Federal Aviation Administration

FAA AEROSPACE FORECAST

Fiscal Years 2016-2036

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Forecast Highlights (2016 – 2036)

Since its deregulation in 1978, the U.S. commercial air carrier industry has been characterized by boom-to-bust cycles. The volatility that was associated with these cycles was thought by many to be a structural feature of an industry that was capital intensive but cash poor. However the great recession of 2007-09 marked a fundamental change in the operations and finances of U.S Airlines. Air carriers fine-tuned their business models to minimize losses by lowering operating costs, eliminating unprofitable routes, and grounding older, less fuel efficient aircraft. To increase operating revenues, carriers initiated new services that customers were willing to purchase and started charging separately for services that were historically bundled in the price of a ticket. The industry experienced an unprecedented period of consolidation with four major mergers in five years. These changes along with capacity discipline exhibited by carriers have resulted in a fifth consecutive year of profitability for the industry in 2015. Looking ahead there is optimism that the industry has been transformed from that of a boom-to-bust cycle to one of sustainable profits.

As the economy recovers from the most serious economic downturn since World War II and the slowest expansion in recent history, aviation will continue to grow over the long run. Fundamentally, over the medium and long term, demand for aviation is driven by economic activity. The 2016 FAA forecast calls for U.S. carrier passenger growth over the next 20 years to average 2.1 percent per year, slightly faster than last year's forecast. The sharp decline in the price of oil in 2015 is a catalyst for a short lived uptick in passenger growth in 2016. Although oil prices are projected to fall to around $43 per barrel in 2016, our forecast assumes that they will rise thereafter to exceed $100 by 2023 and $150 by the end of the forecast, keeping a lid on U.S. economic growth during the same period. There are a number of headwinds that are buffeting the global economy – the fall in oil prices, recession in Russia and Brazil and inconsistent performance in other emerging economies, a "hard landing" in China, and lack of further stimulus in the advanced economies. The uncertainty over the future course of oil prices is just one more item on the list. Although the U.S. economy has managed to avoid a recession, a prolonged period of faster economic growth (e.g. > 3%) may not be forthcoming.

System traffic in revenue passenger miles (RPMs) is projected to increase by 2.6 percent a year between 2016 and 2036. Domestic RPMs are forecast to grow 2.1 percent a year while International RPMs are forecast to grow almost twice as fast at 3.5 percent a year. U.S. carrier system capacity measure in available seat miles (ASMs) is forecast to grow in line with the increases in demand. The number of seats per aircraft is getting bigger, especially in the regional jet market, where we expect the number of 50 seat regional jets to fall to just a handful by 2023, replaced by 70-90 seat aircraft.

Although the U.S. and global economy continued to sputter in 2015, stable demand and lower energy prices resulted in record profits for U.S. airlines. U.S. carrier profitability should remain steady or increase as the recovery leads to strengthening demand

and increased revenues, while lower energy prices keep operating costs in check. Over the long term, we see a competitive and profitable aviation industry characterized by increasing demand for air travel and airfares growing more slowly than inflation, reflecting over the long term a growing U.S. economy.

The long term outlook for general aviation is favorable, led by gains in turbine aircraft activity. The active general aviation fleet is forecast to increase 0.2 percent a year between 2015 and 2036, equating to an absolute increase in the fleet of about 7,000 units. While steady growth in both GDP and corporate profits results in continued growth of the turbine and rotorcraft fleets, the largest segment of the fleet – fixed wing piston aircraft continues to shrink over the forecast. Although fleet growth is minimal, the number of general aviation hours flown is projected to increase an average of 1.2 percent per year through 2036, as growth in turbine, rotorcraft, and experimental hours more than offset a decline in fixed wing piston hours.

With increasing numbers of regional and business jets in the nation's skies, fleet mix changes, and carriers consolidating operations in their large hubs, we expect increased activity growth which has the potential to increase controller workload. Operations at FAA and contract towers are forecast to increase 0.9 percent a year over the forecast period with commercial activity growing at five times the rate of non-commercial activity. The growth in U.S. airline and business aviation activity is the primary driver. Large and medium hubs will see much faster increases than small and non-hub airports, largely due to the commercial nature of their operations.

Review of 2015

Despite slow economic growth at home and abroad, 2015 was a pretty good year for U.S. aviation. Stable demand, falling yields, and falling costs added up to a year of record profits for the U.S. airline industry. The shift in focus from market share to boosting returns on invested capital has resulted in something the industry has rarely seen – sustained profitability. The U.S. airline industry has become more nimble in adjusting capacity to seize opportunities or minimize losses. U.S. airlines continue to refine strategies for developing additional revenue streams such as charging fees for services that used to be included in airfare (e.g. meal service), as well as for charging for services that were not previously available (e.g. premium boarding and fare lock fees). The impact from these initiatives gives reason for optimism as the industry (passenger and cargo carriers combined) posted profits for the sixth consecutive year in 2015.

Demand for air travel in 2015 grew at the fastest pace since 2007 despite modest economic growth in the U.S. In 2015 system revenue passenger miles (RPMs) increased 3.8 percent as enplanements increased at the same rate. Domestic RPMs were up 4.8 percent while enplanements were up by 4.2 percent. International RPMs increased by just 2.2 percent as enplanements, negatively impacted by the slowdown in China, recession in Brazil and Russia, and exchange rate fluctuations, increased only 1.6 percent. The system-wide load factor fell 0.1 points to 83.3 percent.

Yields fell for the first time in five years. In domestic markets, falling oil prices and rapid expansion by ultra-low cost carriers such as Spirit and Allegiant led to a 1.6 percent decline. International yield fell 4.8 percent, impacted by weak demand and currency fluctuations. Despite falling yields U.S. airlines posted record profits in FY 2015 as falling energy prices more than offset revenue weakness from falling yields. Data for FY 2015 show that the reporting passenger carriers had a combined operating profit of $24.1 billion (compared to a $14.9 billion operating profit for FY 2014). The network carriers reported combined operating profits of $17.3 billion while the low cost carriers reported combined operating profits of $6.0 billion, with all carriers posting profits.

The general aviation market showed continuing improvements in single engine piston and business jet segments, while declines in turboprop and multi-engine piston segments translated into a downturn in shipments. Overall deliveries were down by 3.1 percent in calendar year (CY) 2015; even though U.S. billings increased 2.4 percent to $12.0 billion. General aviation activity at FAA and contract tower airports recorded a 0.3 percent decline in 2015 as itinerant activity fell 0.7 percent, more than offsetting a 0.1 percent increase in local operations.

Total operations at FAA and contract towers rose in 2015 by 0.2 percent, the first increase in activity since 2007. Air carrier activity increased by 5.7 percent, more than offsetting declines in the air taxi, general aviation, and military categories. Activity at large hubs rose by 0.7 percent, while medium hub activity increased by 0.6 percent. Small/non-hub airport activity was flat in 2015 compared to the prior year.

Glossary of Acronyms

Acronym	Term
ASMs	Available Seat Miles
ATP	Air Transport Pilot
BVLOS	Beyond Visual Line of Sight
COA	Certificate of Operation Authorization
COE	Certificate of Excellence
COMSTAC	Commercial Space Transportation Advisory Committee
CY	Calendar Year
ELI	Elliptical Earth Orbit
FAA	Federal Aviation Administration
FY	Fiscal Year
GA	General Aviation
GAMA	General Aviation Manufacturers Association
GDP	Gross Domestic Product
GSO	Geosynchronous Orbit
ISS	International Space Station
LEO	Low Earth Orbit
LSA	Light Sport Aircraft
MEO	Medium Earth Orbit
NAS	National Airspace System
NASA	National Aeronautics and Space Administration
NGSO	Non-Geosynchronous Orbit
NPRM	Notice of Public Proposed Rulemaking
PCE	Personal Consumption Expenditure
RAC	Refiners' Acquisition Cost
RPMs	Revenue Passenger Miles
RTMs	Revenue Ton Miles
sUAS	Small Unmanned Aircraft System(s)
TRACON	Terminal Radar Approach Control
TRB	Transportation Research Board
UAS	Unmanned Aircraft System(s)
USD	United States Dollar

Acknowledgements

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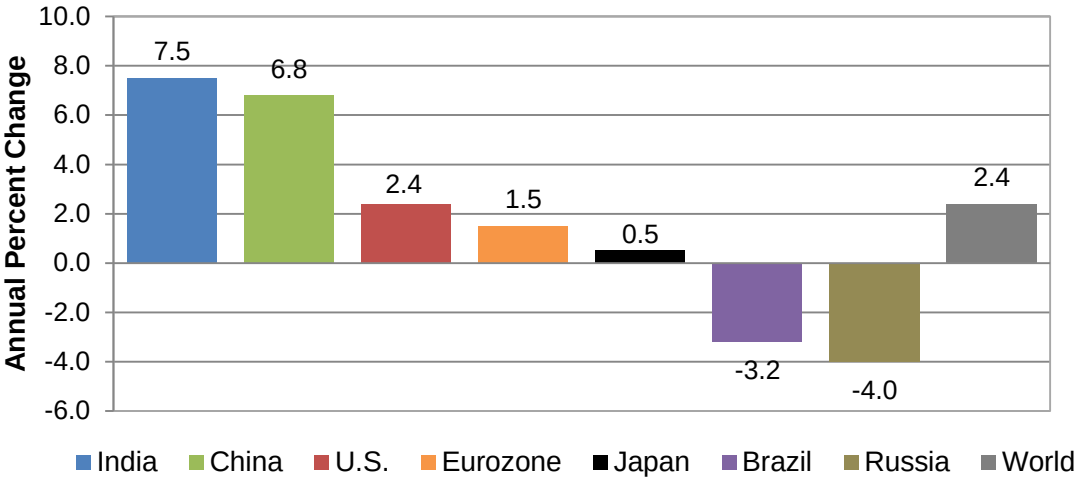
FAA Aerospace Forecasts
Fiscal Years 2016-2036

Economic Environment

In the near term, IHS Global Insight projects that world economic growth will remain sub-par, below 3% a year for the next two years. While growth remains sluggish to steady for the United States and Europe, the rest of the world is struggling and will continue to do so. In the United States, consumer spending is solid, fueled by lower oil prices and steady job growth while in 2015 Europe saw its best performance since 2011 as central bank stimulus and low oil and commodity prices provided the basis for growth. Japan's economy contracted in late 2015 and shows few signs of robust recovery any time soon. In emerging markets, China is moving into a period of slower growth as 2015 was the slowest year since 1990 as the economy begins the transition from an export and manufacturing based economy to one that is more oriented towards the service and technology sectors. In 2015 real GDP in India grew an impressive 7.5% but was lacking balance as exports and investment led while private consumption lagged. Other emerging markets such as Brazil and Russia were in recession in 2015 and are not expected to see growth until 2017.

India and China led World Economic Growth in 2015

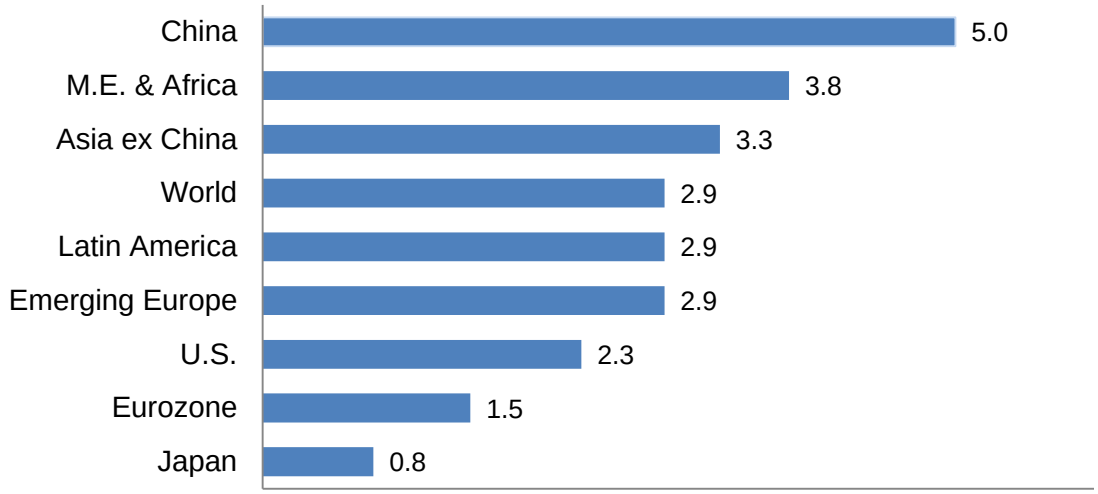


Source: IHS Global Insight

IHS Global Insight forecasts world real GDP to grow at 2.9 percent a year between 2016 and 2036. Emerging markets are forecast to grow above the global average but at lower rates than in the early 2000's. Asia (excluding Japan), led by India and China, is projected to have the fastest growth followed by Middle East and Africa, Latin America, and Eastern Europe. Growth in the more mature economies will be lower than the global trend with the fastest rates in the U.S. followed by Europe. Growth in Japan is projected to be very slow with rates below 1% a year reflecting deep structural issues associated with a shrinking and aging population.

Asia and Africa/Middle East lead global economic growth

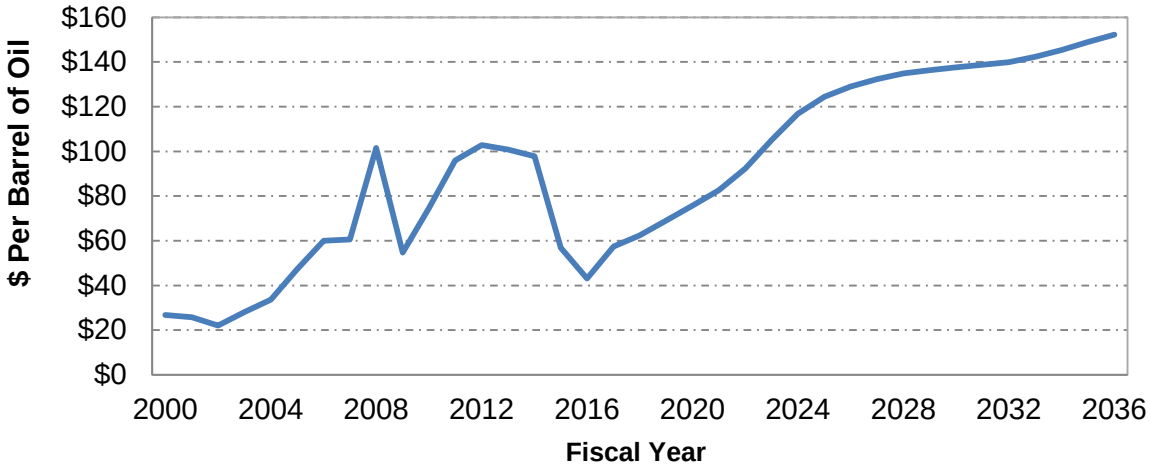
Annual GDP % growth 2016-2036



Source: IHS Global Insight, Dec 2015 World Forecast

Oil prices fell by 42% in 2015 to around $57 per barrel and are projected to fall another 24% in 2016 to $43 per barrel. However, the long run trend in oil prices is upward due to growing demand and higher costs of extraction, and IHS Global Insight forecasts the price of oil to reach $100 per barrel by 2023 and continue to rise modestly thereafter to $152 by 2036.

U.S. Refiners' Acquistion Cost



Source: IHS Global Insight

U.S. Airlines

Domestic Market

Mainline and regional carriers[1] offer domestic and international passenger service between the U.S. and foreign destinations, although regional carrier international service is confined to the border markets in Canada, Mexico, and the Caribbean. Twenty-nine all-cargo carriers were providing domestic and/or international air cargo service at the end of 2015.

Shaping today's commercial air carrier industry are three distinct trends: (1) industry consolidation and restructuring; (2) continued capacity discipline in response to external shocks, and (3) the proliferation of ancillary revenues.

The restructuring and consolidation of the U.S. airline industry that began in the aftermath of the terror attacks of September 11, 2011 continued in 2015. American and US Airways combined their networks and reservations systems to form the world's largest airline with the last U.S. Airways flight occurring in October 2015. Consequently, there are now only four dominant airlines in the U.S. – American, Delta, Southwest, and United – controlling approximately 70% of the domestic market as measured by revenue passenger miles. It is highly unlikely the U.S. Government will approve any further mergers among these four due to antitrust regulations. In 2005 there were twelve major mainline airlines.

The mergers and increasing market presence of low cost carriers like Frontier, JetBlue and Southwest have had clear implications on the fares, size of the aircraft being used and the load factors, topics that will be discussed later in this document.

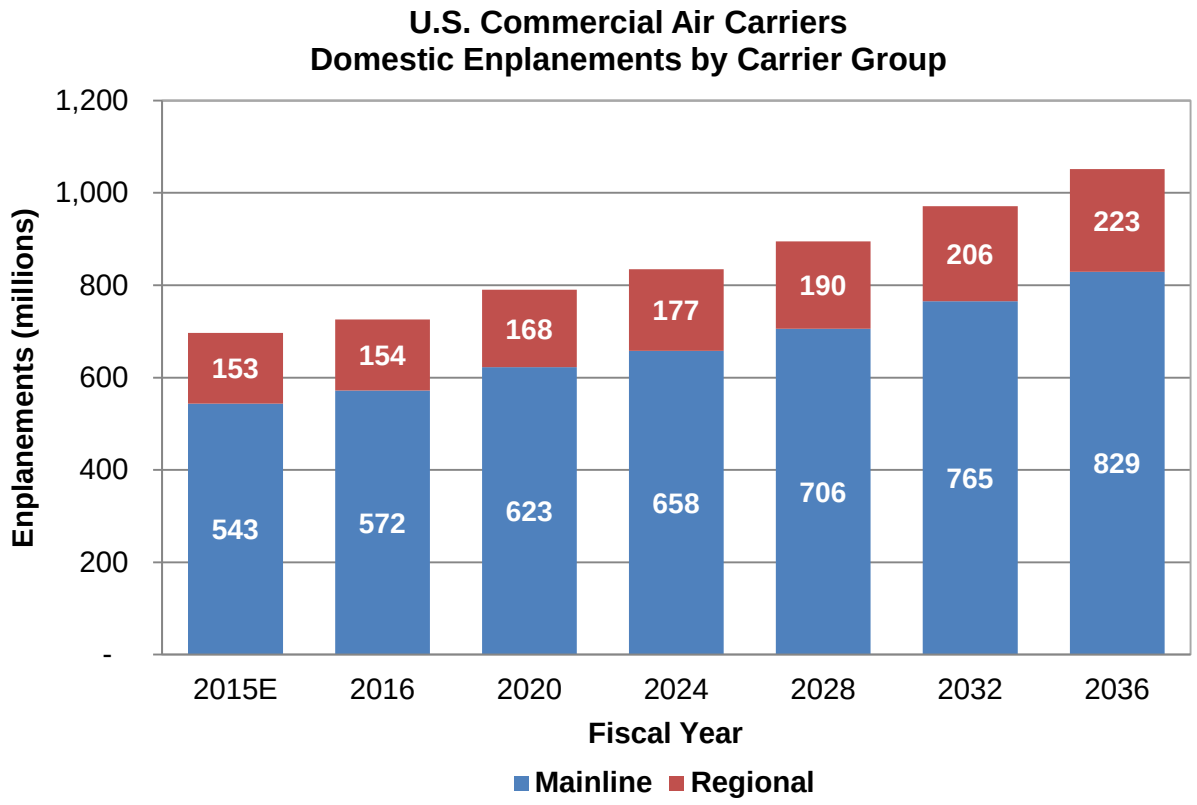
One of the most striking outcomes of industry restructuring has been the unprecedented period of capacity discipline, especially in domestic markets. Between 1978 and 2000, ASMs in domestic markets increased at an average annual rate of 4 percent a year, recording only two years of decline. Even though domestic ASMs shrank by 6.9 percent in FY 2002, following the events of September 11, 2001, growth resumed and by 2007, domestic ASMs were 3.6 percent above the FY 2000 level. However, U.S. domestic ASMS are still down 1.2 percent when compared to 2007 as the industry responded first to the sharp rise in oil prices (up 155% between 2004 and 2008) and then the global recession that followed (2009 to the present). 2015 is the first year showing strong growth in ASMs (4.6 percent) since 2004.

