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United States Producer Price Index for Travel Agencies  
NAICS 561510  
ISIC 7911 Travel Agency Activities

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## **Introduction**

The U.S. Bureau of Labor Statistics currently publishes a Producer Price Index for the 2012 North American Industry Classification System (NAICS) industry 561510, Travel Agencies. This paper discusses the development and maintenance of this index.

### **1. Definition of the service being priced**

The primary output for establishments in NAICS 561510, Travel Agencies is the provision of assistance with travel arrangements and bookings. This includes flight, hotel room, tour, car rental, and cruise bookings. These bookings may be for business or leisure travel and may be conducted at traditional “brick and mortar” agencies or on online travel agency websites. Travel agencies that provide services to business customers may also offer travel management services including travel budgeting, detailed travel reports, and access to 24-hour call centers for travel changes and emergencies. Some agencies also offer travel consulting services in addition to their booking services.

#### *Traditional (Non-Internet Exclusive) Travel Agencies*

When requested to book travel, traditional travel agents search for potential itineraries on a global distribution system (GDS). These distribution systems compile travel service booking options for multiple airlines, hotels, cruises, and other travel providers into a single database, allowing the travel agent to make direct service and price comparisons. Bookings are typically made through the GDS and then transferred electronically to the travel providers. Travel agents that do not use a GDS make bookings directly with travel service providers.

For flight bookings, travel agents typically collect the cost of the ticket plus a booking fee from the customer at the time the booking is made. Payments are then transmitted to the airlines via centralized clearinghouses. These clearinghouses take pooled payments from travel agencies and then distribute funds to individual airlines. The clearinghouses also reconcile any commissions that the airlines may owe the travel agencies for their bookings.

For other bookings, such as hotels and car rentals, travel agents make bookings but do not typically receive payments from travelers for the lodging or car rental. These payments are made directly to the providers at the time that services are provided. The travel providers then submit commissions to the travel agencies. In some instances, travel agencies may charge customers booking fees as well.

Throughout the booking process, travel agents may provide customers with information and advice about their travel itineraries. They may also act as a support line if customers have problems with their bookings while travelling. Consultation fees may be collected for these services.

In addition to making bookings, some corporate travel agencies also manage travel policies and budgets for client businesses. Separate fees may be charged for these services as well.

### *Online Travel Agencies (OTAs)*

As of 2007, OTAs generated approximately one third of U.S. turnover for this industry. Although more recent figures are not available, anecdotal evidence suggests that as of 2014 they generate more than half of industry turnover.

In addition to providing online bookings for travel, OTAs also offer customers the ability to assemble their own travel packages. OTAs give travel customers the ability to search for travel reservations by factors such as location, date, and price. Once a customer has found the hotel room, flight, rental car, etc. they would like to book, they can make the reservation on the OTA's website.

OTAs provide and price these travel booking capabilities based on two different models: the agent model and the merchant model.

#### **Agent Model**

Under the agent model, OTAs allow travelers to make bookings for itineraries supplied by travel providers through a GDS. While traditional travel agencies use the GDS to search for travel reservations for their customers, OTAs provide this information on their websites so that customers can search it themselves. The price that appears on the website for agent model transactions is the price that the supplier set.

Once a customer has completed a search, the travel booking can be made through the OTA's website. The OTA then transmits the reservation information through the GDS to the supplier. The supplier settles the transaction directly with the customer.

For agent model transactions, OTAs receive a commission from travel suppliers. When a booking is made through an OTA, the travel supplier pays the OTA a commission based on an agreed upon percentage of the booking price. Domestic flight bookings are an exception, as commissions are typically not paid for these bookings in the U.S. OTAs often charge flat booking fees for flight bookings.

#### **Merchant Model**

Under the merchant model, OTAs negotiate discounted wholesale prices for a certain amount of a travel supplier's inventory. For example, an OTA might negotiate with a hotel for access to a specified number of rooms at a price discounted below the level offered through the GDS. The OTA then adds a markup before posting the price on its website. These merchant model travel bookings are often available through opaque price bookings or opaque brand bookings. Opaque price bookings are usually travel packages where only the total package price is given. The price of each separate part of the travel package is hidden from the customer. Opaque brand bookings may be made through "name your own price" programs or searches by price level where the travel brand is not known until the reservation has been made and the payment has been submitted.

For merchant model transactions, OTAs bill travelers when bookings are made. Once the customer is charged, the reservation information is transmitted by the OTA to the travel supplier. The supplier bills the OTA at a later date. Hotels typically bill the OTA upon customer checkout.

