes would be generated, (sum of all 95 local county taxes generated),
d. $\$ 72.92$ million in total new worker income (payroll) would be generated, and
e. 2,619 new jobs in the travel and tourism sector would be generated.

# 5. Table 1: Estimates of County Specific Economic, State Tax, Local tax, and Payroll Impacts of New Spending on Tourism by Tennessee Residents if Tennessee Public Schools Start After Labor Day 

See Table 1 Below

Table 1: Estimates of County Specific Economic, State Tax, Local Tax, and Payroll Impacts of New Spending on Tourism by Tennessee Residents if Tennessee Public Schools Start After
Labor Day

| (Col 1) <br> If Tennessee public schools started after Labor Day, then in this county.... | (Col 2) <br> This much in new in-state tourist expenditures would be generated per year: | (Col 3) <br> This much in new state taxes would be generated per year: | (Col 4) <br> This much in new local taxes would be generated per year: | (Col 5) <br> This much in new payroll would be generated per year: |
| :---: | :---: | :---: | :---: | :---: |
| ANDERSON | \$ 1,340,475 | \$ 81,351 | \$ 28,459 | \$ 239,476 |
| BEDFORD | 362,091 | 21,067 | 13,942 | 66,738 |
| BENTON | 286,256 | 17,453 | 30,193 | 48,967 |
| BLEDSOE | 43,106 | 2,429 | 6,807 | 6,561 |
| BLOUNT | 3,711,092 | 205,146 | 126,001 | 1,011,037 |
| BRADLEY | 1,523,479 | 92,463 | 31,997 | 266,666 |
| CAMPBELL | 637,107 | 36,279 | 32,632 | 119,275 |
| CANNON | 47,379 | 2,947 | 3,253 | 4,937 |
| CARROLL | 219,575 | 13,043 | 8,256 | 32,172 |
| CARTER | 400,554 | 24,591 | 24,849 | 58,513 |
| CHEATHAM | 226,069 | 12,819 | 7,585 | 42,016 |
| CHESTER | 116,729 | 7,747 | 3,634 | 12,742 |
| CLAIBORNE | 198,339 | 11,315 | 14,705 | 35,616 |
| CLAY | 93,850 | 5,143 | 8,130 | 21,832 |
| COCKE | 516,433 | 29,659 | 22,688 | 103,745 |
| COFFEE | 880,603 | 51,681 | 22,919 | 165,123 |
| CROCKETT | 94,636 | 5,371 | 4,106 | 15,999 |
| CUMBERLAND | 1,351,403 | 76,327 | 55,954 | 307,579 |
| DAVIDSON | 55,474,709 | 2,662,456 | 1,399,810 | 24,382,554 |
| DECATUR | 149,566 | 8,884 | 26,209 | 21,160 |
| DEKALB | 467,527 | 26,240 | 60,733 | 97,401 |
| DICKSON | 659,168 | 38,851 | 15,962 | 121,889 |
| DYER | 489,106 | 29,773 | 11,352 | 87,374 |
| FAYETTE | 93,932 | 5,491 | 5,089 | 12,382 |
| FENTRESS | 157,436 | 9,134 | 10,515 | 26,162 |
| FRANKLIN | 237,215 | 14,525 | 10,983 | 37,774 |
| GIBSON | 433,469 | 27,957 | 12,783 | 54,745 |
| GILES | 280,989 | 17,276 | 12,008 | 43,296 |
| GRAINGER | 181,850 | 10,195 | 3,470 | 30,035 |
| GREENE | 996,258 | 60,042 | 26,272 | 172,144 |
| GRUNDY | 97,908 | 5,969 | 17,160 | 12,433 |
| HAMBLEN | 1,047,561 | 65,241 | 22,830 | 172,554 |
| HAMILTON | 10,047,514 | 570,813 | 218,854 | 2,371,781 |
| HANCOCK | 15,169 | 884 | 3,133 | 1,910 |
| HARDEMAN | 296,490 | 17,932 | 16,761 | 44,729 |
| HARDIN | 407,713 | 24,338 | 34,377 | 71,506 |
| HAWKINS | 397,988 | 22,692 | 21,718 | 64,656 |
| HAYWOOD | 175,425 | 10,840 | 7,650 | 26,531 |
| HENDERSON | 261,339 | 16,016 | 8,265 | 39,557 |
| HENRY | 645,116 | 37,004 | 81,534 | 114,813 |

Table 1: Tennessee County Specific Economic, Tax, and Payroll Impacts (Continued)