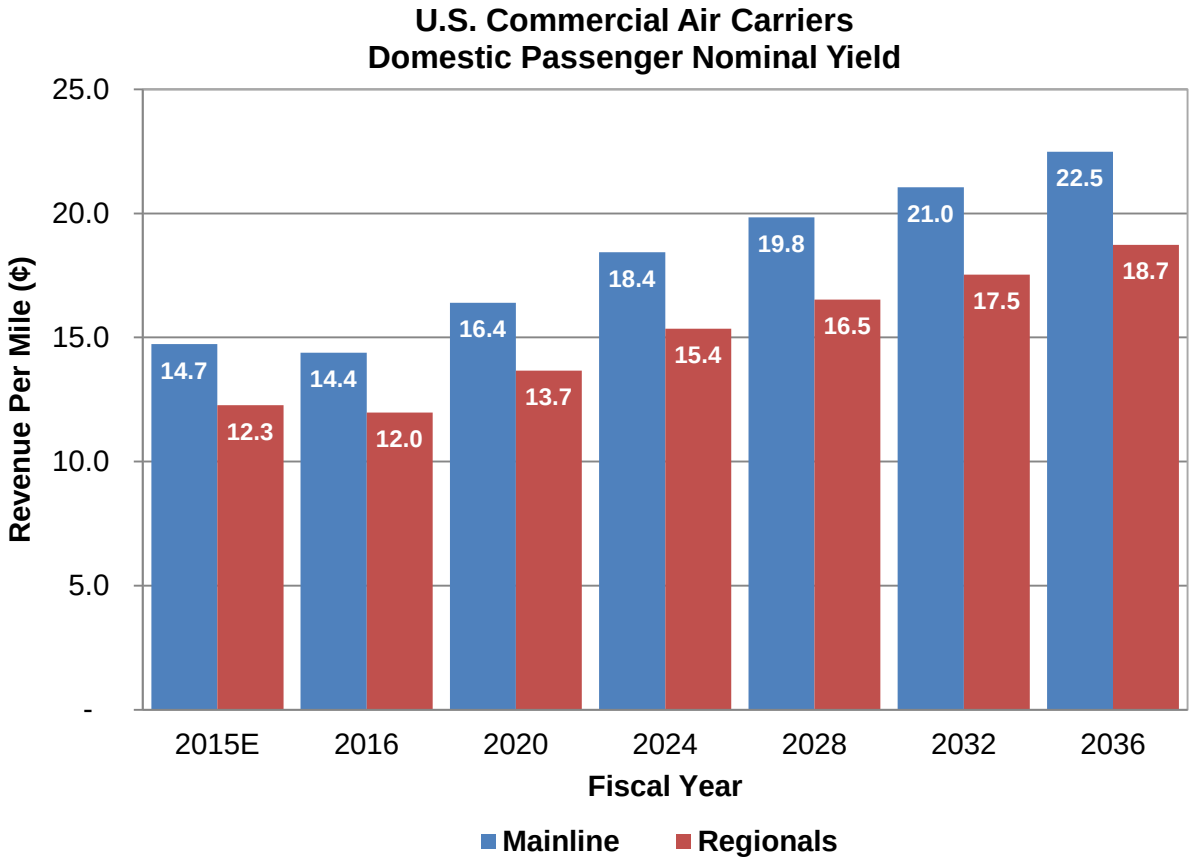
The reduction in domestic capacity since 2007 has not been shared equally between the mainline carriers and their regional counterparts. To better match demand to capacity, the mainline carriers contracted out "thin" routes to their regional counterparts because they could provide lift at a lower cost, or else they simply removed the capacity altogether. In 2015, the mainline

[1] Mainline carriers are defined as those providing service primarily via aircraft with 90 or more seats. Regionals are defined as those providing service primarily via aircraft with 89 or less seats and whose routes serve mainly as feeders to the mainline carriers.

carrier group provided 0.9 percent less capacity than it did in 2007 (but carried 2.1 percent more passengers thus load factors increased). Capacity flown by the regional group has shrunk by 3.0 percent over the same period (with passengers carried down 2.1 percent).

The regional market has continued to shrink as the regionals compete for even fewer contracts with the remaining dominant carriers; this has meant slow growth in enplanements and yields.





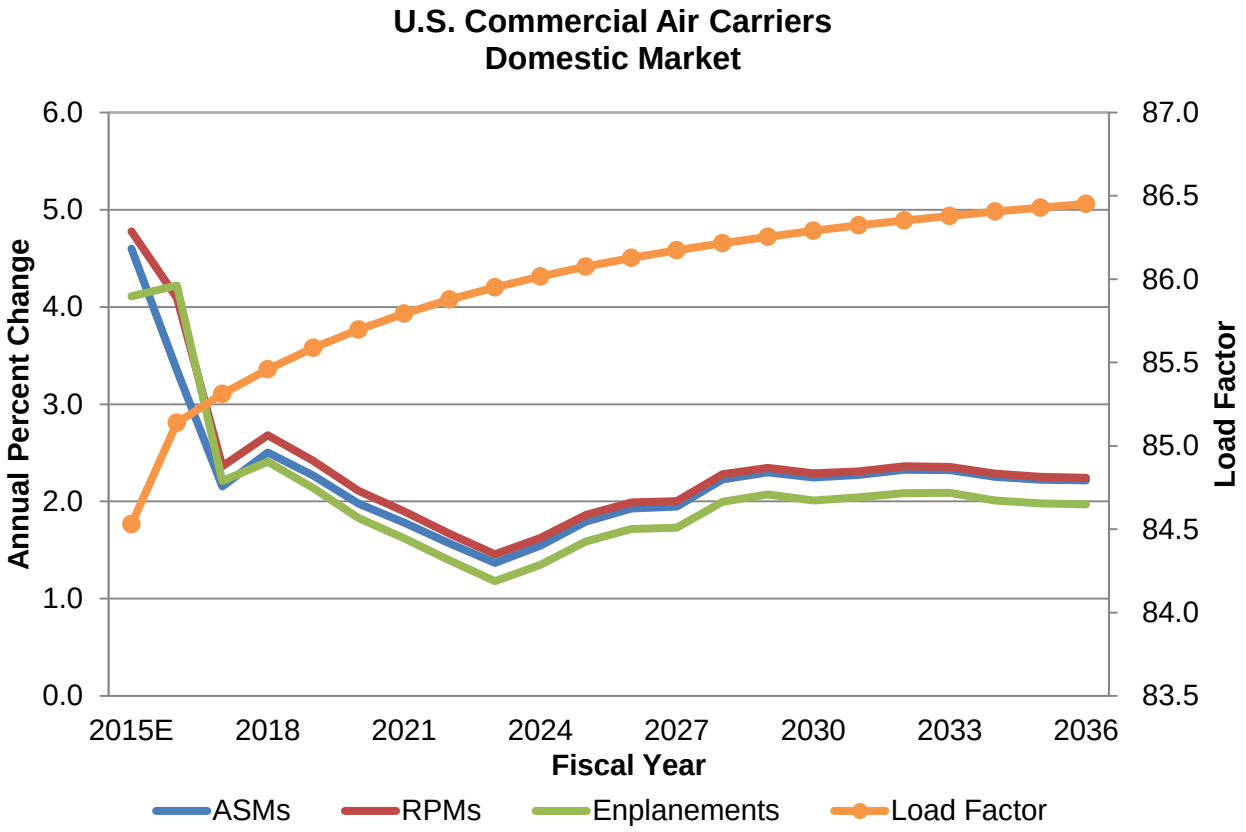
The regionals have less leverage with the mainline carriers than they have had in the past as the mainline carriers have negotiated contracts that are more favorable for their operational and financial bottom lines. Furthermore, the regional airlines are facing large pilot shortages and tighter regulations regarding pilot training. Their capital costs have increased in the short-term as they continue to replace their 50 seat regional jets with more fuel efficient 70 seat jets. This move to the larger aircraft will prove beneficial in the future however since their unit costs are lower.

Another continuing trend is that of ancillary revenues. Carriers generate ancillary revenues by selling products and services beyond that of an airplane ticket to customers. This includes the un-bundling of services previously included in the ticket price such as checked bags and on-board meals, and by adding new services such as boarding priority and internet access. As noted earlier, U.S. passenger carriers posted record net profits for the sixth consecutive year in 2015 with ancillary revenues a contributing factor to the favorable outcome as well as very low oil prices. Airlines are also increasingly experimenting with segmenting their cabins into more discreet cost categories based on comfort amenities like seat pitch, leg room, and access to social media and outlets.

U.S. commercial air carriers' total number of domestic departures continued the downward trend that started in 2008 while ASMs,

RPMs and enplanements all showed a rebound; these trends underlie the expanding size of aircraft and higher load factors.[2] In 2015, the domestic load factor reached a historic high of 84.5 for commercial air carriers. It is presently assumed that the load factor will not exceed 86.5 in the future due to the logistical difficulties inherent in matching supply perfectly with demand.

[2] Commercial airlines encompass both mainline and regional carriers.



System, that is, the sum of domestic plus international capacity, increased 3.9 percent to 1.066 trillion ASMs in 2015 while RPMs increased 3.8 percent to 889.1 billion. During the same period system-wide enplanements increased 3.8 percent to 785.8 million. In 2015, U.S. carriers prioritized the domestic over the international market in terms of allocating capacity. It is forecast that this allocation will continue into 2016 but carriers will start expanding capacity in the international market starting in 2017 and remain focused on that growth market through 2036 as the domestic market continues to mature.

U.S. mainline carrier enplanement growth in the combined domestic and international market was 5.1 percent in 2015 while regional carriers carried 1.1 percent fewer passengers.

In the domestic market, mainline enplanements saw an increase for the fifth consecutive year, up 5.6 percent, marking the first time since 2000 that the industry recorded five consecutive years of passenger growth in the domestic market. Mainline passengers in international markets posted a sixth year of growth, up 2.4 percent.

Even though the recession was officially over in June 2009, carriers continued to face demand uncertainty in 2015 as wages continued to stagnate, household income growth was weak, the housing market's recovery was patchy across the country, and government spending at the federal and local levels remained stagnant and are pro-

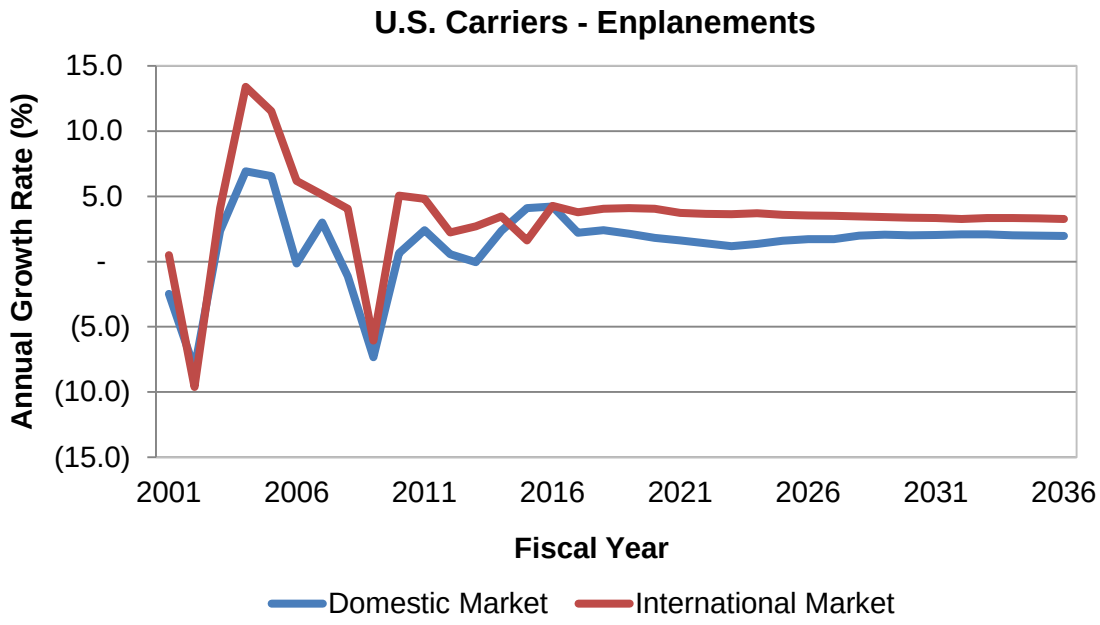
jected to remain so for the next few years. Despite these dire statistics, the unemployment rate fell and consumer spending was up and many urban housing markets have been revived strongly. In such an uneven, but slowly improving, environment, industry capacity growth was restrained (up 3.9 percent), after only a 2.3 percent increase in 2014. Higher airfares and ancillary revenues, coupled with falling fuel prices resulted in U.S. carriers finishing up 2015 with a strong net profit.

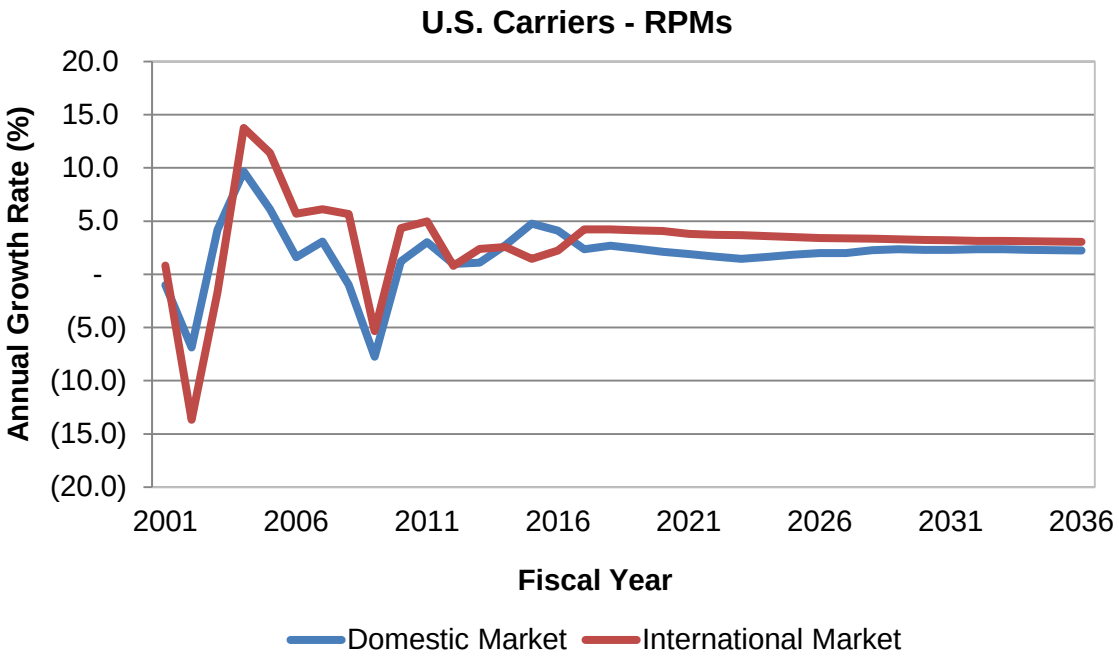
System load factor and trip length remained flat in 2015, even as seats per aircraft mile increased by 2.4 percent; again reflecting the trend towards using larger aircraft. Seats per aircraft mile system wide increased to 149.1 seats (up 3.5 seats per aircraft mile), the highest level since 1994.

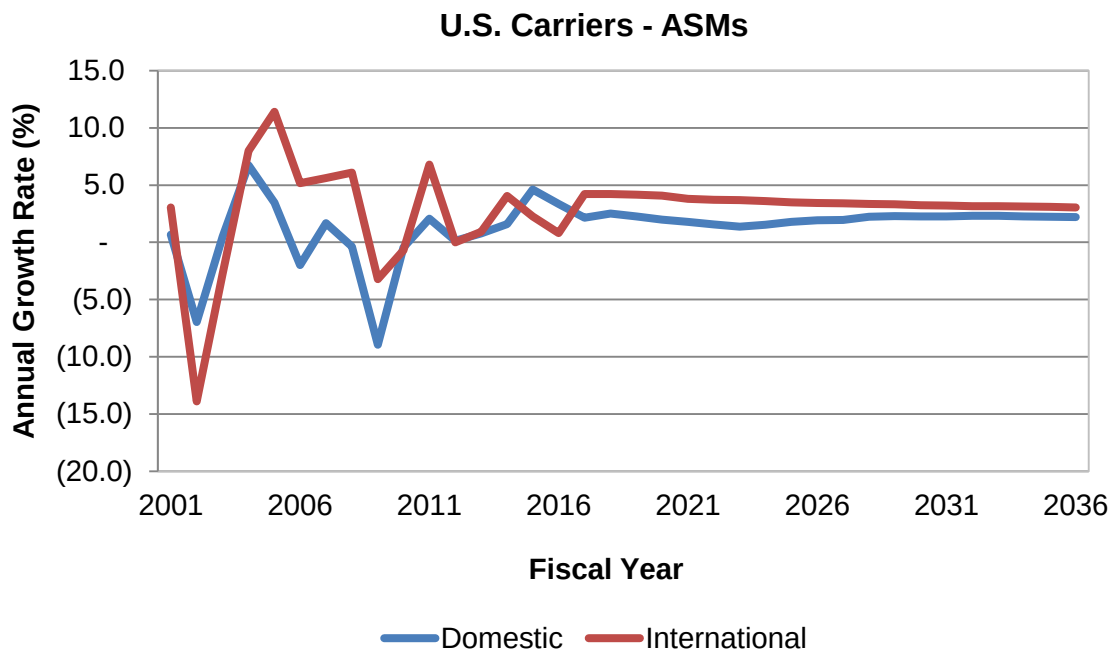
International Market

The international market continues to be the growth segment for U.S. carriers when compared to the mature U.S. domestic market, especially since FY 2004. Last year, 2015, was an exception to the trend and 2016 is expected to follow suit as airlines continue to focus on the domestic market. Starting in 2017 the international market (comprised of mainline and regional carriers) should again start outpacing the domestic market in terms of enplanements, RPMs and ASMs at an average annual rate (FY 2017-2036) of 3.6%, 3.5%, and 3.5% respectively.

