

JD: Good afternoon, and welcome to *Behind the Numbers: Exploring Transportation Statistics*, hosted by the Bureau of Transportation Statistics and the U.S. Department of Transportation. My name is Jennifer Davis, and I am your facilitator for this session.

JD: Before we get started, we have a few “housekeeping” items to note:

1. This webinar is being recorded, both the presentation and the audio, and will be posted online for future reference in about a week. Everyone registered for today’s session will receive an email with a link once the information has been posted.
2. All participants have been placed in “listener only mode”, otherwise known as mute. As back-up, we ask that everyone go to the top of their screens and click off the green audio icon.
3. If you have a question for a presenter, feel free to type it into the “chat” box in the lower left hand corner of your screen, and we will do our best to answer as many questions as we can during the allotted time. If time runs out, any additional questions submitted will be addressed in the online presentation posting.
4. Thank you!

JD: Now, on with the show! Today’s topic is *Using Satellite Accounts to Uncover Transportation’s Role in the Economy*. We are pleased to have with us:

- Ms. Sarah Osborne, with the Bureau of Economic Statistics at the US Department of Commerce, who will be presenting on *Travel and Tourism Satellite Accounts (TTSA)*, and
- Ms. Theresa Firestine, with Bureau of Transportation Statistics at the US Department of Transportation, who will be presenting on *Transportation Satellite Accounts (TSAs)*.

JD: We will begin this afternoon with Sarah Osborne. Sarah is a Program Manager/Economist at the Bureau of Economic Analysis who works on the preparation and analysis of Finance, Real Estate and Travel and Transportation satellite statistics. While a relative new comer to the TTSA statistics, Sarah has been with the BEA’s industry accounts for 6 years and is a 20+ year veteran of the US Federal Statistical System.

JD: So take it away, Sarah!

SO: Thank you, Jennifer. Good afternoon, everyone. As Jennifer said, my name is Sarah Osborne and I'm going to provide some information on BEA's travel and tourism satellite account or TTSA.

Our first estimates at this account for published in 1998 at that time the estimates were on an annual basis. In December of 2001 we produced the first quarterly TTSA estimates in response to the September 11th attacks.

This account was developed to fill a need in the travel and tourism community activities and travel and tourism are covered in the national and industry economic accounts, however, the classification system underlying the accounts, NAICS, does not facilitate separately identifying tourism.

In order to provide a coherent picture of travel and tourism that is comparable with other production measures in the US economy, in 1997 the office of travel and tourism of the international trade administration entered into an agreement with the Bureau of economic analysis to develop the US TTSA.

Using the travel and tourism accounts, users are able to analyze questions that don't fit within the defined national accounts framework or boundary.

SO: Slide 2: So what does the travel and tourism account provide? it quantify the impact of travel and tourism activity on the economy. It tells us how much people are spending on travel and tourism, and how that travel and tourism spending has changed in recent orders.

It compares travel spending by households, business, and government. Who is traveling these days and is this mix different from five years ago? We show how the next changes over time.

Attracts the value of tourism exports (also called inbound tourism) and imports (also called outbound Tourism) so that our balance of tourism trade becomes more visible.

It measures the contribution of tourism to GDP our annual contributions table shows of travel and tourism is helping GDP or detracting from GDP.

SO: Slide 3: Where do you find the TSA? Well, like everything else these days, you'll find it at our website at BEA.gov.

--quarterly estimates are released online as a press release and tables. You can check the release schedule for dates. The link for the really schedule will be posted in the slides.

--annual estimates are released in the survey of current business, which is also online. Again, the link will be posted in the slides.

SO: Slide 4: The foundations for constructing the TTS say are the input output accounts of the United States for those not familiar with IO accounts, these accounts provide detailed and

balanced industry and commodity accounts which show the sources of supply--The "make table" and their uses in the economy.

Benchmark I-O tables are available about every five years and tap into the rich data available from the quinquennial economic census from these the annual I-O tables are constructed.

SO: Slide 5: So, our annual input output accounts are the beginning of the TSA. They provide detailed measures of the output by commodity and industry which we used to identify commodities that are related to travel and tourism activities (travel related expenditures made by all visitors, before, during, and immediately after each trip taken).

The slide is an example of a mini make table comprising the travel and tourism commodities that we identified you see the commodities are here on the left and the industries that produce them run across the columns.