For merchant model transactions, OTAs charge a markup that is added to the wholesale price of the booking. With these transactions, OTAs do not commit to purchasing the travel inventory before travel customers are found, so they never have to sell the booking at a negative margin.

### **Telephone Booking Services**

For more complex travel bookings, OTAs may operate a call center that provides booking services over the phone. Customers may be charged an extra booking fee by the OTA for bookings made via the phone service.

## **2. Pricing unit of measure**

The unit of measure for most travel agency transactions is per booking. In some instances, a per hour or per visit fee may be charged for leisure travel consultations. Travel agencies may also receive a per segment incentive fee for making reservations through global distribution systems (GDS).

## **3. Market conditions and constraints**

### **a. Size of industry**

The following table provides size statistics for the U.S. travel agencies industry based on the 2007 U.S. Economic Census.

<b>NAICS Code</b>	<b>Industry</b>	<b>Number of establishments</b>	<b>Turnover (\$1,000)</b>
561510	Travel Agencies	15,804	\$17,289,135

Based on 2007 turnover figures, NAICS 561510, Travel Agencies, comprises over 46 percent of NAICS 5615, Travel Arrangement and Reservation Services, which also includes tour operators, convention and visitors bureaus, and other arrangement and reservation services. NAICS 561510, Travel Agencies, comprises just over 3 percent of NAICS 561, Administrative and Support Services, which also includes office administrative services, employment services, business support services, investigation and security services, and services to buildings and dwellings.

As shown in the following table, within the U.S. travel agencies industry, the top four firms earn over 48 percent of total industry turnover based on the 2007 U.S. Economic Census. The top 50 firms earn almost 64 percent of industry turnover.

	Turnover (\$1000)	Percent of Total Turnover in NAICS 561510
4 Largest Firms in NAICS 561510	8,423,169	48.7%
8 Largest Firms in NAICS 561510	9,361,615	54.1%
20 Largest Firms in NAICS 561510	10,125,503	58.6%
50 Largest Firms in NAICS 561510	11,051,492	63.9%

**b. Special conditions or restrictions**

In the U.S., travel agencies record turnover on a net basis. This means that turnover includes only the monetary value of the commissions or markups that agencies assess on booked travel, and not the full cost of booked travel including the actual charges for lodging and/or transportation. Net turnover is used as the basis for item weighting for all travel agencies collected by the U.S. PPI.

**c. Record keeping practices**

While larger travel agencies may operate multiple local branch offices, pricing data can typically be obtained at travel agency company headquarters. As a result, the U.S. sampling strategy is to collect consolidated price information for all of a company's local operations at the headquarters.

**4. Standard classification structure and detail related to the area**

*NAICS Definition*

NAICS 561510, Travel Agencies, comprises establishments primarily engaged in acting as agents in selling travel, tour and accommodation services to the general public and commercial clients.

*Comparison to ISIC Rev.4 Definition*

NAICS 561510 directly compares to ISIC 7911, Travel Agency Activities, which includes activities of agencies primarily engaged in selling travel, tour, transportation and accommodation services to the general public and commercial clients.

*North American Product Classification System*

The following table provides the travel arrangement and reservation services as defined by the North American Product Classification System. The services listed are those for which there is trilateral agreement between the United States, Canada, and Mexico.

<b>Industry</b>	<b>NAPCS Code</b>	<b>Title</b>
5615	1	Travel arrangement and reservation services
5615	1.1	Reservation services
5615	1.1.1	Reservation service for passenger transportation
5615	1.1.1.1	Reservation service for airline seats
5615	1.1.1.1.1	Reservation service for airline seats, international travel
5615	1.1.1.1.2	Reservation service for airline seats, domestic travel
5615	1.1.1.2	Reservation service for bus seats and airport shuttle services
5615	1.1.1.3	Reservation service for rail seats
5615	1.1.1.4	Reservation service for vehicle rental
5615	1.1.1.5	Reservation service for cruises
5615	1.1.1.5.1	Reservation service for cruises of one day or less
5615	1.1.1.5.2	Reservation service for cruises of more than one day
5615	1.1.1.6	Reservation service for ferry transportation
5615	1.1.2	Lodging reservation service
5615	1.1.2.1	Lodging reservation service, international travel
5615	1.1.2.2	Lodging reservation service, domestic travel
5615	1.1.3	Reservation service for packaged tours
5615	1.1.3.1	Reservation service for pre-packaged tours
5615	1.1.3.1.1	Reservation service for pre-packaged tours, international travel
5615	1.1.3.1.2	Reservation service for pre-packaged tours, domestic travel
5615	1.1.3.2	Customized tour package service
5615	1.2	Trip planning services
5615	1.2.1	Trip planning services, business travel
5615	1.2.2	Trip planning services, leisure travel
5615	2	Packaged tours
5615	2.2	Customized group tour packages
5615	2.2.1	Customized group tour packages, international travel
5615	2.2.2	Customized group tour packages, domestic travel
5615	4	Related products
5615	4.1	Insurance brokerage and agency services for travel insurance
5615	4.3	Travel document services
5615	4.4	Travelers check agency services
5615	4.5	Foreign exchange services
5615	4.6	Wire transfer services for currencies
5615	4.7	Short-term mobile phone access services
5615	4.8	Published corporate travel management software
5615	4.9	Emergency travel services