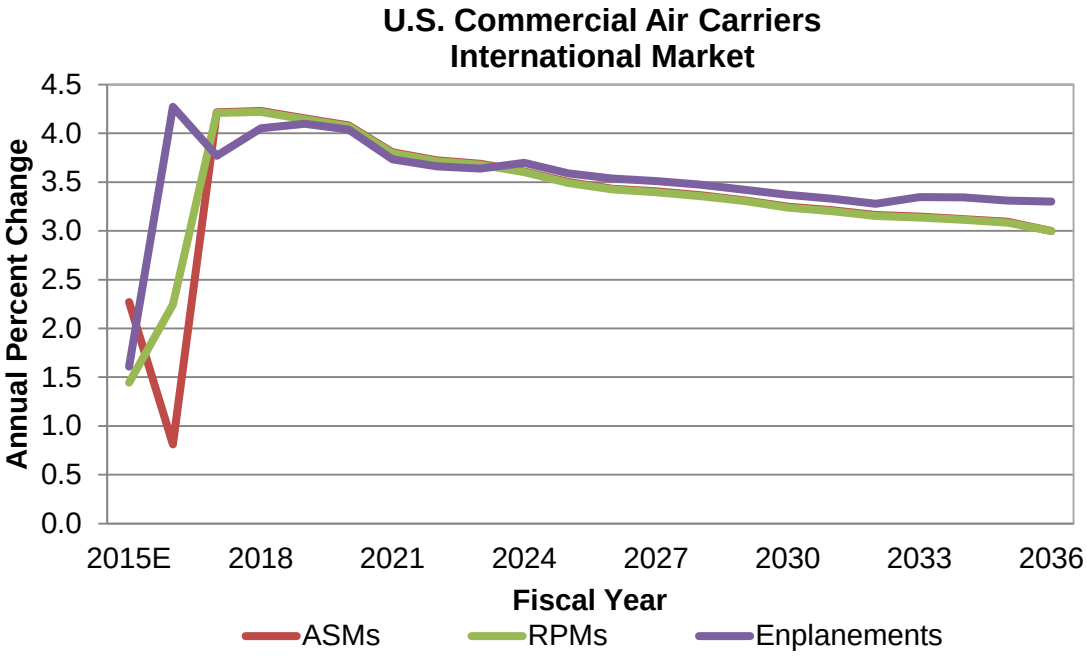
While the financial situation across the world has weakened somewhat, lower fares enabled by falling oil prices and more efficient aircraft has boosted demand; at least in the short term. It is possible that historically low oil prices signal further weakening in the global economy and thus, lower travel demand in the future.



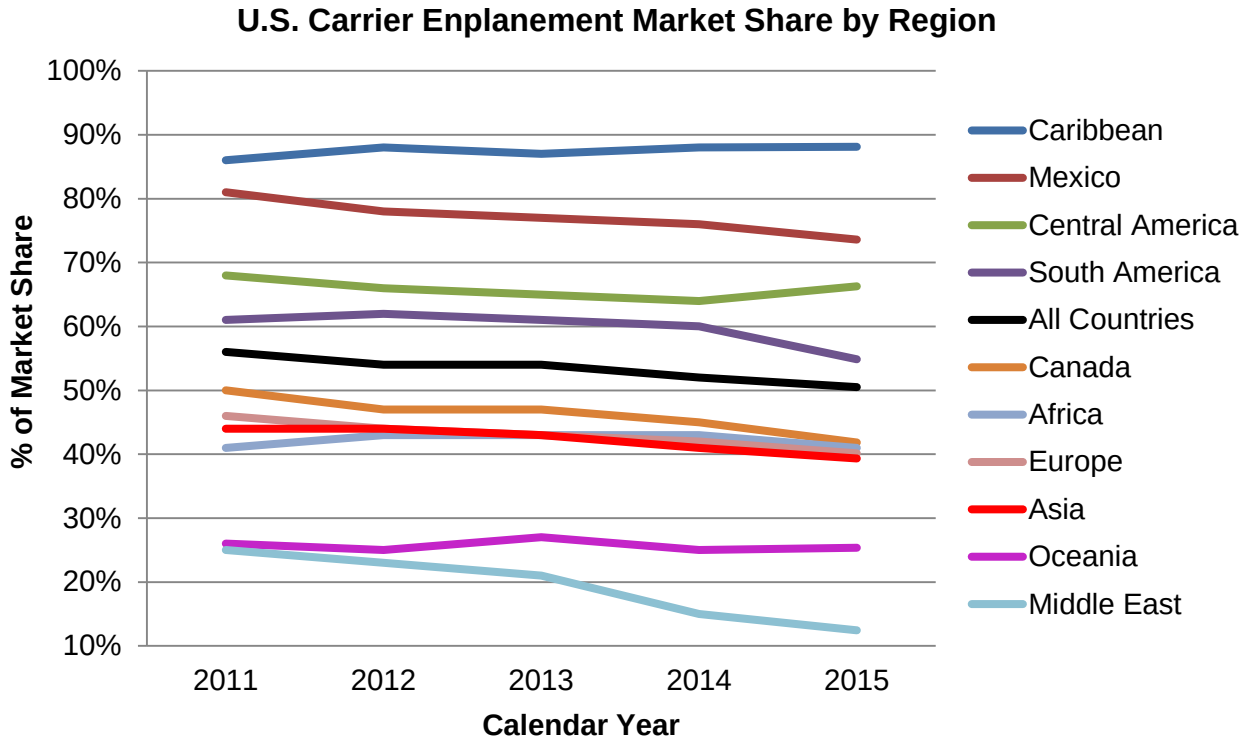


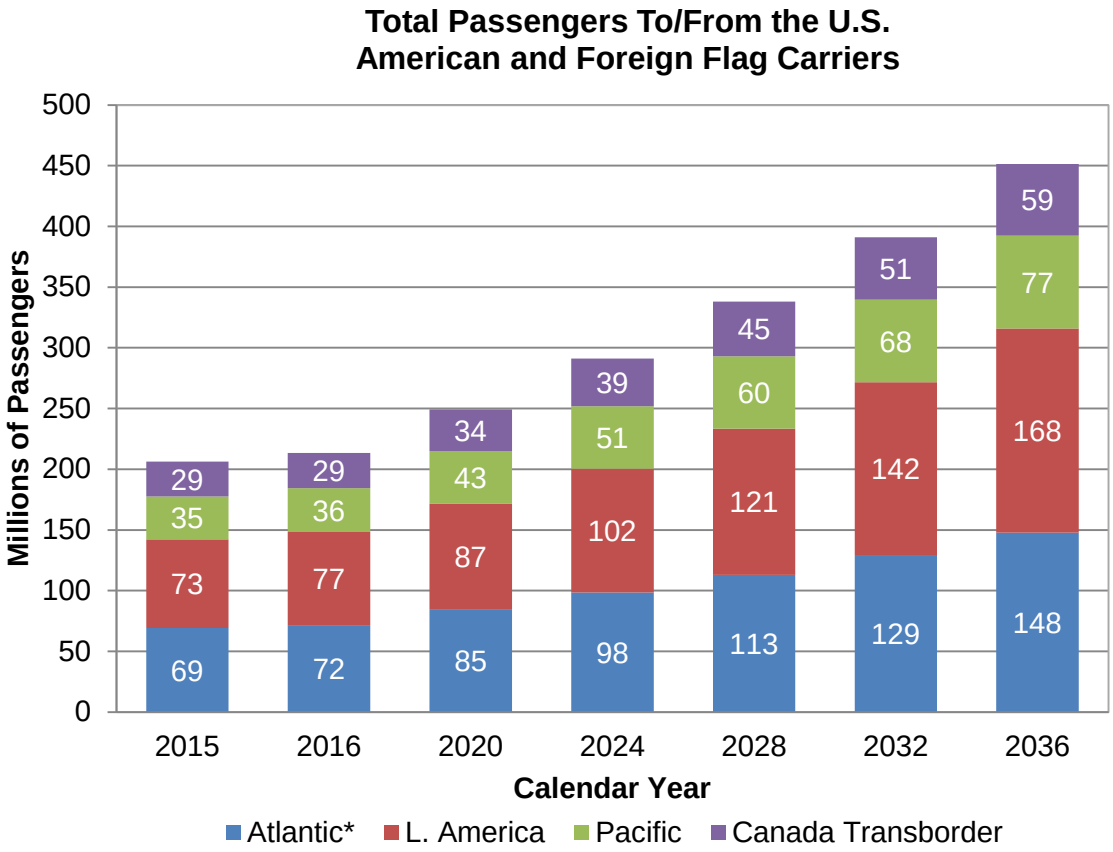


The next five years will feature a rebuilding of international demand by the U.S. carriers with moderate growth averaging around 3.6, 3.5, and 3.5 for enplanements, RPMs, and ASMs respectively. Airlines will exercise capacity restraint and the load factor is expected to stabilize around 81.8%. Load factors this high were last seen in 2013.



Overall however, U.S. carrier market share of international passengers has been dropping in all regions with the exception of the Caribbean, Oceania and Central America. It is expected that these trends will continue.





Source: US Customs & Border Protection data processed and released by Department of Commerce; data also received from Transport Canada

* Per past practice, the Mid-East region and Africa are included in the Atlantic category.

For U.S. carriers, Latin America is still the largest international destination despite the recent economic and political crises of Brazil. While 2014 saw 7.5% growth, 2015 still showed a very robust 5.1% increase. In contrast, the Pacific region saw 0% enplanement growth and the Atlantic region saw a drop of 1.3%. It is expected that the Latin American market will continue to be the growth market for travel to and from the U.S.

Despite the economic powerhouses of China, Japan and South Korea, the Pacific region remains a relatively small market for the U.S. and will remain so for the next twenty years. While travel to the US will grow approximately 3.8% per year from 2016-2036 for all carriers, the majority of travel demand in that region will be intra-Asian.

Both the Atlantic and Canada regions are mature and will experience enplanement growth of 3.7% and 3.6%, respectively, on average over the twenty year period for all carriers. It is unclear at this time if the Syrian refugee crisis and terrorism threats will affect travel demand in 2016 and beyond.

Despite the recent economic downturn in Latin America, it is still the largest driver of international demand to the U.S. Mexico, the most popular destination, is forecast to

experience 4.2% annual growth from 2016-2036 for all carriers whereas the entire region is forecast to grow 4.0%

Cargo

Air cargo traffic contains both domestic and international freight/express and mail. The demand for air cargo is a derived demand resulting from economic activity. Cargo moves in the bellies of passenger aircraft and in dedicated all-cargo aircraft on both scheduled and nonscheduled service. Cargo carriers face price competition from alternative shipping modes such as trucks, container ships, and rail cars.

U.S. air carriers flew 35.9 billion revenue ton miles (RTMs) in 2015, up 2.2 percent from 2014 with domestic cargo revenue ton miles (RTMs) increasing 3.3 percent to 13.1 billion while international RTMs increased by 1.6 percent to 22.9 billion. Air cargo RTMs flown by all-cargo carriers comprised 78.1 percent of total RTMs in 2015, with passenger carriers flying the remainder. Total RTMs flown by the all-cargo carriers increased 1.8 percent in 2015 while total RTMs flown by passenger carriers grew by 3.6 percent.

U.S. carrier international air cargo traffic can be divided into four components consisting of Atlantic, Latin, Pacific, and 'Other International.' In 2015 total international RTMs increased 1.6 percent to 22.9 billion as growth in the Pacific region offset declines in the other three regions.

Historically, air cargo activity tracks with GDP. Additional factors that affect air cargo growth are fuel price volatility, movement of real yields, and globalization. Significant structural changes have occurred in the air cargo industry; among these are air cargo security regulations by the FAA and TSA, maturation of the domestic express market, a shift from air to other modes (especially truck), use of all-cargo carriers (e.g., FedEx) by the U.S. Postal Service to transport mail, and the increased use of mail substitutes (e.g. e-mail, cloud-based services).

The forecasts of Revenue Ton Miles (RTMs) are based on several assumptions specific to the cargo industry. First, security restrictions on air cargo transportation will remain in place. Second, most of the shift from air to ground transportation has occurred. Finally, long-term cargo activity will be tied to economic growth.

The forecasts of RTMs were based on models that link cargo activity to GDP. Forecasts of domestic cargo RTMs were developed with real U.S. GDP as the primary driver. Projections of international cargo RTMs were based on growth in world GDP, adjusted for inflation. The distribution of RTMs between passenger and all-cargo carriers was forecast based on an analysis of historic trends in shares, changes in industry structure, and market assumptions.

After increasing by 2.2 percent in 2015, total RTMs are forecast to grow 4.5 percent in 2016 and driven by steady U.S. and world economic growth, total RTMs are projected to increase at an average annual rate of 3.5 percent for the balance of the forecast period.

Domestic cargo RTMs are forecast to grow 1.9 percent in 2016 as the U.S. economic recovery continues after posting a 3.3 increase in 2015. Between 2016 and 2036, domestic cargo RTMs are forecast to increase at an average annual rate of 0.4

percent. In 2015, all-cargo carriers carried 89.2 percent of domestic cargo RTMs. The all-cargo share is forecast to grow to 90.8 percent by 2036 based on increases in capacity for all-cargo carriers and ongoing security considerations.

International cargo RTMs grew 1.6 percent in 2015 after posting a 0.3 percent increase in 2014 as stagnation in Europe and a slowdown in China's economic growth slowed worldwide trade. Growth is expected to rebound in 2016 to 6.0 percent as global trade growth resumes. For the forecast period (2016-36) international cargo RTMs are forecast to increase an average of 4.7 percent a year based on projected growth in world GDP with the Pacific region having the fastest growth, followed by the Other International, Atlantic, and Latin regions, respectively.

The share of international cargo RTMs flown by all-cargo carriers increased from 49.3 percent in 2000 to 71.8 percent in 2015. Continuing the trend experienced over the past decade, the all-cargo share of international RTMs flown is forecast to increase modestly to 78.1 percent by 2036.

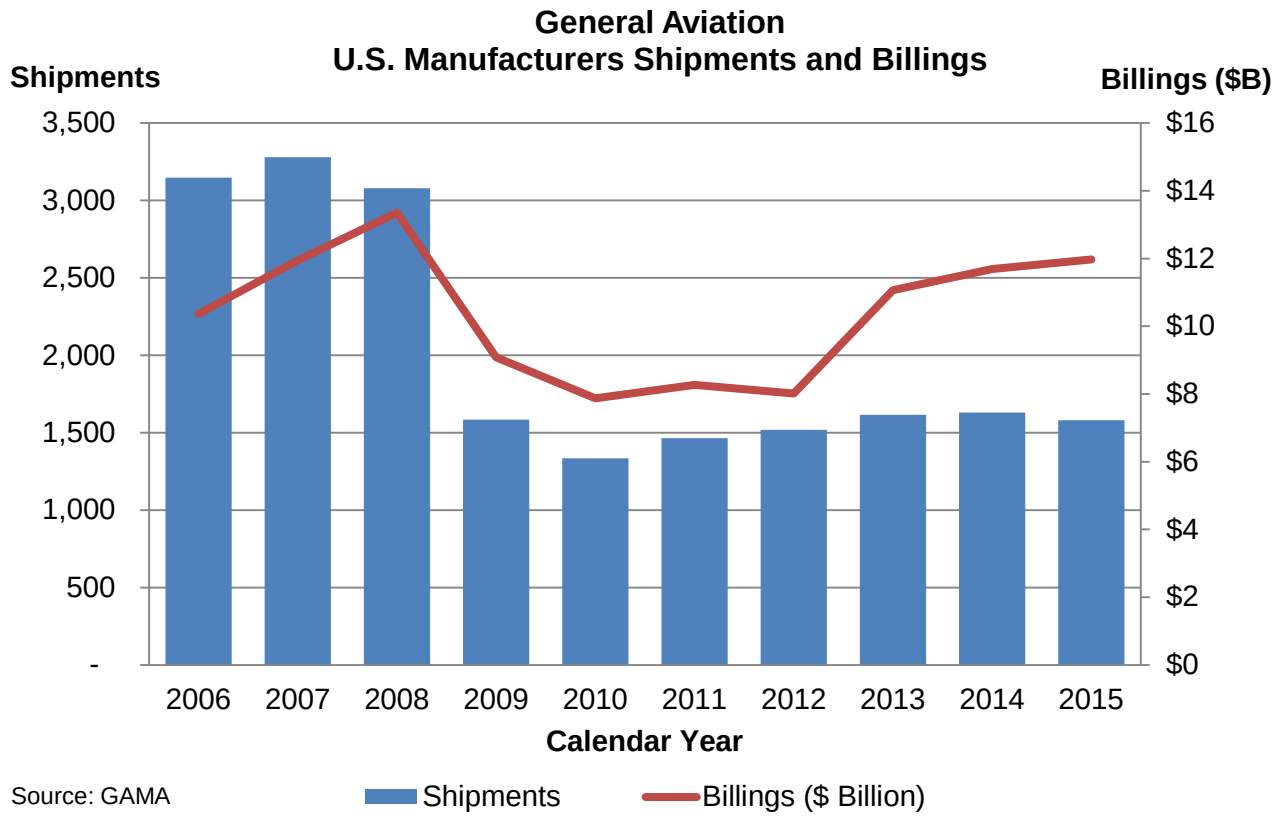
General Aviation

The FAA uses estimates of fleet size, hours flown, and utilization rates from the General Aviation and Part 135 Activity Survey (GA Survey) as baseline figures to forecast the GA fleet and activity. Forecasts of new aircraft deliveries, which use the data from General Aviation Manufacturers Association (GAMA), together with assumptions of retirement rates, produce growth rates of the fleet by aircraft categories, which are applied to the GA Survey fleet estimates. The forecasts are carried out for "active aircraft,"[3] not total aircraft. The FAA's general aviation forecasts also rely on discussions with the industry experts conducted at industry meetings, including four Transportation Research Board (TRB) meetings of Business Aviation and Civil Helicopter Subcommittees conducted annually in May and January.