While some of these commodities are solely used for travel and tourism, such as air passenger transportation, others are used by variety of purchasers. In order to identify the travel and tourism portion of these I-O commodities totals we bring in outside sources.

For example, the BLS consumer expenditure survey (CEX) allows us to quantify the TTSA portion of non-pure travel commodities such as restaurant meals parking fees movies and admission to sporting events.

Will use other outside sources including the survey of international air travelers in-flight survey parenthesis 1994 parenthesis, conducted by the international trade administration's Office of travel and tourism industries, and the DKS traveler survey which allows us to estimate business and government travel expenditure ratios this is business without government travel spending government travel spending and leisure travel spending.

This is our bases. Then, the I-O accounts Use table provides the detailed estimates of industry and final use expenditures required to identify tours and expenditures by type a visitor rearranging a modifying this table informs our TTSA demand.

Finally, the I-O accounts provide the analytical framework that links these expenditures to industry output international aggregates such as GDP.

SO: Slide 6: So is traveling tors I'm worth measuring? Yes. It is a significant portion of GDP. As we see in the chart above, travel and tourism holds a larger share of GDP and insurance, chemicals, or agriculture, for example.

For several states and many local jurisdictions, travel and tourism is the economy.

Often these areas have their own set of travel and tourism estimates Hawaii's TTSA is very mature, as a South Carolina's.

SO: Slide 7: in our annual accounts, we provide information on 25 commodities tied to travel and tourism, and in the chart above you can see the largest drivers of the group.

This is from our TTSA series-- these are percentage point contributions which indicate the extent that each commodity affected the overall TTS a growth.

For example: recreation, entertainment, and shopping spending accounted for 1.2 percentage points of the 3.4 percentage of overall TTSA increase in 2014. This means that had “recreation, entertainment, and shopping” spending neither increased or decreased into 2014, overall to TTSA growth would have been only about 2.2%.

Traveling tourism is sensitive to the business cycle. We see into thousand and nine, during the recession, “recreation, entertainment, and shopping” let the decline into TTSA growth.

It's good to know when major components of travel and tourism are not following the business cycle-- for example, recreation, entertainment, and shopping into thousand and 12 detracts from the TTSA growth, following slightly while the overall TTSA growth was positive. I'm not sure how well you'll be able to see this on your screen, recreation, entertainment, and shopping contributed about -.1 percentage point in 2012.

SO: Slide 8: The traveling towards an account breaks out all expenditures parenthesis all domestic travel and tourism parenthesis by type of visitor: resident households, business, and government.

On the whole these portions are quite stable. In 2013, 67.5% of domestic T&T was by households, 27.8% by business, and 4.7% by government.

SO: Slide 9: But of course the entire pie shrunk a lot into thousand eight, and here we see some share shifting. Our source data for 2008 to 2009 shows a strong decline in business travel parenthesis which we expected parenthesis, then a smaller decline in leisure travel, and a very small decline and government travel. So the shares shift with a larger proportion going to hit households.

You know, in addition to source data, we make use of quarterly conference calls from the major hotel and airline companies, 10-Q reports from the SEC, and we keep up with the trade data-- so we try not to be surprised when we actually produce estimates like these.

SO: Slide 10: how does travel and tourism affect our balance of trade?

Outbound travel and tourism, and import, consist of travel related expenditures and international transportation purchases from foreign providers by US residents traveling abroad. In 2014, outbound activity increased 4.8% to \$135.2 billion.

Inbound traveling tourism, an export, consists of travel related expenditures and international transportation purchases from US providers by nonresidents traveling in the United States. In 2014, inbound activity increased 6.9% to \$189.2 billion.

As a result of the shifts, the net exports of travel and tourism increased. That's a plus in our balance of trade statistics.

This is useful information. I'm sure, for example, you seen or read in the news about new changes to the VIS a waiver program. TTSA can help policymaker study the effects of the changes on our balance of trade.

SO: Slide 11: What does this slide tell us?

Here we are looking at the index for the value of the dollar (on the left) and the percentage of changing realtors and spending (on the right), in order to see the effects of the dollar on travel and tourism.

We note that as the dollar increases in 2008, tourism slow down but then recovers and 2010 starts dropping.

If we look at the period starting in the second quarter of 2010 through 2011, you'll notice that the value of the US dollar (the blue line) drop sharply, while spending on US travel and tourism rose sharply (the red line).