## *Comparison to CPC Ver.2*

The following table maps the NAPCS product codes to the CPC Ver.2 structure for classes 8551 and 8552.

CPC Code	Title	NAPCS Code
8551	Reservation services for transportation	1.1.1 (5615)
85511	Reservation services for air transportation	1.1.1.1 (5615)
85512	Reservation services for rail transportation	1.1.1.3 (5615)
85513	Reservation services for bus transportation	1.1.1.2 (5615)
85514	Reservation services for vehicle rental	1.1.1.4 (5615)
85519	Other transportation arrangement and reservation services	1.1.1.2 (5615) 1.1.1.6 (5615)
8552	Reservation services for accommodation, cruises and package tours	1.1.2 (5615) 3.7 (5615) 1.1.1.5 (5615) 2 (5615)
85521	Reservation services for accommodation	1.1.2 (5615)
85522	Time-share exchange services	3.7 (5615)
85523	Reservation services for cruises	1.1.1.5 (5615)
85524	Reservation services for package tours	2 (5615)

The product classification structures are largely similar. The NAPCS structure includes domestic versus international reservations as well as detail for additional services provided by travel agencies including travel document services, travel insurance brokerage services, and corporate travel management software services.

The U.S. does not classify time-share exchange services in this industry. Time-share exchange services are included in NAICS 561599, All Other Travel Arrangement and Reservation Services.

## **5. Evaluation of standard vs. definition and market conditions**

Below is the U.S. PPI publication structure for the travel agencies industry.

Index code	Index title
561510	Travel agencies
561510P	Primary services
5615101	Flight bookings
561510111	Domestic flight bookings
561510112	International flight bookings
5615102	Other travel agency services, except flight bookings
561510211	Hotel and car rental bookings
561510212	Car rental bookings
561510222	Cruise and tour bookings

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5615102221	Cruise bookings
5615102222	Packaged tour bookings
561510233	All other travel agency services
561510SM	Other receipts

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The U.S. PPI for travel agencies closely follows the NAPCS structure, although the NAPCS structure includes more detail in several areas. The U.S. PPI does not provide detail for the duration of the cruise booked or for domestic versus international lodging or tour reservations. The U.S. PPI service line for **All other travel agency services** incorporates the NAPCS product lines for trip planning services along with rail, bus and shuttle booking services. The NAPCS product line for **Related products** closely matches the U.S. PPI product line for **Other receipts**.

## **6. National accounts concepts and measurement issues for the area related to GDP measurement**

The Bureau of Economic Analysis (BEA) publishes GDP-by-industry and input-output data at the NAICS four-digit level, 5615, encompassing Travel Agencies, Tour Operators, Convention and Visitors Bureaus, and All Other Travel Arrangement and Reservation Services. This industry area is also included in the BEA's Travel and Tourism Satellite Account.  
[\(http://www.bea.gov/industry/tourism\\_data.htm\)](http://www.bea.gov/industry/tourism_data.htm)

The travel agencies PPI is used as a deflator for travel agent services to determine real output in the industry account.

## **7. Pricing method(s) and criteria for choosing various pricing methods**

The types of prices typically used by travel agencies are booking fees, commissions, overrides, and other fees. In addition, online travel agencies also receive margin prices on merchant model transactions. In all cases, the price collected reflects only the fees retained by the travel agency. For example, if an agent charges a 10 percent commission on an \$800 cruise, the collected price is only the \$80 commission. The additional \$800 paid by the client for the cruise is not included in the collected price.