The results of the 2014 GA Survey, the latest available, were consistent with the results of surveys conducted since 2004 improvements to the survey methodology. The 2014 Survey recorded the first increase to the GA fleet since 2007, particularly since the implementation of 2010 Rule for Re-Registration and Renewal of Aircraft Registration. The active GA fleet was estimated as 204,408 aircraft in 2014 (up 2.2 percent from 2013), with 23.3 million hours flown (up 1.7 percent from 2013).

In 2015, the general aviation industry experienced its first decline in deliveries since 2010. While the single engine piston aircraft deliveries by U.S. manufacturers continued to grow and business jet deliveries recorded a very modest increase compared to the previous year, turboprop deliveries were down by 10 percent, and much smaller category of multi-engine piston deliveries declined 40 percent. Based on figures released by GAMA, U.S. manufacturers of general aviation aircraft delivered 1,581 aircraft in CY 2015, 3.1 percent fewer than CY 2014. This was the first decline after four years of growth in shipments that showed first signs of slowing down in 2014. Single engine piston deliveries increased by 3.4 percent in 2015, but the decrease in multi-engine piston shipments caused a 0.6 percent decrease in overall piston airplane deliveries. In the turbine categories, turbojet deliveries were up by 0.8 percent. With the 10.0 percent decline in turboprop deliveries, total turbine shipments went down by 5.3 percent in 2015.

[3] An active aircraft is one that flies at least one hour during the year.

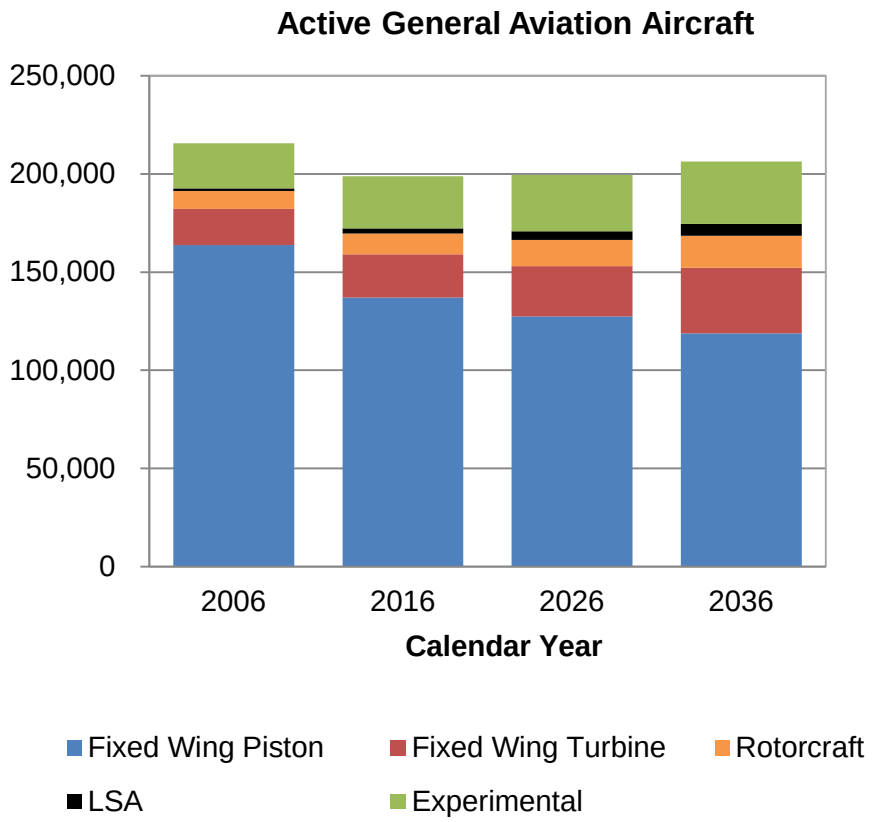


GAMA and industry experts also reported significant decreases in rotorcraft deliveries in 2015, particularly resulting from direct and indirect effects of oil price declines.

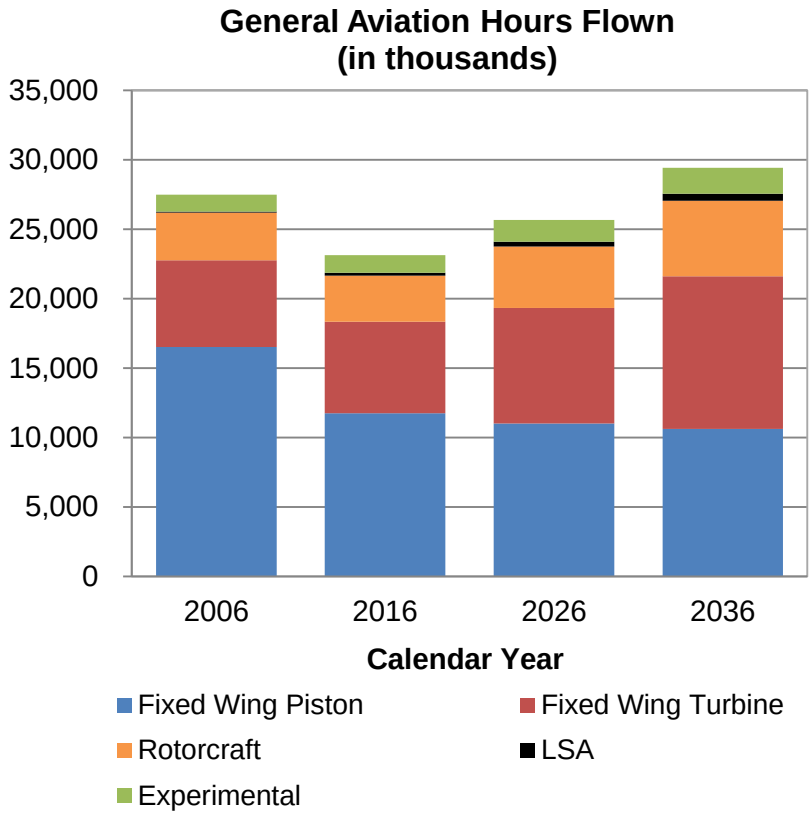
Against these current conditions, the long term outlook for general aviation, driven by turbine aircraft activity, remains favorable. The active general aviation fleet is projected to increase at an average annual rate of 0.2 percent over the 21-year forecast period, growing from an estimated 203,880 in 2015 to 210,695 aircraft by 2036. The more expensive and sophisticated turbine-powered fleet (including rotorcraft) is projected to grow by 15,600 aircraft -- at an average rate of 2.1 percent a year over the forecast period, with the turbine jet portion increasing at 2.5 percent a year.

While steady growth in GDP and long term corporate profits impacts continued growth of the turbine and rotorcraft fleets, the largest segment of the fleet, fixed wing piston aircraft is predicted to shrink over the forecast period by 17,500 aircraft (at an average annual rate of 0.6 percent).

On the other hand, currently the smallest category, light-sport-aircraft, which was created in 2005, is forecast to grow by 4.5 percent annually, adding about 3,900 new aircraft by 2036, nearly tripling its 2014 fleet size.



Moderate fleet growth also impacts the number of general aviation hours flown, projected to increase an average of 1.2 percent per year through 2036. Following the decline in piston fleet, fixed wing piston hours are forecast to decrease by 0.6 percent. Countering this trend, hours flown by turbine aircraft (including rotorcraft) are forecast to increase 2.6 percent yearly over the forecast period. Jet aircraft are expected to account for most of the increase, with hours flown increasing at an average annual rate of 3.1 percent over the forecast period. The large increases in jet hours result mainly from the increasing size of the business jet fleet, along with continuing increase in utilization rates, as indicated by the GA Survey.



Rotorcraft activity, which was not as heavily impacted by the previous economic downturn as other aircraft and rebounded earlier, faces the challenges brought by lower oil prices. They impact utilization rates and new aircraft orders both directly through decreasing activity in oil exploration, and also through associated slowdown in related economic activity. Rotorcraft hours are projected to grow by 2.5 percent annually over the forecast period.

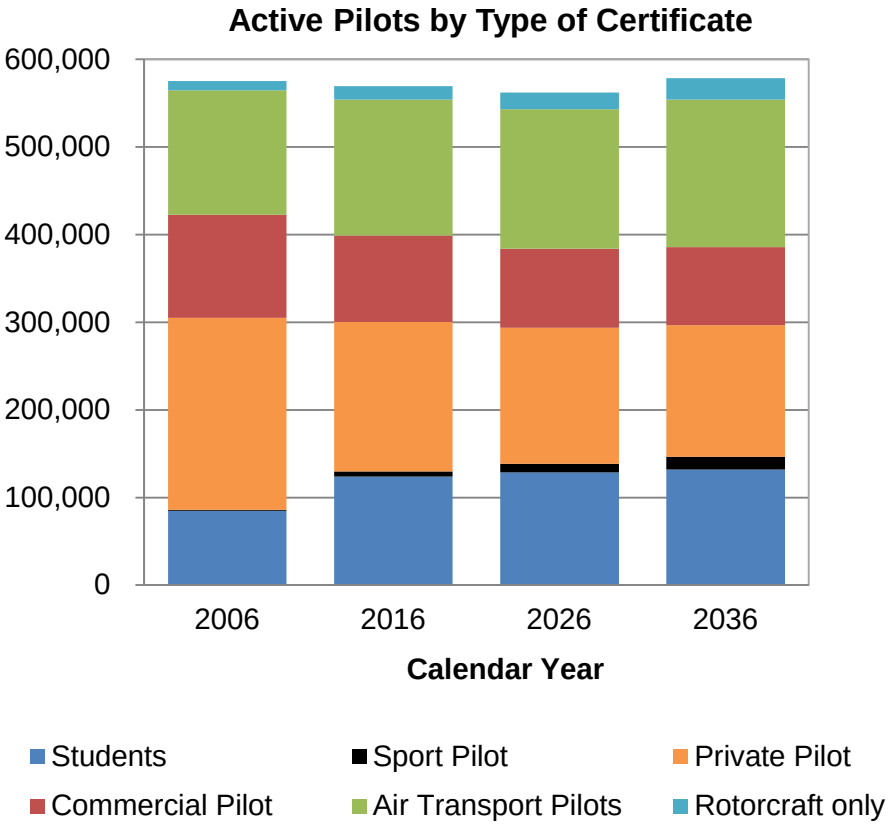
Lastly, the light sport aircraft category is forecasted to see an increase of 5.0 percent a year in hours flown, primarily driven by growth in the fleet.

The FAA also conducts a forecast of pilots by certification categories, using the data compiled by the Administration's Mike Monroney Aeronautical Center. There were 590,039 active pilots certificated by FAA at the end of 2015. While private and commercial pilot categories kept their declining trends, student pilot certificates continued to increase. One regulatory change that affected the number of student pilot certificates was the 2010 rule that increased the duration of validity for student pilot certificates for pilots under the age of 40 from 36 months to 60 months. Since 2011, the student pilot numbers have been rising and reached 122,729 in 2015.

Another change in the legislation impacted commercial and air transport pilot (ATP) certificates. The Airline Safety and Federal Aviation Administration Extension Act of 2010 mandated that all part 121 (scheduled airline) flight crew members would hold an ATP certificate by August 2013. The airline pilots holding a commercial pilot certificate and mostly serving at Second in Command positions at the regional airlines could no

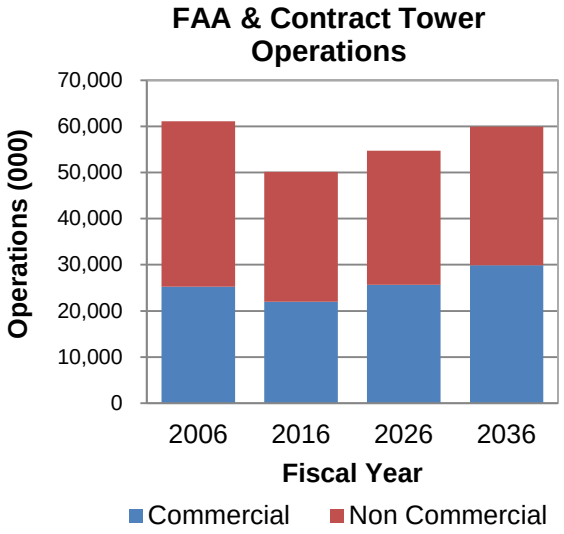
longer operate with only a commercial pilot certificate after that date, and the FAA data showed a faster decline in commercial pilot numbers, accompanied by a higher rate of increase in ATP certificates.

The number of active general aviation pilots (excluding ATPs) is projected to decrease about 5,000 (down 0.1 percent yearly) over the forecast period, while the ATP category is forecast to increase by 13,600 (up 0.4 percent annually). The student pilots are forecast to increase by 0.3 percent and much smaller category of sport pilots are predicted to increase by 4.8 percent annually over the forecast period. On the other hand, both private and commercial pilot certificates are projected to decrease by 0.6 percent yearly until 2036.



FAA Operations

The growth in air travel demand and the business aviation fleet will drive growth in operations at FAA facilities over the forecast period. Activity at FAA and Contract towers is forecast to increase at an average rate of 0.9 percent a year between 2016 and 2036. Commercial operations[4] at these facilities are forecast to increase 1.5 percent a year, 5 times faster than non-commercial operations. The growth in commercial operations is less than the growth in U.S. airline passenger traffic (1.5 percent vs 2.0 percent) over the forecast period due primarily to larger aircraft (seats per aircraft mile) and higher load factors. Both of these trends allow U.S. airlines to accommodate more passengers without increasing the number of flights. General aviation operations (which accounted for 52% of operations in 2015) are forecast to increase an average of 0.3 percent a year as increases in turbine powered activity more than offset declines in piston activity.



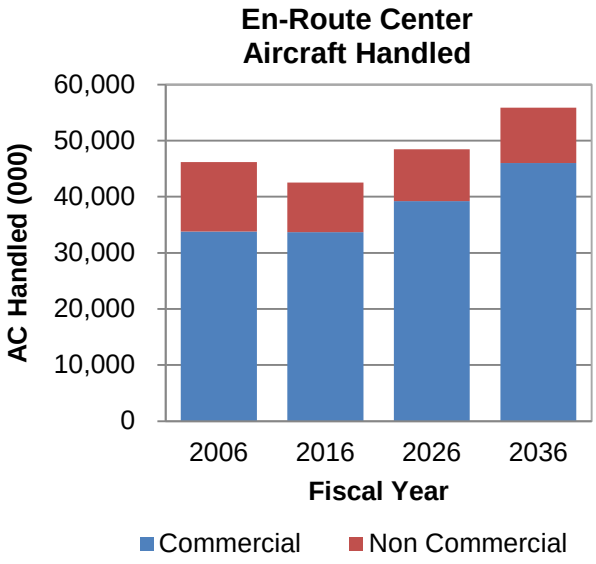
FAA Tracon (Terminal Radar Approach Control) Operations[5] are forecast to grow slightly faster than at towered facilities. This is in part a reflection of the different mix of activity at Tracons. Total operations are forecast to increase an average of 1.1 percent a year between 2016 and 2036. Commercial operations accounted for approximately 59 percent of Tracon operations in 2015 and are projected to grow 1.5 percent a year over the forecast period. General aviation activity at these facilities is projected to grow only 0.4 percent a year over the forecast.

Activity at FAA En-Route Centers is measured by the number of IFR aircraft handled.

[4] Sum of air carrier and commuter/air taxi categories.

[5] Tracon operations consist of itinerant Instrument Flight Rules (IFR) and Visual Flight Rules (VFR) arrivals and departures at all airports in the domain of the Tracon as well as IFR and VFR overflights.

In 2015, aircraft handled at FAA En-Route Centers increased 1.4 percent, led by increases in the Air Carrier and General Aviation categories. Growth in airline traffic and business aviation is expected to lead to increases in activity at En-Route centers. Over the forecast period, aircraft handled at En-Route centers are forecast to increase at an average rate of 1.4 percent a year as increases in Air Carrier and General Aviation activity offset declines in Air Taxi activity. Activity at En-Route centers is forecast to grow much faster than activity at towered airports because more of the activity at En-Route centers is from the faster growing commercial sector and high-end (mainly turbine) general aviation flying. Much of the general aviation activity at towered airports, which is growing more slowly, is local in nature, and does not impact the centers.



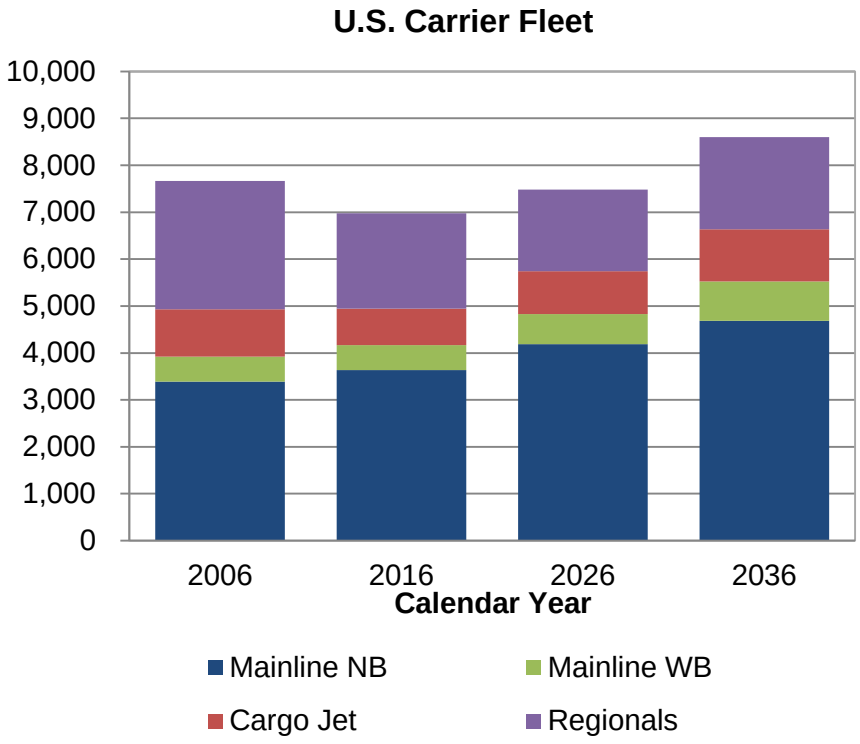
U.S. Commercial Aircraft Fleet

The number of aircraft in the U.S. commercial fleet is forecast to increase from 6,871 in 2015 to 8.414 in 2036, an average annual growth rate of 1.0 percent a year. Increased demand for air travel and growth in air cargo is expected to fuel increases in both the passenger and cargo fleets.

Between 2015 and 2036 the number of jets in the U.S. mainline carrier fleet is forecast to grow from 3,946 to 5,339, an average of 66 aircraft a year as carriers continue to remove older, less fuel efficient narrow body aircraft. The narrow body fleet (including E-series aircraft at American and JetBlue) is projected to grow 51 aircraft a year as carriers replace the 757 fleet and current technology 737 and A320 family aircraft with the next generation MAX and Neo families. The wide-body fleet grows by an average of 15 aircraft a year as carriers add 777-8/9, 787's, A350's to the fleet while retiring 767-300 and 777-200 aircraft. In total the U.S. passenger carrier wide-body fleet increases by 60 percent over the forecast period.