The weaker value of the US dollar spurred foreigners to visit the United States because they have more spending power given the stronger value of their own currencies. This is why growth and travel and tourism was searching during a time when there was overall flat to declining growth in the US economy.

SO: Slide 12: So if shown travel and tourism is a significant percent of GDP but doesn't employ a lot of people? Yes! In 2014, 7.9 million persons work and travel and tourism, 5.5 million directly and 2.4 million and directly. Direct tourism employment includes jobs that involve producing goods and services that are sold directly to travelers, for example traveler accommodations and passenger air transportation. Direct tourism employment includes airline pilots, Hotel clerks, and travel agents, as examples of such employees. Indirect tourism employment comprises all employment required to support the production of direct tour is an output (for example, toiletries for hotel guests and fuel for airlines).

The industries involved here tend to require a large labor force to produce the output-- it is difficult to increase labor productivity in some of these industries. So, and travel and tourism, reducing employment generally only comes when travel and tourism is also declining.

SO: Slide 13: Where are the tourism jobs? Food services and drinking places (including bars, restaurants, and food trucks) employ the most people. Lodging is next, followed by retailers. These are direct tourism jobs-- i.e., the pilot that flies your plane, or the hotel concierge. It does not include indirect tourism jobs-- such as the person who puts the field on the plane. When differentiating between direct and indirect tourism jobs, think of whether or not you, as the traveler, will come into contact with the person. If the answer is yes, then the job is direct. The other is not.

SO: Slide 14: These are the results from our latest release of 2015 Q3, and just a heads up that our fourth-quarter release will be next month, on March 16. For the third quarter, we know that the GDP for the total economy decelerated, and you can see that by looking at the straight blue horizontal line. Deceleration is also the case for travel and tourism, which increased at an annual rate of 4.3% after increasing 8.4% and the second quarter.

We see here that the leading contributor to the deceleration is "traveler accommodations" which decelerated to 4.0% in the third quarter after increasing 13.5% in the second quarter. And real spending on "recreation and entertainment" turned down, declining 1.8%, after increasing 5.6% in the previous quarter.

At the same time, we see that transportation spending is growing, and if you were to go to the more detailed report, you would notice that the growth comes from both all other transportation, and air passenger transportation.

SO: Slide 15: So who makes use of this data? We have over 1,400 subscribers to the TTSA account; trade journals use our releases as a basis for articles; the congressional travel and trade caucus; and the secretary of commerce also utilize the TTSA's. They use these accounts to guide policy discussions and legislation, compare a local areas tourism to the nations, and track appointment in the sector.

So at this point we've completed the slides and I'd be happy to take any questions you may have.

JD: OK, Sarah, we have a question from David. He says "I take it that the business use of transportation in these accounts does not include in-house production of transportation?"

SO: That's true, David, it doesn't include in-house transportation. The IO Accounts do not explicitly measure the contribution of in-house transportation, so the TTSA does not separate

out that measure either. I believe Theresa, when she talks about the Transportation Satellite Accounts, will address this issue in more detail.

JD: Next we have a question from Veronica: “Is this information available separately by state also?”

SO: This is just for the United States. We do have regional GDP statistics, but we do not have it at this time broken down as regional TTSA accounts.

JD: And Bob is asking, “How specific does your data get? I’m thinking of modes of transportation or recreation choices such as bicycles or hiking tourism.”

SO: Bob, our data comes from the national input-output accounts. So when you get down to the underlying data, it’s very specific, we have over 9,000 commodities in that account. So we would definitely know air passenger transportation vs. car vs. light truck. But the input-output accounts do not consider own-use bicycling, or hiking, as within the production boundary, so that in itself would probably not be in the account. The purchase price of a ticket to a park, or the gasoline to get to the park would be included, or a bike rental from capital bike share would be captured.

JD: Great questions, everyone! Remember that these will be posted online along with the webinar recording shortly.

JD: Next we will move on to Ms. Theresa Firestine. Theresa is an Economist at the Bureau of Transportation Statistics who works on the preparation and analysis of the Transportation Satellite Accounts (TSAs). Theresa has helped to evolve the TSAs to provide more current estimates and to capture a broader range of transportation modes.

So, Theresa, the floor is yours!

TF: Slide 1: Thanks, Jennifer. So I will be talking about the Transportation Satellite Accounts.