### *Booking Fees*

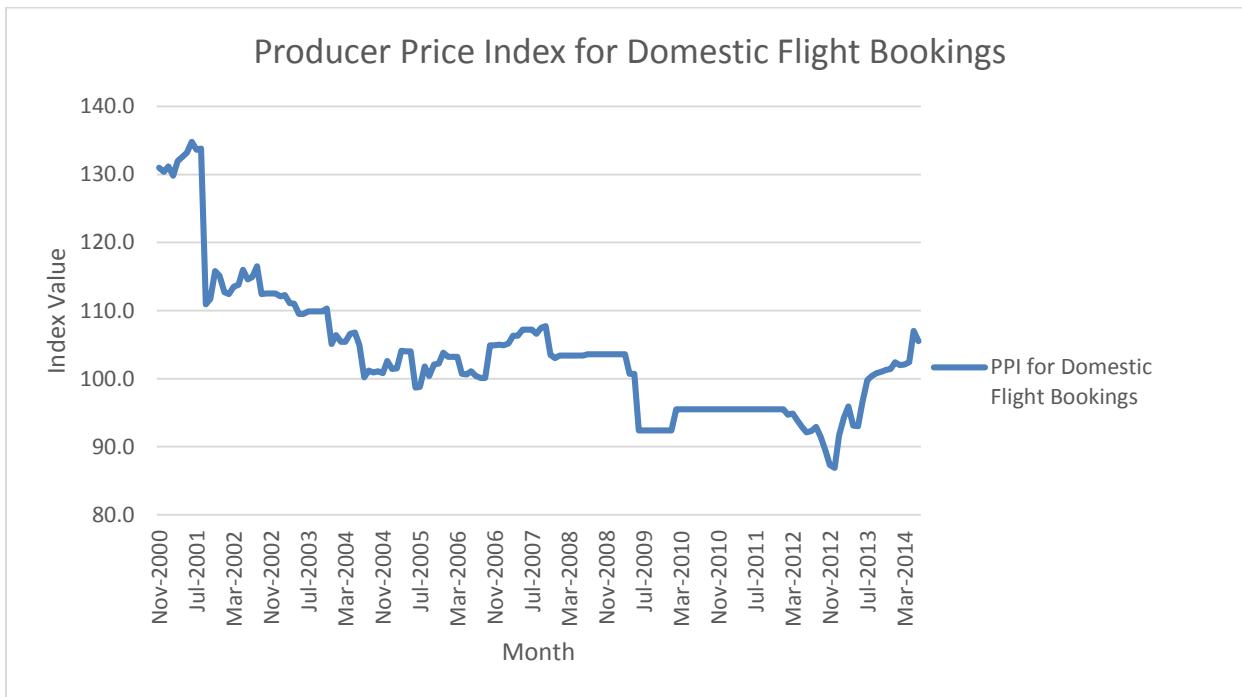
Travel agencies serving institutional clients typically price their services using flat booking fees. These fees are charged per booking service transaction. The following is an example of the different services and fees that may be offered.

### Travel Booking Services and Fees

Service	Fee per Transaction
Air – Full Service Domestic	\$30.00
Air – Full Service International	\$40.00

Air – Online with Technical Assistance Domestic	\$20.00
Air – Online with Technical Assistance International	\$30.00
Air - Online without Technical Assistance Domestic	\$8.00
Air - Online without Technical Assistance Intl	\$8.00
Hotel Only Reservations - Full Service	\$7.00
Hotel Only Reservations - Online	\$4.00
Car Only Reservations - Full Service	\$7.00
Car Only Reservations - Online	\$4.00

Since most U.S. airlines have stopped paying commissions for domestic flight bookings, many travel agents booking leisure airline tickets now charge travelers flat booking fees as well. Commission reductions were first adopted in 1995 and further reductions occurred in 1999. After the terrorist attacks on September 11, 2001, U.S. airlines struggled financially. By 2002, as a part of their cost-cutting measures, commissions to travel agents were almost entirely eliminated by major airlines in the U.S. for domestic flights. The chart below indicates the effect this change had on the U.S. PPI specifically for domestic flight bookings by travel agents. In order to generate turnover for domestic flight bookings, travel agencies instituted flat booking fees charged to clients.



The ideal price for these transactions in the U.S. is an average booking fee for all bookings made in the previous month for a specified type of travel service (domestic air, international air, hotel, car rental, cruise, tour, etc.) provided using a specified booking method (by telephone/in person, on the internet with assistance, on the internet without assistance)

If a respondent is unable to provide any average booking fee, an actual transaction price is collected.