The regional carrier fleet is forecast to decline from 2,144 aircraft in 2015 to 1,961 in 2036 as the fleet shrinks by 21 percent (448 aircraft) between 2015 and 2022. Carriers remove 50 seat regional jets and retire older small turboprop and piston aircraft, while adding 70-90 seat jets, especially the E-2 family after 2020. By 2025 only a handful of 50 seat regional jets remain in the fleet. By 2036, the number of jets in the regional carrier fleet totals 1,786, up from 1,628 in 2015. The turboprop/piston fleet is forecast to shrink by two-thirds from 516 in 2015 to 175 by 2036. These aircraft account for just 8.9 percent of the fleet in 2036, down from 24.1 percent in 2015.

The cargo carrier large jet aircraft fleet is forecast to increase from 781 aircraft in 2015 to 1,114 aircraft in 2036 driven by the growth in freight RTMs. The narrow-body cargo jet fleet is projected to increase by 2 aircraft a year as 757's and 737's are converted from passenger use to cargo service. The wide body cargo fleet is forecast to increase 14 aircraft a year as new 747-800, 767-300, and 777-200 aircraft are added to the fleet, replacing older MD-11 and 767-200 freighters.


U.S. Carrier Fleet
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
2006
2016
2026
2036
Calendar Year
Mainline NB
Mainline WB
Cargo Jet
Regionals

Unmanned Aircraft Systems

An Unmanned Aircraft System (UAS) is the unmanned aircraft (UA) and its associated elements (including communication links and the components that control the unmanned aircraft) that are required for the safe and efficient operation of the unmanned aircraft in the national airspace system (NAS). The forecast will be driven by a combination of an improved regulatory environment and underlying demand. In 2015, unprecedented milestones were achieved for UAS. The FAA is continuing to enable this new thriving industry to flourish while maintaining safety.

Education, Outreach, and Research

The FAA is partnering with several industry associations for the "Know Before You Fly" educational campaign. This outreach promotes the safe and responsible use of unmanned aircraft as they become integrated into the NAS. The FAA also developed and made available an app, B4UFLY which provides UAS operators with pertinent airspace requirements and restrictions before operating.

Six FAA-selected UAS test site operators are providing information on system safety, data gathering, aircraft certification, command and control link issues, control station layout and certification, ground and airborne sense and avoid, and environmental impacts. In addition, a team led by Mississippi State University has been identified as the FAA's Center of Excellence for Unmanned Aircraft Systems (COE UAS). The COE will focus on research, education, and training in areas critical to safe and successful integration of UAS into the nation's airspace.

Exemptions and Authorizations

Section 333 of the FAA Modernization and Reform Act of 2012 grants the Secretary of Transportation the authority to determine whether an airworthiness certification is required for certain UAS to operate safely in the NAS. This determination is based on the size, weight, speed, and operational capabilities of the aircraft. Using the FAA's exemption process, a safety evaluation is conducted, and appropriate conditions and limitations for the operation are imposed through each exemption granted. As of March 16, 2016, over 4,000 exemptions have been granted for commercial UAS operations in the United States under the Section 333 authority. This demonstrates considerable potential demand for UAS operations, in low-risk, controlled environments. In addition, commercial UAS operations must be conducted in accordance with a Certificate of Authorization or Waiver (COA) issued by the FAA Air Traffic Organization. The COA describes the specific operating areas approved for UAS operations and associated mitigations that help to ensure the safety of the NAS.

Model Aircraft and Hobbyist Forecast

In order to operate in the NAS, the FAA must ensure that aircraft operators are not only aware of the system in which they are operating, but that the agency also has a means to identify owners. One means to accomplish this is through aircraft registration and marking. On December 14, 2015, the FAA issued a rule requiring all UAS weighing more than 0.55 pounds (250 grams) and less than 55 pounds to be registered using a new on-line system (UAS weighing more than 55 pounds must be reg-

istered using the existing Aircraft Registration Process). This registration rule will aid in investigations and allow the FAA to gather data about UAS use. As of mid-March, 2016 there have been over 408,000 registrations.

As shown in the following table, a sales forecast was developed for the small UAS registration rule, which included very small units below the registration size cutoff of 250 grams. For this interim final rule, in 2016, we forecast 1.9 million potential annual sales and that number could increase to 4.3 million units sold annually by 2020. As shown in the first row of the table below, this would represent the upper bound of the potential number of small UAS operated as model or hobby aircraft.

Sales Forecast Summary
Million sUAS Units

	2016	2017	2018	2019	2020
Hobbyist (model aircraft)	1.9	2.3	2.9	3.5	4.3
Commercial (non-model aircraft)	0.6	2.5	2.6	2.6	2.7
	2.5	4.8	5.5	6.1	7.0

Note: Numbers may not add due to rounding

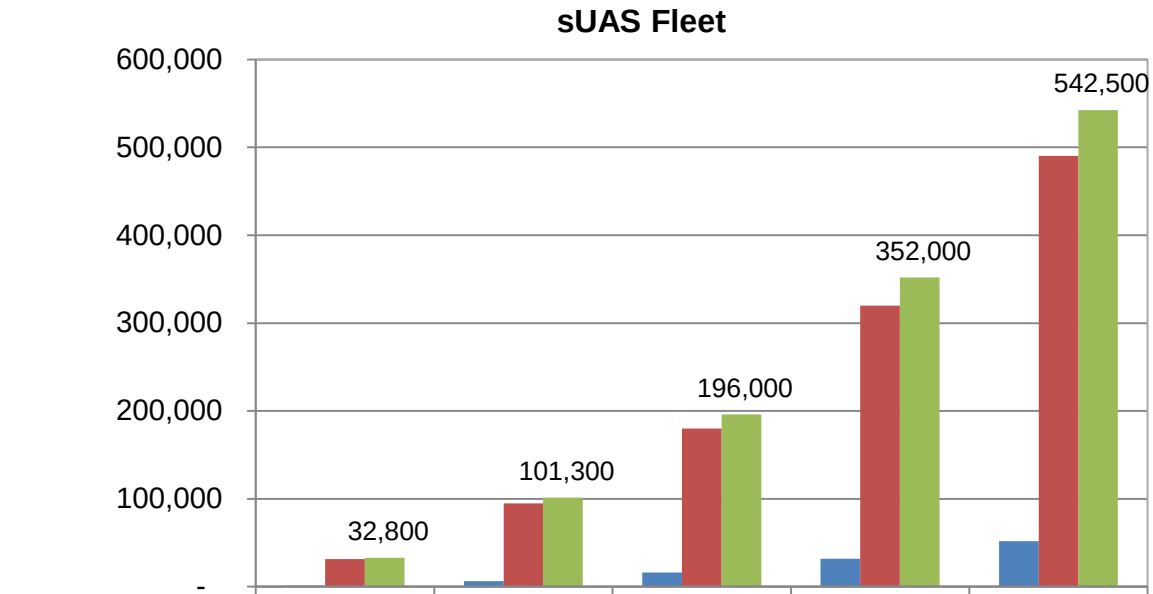
Commercial Forecast

In 2015, in support of the small UAS registration rule, a sales forecast for commercial UAS was developed to derive the potential demand for the new on-line registration system. That forecast represents the high end of the small UAS commercial fleet. As summarized in the second row of the previous table, for 2016, the potential sales of commercial small UAS requiring registration was forecast to be over 600,000, growing to 2.7 million by 2020.

On February 23, 2015, the FAA issued the Operation and Certification of Small Unmanned Aircraft Systems Notice of Proposed Rulemaking (NPRM) proposing to amend its regulations to adopt specific rules for the operation of small UAS in the NAS. Over 4,600 public comments were submitted in response to the NPRM. The FAA expects to publish a final rule in late spring of 2016. More information on the derivation and assumptions behind this forecast will be provided in the Regulatory Impact Assessment accompanying the final rule publication.

The FAA is working with the Teal Group Corporation, an industry expert in UAS forecasting, to develop a commercial forecast for small UAS operations described in the NPRM. The civil and commercial UAS market will take time to develop and the size of the market will directly relate to the specific requirements developed along with airspace accessibility. The Teal Group has provided the FAA with a forecast for small commercial unmanned aircraft. This forecast analyzes the market demand for different sectors within the regulatory environment.

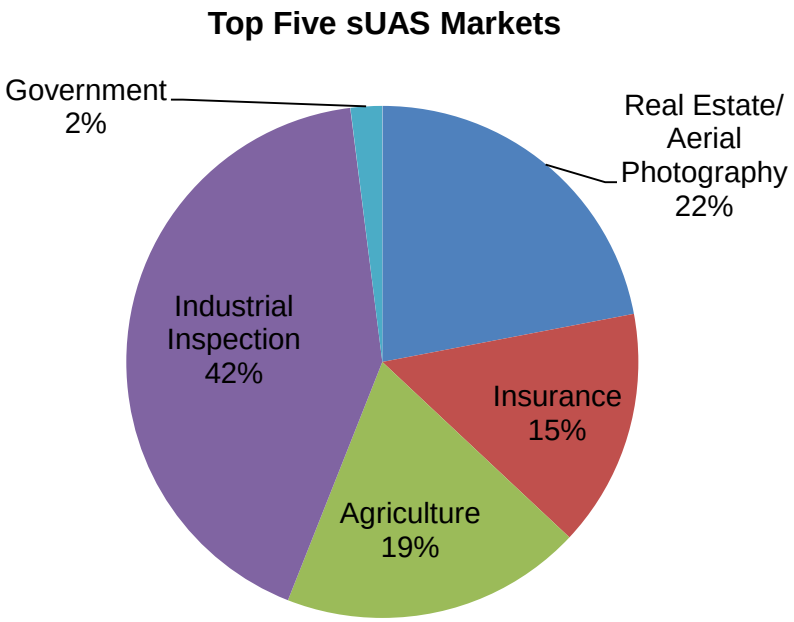
As shown in the graph below, it is expected that, once the final small UAS rule is implemented, two different categories of small UAS (sUAS) will emerge. Higher end sUAS will have an average sales price of $40,000 per unit, while lower end units will have an average price of $2,500. Over a five year period, Teal Group forecasts the sUAS fleet to be approximately 542,500.



	2016	2017	2018	2019	2020
Higher end UAS	1,300	6,300	16,000	32,000	52,000
Lower end UAS	31,500	95,000	180,000	320,000	490,500
Total Fleet	32,800	101,300	196,000	352,000	542,500

Of this estimated fleet, it is expected that roughly 90% of the demand will satisfied by the lower end units.

The number of small UAS forecasted is highly uncertain and is dependent on the regulatory structure ultimately adopted. Once a final rule for small UAS is published, they will become more commercially viable than they are today. The total fleet shown in the previous table is expected to satisfy the market for the top five industries that will employ the use of sUAS.



Looking beyond existing regulatory initiatives, FAA has developed the UAS Focus Area Pathfinders initiative. This initiative explores how UAS might be safely used in populated areas, how UAS flights outside the pilot's direct vision might allow greater UAS use in rural areas, and some of the command-and-control challenges of using UAS beyond visual line of sight in rural/isolated areas. The overall demand for commercial UAS will soar once regulations more easily enable beyond visual line of sight (BVLOS) operations and operations of multiple UA by a single pilot. Once a framework is enabled for BVLOS operations, the projected market sizes could be higher than the forecast

Venture capitalists are already investing considerable amounts of money into this emerging industry with the intention to build early market share in this technology. Manufacturers' efforts are focused on building systems optimized for particular segments of the market. Unmanned aircraft systems will be the most dynamic growth sector within aviation. The FAA will continue to work with industry and stakeholders to safely integrate UAS into the NAS.

Commercial Space Transportation

The Federal Aviation Administration's Office of Commercial Space Transportation (FAA AST) and the Commercial Space Transportation Advisory Committee (COMSTAC) have prepared forecasts of global demand for commercial space launches in 2015 through 2024.

The 2015 Commercial Space Transportation Forecasts report (the Report) is in two sections:

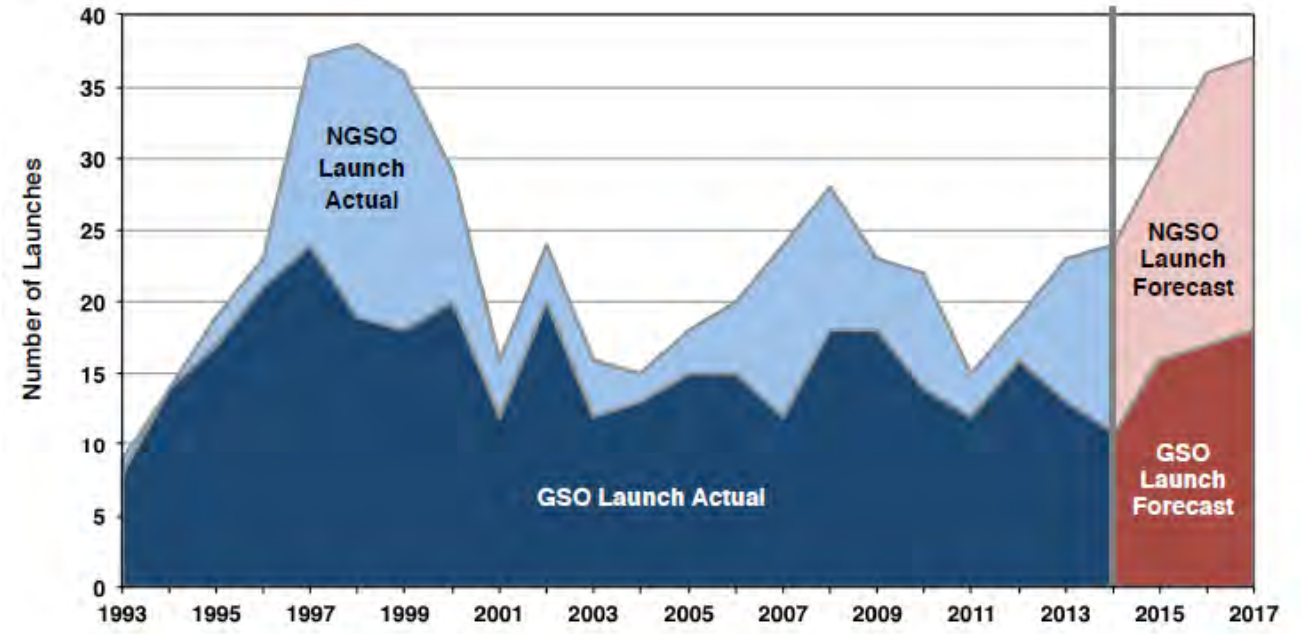
1) The *COMSTAC 2015 Commercial Geosynchronous Orbit (GSO) Launch Demand Forecast*, which projects demand for commercial satellites that operate in GSO and the resulting commercial launch demand to GSO. As a result of the realignment of issuances dates of the Report, this year's GSO Launch Demand Forecast only considers the three-year outlook; and

2) The FAA's *2015 Commercial Space Transportation Forecast for Non-Geosynchronous Orbits (NGSO),*which projects commercial launch demand for satellites to NGSO, such as low Earth orbit (LEO), medium Earth orbit (MEO), elliptical (ELI) orbits, and external (EXT) trajectories beyond orbits around the Earth.

Report projects an average of 17 commercial GSO launches for 2015 through 2017 and 13.1 NGSO launches for 2014 through 2013. The chart below shows the combined GSO and NGSO Historical Launches and Launch Forecast. It reflects the three year GSO forecast outlook. The table below shows the number of GSO and NGSO payloads and launches projected from 2015 and 2024.

It is important to distinguish between forecast demand and the number of satellites actually launched. Launch vehicle and satellite programs are complex, and susceptible to delays, which generally makes the forecast demand for launches the upper limit of actual launches in the near-term forecast.