| (Col 1) <br> If Tennessee public schools started after labor day, then in this county.... | (Col 2) <br> This much in new in-state tourist expenditures would be generated per year: | (Col 3) <br> This much in new state taxes would be generated per year: | (Col 4) <br> This much in new local taxes would be generated per year: |  |
| :---: | :---: | :---: | :---: | :---: |
| HICKMAN | 85,893 | 4,940 | 8,169 | 13,382 |
| HOUSTON | 69,900 | 3,945 | 7,478 | 11,622 |
| HUMPHREYS | 398,291 | 20,972 | 25,927 | 79,094 |
| JACKSON | 28,795 | 1,759 | 3,501 | 4,240 |
| JEFFERSON | 584,458 | 34,673 | 42,238 | 109,915 |
| JOHNSON | 124,704 | 7,074 | 9,482 | 22,823 |
| KNOX | 10,792,166 | 568,239 | 255,840 | 3,767,347 |
| LAKE | 128,608 | 7,142 | 9,531 | 28,613 |
| LAUDERDALE | 196,082 | 11,422 | 15,499 | 27,417 |
| LAWRENCE | 480,377 | 29,864 | 12,990 | 75,547 |
| LEWIS | 71,494 | 4,086 | 3,407 | 12,036 |
| LINCOLN | 249,118 | 15,553 | 7,840 | 37,427 |
| LOUDON | 539,725 | 32,546 | 13,482 | 94,184 |
| MCMINN | 495,102 | 29,564 | 12,102 | 77,653 |
| MCNAIRY | 127,622 | 7,419 | 7,062 | 19,164 |
| MACON | 83,381 | 4,809 | 4,346 | 13,224 |
| MADISON | 2,108,326 | 123,254 | 44,829 | 423,441 |
| MARION | 396,857 | 23,275 | 14,261 | 69,770 |
| MARSHALL | 294,647 | 18,072 | 7,700 | 53,240 |
| MAURY | 1,226,278 | 73,939 | 25,315 | 185,168 |
| MEIGS | 89,992 | 5,025 | 11,624 | 16,654 |
| MONROE | 468,606 | 26,987 | 31,414 | 86,166 |
| MONTGOMERY | 1,996,942 | 123,881 | 37,704 | 355,722 |
| MOORE | 17,817 | 1,033 | 923 | 2,753 |
| MORGAN | 56,515 | 3,425 | 7,141 | 6,549 |
| OBION | 597,142 | 35,401 | 17,794 | 106,460 |
| OVERTON | 95,607 | 5,894 | 5,953 | 14,289 |
| PERRY | 79,278 | 4,124 | 20,542 | 11,849 |
| PICKETT | 94,497 | 5,237 | 13,649 | 21,487 |
| POLK | 300,990 | 16,640 | 27,450 | 75,496 |
| PUTNAM | 1,276,407 | 75,939 | 25,716 | 217,481 |
| RHEA | 384,236 | 22,283 | 25,388 | 71,583 |
| ROANE | 761,038 | 45,333 | 39,086 | 127,163 |
| ROBERTSON | 413,335 | 26,585 | 10,975 | 62,373 |
| RUTHERFORD | 3,150,575 | 190,054 | 66,706 | 549,876 |
| SCOTT | 142,086 | 7,804 | 8,306 | 22,991 |
| SEQUATCHIE | 81,332 | 4,788 | 5,916 | 12,711 |
| SEVIER | 20,538,431 | 1,104,372 | 591,558 | 5,159,704 |
| SHELBY | 41,665,589 | 1,794,862 | 1,153,946 | 27,352,116 |
| SMITH | 120,290 | 7,326 | 5,208 | 16,514 |

Table 1: Tennessee County Specific Economic, Tax, and Payroll Impacts (Continued)

| (Col 1) <br> If Tennessee public <br> schools started after <br> Labor Day, then <br> in this county.... | (Col 2) <br> This much in new in-state tourist expenditures would be generated per year: | (Col 3) <br> This much in new state taxes would be generated per year: | (Col 4) <br> This much in new local taxes would be generated per year: | (Col 5) <br> This much in new payroll would be generated per year: |
| :---: | :---: | :---: | :---: | :---: |
| STEWART | 98,974 | 5,744 | 14,572 | 13,913 |
| SULLIVAN | 3,773,922 | 207,811 | 102,192 | 1,107,418 |
| SUMNER | 1,235,054 | 74,860 | 27,963 | 217,191 |
| TIPTON | 330,360 | 20,659 | 10,580 | 47,690 |
| TROUSDALE | 44,515 | 2,626 | 1,474 | 5,357 |
| UNICOI | 102,523 | 5,739 | 8,247 | 23,303 |
| UNION | 82,450 | 4,691 | 12,136 | 13,990 |
| VAN BUREN | 112,965 | 6,212 | 11,719 | 27,328 |
| WARREN | 332,999 | 19,767 | 13,196 | 54,997 |
| WASHINGTON | 2,579,270 | 151,696 | 59,331 | 481,834 |
| WAYNE | 131,871 | 7,600 | 8,300 | 24,165 |
| WEAKLEY | 219,227 | 13,150 | 7,322 | 33,162 |
| WHITE | 229,983 | 14,698 | 10,727 | 26,805 |
| WILLIAMSON | 3,415,836 | 201,046 | 69,243 | 608,885 |
| WILSON | 1,331,915 | 78,823 | 38,999 | 253,852 |
| TOTAL | \$ 189,897,018 | \$ 9,724,045 | \$ 5,507,579 | \$ 72,921,513 |

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# Do families vacation more in the summer when school starts after Labor Day? 

A STUDY COMPARING ACTUAL TRAVEL PATTERNS IN FIVE STATES

July 23, 2012
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# This study was sponsored by the University of Minnesota Tourism Center, with funds from the Carlson Chair for Travel, Tourism and Hospitality. 



## Tourism Center

University of Minnesota
A collaboration of the College of Food, Agricultural and Natural Resource Sciences and University of Minnesota Extension Service

[^13]
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## EXECUTIVE SUMMARY

Community interests often collide when it comes to school start dates. Stakeholders interested in educational outcomes, family leisure time, and economic development each make cases about the effects of school start dates. Most debate on the issue settles on whether schools should start before or after Labor Day.

States have struggled to accommodate these competing interests, instituting postLabor Day start mandates, repealing and reinstituting those mandates, or creating mandates but monitoring waivers.

Arguments against pre-Labor Day starts assert that families travel less when school starts earlier. However, to date no empirical evidence documents the actual number of trips that families take in both circumstances.

This study provides information about actual travel pattern differences using data on family leisure travel available from the American Time Use Survey (ATUS) - a national study sponsored by the Bureau of Labor Statistics and conducted by the US Census Bureau. The ATUS is the nation's largest effort to document how those in the U.S. spend their time. Because it is impossible to create a random treatment and control group to learn about travel patterns (school schedules cannot be randomized), ATUS data is a useful substitute. This study uses a quasiexperimental method that taps ATUS data in five states that have a mandate regulating when schools start, and examines differences in family travel across each of five years from 2005 to 2010. Due to state mandates and the variation in the date Labor Day lands each year, some states start school before Labor Day in some years and after in others. This variation creates an opportunity to compare family travel under each situation.

The study also takes the opportunity to compare the travel of families with children to that of others in the same state and calendar
year to verify whether families constrained by pre-Labor Day starts act differently than families that are not.