#### *Commissions*

Travel agencies that cater to leisure travelers typically receive commissions paid by travel service providers. These commissions are often about 10 percent of the booking price for leisure car rental, hotel, tour, and cruise bookings. The preferred type of price for commissionable bookings is a model price.

A typical booking for a particular travel service is selected during the initial collection period. The commission-earning base price and commission rate earned for the selected booking are also collected. In most cases, the commission-earning base price will exclude taxes and fees. In subsequent months, the commission-earning base price will be escalated by BLS staff using U.S. price index data for the type of travel service being booked. The respondent is asked to estimate the commission rate that would be charged if a similar booking service were to be provided to a similar client in the current pricing period.

For example, a commission on a hotel booking may be collected. In the initial period, the respondent notes the price that was charged for a stay on a specified night or nights at a particular full service property, and the commission rate that was charged. For instance, a booking for a Saturday night stay at Full Service Hotel X in City Y is \$200, with a commission rate of 10%, for a commission fee of \$20.

$$\text{Commission-earning base price} = \$200$$

$$\text{Commission Rate} = 10\%$$

$$\text{Commission Fee} = \$200 \times 10\% = \$20$$

In the next pricing period, the hotel rate of \$200 is adjusted based on the change in the U.S. detailed PPI for the selected type of lodging. If this index increases 1%, for example, the new rate will be listed as \$202. The respondent is only asked to update the commission rate if it were to change from 10%. If, in this example, the commission rate does not change, the respondent reports no change and a new price of \$20.20 is reported as the current period price.

Previous month's commission-earning base price = \$200

One month change in U.S. PPI for lodging at full service hotels = 1.00%

New commission-earning base price = \$200 X 1.01 = \$202

Commission Rate = 10%

New Commission Fee = \$202 X 10% = \$20.02

This method of pricing ensures that the price collected is the price that the travel agency receives for providing the same booking service using the same method in the current period. Pricing a constant quality service in the travel agency industry is challenging because an agency rarely provides the exact same booking service repeatedly over time. While an agency may provide hotel booking services each month, they may book a hotel in a small city for \$100 per night in one month and then a hotel of similar quality in a larger city for \$500 per night the following month. If these two bookings are considered the same output and directly compared, then the change in turnover from booking the latter hotel versus the first hotel would be considered a price change. If a 10 percent commission is charged, the one month price change would be 400 percent in this example.

In the U.S. the commissions received for these two bookings would not be directly compared. We apply this approach because there is typically a different level of service associated with booking higher-valued travel for clients. The differences in the service can be difficult to specify and, therefore, quality change cannot be specified. They may stem from a different approach to the client or a different knowledge base required to book higher-valued travel.

Adjusting the cost of booked travel every month based on the U.S. price index data for these areas provides an accurate model price for a constant quality booking service, while removing the burden of estimating the month to month change in the real commission-earning base price from the respondent. Asking the respondent to estimate commission-earning base prices has proven problematic in the past because the respondent is a price taker and was often unable to look up or track prices for bookings the agency did not actually make during the relevant period. Estimating only the commission rate has been easier for respondents because rates are relatively standard and change infrequently.

Even if respondents were able to provide perfect estimates of the values that would be charged for booked travel if they were to recur each period, we believe that our method of adjustment based on travel PPIs leads to a more accurate index since the latter approach uses a statistically selected broad representation of travel providers across the country. With the relatively small sample size of the travel agents industry, we are not able to represent accurate national samples for each of the different types of lodging and transportation that may be booked.

#### *Overrides*

Overrides are commissions paid to travel agents by travel suppliers as an incentive to book their travel services. Travel agents receive override payments if the conditions of the override agreement are met. Conditions may include generating a specified dollar value of gross bookings. If conditions

are met, the travel agency may receive an override commission based on either the amount that exceeds the override threshold or the entire value of bookings down to the first dollar. Override commissions are typically paid to travel agencies quarterly or annually.

The preferred type of price for overrides is a model price. During the initial data collection period, an override agreement with a specific travel service provider is selected. For the selected agreement, the following information is collected:

- The value of gross bookings of the selected provider's services made by the agency during the most recent period for which an override was received (quarter or year)
- The minimum value of gross bookings required in order to receive the override
- The override commission rate

In subsequent months, the respondent is asked to update the minimum value of gross bookings required to receive an override and the override commission rate based on the most recent agreement with the selected travel supplier. The value of gross bookings made for the supplier represents the constant service. This value is escalated by the U.S. price index data for the type of travel provided in order to calculate the real dollar value for the current period. This pricing methodology is used in order to collect the override that would be received if an agency delivered the same amount of real booking turnover for a selected travel supplier each period.