Combined 2015 GSO and NGSO Historical Launches and Launch Forecasts

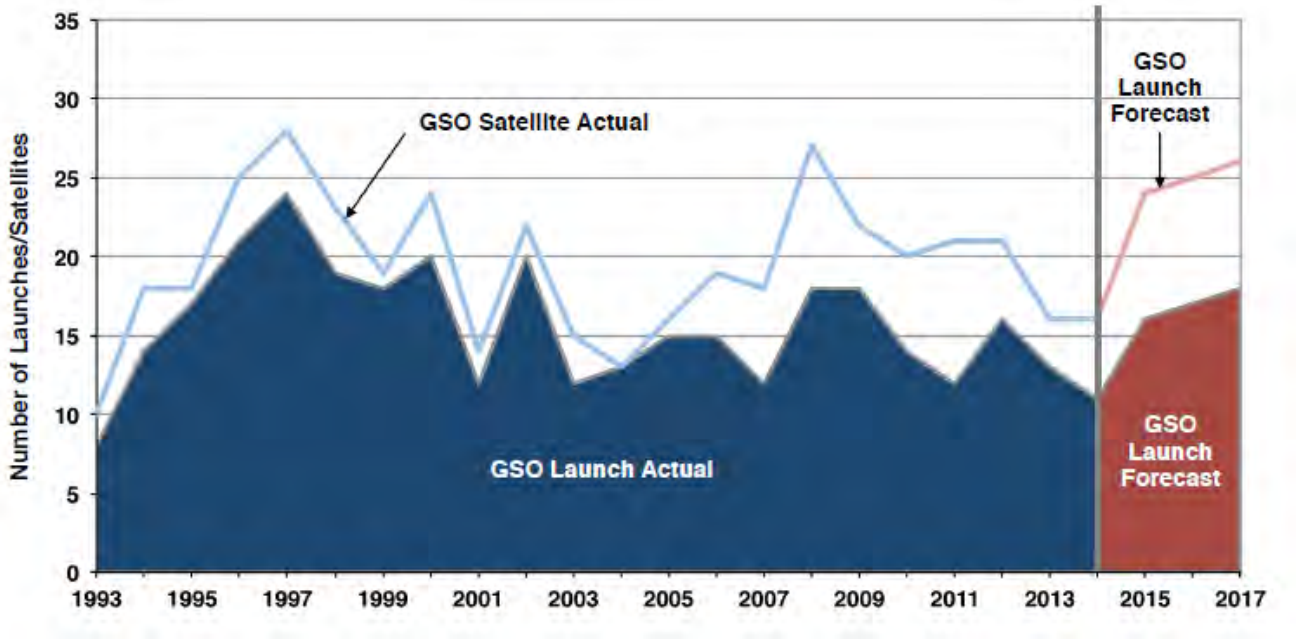


Commercial Space Transportation Payload and Launch Forecasts

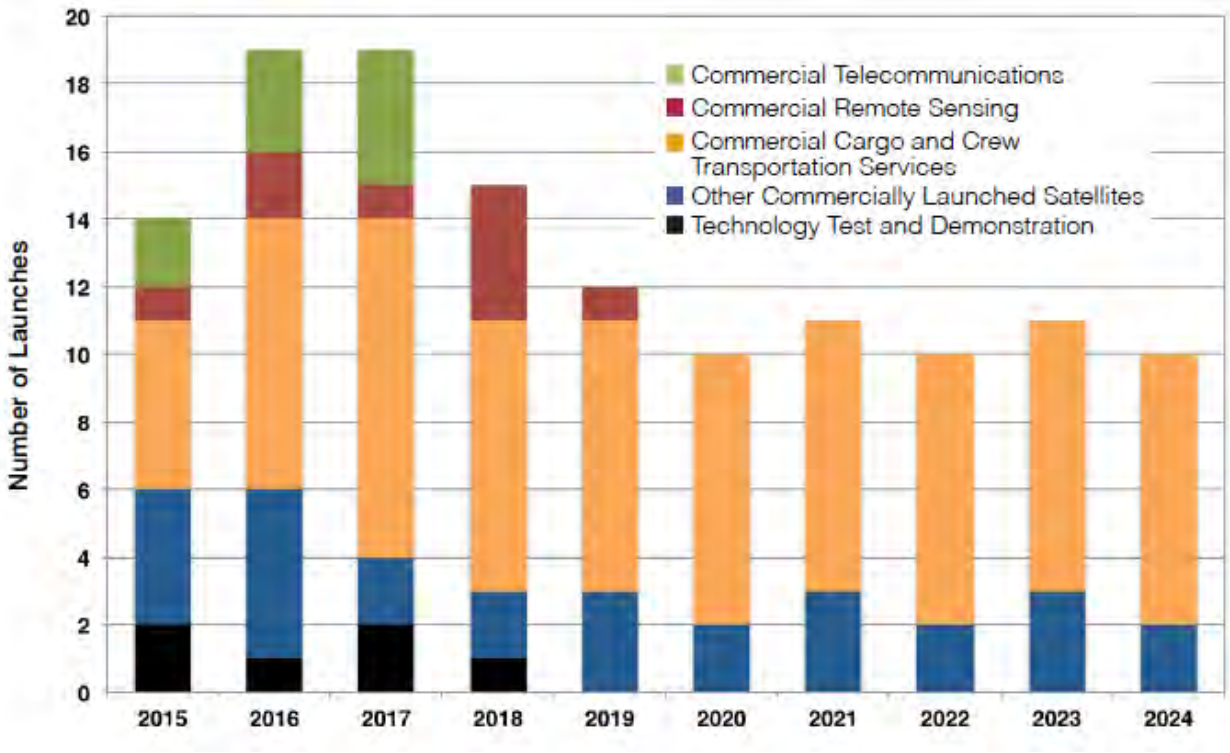
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total	Avg.
Payloads												
GSO Forecast (COMSTAC)	24	25	26	--	--	--	--	--	--	--	--	25.0*
NGSO Forecast (FAA)	65	136	151	104	92	92	87	86	87	86	986	98.6
Total Payloads	**89**	**161**	**177**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Launches												
GSO Med-to-Heavy	16	17	18	--	--	--	--	--	--	--	--	--
NGSO Med-to-Heavy	13	17	15	13	11	10	10	10	10	10	119	11.9
NGSO Small	1	2	4	2	1	0	1	0	1	0	12	1.2
Total Launches	30	36	37	--	--	--	--	--	--	--	--	--

The GSO market remains stable with a projected demand of 25 satellites per year for the period 2015-2017, up from last year's average for 22.3 for the period 2014-2016. The chart below shows the 2015 GSO Historical Launches and Launch Forecast. Thirty-nine percent of GSO satellites projected to launch from 2015-2017 are in the heaviest mass class (above 5,400 kg). At the same time, seven percent of the satellites in the same period are in the lowest mass class (below 2,500 kg). In 2015, unaddressable launches remained at the comparably high level – launch contracts that were not open to international (including U.S.) competition – as Chinese and Russian government-owned aerospace companies routinely package satellites, launches, and financing together. The satellite services market is generally robust, and new launch vehicle options will affect the dynamics of the launch industry. Operators are cautious about the impact of the economy on their plans but are generally satisfied with satellite and launch vehicle offerings.

2015 GSO Historical Launches and Launch Forecast



Projected NGSO Launches from 2015-2024



The demand for commercial NGSO launches is expected to be at a comparably high level as major NGSO telecommunication constellations are replenished and National Aeronautics and Space Administration (NASA) International Space Station (ISS) commercial crew and cargo resupply missions become more regular. The annual average of NGSO commercial launches is expected to grow from an annual average of seven launches a year over the last ten years to about 11.9 launches annually. From 2015-2024, 986 payloads are projected to launch commercially, driving only 131 launches with multi-manifesting, reflecting an industry planning to launch more micro- and small-class payloads in clusters, instead of increasing the demand for individual launches. The chart above shows the projected NGSO launches for the next ten years. The launches in the next ten years are predominantly commercial launches to the International Space Station, which require medium-to-heavy vehicles. Ninety-one percent of all commercial NGSO launches during the forecast period will launch on medium-to-heavy vehicles. The relatively higher number of small launches is due to Skybox Imaging's plans to use Minotaur C to deploy its constellation and the first test flights of four newly developed commercial small launch vehicles in 2015-2017, to be introduced for commercial launch services in the following years. From 2015-2018 the Report forecasts a number of small commercial satellites to be launched as Iridium, ORBCOMM, Planet Labs, and Skybox all deploy their constellations. The number of these multi-manifested satellites drops off towards the end of the forecast, but the number of launches remains relatively steady as NASA begins its commercial crew program.

For the full study, please visit:

https://www.faa.gov/about/office_org/headquarters_offices/ast/media/Commercial_Space_Transportation_Forecasts_2015.pdf

Risks to the Forecast

The forecasts in this document are forecasts of aviation demand, driven by models built on forecasts of economic activity. There are many assumptions in both the economic forecasts and in the FAA models that could impact the degree to which these forecasts are realized. This year's forecast is driven, at least in the short-term, by a number of factors including the strength of the economic recovery and any impact resulting from the U.S. government fiscal situation. Also, as numerous incidents in the past few years (like the downing of a Russian A321 in the Sinai in October 2015) remind us, terrorism remains among the greatest risks to aviation growth. Any terrorist incident aimed at aviation would have an immediate and significant impact on the demand for aviation services that would be greater than its impact on overall economic activity.

Although oil prices remained below $60 per barrel for most of 2015, the recent volatility reminds us there is still considerable uncertainty as to the future direction of oil prices. The FAA's baseline forecast (derived from economic assumptions in IHS Global Insight's December 2015 U.S. macro forecast and 30-Year Focus released during the fourth quarter of 2015) calls for a decline in oil prices in 2016 to $43 per barrel and then rising steadily thereafter, exceeding $75 by 2020, $125 by 2025, and reaches $152 per barrel by the end of the forecast period in 2036. Some forecasters are calling for a more gradual rebound in the price of oil. In January 2016, the World Bank released its latest commodity price forecast. The forecast calls for oil prices to fall to $34 per barrel in 2016, remaining below $60 until 2021, and only exceeding $80 per barrel by 2025. The International Monetary Fund (IMF) also sees oil price increasing at a more moderate rate than the FAA's base forecast, as its January 2016 forecast called for oil prices increasing from $35 per barrel in 2016 to only $50.50 per barrel by 2021. Over the long run, lower oil prices give consumers an impetus for additional spending, including air travel, and should enhance industry profitability.

The baseline forecast assumes that global economic growth will accelerate after 2016, but weakness in certain areas may threaten the strength and sustainability of the expansion. The baseline forecast assumes that China and India will be growth engines for emerging economies as China successfully transitions the economy from reliance on heavy manufacturing and resource industries to one more oriented towards the services and technology sectors and India continues to implement reforms to make its economy more competitive. While economic growth appears to be holding up in the U.S., there are concerns about the strength of demand in Japan and in the European Union as these areas continue to be constrained by structural economic problems (high debt, slow population growth, weak public finances for example). Furthermore, the steps that were taken to stabilize the global economy during the Great Recession have resulted in additional distortions and imbalances. There are concerns that central banks may not raise interest rates in time to contain asset bubbles and inflationary expectations. In advanced economies, governments need to shore up their finances by constraining spending and raising taxes. Given the discomfort many policy makers feel about the measures adopted to

combat the Great Recession and uncertainty about the advanced economies' prospects, there is considerable risk that authorities will either act prematurely or be excessively timid and late in taking necessary steps. The current forecasts assume strong passenger growth for travel between the United States and other world regions. Any slowing of worldwide economic activity could seriously inhibit the growth in global passenger demand.

With the merger of American Airlines and US Airways completed, the outlook for further consolidation via mergers and acquisitions (M&A) appears to be rather limited. Based on FY 2015 data, the Big 3 (American, Delta, and United) plus Southwest accounted for more than 76% of the U.S. airline industry capacity and traffic. Of the network carriers, only Alaska remains independent, although it does have code share agreements with both American and Delta. There appears to be little appetite for further consolidation as there are significant obstacles. For many low cost carriers, the sheer size of merger transactions or the amount of financial risk associated with a merger makes further merger activity unlikely. For the network carriers, regulatory authorities are increasing their scrutiny over carrier practices (e.g. Department of Justice investigation into impacts of "capacity discipline" on pricing) suggesting and any future proposed merger will face a less receptive audience than in the past decade.

However, U.S. airlines continue to explore other options including global alliances. Many of the major carriers in the U.S. are members of global alliances that operate with some measure of anti-trust immunity from the U.S. DOT. While anti-trust immunity may provide flexibility for airline operators across borders, it may create an anti-competitive environment in the marketplace. These market consolidating vehicles, particularly the anti-trust immunity provisions, may invite increased regulatory scrutiny. If such oversights are launched in the future, this will complicate the evolving structure of the airline industry and may impact demand via new regulations.

The forecast assumes the addition of sizable numbers of large regional jets (70 to 90 seats) into the fleet of regional carriers. However, network carrier consolidation and new rules on pilot training have left regional carriers saddled with either excess capacity or a lack of pilots. Although air travel demand continues to recover, the bankruptcy filing of Republic Airlines in February 2016 is a reminder that financial pressures on regional operators have not abated. Network carriers continue to make adjustments to the size and breadth of their networks, without providing opportunities for regional carriers to backfill the loss of the mainline service. Delta is well along in its plans to reduce its small (read 50 seat) regional jet fleet and plans to retire another 50 to bring its total to just 125, down from almost 500 at the end of 2009. United has reduced the number of small regional jets flown by its partners from an estimated 380 in 2012 to 242 by the end of 2015 with a target of 100 by 2019. It is adding 85 Embraer 175's to its partners' regional fleet to partially replace the reduction in small jet flying. Meanwhile the new American Airways is planning to reduce its small regional jet fleet by 29 aircraft in 2016, after removing 31 in 2015. At the same time the carrier plans to add 49 larger regional jets to its fleet in 2016. While these actions may provide some opportunities for well positioned regional carriers, the overall impact of consolidation so

far has been to reduce opportunities for regional flying substantially.

After suffering through a significant downturn in 2009, business and corporate aviation have seen a partial recovery during the past five years. The pace of the recovery in business and corporate aviation is largely based upon the future prospects of economic growth and corporate profits. Future uncertainty in these leading indicators could pose a risk to the forecast, but the risk is not limited to these factors. Public perception of business and corporate aviation, potential environmental regulations and taxes, along with increased security measures placed on business jets, will place downward pressure on the forecast. On the other hand, while corporate profits are currently high, perceived economic and political uncertainties are causing companies to postpone their purchase of new business aircraft. Translation of this pent-up demand into sales of business jets in the near future can create an upward impact on the forecast. The impact of fuel price decline on business aircraft demand is also uncertain. While a positive effect on corporate profits will increase the demand, revenue losses resulting from low fuel prices may move the demand in the other direction.

Other factors, such as new and more efficient product offerings and increased competition from new entrant manufacturers, serve to broaden the potential of the industry. The potential easing of regulations on the use of airspace in foreign countries would offer promising scenarios for business jet manufacturers. Raising the level of security restrictions, and the subsequent travel hassles placed on airline passengers, could make corporate jet travel look increasingly appealing.

Not only is the volume of aircraft operating at most large hubs expected to increase over the next 20 years, but the mix of aircraft is changing for this same period. The expected increases in the numbers of regional jets and business jets will increase the impact on the national airspace system and make the FAA's job more challenging. This change in the mix of aircraft will impact workload strictly due to the increasing demand for aviation services projected over the forecast period.

While overall activity at FAA and contract towers increased 0.2 percent in 2015, activity at the Core 30 airports increased 0.7 percent in 2015 and delays remained at historically high levels at many U.S. airports. FAA forecasts operations at these airports to grow substantially faster than the overall national trend. As demand recovers and workload increases, congestion and delays could become a critical limit to growth over the forecast period. FAA's forecasts of both demand and operations are unconstrained in that they assume that there will be sufficient infrastructure to handle the projected levels of activity. Should the infrastructure be inadequate and result in even more congestion and delays, it is likely that the forecasts of both demand and operations would not be achieved.

There are concerns that aviation's impact on the environment could potentially restrict the ability of the aviation sector to grow to meet national economic and mobility needs. Airport expansion or new construction is often a contentious issue because of noise, air quality, and water quality concerns. There is also an ongoing effort to address the climate impacts of aviation. Aviation currently accounts for 2 to 3 percent of global carbon emissions, but this percentage is expected to increase with the growth

in operations unless mitigated with new technologies and standards, renewable fuels, operational improvements and potentially as a gap filler, market based measures. While certain measures to address climate impacts can result in reduced costs, such as increased fuel efficiency, other measures, such as market instruments could pose additional constraints on growth. Energy concerns are also rising, driven by spikes in fuel prices, supply and security issues, and concerns about fossil fuel emissions contributing to global climate change. Lack of progress in improving the environmental and energy outlook for the future fleet may result in more access restrictions or operating limitations on the fleet in service which in turn may depress growth. By contrast, breakthroughs in quieter, cleaner aircraft technologies and renewable fuels could reduce environmental and energy constraints on the forecast, and enable sustainable growth.

Appendix A: Alternative Forecast Scenarios

Uncertainty exists in all industries, but especially in the commercial air travel industry. As volatility in the global environment has increased, the importance of scenarios for planning purposes has increased. In order to help stakeholders better prepare for the future, the FAA has provides alternative scenarios to our baseline forecasts of airline traffic and capacity.

To create the baseline domestic forecast, economic assumptions from IHS Global Insight's 10-year and 30-year U.S. Macro Baselines were used. To develop the alternative scenarios, assumptions from IHS Global Insight's 10-year and 30-year optimistic and pessimistic forecasts from their January 2016 Baseline U.S. Economic Outlook were used were used. Inputs from these alternative scenarios were used to create a "high" and "low" traffic, capacity, and yield forecast.

International passengers and traffic are primarily driven by country specific Gross Domestic Product (GDP) forecasts provided by IHS Global Insight. Thus, the alternative scenarios use inputs based on ratios derived from IHS Global Insight's Major Trading Partner and Minor Trading Partners optimistic and pessimistic forecasts in order to create a high and low case.

Scenario Assumptions

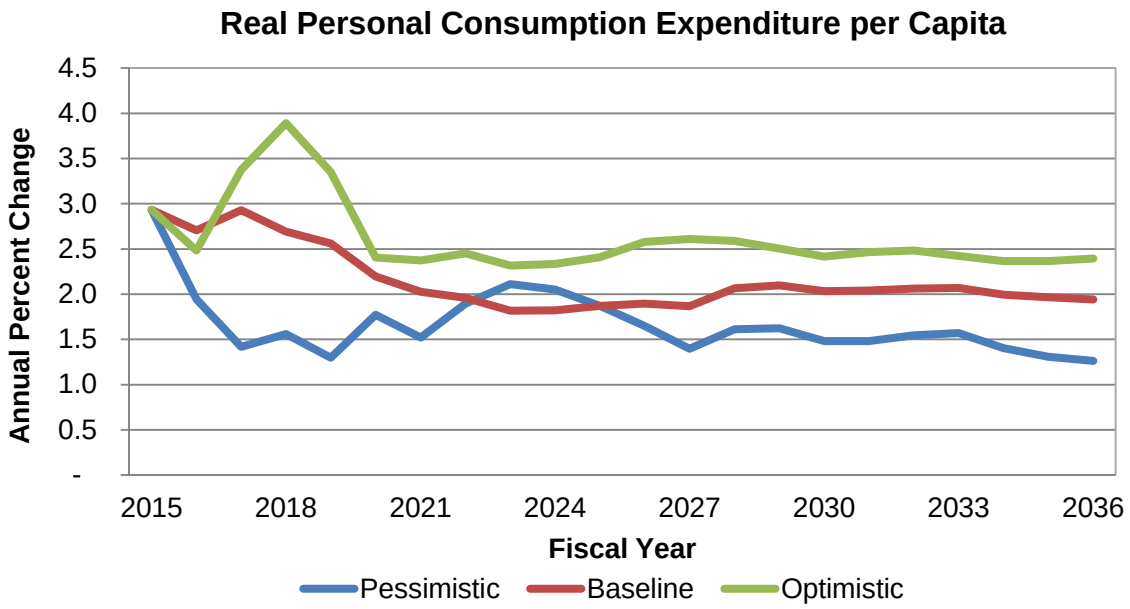
The FAA's domestic baseline forecast assumes that the economy recovers from the current downturn and experiences very low oil prices in the short term, suffers no major swings in macro-economic policy, or financial sector collapses.