This study finds that:
(a) the post-Labor Day school start increases the likelihood that families report at least one trip of two or more nights away from home in the month of August or September by 50\%.
(b) The likelihood of reporting such a trip in any month between (and including) May and September is $30 \%$ higher as a result of schools starting after Labor Day. This may reflect families planning ahead when they know that they won't have the opportunity to travel in late summer. The overall effect on the number of trips still remains substantial.
(c) This effect is completely absent in families without children that have statistically identical demographic (e.g. race, ethnicity, age, overall household size, urban status, etc.) and economic (e.g. income, education, home ownership, etc.) characteristics and live in the same states in the same calendar year.


## DO FAMILIES VACATION MORE IN THE SUMMER WHEN SCHOOL STARTS AFTER LABOR DAY?

Schools in the U.S. have traditionally started their academic year after Labor Day. During the 1940s and 50s, starting school in August was impractical because of high temperatures so it became natural to start school in September after Labor Day (Good, 2011). Recently, an increasing number of districts in the U.S. have been starting in mid or even early August (e.g. Denver, Colorado and Cleveland, Ohio among others). In fact, according to a survey from Market Data Retrieval, 75 percent of students in the U.S. head back before Labor Day week (Good News Magazine 2011).

School district incentives to start school early may have become stronger in recent years due to the increasing importance of standardized test scores since the No Child Left Behind Act was passed in 2001. As a result, there is now a perennial debate about whether state government should regulate when school starts. School districts cite a number of reasons to start early, including a need for flexibility for teacher training and the need for instructional time to prepare students for mandatory standardized test dates (including both state assessments and college prep tests such as SAT and ACT (personal communication, 2012).

Proponents of a mandatory post-Labor Day start argue that longer school years negatively affect family time ${ }^{1}$ and the tourism economy, noting that post-Labor Day starts lead to more family summer vacation time and more predictable annual demand patterns.

In response, some states have given school start dates considerable policy attention. As of the summer of 2012, 12 states regulated school starts or enacted mandates that require schools to begin after Labor Day for at least

[^14]part of the past decade. Most states with mandates implemented them after 2000 and some states have repealed existing mandates (e.g. West Virginia). Groups in other states (e.g. Minnesota, Virginia) have made attempts to repeal an existing mandate with no success.


From the perspective of the tourism industry, school year start date is a public policy "bottom line" issue for several reasons. First, the hospitality industry has made significant investments in infrastructure to supply summer tourism opportunities to families who are a willing market for these opportunities. School schedules can constrain that economic activity, creating an inefficient distortion in this particular market.

Second, the hospitality and tourism industry is characterized by substantial fixed and semi-fixed costs, relative to their variable costs (e.g. Harris, 1995). Tourism industry leaders contend that having a predictable yearly schedule such as the one created by a mandated post-Labor Day start improves their efficiency. There are obvious fixed costs in buildings and infrastructure, and the industry faces high constraints in hiring and negotiating with suppliers, especially when resorts are not located near heavily populated areas. Many resorts have to contract labor seasonally and
provide room and board for workers.
Unpredictable schedules make it more difficult for remote establishments to plan their use of labor and perishables (mostly food), inducing additional risk and reducing efficiency in the hospitality industry (personal communication, 2012). These barriers to efficiency are likely to affect not only the profits of many small to medium size businesses, but may also reduce consumer welfare if shifts result in higher prices or lower quality of service.

These are all valid arguments for the position that a consistent and predictable postLabor Day school year start may generate social and economic gains. However, each of these arguments rests on one premise - that families travel more when school starts after Labor Day.

## Current State Policies and School Start Dates

Several states have mandates that do not allow schools to start classes before Labor Day. Minnesota has such a mandate, although several attempts have been made to repeal it. Recent proposals include a Minnesota House committee bill that would give schools the discretion to start classes before Labor Day (Collins, 2009). Individual schools have sometimes obtained waivers from the Minnesota mandate (e.g. Southwest Minnesota districts starting in 2010). Similarly, Virginia and Michigan mandate a post Labor Day start. In Virginia, several unsuccessful attempts have been made to repeal the law (known as The King's Dominion Mandate). The most recent attempt in 2012 failed (Huffington Post, 2012). Virginia also issues waivers from the mandate to school districts, mostly to compensate for days lost due to inclement weather conditions. Michigan signed a law to mandate post-Labor Day starts in 2005, and implemented it in the 2006-2007 school year. It was a provision sought mainly by tourism interests and the agricultural industry (The Associated Press, 2009).

Iowa has had a mandate requiring that schools start no earlier than the Monday of the week that includes September 1. However, the

State grants exceptions rather generously. Most districts get a waiver from the Department of Education to start in mid-August (Gazette, 2012). All that is required for districts in Iowa to receive the exemption is a school board vote before July 1 on the school year for which the waiver is requested. Waivers, however, have to be issued every year so the mandate may still present a barrier for districts not willing to go through administrative hurdles. In April of 2012, a bill passed in the Iowa Senate that, if passed by the house, will remove the waiver process and set a school start date of no earlier than the fourth Monday in August (Noble, 2012). The earliest start date allowed by the mandate (absent any waivers) will in most years be before Labor Day, but when Labor Day is very early in September the mandate would require a post Labor Day start.

Wisconsin requires that schools start no earlier than September 1 and issues very few waivers from the mandate. The actual start date in Wisconsin can vary between September 1 and 5 when September 1 falls on a weekend. In years when the Labor Day weekend happens to be early in September the overwhelming majority of schools in Wisconsin start after Labor Day, while in years when Labor Day is towards the end of the first week in September Wisconsin school start before Labor Day.


Several other states also mandate start dates. For example, since the early 2000s, North Carolina has required that schools start no
earlier than August 25. Arkansas requires that schools start no earlier than August 19 (18 if it is a Monday). West Virginia mandated a starting date of no earlier than August 26, until the mandate was repealed in June 2010 (Corio, 2010).

States that have made relatively recent changes in school start date policy include Texas, South Carolina, Florida and Alabama. Texas had a mandate requiring that schools start no earlier than the third Monday of August (implemented in the 1990s) but it allowed many waivers. In 2006, new legislation was enacted to set the earliest possible starting date on the fourth Monday of August and restricted the reasons under which waivers could be issued. South Carolina adopted legislation requiring that schools start no earlier than the third Monday of August beginning in the 2007-2008 school year. Florida enacted a mandate that sets 14 days before Labor Day as the earliest possible starting point for the school year beginning with the 20072008 school year. Finally, Alabama implemented a mandate requiring that schools start no sooner than August 20 beginning in the 2012-2013 school year.