TF: Slide 2: How can we measure the contribution of transportation to the economy? We could measure the tonnage of goods carried by trucks and the number of rail carloads. But we can’t add truck tonnage and rail carloads to estimate the total contribution of transportation. The units aren’t comparable. BTS developed the transportation satellite accounts to measure the contribution of multiple transportation modes to the national economy. I will refer to the transportation satellite accounts in this presentation as the TSAs.

TF: Slide 3: The TSAs are an extension to the input-output accounts, known in short as the I-O accounts (and Sara talked a little about the I-O accounts in her presentation. The I-O accounts are produced by the Bureau of Economic Analysis. The I-O accounts show the contribution of

for-hire transportation to the economy. For-hire transportation consists of the services provided by firms to the industries and the public on a fee basis, such as air carriers and trucking companies. The TSAs reorganize the I-O accounts to show the contribution of transportation activity carried out by non-transportation industries for their own purposes.

TF: Slide 4: I am now going to describe a few of the tables in the TSAs and what information they contain.

The TSA use table shows the dollar value of the commodities used by the industry during production. The table shows for instance the petroleum used by a transportation industry in producing transportation services and for instance, the amount of transportation used by the wholesale trade industry. The TSA use table also shows the contribution of non-transportation and transportation industries to the national economy.

TF: Slide 5: This figure uses data from the TSA use table. The use table shows the amount of transportation used by an industry. In 2012, the wholesale and retail trade industry used the largest amount while the utilities industry used the least. Note the manufacturing industry used the third largest amount of transportation as I'll come back to this in a later slide.

TF: Slide 6: This figure also uses data from the TSA use table. The TSA use table shows the contribution of transportation to the economy. We measure this as the contribution to gross domestic product. For-hire transportation accounted for 2.7% of GDP in 2012. In-house operations by non-transportation industries contributed 1.2% and households 1.8%. A majority of in-house operations by non-transportation industries is truck transportation. As you can see, in-house trucking was larger than for-hire in 2012. We significantly undercount the contribution of transportation by not measuring in-house operations.

TF: Slide 7: Industries that produce more in absolute terms tend to use more transportation. The direct requirements table transforms the use table and shows the amount of transportation and other commodities required to produce one dollar of output. This makes it possible to compare the inputs required across industries.

TF: Slide 8: This figure uses data from the TSA direct requirements table. Utilities, as previously shown, used the smallest amount of transportation but as shown here, required more transportation to produce a dollar of output than manufacturing, which used the third largest amount of transportation in 2012.

TF: Slide 9: This figure also uses data from the TSA direct requirements table. It shows the top 5 inputs that the wholesale and retail trade industry needs the most of to produce one dollar of output.

TF: Slide 10: Detailed data is available at:

http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/transportation_satellite_accounts/index.html. *The Industry Snapshots: A Special Report from the 2012 Transportation Satellite Accounts* is forthcoming and shows the use of transportation by non-transportation industries. Our FAQs can be found at: http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/transportation_satellite_accounts/faq.

TF: Slide 11: Here is my contact information if you have any questions.

JD: Thank you, Theresa! We also have received some questions for you...

JD: Our first question, is about an earlier slide, there was a bar graph that indicated “households”; what exactly does “households” mean?

TF: So “households” means private households; it basically takes up the contribution of households in using their own personal motor vehicles to run errands, or things like that. It’s not capturing the time they are spending but it’s capturing the depreciation of using their own motor vehicle.

JD: And Matt has submitted a question: “Will the BTS TSAs replace the TTSAAs?”

TF: That’s a good question, Matt. Actually they are two different products. Sarah is taking up travel and tourism whereas the TSAs are picking up in-house operations so they are adding on to what is already included in the input-output accounts to measure the value of transportation from industry to use their own transportation services as well as the contributions of households. At some point in the future it may be a collaboration to put something together with the two.

JD: Do we have any other questions for either Theresa or Sarah today?

JD: These were great questions, everyone! So we’ve reached the end of our session today. We would like to thank Sarah Osborne and Theresa Firestine for presenting here today. We would also like to thank all of you for joining in today’s session.

JD: Remember that these presentations will be posted online along with the webinar recording shortly, so watch your emails!

JD: Our next BTS Webinar is scheduled for Tuesday, April 26, and the topic will be *BTS Border Crossing and Transborder Data*. You can find out more information about all of the BTS Webinars by visiting www.rita.gov/bts/webinars.

JD: Thanks again, everyone. We hope you can join us for April 26th!