The FAA's high case forecast uses IHS Global Insight's optimistic forecast. The optimistic forecast sees improved business confidence leading to renewed vigor in the labor market, consumer spending, and sustained improvements in the housing sector as well as sustained low consumer prices, higher real personal consumption expenditure, relatively low Brent crude prices, and a high GDP. Furthermore, in the optimistic case, it is assumed that fiscal deficits will diminish substantially in North America, Western Europe, and Japan. In this scenario real personal consumption expenditure (PCE) per capita growth averages 0.4 percentage points faster per year than the baseline forecast[6] and unemployment averages 0.3 points lower on a fiscal year basis than the baseline.[7]

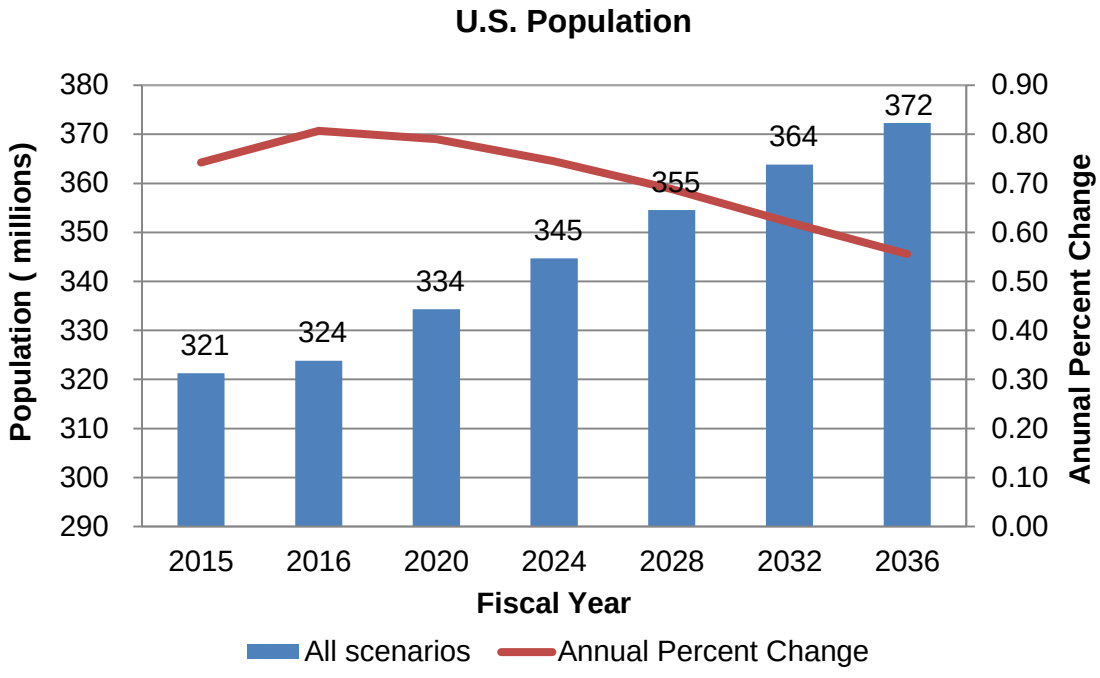
Conversely, FAA's low case forecast uses IHS Global Insight's pessimistic scenario; in this forecast, the same assumptions apply as in the optimistic case, only the U.S. economy recovers at a much slower pace and the prices of Brent crude rise higher than in the base case. Moreover, the Eurozone's recovery will stall and growth in emerging markets will be less robust. Lastly, real PCE per capita grows 0.4 percentage points slower per year than in the baseline; and unemployment, on average, is

[7] Real personal consumption expenditure per capita and unemployment are used as an input variables to the FAA's base, high and low forecasts of enplanements.

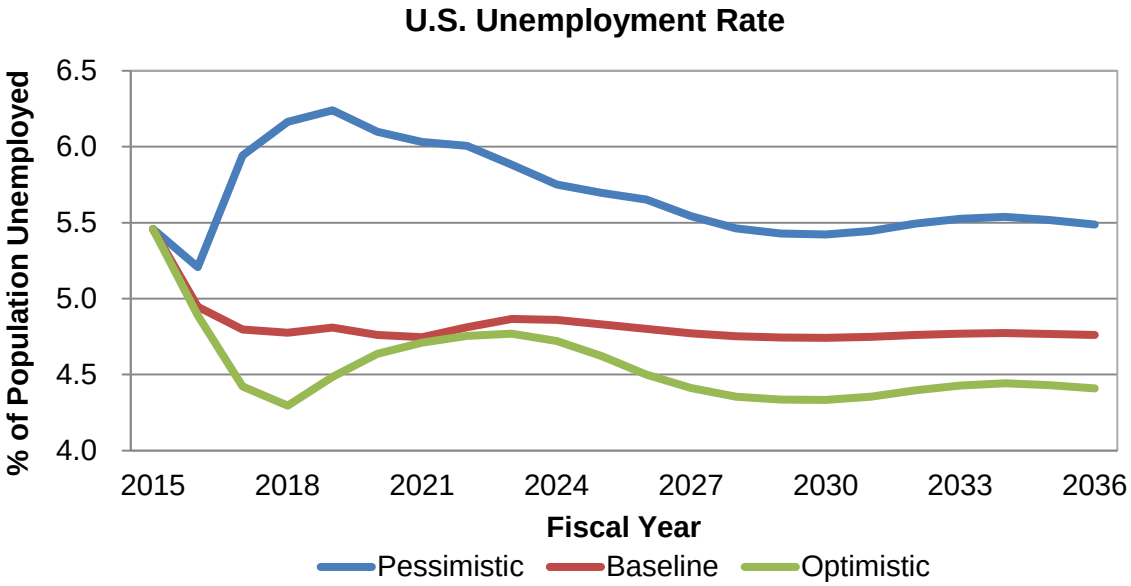
0.35 points higher on an annual basis than in the baseline.



Source: IHS Global Insight



Source: IHS Global Insight



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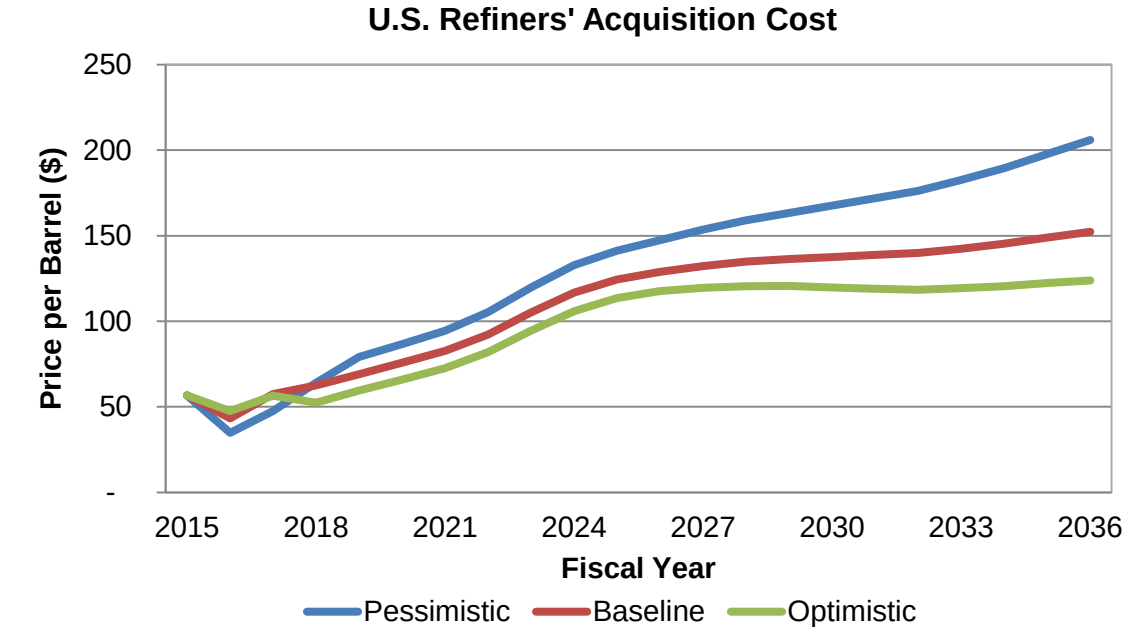
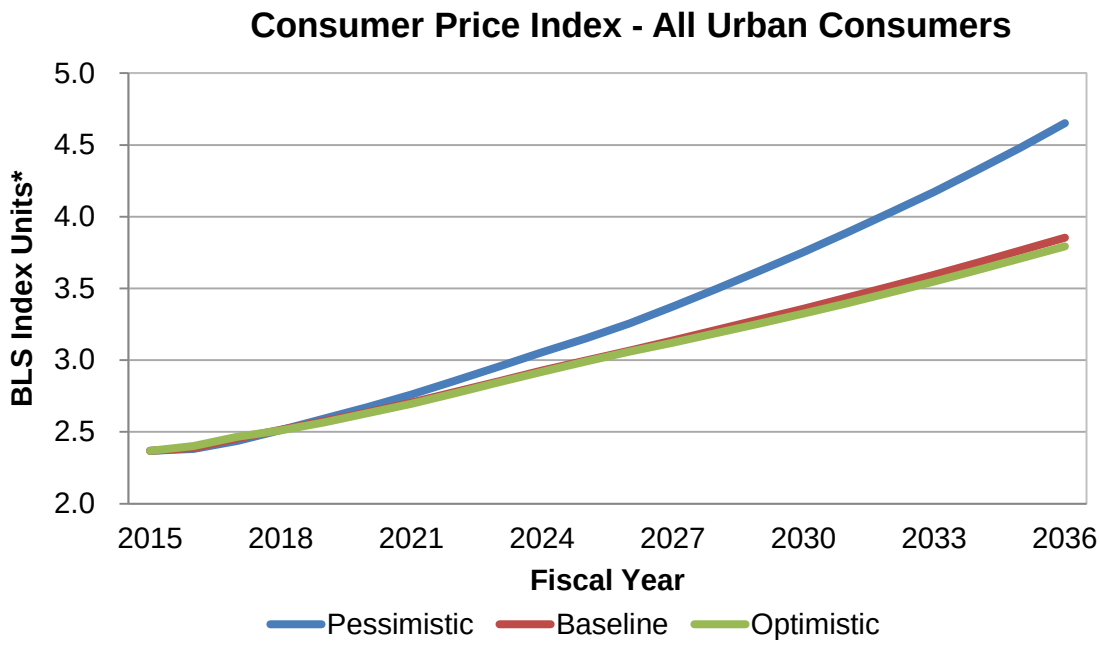


Source: IHS Global Insight

The price of energy is one of the critical drivers in the growth of consumer prices over the forecast period. In the optimistic case, energy prices, wages, and import prices grow more slowly than in the baseline. In the pessimistic case the opposite occurs with energy prices, wages and import prices rising more rapidly compared to the baseline.



* BLS Units: 1982-84 = 1.00
Source: IHS Global Insight

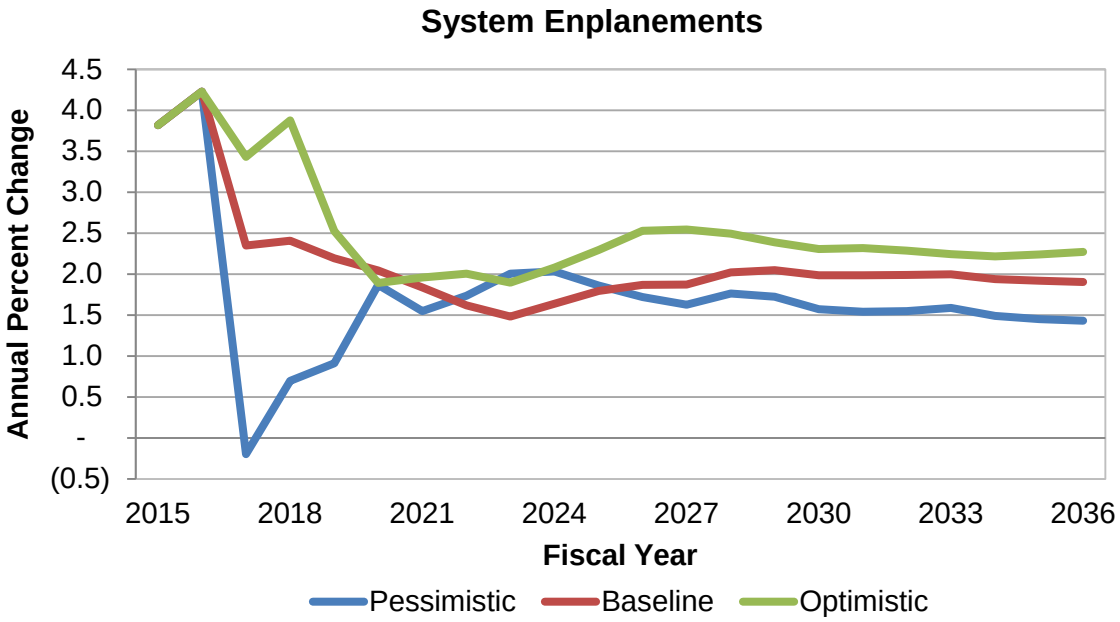
Alternative Forecasts

Enplanements

In the baseline forecast, system enplanements are forecast to grow at an average annual rate of 2.2 percent a year over the forecast horizon of 2016-2036 (with domestic and international passengers up 2.0 and 3.6 percent, respectively).

In the optimistic case, enplanements grow at a quicker pace, averaging 2.7 percent per year (up 2.6 percent domestically and 3.6 percent internationally). This scenario is marked by a more favorable business environment, lower inflation, and lower fuel prices which make the price of flying more affordable to business and leisure travelers. By the end of the forecast period in 2036, system passengers in the optimistic case are 10.7 percent above the baseline, totaling 1.4 billion, 132 million than in the baseline.

The pessimistic case is characterized by a period of weakened consumer confidence brought on by persistent unemployment, low consumer demand, and higher inflation. In this scenario enplanements grow an average of 1.7 percent per year (domestic up 1.4 percent and international up 3.6 percent). In the pessimistic case, system passengers in 2036 are 9.8 percent below the baseline case, totaling 1.1 billion, 121 million fewer than in the baseline.

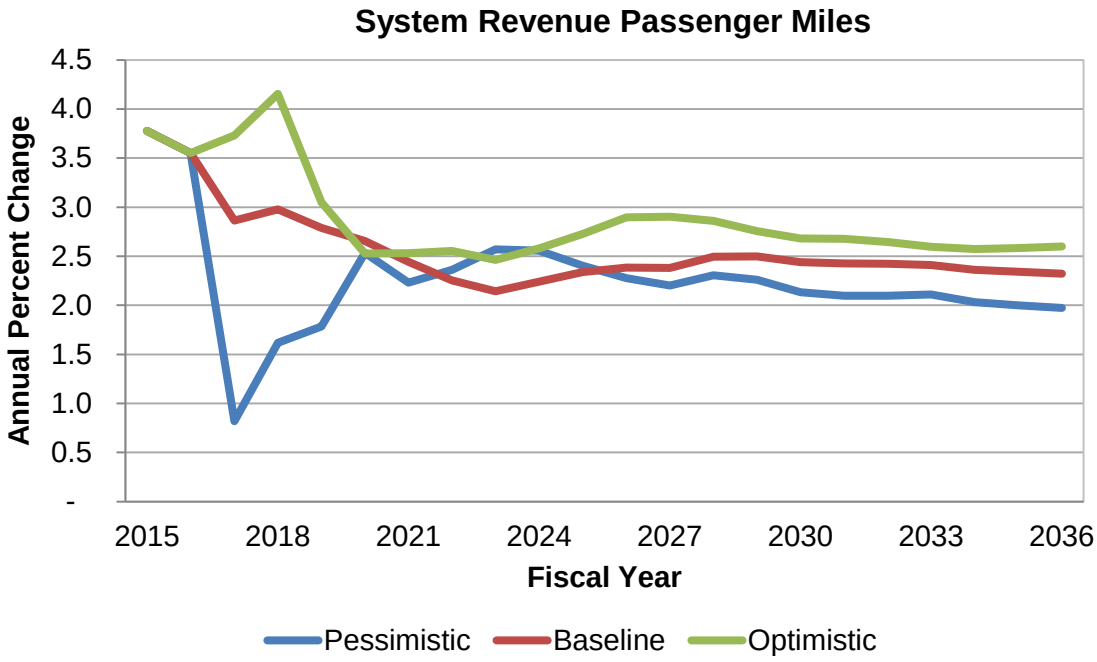


Revenue Passenger Miles

In the baseline forecast, system RPMs grow at an average annual rate of 2.5 percent a year over the forecast horizon (2016-2036), with domestic RPMs increasing 2.0 percent annually and international RPMs growing 3.5 percent annually.

In the optimistic case, the faster growing economy coupled with lower energy prices drives RPMs higher than the baseline, with growth averaging 2.8 percent per year (domestic and international RPMs up 2.5 and 3.5 percent, respectively).

In the pessimistic case, the combination of a slower growing economy and higher energy prices result in RPM growth averaging 2.1 percent annually with domestic markets growing 1.4 percent a year while international traffic grows 3.5 percent annually.



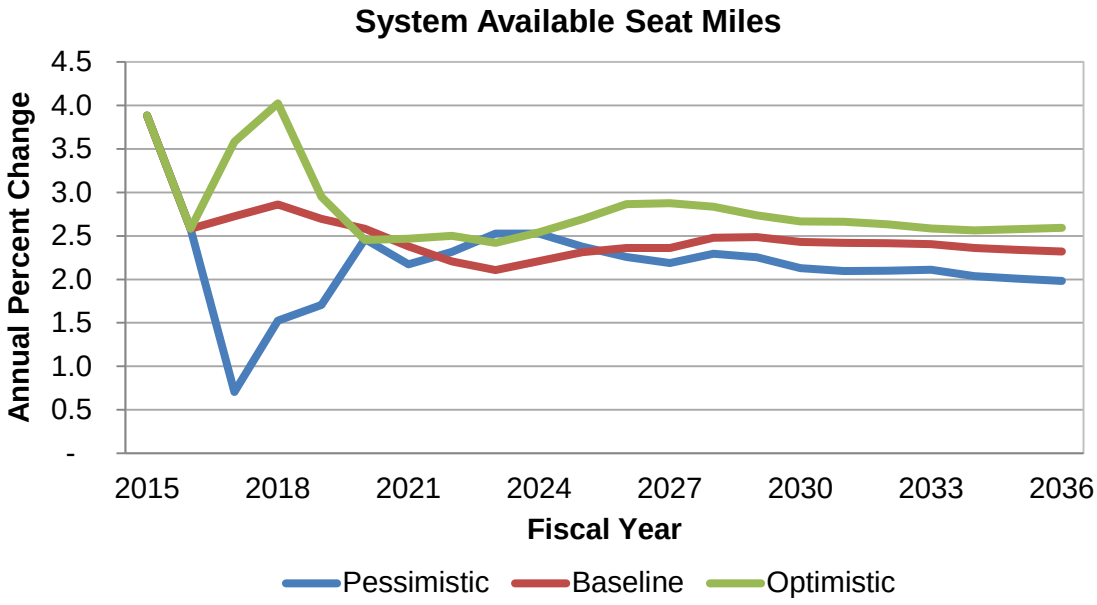
Available Seat Mile

In the base case, system capacity is forecast to increase an average of 2.5 percent annually over the forecast horizon with growth averaging 2.1 percent annually in domestic markets and 3.4 percent a year in international markets.

In the optimistic case, capacity grows at a faster clip than in the baseline forecast, averaging 2.9 percent annually system-wide (up 2.7 percent domestically and up 3.4 percent internationally). Carriers increase capacity compared to the baseline forecast to accommodate increased travel demand

brought about by a more favorable economic environment.

In the pessimistic case, demand for air travel is lower than in the baseline, thus system capacity grows at a slower pace of 2.2 percent annually (domestic growth of 1.5 percent annually and international up 3.4 percent annually).