## Testing the Assumption

The premise that families travel more with post-Labor Day starts is difficult to test, and the authors found no studies that tested the assumption rigorously. The inherent difficulty in providing a reliable estimate of how the traditional school schedule affects families rests in the lack of experimental data. If families could be randomly assigned to school schedules, their travels could be compared reliably. In reality, school schedules are affected by district or state level policies that may, in part, reflect the travel preferences of their constituents. This makes it difficult to estimate the causal effect of school schedules on travel.

A few studies have attempted to quantify the effects that a post Labor Day
school start would have on travel, and subsequently on the hospitality and tourism industry (e.g. TrippUmbach, 2006). However, these studies rely on hypothetical questions to families that do not live in areas with a preLabor Day school schedule asking what effect a post Labor Day start might have on their travel should it be implemented. Hypothetical questions may suffer from a number of welldocumented biases (Murphy and Stevens, 2004). A second drawback in these studies rests in the fact that some studies only cover the period surrounding the Labor Day week. This study timing does not account for the possibility that families can take more trips earlier in the summer if the week before Labor Day is not available to them.


## Study Data

To better test the premise that preLabor Day starts affect family travel, this study used data from the 2005-2010 rounds of the American Time Use Survey (ATUS). The ATUS data is a strong fit for this study because respondents provide information on household travels, demographic and economic characteristics and state of residence. The ATUS is the most substantial effort to collect time diary data on U.S. households, with over 125,000 interviews conducted over its life span (2001-2010). ATUS interviewers collect data via telephone calls. The questionnaire is intended
to collect information on how and with whom respondents spent their days.

In 2005, a "trips" supplement was added to the ATUS that asked respondents whether they had been away from home for two nights or more over the month preceding the ATUS interview. ${ }^{2}$ The trips supplement is equipped for studying the effects of a post Labor Day mandate on leisure travel for several reasons. First, monthly data are available, making it possible to examine travel behavior near Labor Day as well as for broader time periods. Second, even though detailed travel data were not collected, the purpose for the reported trip(s) was, making it possible to isolate leisure trips. Third, ATUS is administered to respondents who are already sampled in the Current Population Survey (CPS)which is the primary source of labor force statistics in the United States. The study took advantage of available data on family size and composition, demographic information, location of residence (state and MSA), economic circumstances and human capital that are available from the CPS about ATUS respondents. This assures that reliable demographic information is available so that similar families can be compared, as well as to discover if travel patterns of otherwise similar families with and without children respond to school start dates differently.

This study used data from all households that were interviewed at some point between June and October (therefore, asking whether any trips were taken between May and September) and that were located in states with either a mandate to always start school after

[^15]Labor Day, or another mandate that could potentially cause a Post Labor day start in some years. These states include Minnesota, Virginia, Michigan, Iowa and Wisconsin.

| YEAR | POST-LABOR DAY <br> STARTS | PRE-LABOR DAY <br> STARTS |
| :---: | :--- | :--- |
| 2005 | MN, VA | MI, IA, WI |
| 2006 | MN, VA, MI | IA, WI |
| 2007 | MN, VA, MI, WI | IA |
| 2008 | MN, VA, MI, WI, IA | --- |
| 2009 | MN, VA, MI | IA, WI |
| 2010 | MN, VA, MI | IA, WI |

Data on each state's policy were collected from various formal (government) and public media publications (Table 1).
Additionally, data on actual school starts by county for several states were collected from their respective departments of education.

Descriptive statistics on study variables as well as sample sizes are presented in table 2.

## Methods

First, the earliest date that each state's policy would allow schools to start in each year between 2005 and 2010 was determined based on the policy language. For example, Minnesota and Virginia always start after Labor Day, so they are assumed to have started on September 6 in 2005, September 5 in 2006, September 4 in 2007, etc. As noted, in 2005, Michigan had no mandate, but joined the same schedule as Minnesota and Virginia starting with the 200607 school year.

A thorough search was then conducted to obtain data on actual school starts by district in each state for each year to verify that actual starts were complying with the implied start dates of the policy. The overwhelming majority of districts (with the exception of waived districts in Iowa, Virginia, Minnesota and very
few in Wisconsin) did appear to comply with the policy. Further, policies typically set earliest start dates possible but rarely regulate the latest start date. This implies that districts may choose to start later than the policy date. If a substantial number of districts did so, the policy would be non-binding and the effect of treatment weakened. The authors verified that most districts, while compliant, do start on the earliest date allowed or very close to it.

The impact of a pre-Labor Day start was then examined in a multivariate regression framework. The basic challenge that this evaluation tackles can be viewed as one of estimating household travels in "two hypothetical parallel universes" - one where all schools start after Labor Day and one where they start before. Theoretically, the interest lies in the differences between travel patterns of each individual family under a post Labor Day start, relative to what they themselves would have done if their district did not start after Labor Day. The problem is that only one of these conditions is empirically observable for each household -- either their behavior under a post Labor Day or a pre Labor Day start (depending on the state and year). It is not possible to observe the same household in both the actual and counterfactual scenario.

This study defines parents facing a preLabor Day start as "the treatment group", while the control group is drawn from parents facing a post-Labor Day school start. ${ }^{3}$ Ideally, these treatment and control groups would differ from each other only by the fact that they were exposed to a different school start schedule, and should be otherwise statistically identical. Of course, true randomization (of households into school regimes) can produce such treatment and control groups because the two groups would be statistically identical by virtue of randomization.

[^16]Absent the ability to conduct such an experiment, empirical methods are adopted that mimic this scenario as closely as possible. The concern of policy evaluation with nonexperimental data is that there may be factors that are correlated with the adoption of a certain policy, such as a school start mandate, that are also independently correlated with the outcome of interest (i.e. travel in this case).