The following is an example of an override calculation:

Agency A has an override agreement with Airline B. During initial data collection, Agency A's override agreement states that the agency will receive a 5 percent override on gross quarterly bookings for Airline B over \$500,000. In the most recent quarter, Agency A made \$800,000 in gross bookings for Airline B. The override is calculated as follows:

$$\text{Value of gross bookings} = \$800,000$$

$$\text{Required minimum for override} = \$500,000$$

$$\text{Override-eligible value of bookings} = \$800,000 - \$500,000 = \$300,000$$

$$\text{Override commission rate} = 5\%$$

$$\text{Total override fee} = \$300,000 \times 5\% = \$15,000$$

In subsequent months, the value of gross bookings will be adjusted by the U.S. PPI for airline bookings and the respondent will be asked to update the required minimum for the override and the override commission rate in order to estimate the current total override fee.

Original value of gross bookings = \$800,000

One month change in U.S. PPI for airline bookings = 2%

New value of gross bookings = \$800,000 X 1.02 = \$816,000

Reporter updated required minimum for override = \$525,000

Override-eligible value of bookings = \$816,000 - \$525,000 = \$291,000

Override commission rate = 5%

Total override fee = \$291,000 X 5% = \$14,550

#### *Margin Prices (Merchant model - OTAs)*

The price the U.S. collects for merchant model transactions is the difference between the total value of bookings collected by the OTA and the amount the OTA pays the travel provider (sometimes referred to as the wholesale price). Because online travel agencies make large quantities of bookings with various margins, an average margin is the preferred type of price. An average margin is calculated for a specific type of travel booking. For hotels, this may refer to hotels of a specified quality (often denoted by star rating) in a specified area. For air travel, this may refer to bookings in a specified travel class on flights for a specified origin and destination pair (e.g. economy class on flights between New York and Los Angeles). The average margin is typically calculated by dividing the total turnover earned from margins for the specified type of bookings by the total number of these bookings that occurred in the pricing period.

#### *Other Fees*

In addition to commissions, booking fees, and overrides, some travel agencies charge hourly rates and/or flat fees for additional services. This is particularly true for agencies that provide corporate travel booking services. Examples of the types of fees that might be charged by travel agencies are provided below:

#### *Other Services and Fees*

<b>Service</b>	<b>Fee</b>
Hotel Negotiations	\$46.00/hr
Travel Management Reports	\$500.00
On-Site Reservationist	\$30.00/hr
On-Site Meeting Planner	\$470.00/day
Visa and Passport Services	\$15.00/transaction

It has also become increasingly common for travel agents that specialize in leisure bookings to charge hourly rates for consultative services.

A travel agency may receive a fee per booking or per segment for all itineraries booked through a GDS.

Actual transaction prices are preferred for all of these transactions.

## **8. Quality adjustment methodology**

Quality adjustments are applied if an agency changes the way a particular booking service is provided. For example, a travel agency may conduct cruise booking services by meeting with clients in person, collecting information on their preferences and then recommending a variety of cruise options to them. If the agency then switches to only offering its clients a website to book cruises through, the booking service is considered to be changed and quality adjustment is applied. Respondents are asked to estimate the costs associated with the change in the service, and this value is used as the basis of quality adjustment. These types of substitutions requiring quality adjustments are rarely observed in practice.

## **9. Evaluation of comparability with turnover/output measures**

Every five years, the U.S. Census Bureau calculates and publishes turnover data for the travel agencies industry in the Economic Census.

The Census Bureau also publishes quarterly turnover data for the travel agencies industry.

The concept of output for the travel agencies sector is harmonious between U.S. PPI, Census Bureau and Bureau of Economic Analysis.

## **10. Summary**

A key development in the travel agencies industry is the recent growth in online-only providers. These companies generate a significant amount of their turnover from merchant model transactions in which they earn margins based on the difference between the amount that consumers pay and the amount that travel providers receive for these bookings. The U.S. collects average margin prices for specified type of bookings for merchant model transactions.

Another important methodological question in pricing travel agency services is how to best represent inflationary changes for constant quality value-based commission transactions. In the U.S., a model price approach is used with respondents estimating the percentage commission they would charge if a specified booking were to occur in each subsequent pricing period. The value of the booked travel is adjusted based on U.S. travel industry price index data to ensure accurate statistical representation of price changes for these services. As a result, the commission price changes used for this industry index reflect both changes in commission percentage fees, and changes in the cost of booked travel.