The study addressed this by holding constant anything that is unique about each state, and anything that is unique about each year in the analysis. And so, there was a 2008 and 2009 control, and these capture the average effect that 2008 conditions and 2009 conditions had on all families. (e.g., economic downturns) Then the model isolates changes in travel behavior that can be uniquely attributed to instances when families are exposed to preLabor Day or post-Labor Day starts - either because the rule changed (for example, in Michigan) or because the earliest possible start date happened to be before or after Labor Day that year.

The model examines differences within states by year. In years when Wisconsin goes from a post Labor Day start to another post Labor Day Start, it is expected to behave exactly like Minnesota because Minnesota always goes from post-Labor Day to other post Labor Day starts; while in years when Wisconsin transitions from a post-Labor Day to a preLabor Day start, its growth in travel should fall short of that in Minnesota. The model checks all such possible transitions across states and years and finds meaningful comparisons.

Finally, the survey has data on both households with children and those without. School start dates are expected to have their primary effect on households with children; households without school-aged children should largely remain unaffected. ${ }^{4}$ Therefore,

[^17]the study estimates the same specifications as above only for households with no children. This approach adds confidence because it identifies the effect based on data from within the same state and year. The approach has been referred to as a "placebo test" (Tuddle \& Beaty 2012), a "difference in differences in differences" or "triple diffs" (Angrist \& Pishke 2008).

If respondents report they took any trips for leisure, their case is set equal to one. If they do not, they are set as a zero. Attention was first restricted to the two months around Labor Day (August and September) then expanded to interviews that were collected in the months of May to September. Models appropriate for binary outcomes (logistic regressions) were used. Standard errors are clustered at the state level.

## Results

Among households interviewed in the months of August or September, 21 percent reported at least one trip of two nights or more in duration, while among households interviewed in the months of May to September, 24 percent reported at least one trip of two nights or more in duration in the month (Table $2)$.

Table 3 presents estimates of the effect of pre-Labor Day start on travel during the month of August or September for households with children. Model 1 presents a crosssectional model with only year-fixed effects held constant; model 2 adds state fixed effects, model 3 only uses individual controls (no state fixed effects) and model 4 adds both controls and fixed effects. Marginal effects associated with logistic regressions are presented so that each estimate can be interpreted as a percentage point change from the population mean.

All four models show a negative and statistically significant impact of an early start on the incidence of trips taken in the months of August or September (row one of the tables). The estimates are very robust to the
specification used and range from 10 to 13 percentage points. This marks between a 50 and 60 percent reduction in travel likelihood relative to the sample average.

Results on the incidence of a trip for those interviewed between May and September are presented in table 4 . These estimates are important because they fully take into account trips that may have been scheduled earlier in the summer because of prior knowledge of the calendar. If households are able to shift time around with ease, it is entirely possible for all trips that were foregone in August or September (documented in table 3) to have been taken early in the summer.

Indeed, estimates imply that there was some substitution from late summer to early summer in early start state-years. The estimated effect is still negative and statistically significant, but smaller in size (between 6.7 and 8.0 percentage points). This marks nearly a 30$33 \%$ reduction in travel likelihood from the sample average.

Tables 5 and 6 repeat the exercise for households with no children. The association between an early start and travel in families with no kids is zero, further validating the impact of the school start on travel among families with children.

## CONCLUSIONS

This study used ATUS (American Time Use Survey) data from five states with mandates that require schools to start after Labor Day in at least some years, along with secondary data also from the American Time Use Survey, to estimate the effect that a post Labor Day school start has on household leisure travel. This is the first study to compare actual family travel when their children's schools started before Labor Day to that of similar families whose children's school started after Labor Day. Variation in when schools started came either as a result of policy changes or because Labor Day coincided with different dates during each year in the study period, therefore this variation was quasi-random.

Among households interviewed in the months of August or September, 21 percent reported at least one trip, while among households interviewed in the months of May to September, 24 percent reported at least one trip in the month of the interview. The study presents strong evidence of a 10 percentage point treatment effect (equal to $50 \%$ of the sample mean) of a post Labor day start for travels taken during the months of August or September. In other words, families whose children's school started after Labor Day were 10 percentage points more likely to take a trip during the interview month than were other observationally identical families.

For Minnesota, this implies that if a mandate requiring schools to start after Labor Day were waived and districts chose to start before Labor Day, the share of households taking a leisure trip during the months of August or September would likely be cut in half. But not all of these trips would be cancelled; some would be transferred to earlier in the summer. The estimated effect of a preLabor Day start on the monthly probability of taking a trip for families with children interviewed in any month between and including May-September is smaller, at about 78 percentage points (amounting to nearly 30 percent of the sample mean).

All in all, if Minnesota were to switch to a pre-Labor Day start, the number of families taking a trip in any given summer month would drop by one third, and one in five households ${ }^{5}$ with a preference for late summer travel would re-schedule it for earlier in the summer. Better knowledge about the potential impact can be weighed against all interests in this issue as school districts and policy makers at the state level weigh options.

[^18]
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## TABLES

Table 1. Post Labor Day Starts by State and Year

|  | Post Labor Day Start |  |
| :--- | :--- | :--- |
| Year | Yes | No |
| 2005 | MN, VA, | MI, IA, WI, |
| 2006 | MN, VA, MI | IA, WI |
| 2007 | MN, VA, MI, WI | IA |
| 2008 | MN, VA, MI, WI, IA | --- |
| 2009 | MN, VA, MI | IA, WI |
| 2010 | MN, VA, MI | IA, WI |

Table 2. Descriptive Statistics

|  | August-September |  |  |  | May-September |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No Kids |  | Kids |  | No Kids |  | Kids |  |
| Variable | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Share reporting trips <br> Before Labor | 0.22 | 0.41 | 0.21 | 0.41 | 0.24 | 0.43 | 0.24 | 0.43 |
| Day | 0.28 | 0.45 | 0.24 | 0.43 | 0.26 | 0.44 | 0.26 | 0.44 |
| Metro not central | 0.36 | 0.48 | 0.44 | 0.50 | 0.36 | 0.48 | 0.41 | 0.49 |
| Metro other | 0.21 | 0.41 | 0.19 | 0.40 | 0.20 | 0.40 | 0.21 | 0.41 |
| Non Metro | 0.22 | 0.42 | 0.21 | 0.41 | 0.24 | 0.42 | 0.23 | 0.42 |
| Hispanic | 0.04 | 0.20 | 0.06 | 0.24 | 0.04 | 0.19 | 0.05 | 0.23 |
| African American | 0.12 | 0.33 | 0.08 | 0.27 | 0.13 | 0.34 | 0.08 | 0.27 |
| Other Non- | 0.12 | 0.33 | 0.08 | 0.27 | 0.13 | 0.34 | 0.08 | 0.27 |
| White | 0.03 | 0.17 | 0.06 | 0.24 | 0.03 | 0.16 | 0.05 | 0.23 |
| Household Size | 1.68 | 0.82 | 3.98 | 1.10 | 1.67 | 0.78 | 3.99 | 1.14 |
| \# of children |  |  | 1.89 | 0.93 |  |  | 1.90 | 0.95 |
| Age Youngest |  |  |  |  |  |  |  |  |
| Kid <br> Age |  |  | 7.63 | 5.31 |  |  | 7.58 | 5.31 |
| (Respondent) | 55.62 | 17.48 | 37.45 | 11.29 | 55.40 | 17.47 | 37.12 | 11.37 |
| Family Income | 2.85 | 1.56 | 2.89 | 1.34 | 2.86 | 1.62 | 2.89 | 1.33 |
| Years of education | 13.66 | 2.79 | 13.92 | 2.92 | 13.54 | 2.78 | 13.82 | 2.94 |
| Family Business | 0.15 | 0.36 | 0.18 | 0.39 | 0.13 | 0.34 | 0.19 | 0.39 |
| Owns Home | 0.76 | 0.43 | 0.82 | 0.38 | 0.73 | 0.44 | 0.83 | 0.38 |
| N | 757 |  | 770.00 |  | 1961 |  | 1928 |  |

Table 3. Effect of Pre-Labor Day Start on August-September Travel (Households with Children)

| VARIABLES | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
| Before Labor Day | -0.103*** | -0.129** | -0.101*** | -0.131** |
|  | (0.030) | (0.066) | (0.029) | (0.064) |
| Metro not central |  |  | 0.037 | 0.032 |
|  |  |  | (0.026) | (0.029) |
| Metro other |  |  | 0.041 | 0.041 |
|  |  |  | (0.036) | (0.039) |
| Non Metro |  |  | 0.013 | 0.011 |
|  |  |  | (0.050) | (0.060) |
| Hispanic |  |  | -0.086 | -0.098 |
|  |  |  | (0.062) | (0.081) |
| African American |  |  | -0.028 | -0.037 |
|  |  |  | (0.048) | (0.054) |
| Other Non-White |  |  | $-0.131 * * *$ | -0.147** |
|  |  |  | (0.049) | (0.063) |
| Household Size |  |  | -0.041 | -0.047 |
|  |  |  | (0.041) | (0.049) |
| Number children |  |  |  |  |
| under 18 |  |  | 0.037 | 0.043 |
|  |  |  | (0.051) | (0.053) |
| Age Youngest Kid |  |  | 0.008*** | 0.009*** |
|  |  |  | (0.002) | (0.003) |
| Age (Respondent) |  |  | $-0.005 * * *$ | -0.006** |
|  |  |  | (0.001) | (0.003) |
| Ln Family Income |  |  | -0.009 | -0.011 |
|  |  |  | (0.006) | (0.009) |
| Years of education |  |  | 0.022*** | 0.025* |
|  |  |  | (0.006) | (0.013) |
| Family Business |  |  | 0.084*** | 0.097**** |
|  |  |  | (0.027) | (0.027) |
| Owns Home |  |  | 0.037 | 0.041 |
|  |  |  | (0.053) | (0.058) |
| Year Fixed Effects | x | X | x | x |
| State Fixed Effects |  | x |  | x |
| Observations | 757 | 757 | 757 | 757 |
| Marginal effects of log parentheses (cluster | ic regressi State level) | $\begin{aligned} & \text { ns presen } \\ & ; * * * p<0 . C \end{aligned}$ | d; Standar , ** p<0.05 | $\begin{aligned} & \text { errors in } \\ & \text { * } \mathrm{p}<0.1 \text {. } \end{aligned}$ |

Table 4. Effect of Pre-Labor Day Start on May-September Travel (Households with Children)


Marginal effects of logistic regressions presented; Standard errors in parentheses (clustered at State level); *** $\mathrm{p}<0.01$, ** $\mathrm{p}<0.05$, * $\mathrm{p}<0.1$.

Table 5. Effect of Pre-Labor Day Start on August-September Travel (Households without Children)

|  | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
| Before Labor Day | $\begin{gathered} 0.002 \\ (0.015) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.040) \end{gathered}$ | $\begin{gathered} -0.012 \\ (0.014) \end{gathered}$ | $\begin{gathered} 0.006 \\ (0.037) \end{gathered}$ |
| Metro not central |  |  | $\begin{aligned} & -0.073 \\ & (0.055) \end{aligned}$ | $\begin{aligned} & -0.078 \\ & (0.054) \end{aligned}$ |
| Metro other |  |  | $\begin{gathered} -0.004 \\ (0.040) \end{gathered}$ | $\begin{gathered} -0.011 \\ (0.045) \end{gathered}$ |
| Non Metro |  |  | $\begin{aligned} & -0.017 \\ & (0.022) \end{aligned}$ | $\begin{gathered} -0.028 \\ (0.026) \end{gathered}$ |
| Hispanic |  |  | $\begin{aligned} & -0.119 \\ & (0.096) \end{aligned}$ | $\begin{aligned} & -0.129 \\ & (0.110) \end{aligned}$ |
| African American |  |  | $\begin{aligned} & -0.110 * * \\ & (0.051) \end{aligned}$ | $\begin{aligned} & -0.116^{*} \\ & (0.061) \end{aligned}$ |
| Other Non-White |  |  | $\begin{aligned} & -0.072 \\ & (0.082) \end{aligned}$ | $\begin{aligned} & -0.072 \\ & (0.087) \end{aligned}$ |
| Household Size |  |  | $\begin{aligned} & 0.030 * * \\ & (0.012) \end{aligned}$ | $\begin{aligned} & 0.032^{* *} \\ & (0.016) \end{aligned}$ |
| Age (Respondent) |  |  | $\begin{aligned} & -0.002 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.002 \\ & (0.002) \end{aligned}$ |
| Ln Family Income |  |  | $\begin{gathered} 0.004 \\ (0.012) \end{gathered}$ | $\begin{gathered} 0.004 \\ (0.013) \end{gathered}$ |
| Years of education |  |  | $\begin{aligned} & 0.023^{*} \\ & (0.012) \end{aligned}$ | $\begin{gathered} 0.023 \\ (0.018) \end{gathered}$ |
| Family Business |  |  | $\begin{gathered} -0.115 * * \\ (0.054) \end{gathered}$ | $\begin{aligned} & -0.118^{*} \\ & (0.068) \end{aligned}$ |
| Owns Home |  |  | $\begin{gathered} 0.000 \\ (0.057) \end{gathered}$ | $\begin{gathered} 0.000 \\ (0.058) \end{gathered}$ |
| Year Fixed Effects | x | x | x | x |
| State Fixed Effects |  | x |  | x |
| Observations | 770 | 770 | 770 | 770 |

Table 6. Effect of Pre-Labor Day Start on May-September Travel (Households without Children)

| VARIABLES | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
| Before Labor Day | $\begin{gathered} -0.004 \\ (0.020) \end{gathered}$ | $\begin{gathered} 0.015 \\ (0.025) \end{gathered}$ | $\begin{gathered} 0.024 \\ (0.023) \end{gathered}$ | $\begin{gathered} 0.030 \\ (0.023) \end{gathered}$ |
| Metro not central |  |  | $\begin{gathered} -0.032 \\ (0.024) \end{gathered}$ | $\begin{gathered} -0.020 \\ (0.025) \end{gathered}$ |
| Metro other |  |  | $\begin{gathered} -0.003 \\ (0.043) \end{gathered}$ | $\begin{gathered} 0.016 \\ (0.040) \end{gathered}$ |
| Non Metro |  |  | $\begin{aligned} & -0.061^{* * *} \\ & (0.023) \end{aligned}$ | $\begin{gathered} -0.026 \\ (0.016) \end{gathered}$ |
| Hispanic |  |  | $\begin{gathered} -0.109 * * * \\ (0.033) \end{gathered}$ | $\begin{gathered} -0.078 * * \\ (0.035) \end{gathered}$ |
| African American |  |  | $\begin{gathered} -0.092^{* * *} \\ (0.022) \end{gathered}$ | $\begin{gathered} -0.073 * * * \\ (0.022) \end{gathered}$ |
| Other Non-White |  |  | $\begin{gathered} -0.036 \\ (0.044) \end{gathered}$ | $\begin{gathered} -0.035 \\ (0.036) \end{gathered}$ |
| Household Size |  |  | $\begin{gathered} 0.016 \\ (0.013) \end{gathered}$ | $\begin{gathered} 0.021 \\ (0.016) \end{gathered}$ |
| Age (Respondent) |  |  | $\begin{gathered} -0.003 \\ (0.002) \end{gathered}$ | $\begin{gathered} -0.002 \\ (0.002) \end{gathered}$ |
| Ln Family Income |  |  |  | $\begin{gathered} -0.001 \\ (0.007) \end{gathered}$ |
| Years of education |  |  |  | $\begin{gathered} 0.020 \\ (0.014) \end{gathered}$ |
| Family Business |  |  |  | $\begin{gathered} -0.041 \\ (0.030) \end{gathered}$ |
| Owns Home |  |  |  | $\begin{gathered} 0.007 \\ (0.012) \end{gathered}$ |
| Year Fixed Effects | x | x | x | x |
| State Fixed Effects |  | X |  | x |
| Observations | 1,961 | 1,961 | 1,961 | 1,961 |


[^0]:    Autism Master's
    Univmsiry Master's Degree in Autism 100\% Online. Bachelor's Degree Required!
    

[^1]:    ${ }^{1}$ Gary Hopkins, The School Calendar: It's Time to Make Time for Learning!, Education World, May 18, 1998, p.1, available at http://www.educationworld.com/a_issues/issues034.shtml.
    ${ }^{2}$ Section 1001.42(4)(f) and (g) and (10)(a), F.S.:
    The district school board, acting as a board, shall exercise all powers and perform all duties listed below:
    (4) ESTABLISHMENT, ORGANIZATION, AND

    OPERATION OF SCHOOLS.-Adopt and provide for the execution of plans for the establishment, organization, and operation of the schools of the district, including, but not limited to, the following:
    (f) Opening and closing of schools; fixing uniform date.Adopt policies for the opening and closing of schools and fix uniform dates.
    (g) Observance of school holidays and vacation periods.Designate the observance of school holidays and vacation periods.
    (10) FINANCE.-Take steps to assure students adequate educational facilities through the financial procedure authorized in chapters 1010 and 1011 and as prescribed below:
    (a) Provide for all schools to operate at least 180 days.Provide for the operation of all public schools, both elementary and secondary, as free schools for a term of at least 180 days or the equivalent on an hourly basis as specified by rules of the State Board of Education;

[^2]:    ${ }^{4}$ Section 2, ch. 59-371, L.O.F.
    ${ }^{5}$ Bess Keller, August Openings Put Schools On Hot Seat, Education Week, August 8, 2001, p. 1, available at http://www.edweek.org/ew/ ewstory.cfm?slug=43start.h20.
    ${ }^{6}$ Eric Hubler, Denver schools OK mid-August start, The Denver Post, October 20, 2000, at B-01.

[^3]:    ${ }^{7}$ Visit Florida, 2000 Florida Visitor Study, pp. 44-49. This $\$ 50$ billion figure is based on the amount of taxable sales made in 14 of the 99 kind codes used to track sales tax revenue by the Department of Revenue. The amount of taxable sales made in these 14 different kind code categories is considered the best indicator of the amount of tourism activity. Because these 14 kind code categories, however, are quite broad, some non-tourism economic activity is also captured.
    ${ }^{8} I d$. at pp. 3 and 48.

[^4]:    ${ }^{9}$ State of Florida H.R., Committee on Education, K-12, Staff Analysis for HB 600, April 2, 1986, p. 2.

[^5]:    ${ }^{10}$ Section 1008.22(3)(c), F.S.
    ${ }^{11}$ Section 1008.22(1)(a), F.S.
    ${ }^{12}$ Section 1008.34 (3) and (8), F.S. Florida has a statewide assessment program that requires the Commissioner of Education to assign grades A through F to schools and school districts based on student FCAT performance.
    ${ }^{13}$ Section $1008.36(5)(a)$, F.S.
    ${ }^{14}$ Section 1008.34(7), F.S.
    ${ }^{15}$ Section 1008.25(5)(b), F.S.
    ${ }^{16}$ Section1008.22(3)(c)5., F.S.

[^6]:    ${ }^{17}$ State and District Scores for All Curriculum Groups, available at http://www.firn.edu/doe/sas/fcat/fcpress2.htm.

[^7]:    ${ }^{18}$ U.S. Statewide Analysis, available at http://lwf.ncdc. noaa.gov/oa/climate/research/cag3/state.html.

[^8]:    ${ }^{19}$ National Oceanic and Atmospheric Administration, Hurricane Basics, available at http://hurricanes.noaa. gov/prepare/season.htm.

[^9]:    ${ }^{20}$ Visit Florida, 2000 Florida Visitor Study, p. 45.
    ${ }^{21}$ Id. at 39.

[^10]:    ${ }^{22}$ H.B. 2262, 2002 Gen. Assem., 186th Sess. (Pa. 2002).
    ${ }^{23}$ H.R. 446, 2002 Gen. Assem., 186th Sess. (Pa. 2002).
    ${ }^{24}$ H.B. 5080 and S.B. 300, 1997 Leg., Reg. Sess. (Mich. 1997).
    ${ }^{25}$ Mich. H.R., House Staff Analysis for H.B. 5080, October 9, 1997, p. 1.
    ${ }^{26}$ Id.
    ${ }^{27}$ H.B. 4099, 1999-2000 Reg. Sess. (Mich. 1999).
    ${ }^{28}$ Mich. Comp. Laws § 380.1284b(1) (2002).
    ${ }^{29}$ Mich. H.R., House Legislative Analysis Section, Analysis of H.B. 4099, May 5, 1999, p. 1.

[^11]:    ${ }^{30}$ State of Wisconsin Joint Legislative Council, Legislation on Determination of a School Calendar, Report No. 9 to the 1999 Legislature, October 21, 1999, p. 5.
    ${ }^{31}$ Section 2066m, 1999 Wis. Act 9.
    ${ }^{32}$ See Wisconsin Department of Public Instruction, 2000-2001 District Calendar.
    ${ }^{33}$ Wis. Stat. § 118.045(3) (2002).
    ${ }^{34}$ Id.
    ${ }^{35}$ H.B. 4569, 114th Gen. Assem., Reg. Sess. (S.C. 2002).
    ${ }^{36}$ Conversation with Molly Spearman, Deputy Superintendent of Governmental Affairs, S.C. State Board of Education, Dec. 2002.
    ${ }^{37}$ Steven C. Morse, Ph.D., South Carolina Early School Start Dates and the South Carolina Travel and Tourism Industries: An Analysis of Economic \& Tax Revenue Impacts, p. 19.

[^12]:    ${ }^{38}$ South Carolina Department of Education, State Board of Education approves statewide uniform start dates for schools, available at http://myscschools.com/news/more. cfm?articleID=275.
    ${ }^{39}$ Tex. Education Code § 25.0811 (2003).
    ${ }^{40}$ Carole Keeton Rylander, Texas Comptroller of Public Accounts, An Economic Analysis of the Changing School Start Date in Texas, December 2000, p 1., available at http://www.cpa.state.tx.us/.
    ${ }^{41}$ Texas Department of Economic Development and Tourism \& More Consulting Services, The Effects of Alternative Academic Calendars on the Texas Travel Industry, February 1999.

[^13]:    © 2012 Regents of the University of Minnesota. All rights reserved. University of Minnesota Extension is an equal opportunity educator and employer. In accordance with the Americans with Disabilities Act, this material is available in alternative formats upon request. Direct requests to the Extension Store at 800-876-8636. *) Printed on recycled and recyclable paper with at least 10 percent postconsumer waste material.

[^14]:    ${ }^{1}$ e.g."Texans for a traditional school year", "Summer is for Families (Arizona)"

[^15]:    ${ }^{2}$ This supplement (ATUS-Trips) was not primarily intended to collect detailed information on travel, but to adjust the regular ATUS interviews for bias. The ATUS conducts the survey by calling people at their residence. Because individuals/households involved in more travel are far less likely to be available at home for interviews, the ATUS would under-represent frequent travelers. Data from ATUS-Trips are used to adjust for such bias.

[^16]:    3 The group of parents labeled as "the treatment" as opposed to "the control" is somewhat arbitrary in this setting. Assigning the pre-Labor Day start parents as the "treatment" and post as "the control" was favored because most households in the data are persistently in post Labor-Day settings, while some switch between settings by year. Assigning the larger steady group as the control maximizes statistical power.

[^17]:    ${ }^{4}$ Theoretically, the possibility for "spillover" effects exists, but it is suspected to be highly unlikely. These effects could be positive, if families without children make vacation plans jointly with families with children (e.g. Grandparents). Alternatively, vacationing may become more pleasant to households without children after school starts due to congestion.

[^18]:    ${ }^{5}$ The effect on August and-September travel is 50\% (1 in 2 families). The effect on the overall summer is $30 \%$ (one in three families). The difference (20\%) indicates that one in five households re-scheduled their trips.