Load Factor

System load factors over the 20-year forecast period are relatively similar for all three forecast scenarios. In the base case and in the optimistic scenario, system load factor rises from 84.2 percent in 2016 to 84.7 percent and 84.9 in 2036, respectively.

In all three scenarios it is assumed that carriers will keep load factors on the high side by actively managing capacity (seats) to more precisely meet demand (passengers).

The domestic load factor increases over the forecast horizon from 85.1 percent to 86.5 percent in all scenarios.

The international load factor forecast is slightly different in the three scenarios, reflecting in part the relative growth in demand and capacity in the three (Atlantic, Latin, and Pacific) international regions under each scenario.

In the base case, international load factor is relatively steady, going from 81.9 percent in 2016 to 81.7 percent in 2036, the same load factor in the optimistic and pessimistic scenarios.

Yield

In the baseline forecast, nominal system yield increases 1.9 percent annually, going from 13.98 cents in 2016 to 21.17 cents in 2036. In domestic markets, yield in the baseline forecast rises from 14.12 cents in 2016 to 22.06 cents in 2036, while international yield rises from 13.66 cents in 2016 to 19.50 cents in 2036.

System yield rises more slowly in the optimistic case, up 1.8 percent annually to be 20.68 cents at the end of the forecast period. Domestic yield increases to 21.24 cents while international yield increases to 19.50 cents. The slower growth in yield in the high case is due to advancements in technology, gains in productivity, more favorable fuel prices, and lower inflation. Increased competition is also assumed in this scenario. In the domestic market, fares are driven lower than baseline levels due to increased levels of competition between low cost and legacy carriers. In the international market, increased competition from growing liberalization puts downward pressure on fares.

In the pessimistic case, nominal yields rise more rapidly than in the baseline, growing an average of 2.5 percent annually, reaching 24.18 cents by 2036 (26.98 cents domestically and 19.52 cents internationally). This scenario reflects higher general inflation and higher energy prices than in the baseline, forcing carriers to increase fares in order to cover the higher costs of fuel, labor, and capital.

TABLE A-1

FAA FORECAST ECONOMIC ASSUMPTIONS

FISCAL YEARS 2015-2036

Variable	Scenario	Historical	FORECAST					PERCENT AVERAGE ANNUAL GROWTH				
		2015E	2016	2021	2026	2031	2036	2015-16	2016-21	2016-26	2016-31	2016-36
Economic Assumptions												
Real Personal Consumption	Pessimistic	34,674	35,169	36,970	39,771	42,326	45,011	1.4%	1.0%	1.2%	1.2%	1.2%
Expenditure per Capita	Baseline	34,674	35,433	39,056	41,912	45,444	49,429	2.2%	2.0%	1.7%	1.7%	1.7%
(2009 $)	Optimistic	34,674	35,356	40,120	44,200	48,792	53,751	2.0%	2.6%	2.3%	2.2%	2.1%
Refiners Acquisition Cost -	Pessimistic	57	35	94	147	172	206	-38.7%	22.1%	15.5%	11.3%	9.3%
Average - $ Per Barrel	Baseline	57	43	83	129	139	152	-23.9%	13.9%	11.6%	8.1%	6.5%
	Optimistic	57	47	73	118	119	124	-16.3%	8.9%	9.5%	6.3%	4.9%
Consumer Price Index	Pessimistic	2.4	2.4	2.8	3.3	3.9	4.7	0.6%	3.0%	3.2%	3.3%	3.4%
All Urban, 1982-84 = 1.0	Baseline	2.4	2.4	2.7	3.1	3.4	3.9	0.9%	2.5%	2.5%	2.5%	2.4%
	Optimistic	2.4	2.4	2.7	3.1	3.4	3.8	1.4%	2.3%	2.5%	2.3%	2.3%
Civilian Unemployment Rate	Pessimistic	5.5	5.2	6.0	5.7	5.4	5.5	-4.6%	3.0%	0.8%	0.3%	0.3%
(%)	Baseline	5.5	4.9	4.7	4.8	4.7	4.8	-9.4%	-0.8%	-0.3%	-0.3%	-0.2%
	Optimistic	5.5	4.9	4.7	4.5	4.4	4.4	-10.4%	-0.7%	-0.8%	-0.8%	-0.5%

Source: IHS Global Insight

TABLE A-2

FAA FORECAST OF AVIATION ACTIVITY*

FISCAL YEARS 2015-2036

Variable	Scenario	Historical	FORECAST					PERCENT AVERAGE ANNUAL GROWTH				
		2015E	2016	2021	2026	2031	2036	2015-16	2016-21	2016-26	2016-31	2016-36
System												
Aviation Activity												
Available Seat Miles	Pessimistic	1,066	1,094	1,186	1,337	1,499	1,674	2.6%	1.6%	2.0%	2.1%	2.1%
(BIL)	Baseline	1,066	1,094	1,252	1,401	1,591	1,806	2.6%	2.7%	2.5%	2.5%	2.5%
	Optimistic	1,066	1,094	1,289	1,475	1,702	1,952	2.6%	3.3%	3.0%	3.0%	2.9%
Revenue Passenger Miles	Pessimistic	889	921	1,002	1,131	1,269	1,416	3.6%	1.7%	2.1%	2.2%	2.2%
(BIL)	Baseline	889	921	1,058	1,186	1,348	1,531	3.6%	2.8%	2.6%	2.6%	2.6%
	Optimistic	889	921	1,090	1,250	1,444	1,657	3.6%	3.4%	3.1%	3.0%	3.0%
Enplanements	Pessimistic	786	819	854	938	1,026	1,119	4.2%	0.8%	1.4%	1.5%	1.6%
(MIL)	Baseline	786	819	916	998	1,111	1,240	4.2%	2.3%	2.0%	2.1%	2.1%
	Optimistic	786	819	951	1,067	1,213	1,372	4.2%	3.0%	2.7%	2.7%	2.6%
Psgr Carrier Miles Flown	Pessimistic	7,152	7,282	7,578	8,334	9,135	9,982	1.8%	0.8%	1.4%	1.5%	1.6%
(MIL)	Baseline	7,152	7,282	8,065	8,795	9,787	10,907	1.8%	2.1%	1.9%	2.0%	2.0%
	Optimistic	7,152	7,282	8,340	9,329	10,570	11,919	1.8%	2.8%	2.5%	2.5%	2.5%
Psgr Carrier Departures	Pessimistic	8,913	8,874	9,024	9,648	10,182	10,740	-0.4%	0.3%	0.8%	0.9%	1.0%
(000s)	Baseline	8,913	8,943	9,683	10,275	11,047	11,939	0.3%	1.6%	1.4%	1.4%	1.5%
	Optimistic	8,913	8,972	10,029	10,994	12,062	13,205	0.7%	2.3%	2.1%	2.0%	2.0%
Nominal Passenger Yield	Pessimistic	14.36	13.71	16.41	18.91	21.36	24.18	-4.6%	3.7%	3.3%	3.0%	2.9%
(cents)	Baseline	14.36	13.98	16.05	18.07	19.53	21.17	-2.6%	2.8%	2.6%	2.3%	2.1%
	Optimistic	14.36	14.14	15.86	17.94	19.20	20.68	-1.5%	2.3%	2.4%	2.1%	1.9%

* Includes domestic and international activity.

TABLE A-3

FAA FORECAST OF DOMESTIC AVIATION ACTIVITY

FISCAL YEARS 2015-2036

Variable	Scenario	Historical	FORECAST					PERCENT AVERAGE ANNUAL GROWTH				
		2015E	2016	2021	2026	2031	2036	2015-16	2016-21	2016-26	2016-31	2016-36
Domestic												
Aviation Activity												
Available Seat Miles	Pessimistic	744	769	788	863	942	1,023	3.4%	0.5%	1.2%	1.4%	1.4%
(BIL)	Baseline	744	769	854	927	1,033	1,156	3.4%	2.1%	1.9%	2.0%	2.1%
	Optimistic	744	769	892	1,001	1,143	1,301	3.4%	3.0%	2.7%	2.7%	2.7%
Revenue Passenger Miles	Pessimistic	629	654	676	743	813	885	4.1%	0.7%	1.3%	1.5%	1.5%
(BIL)	Baseline	629	654	733	798	892	999	4.1%	2.3%	2.0%	2.1%	2.1%
	Optimistic	629	654	765	862	987	1,125	4.1%	3.2%	2.8%	2.8%	2.7%
Enplanements	Pessimistic	696	726	741	803	867	931	4.2%	0.4%	1.0%	1.2%	1.3%
(MIL)	Baseline	696	726	803	863	951	1,052	4.2%	2.0%	1.7%	1.8%	1.9%
	Optimistic	696	726	838	931	1,053	1,183	4.2%	2.9%	2.5%	2.5%	2.5%
Psgr Carrier Miles Flown	Pessimistic	5,655	5,774	5,753	6,171	6,608	7,059	2.1%	-0.1%	0.7%	0.9%	1.0%
(MIL)	Baseline	5,655	5,774	6,237	6,629	7,256	7,978	2.1%	1.6%	1.4%	1.5%	1.6%
	Optimistic	5,655	5,774	6,510	7,160	8,034	8,983	2.1%	2.4%	2.2%	2.2%	2.2%
Psgr Carrier Departures	Pessimistic	8,273	8,221	8,251	8,742	9,126	9,512	-0.6%	0.1%	0.6%	0.7%	0.7%
(000s)	Baseline	8,273	8,289	8,906	9,365	9,986	10,703	0.2%	1.4%	1.2%	1.2%	1.3%
	Optimistic	8,273	8,319	9,250	10,079	10,994	11,960	0.5%	2.1%	1.9%	1.9%	1.8%
Nominal Passenger Yield	Pessimistic	14.44	13.73	17.08	20.16	23.27	26.98	-5.0%	4.5%	3.9%	3.6%	3.4%
(cents)	Baseline	14.44	14.12	16.52	18.83	20.35	22.06	-2.3%	3.2%	2.9%	2.5%	2.3%
	Optimistic	14.44	14.34	16.23	18.59	19.79	21.24	-0.7%	2.5%	2.6%	2.2%	2.0%

TABLE A-4

FAA FORECAST OF INTERNATIONAL AVIATION ACTIVITY*

FISCAL YEARS 2015-2036

Variable	Scenario	Historical	FORECAST					PERCENT AVERAGE ANNUAL GROWTH				
		2015E	2016	2021	2026	2031	2036	2015-16	2016-21	2016-26	2016-31	2016-36
International												
Aviation Activity												
Available Seat Miles	Pessimistic	323	325	397	474	558	650	0.8%	4.1%	3.8%	3.7%	3.5%
(BIL)	Baseline	323	325	398	474	558	650	0.8%	4.1%	3.8%	3.7%	3.5%
	Optimistic	323	325	398	474	558	651	0.8%	4.1%	3.8%	3.7%	3.5%
Revenue Passenger Miles	Pessimistic	260	266	325	388	456	531	2.2%	4.1%	3.8%	3.7%	3.5%
(BIL)	Baseline	260	266	325	388	456	532	2.2%	4.1%	3.8%	3.7%	3.5%
	Optimistic	260	266	325	388	456	532	2.2%	4.1%	3.8%	3.7%	3.5%
Enplanements	Pessimistic	89	93	113	135	160	188	4.3%	3.9%	3.8%	3.7%	3.6%
(MIL)	Baseline	89	93	113	135	160	188	4.3%	3.9%	3.8%	3.7%	3.6%
	Optimistic	89	93	113	135	160	189	4.3%	4.0%	3.8%	3.7%	3.6%
Psgr Carrier Miles Flown	Pessimistic	1497	1508	1826	2163	2527	2923	0.8%	3.9%	3.7%	3.5%	3.4%
(MIL)	Baseline	1497	1508	1829	2166	2531	2929	0.8%	3.9%	3.7%	3.5%	3.4%
	Optimistic	1497	1508	1830	2169	2536	2936	0.8%	3.9%	3.7%	3.5%	3.4%
Psgr Carrier Departures	Pessimistic	640	654	772	906	1056	1228	2.1%	3.4%	3.3%	3.2%	3.2%
(000s)	Baseline	640	654	777	910	1062	1236	2.1%	3.5%	3.4%	3.3%	3.2%
	Optimistic	640	654	779	915	1069	1245	2.1%	3.6%	3.4%	3.3%	3.3%
Nominal Passenger Yield	Pessimistic	14.16	13.66	15.01	16.51	17.95	19.52	-3.6%	1.9%	1.9%	1.8%	1.8%
(cents)	Baseline	14.16	13.66	15.01	16.50	17.95	19.50	-3.6%	1.9%	1.9%	1.8%	1.8%
	Optimistic	14.16	13.66	15.01	16.50	17.94	19.50	-3.6%	1.9%	1.9%	1.8%	1.8%

*Includes mainline and regional carriers.

Appendix B: FAA Forecast Accuracy

Forecasts, by their nature, have a degree of uncertainty incorporated in them. They involve not only statistical analyses and various scientific methods, but also judgment and reliance on industry knowledge and the forecaster's experience to incorporate industry trends not yet reflected in recent results. The FAA's annual Aerospace Forecast is no exception. Given the volatile nature of the U.S. airline industry, it is not surprising that each year's forecast would contain a certain degree of forecast variance. Therefore, FAA forecasters have tried to build forecast models that give a consistent and predictable pattern of results. Analysts relying on the forecasts produced by the models would then be able to adjust for the predictable variance from actual results.

The table below presents an analysis of the variance from historical results for a primary forecast assumption along with five key forecast metrics during the FY 2005-2015 forecast period. Although this period has experienced industry upheaval, the FAA's forecast methodology remained consistent during this time. For this reason, inclusion of prior periods in an analysis of forecast variance might lead to inconclusive or inaccurate implications about the accuracy of FAA's current forecast methodology.

The table below contains the mean absolute percent errors for the projected values versus the actual results for U.S. carriers' system operations along with the projected values versus actual results for U.S. GDP. Each metric has five values showing the relative forecast variance by the number of years in advance the preparation of the forecast took place. For example, the "3 Years" column for ASMs shows that the mean absolute percent error was 6.9 percent for ASM forecasts prepared 3 years in advance. For the period under examination, preparation of the forecasts for FY 2005 through FY 2015 occurred in FY 2001 through FY 2014. [8]

[8] It should be noted that the first forecasted year for each respective fiscal year is that very same year. Therefore, FY 2003's first forecasted year is FY 2003, and the third forecasted year is FY 2005.

U.S. AIR CARRIERS
SYSTEM SCHEDULED PASSENGER ACTIVITY
FORECAST EVALUATION

Forecast Variable	Mean Absolute Percent Error (Combined FY 2005 - FY 2015) (Forecast Variance from Actual) Forecast Performed Years Prior to Actual				
	1 Year	2 Years	3 Years	4 Years	5 Years
U.S. Real GDP	2.0%	3.4%	5.3%	7.1%	8.3%
ASMs	0.8%	3.8%	6.9%	10.4%	15.8%
RPMs	1.1%	3.0%	5.5%	8.0%	11.7%
Passenger Enplanements	1.0%	2.7%	5.4%	7.8%	11.6%
Mainline Domestic Yield	3.4%	4.7%	6.4%	8.1%	10.4%
IFR Aircraft Handled*	2.2%	5.5%	8.4%	11.5%	15.9%

*Total - scheduled and nonscheduled commercial plus noncommercial

Presenting forecast variances from actual data in such a manner simplifies a review of longer-term trends. Typically, one would expect the variances to de-crease as the forecast year is closer to the year the forecast is prepared. Presenting forecast variances in this way allows an examination of changes in the relative variances by time horizon, signaling when dramatic shifts in accuracy occur.

Examination of the forecast variances reveals several items. First, the forecast variances for GDP, a key exogenous variable, are similar to the variances of the key traffic measures, Passenger Enplanements and RPMs. This suggests that a substantial amount of the forecast variance for the traffic variables may be attributed to the forecast error in the exogenous variables. Second, all the metrics examined show increasing variances as the forecast time horizon lengthens. Third, the variance in the IFR handled aircraft up to 3 years out is more than 1.5 percentage points larger than the ASM forecast variance. This suggests that within a 3 year forecast horizon carriers have been able to accommodate changes in capacity by means other than adjusting operations. Many carriers have been systematically reducing the number smaller regional jets in their fleets, replacing them with larger 70-90 seat aircraft. This has allowed carriers to increase capacity without increasing flights. However the forecast variance in these two metrics narrows as the time horizon increases suggesting that over the long run ASM growth is a good indicator of operations growth.

Appendix C: Forecast Tables

TABLE 1

U.S. SHORT-TERM ECONOMIC FORECASTS

ECONOMIC VARIABLE	FISCAL YEAR 2015				FISCAL YEAR 2016				FISCAL YEAR 2017			
	1ST. QTR.	2ND. QTR.	3RD QTR.	4TH. QTR.	1ST. QTR.	2ND. QTR.	3RD QTR.	4TH. QTR.	1ST. QTR.	2ND. QTR.	3RD QTR.	4TH. QTR.
Real Personal Consumption Expenditure per Capita												
(2009 $)	34,440	34,533	34,767	34,956	35,145	35,323	35,520	35,741	35,954	36,182	36,399	36,589
Annual rate - not seasonally adjusted		1.1%	2.7%	2.2%	2.2%	2.0%	2.2%	2.5%	2.4%	2.6%	2.4%	2.1%
Refiners' Acquisition Cost - Average												
(Dollars per barrel)	73.78	48.01	57.43	47.61	38.11	37.70	43.05	53.75	55.79	53.36	57.32	62.98
Annual rate - not seasonally adjusted		-82.1%	104.8%	-52.8%	-58.9%	-4.2%	70.1%	143.0%	16.0%	-16.3%	33.2%	45.7%
Consumer Price Index												
(1982-84 equals 100)	237.0	235.2	236.9	237.9	237.7	237.5	238.8	241.6	243.4	244.3	246.2	248.2
Seasonally Adjusted Annual Rate		-3.1%	3.0%	1.6%	-0.3%	-0.3%	2.3%	4.6%	3.1%	1.5%	3.1%	3.3%

Source: IHS Global Insight

TABLE 2

U.S. LONG-TERM ECONOMIC FORECASTS

FISCAL YEAR	REAL GROSS DOMESTIC PRODUCT (Billions 2009 $)	REAL PERSONAL CONSUMPTION EXPENDITURE PER CAPITA (2009 $)	CONSUMER PRICE INDEX (1982-84=1.00)	REFINERS' ACQUISITION COST AVERAGE (Dollars per barrel)
Historical				
2001	12,676	29,227	1.76	25.80
2008	14,934	33,049	2.14	101.52
2009	14,428	32,098	2.14	54.68
2010	14,685	32,186	2.17	74.61
2011	14,958	32,787	2.23	96.00
2012	15,306	33,033	2.29	102.81
2013	15,489	33,269	2.32	100.78
2014	15,864	33,837	2.36	97.79
2015E	16,270	34,674	2.37	56.71
Forecast				
2016	16,675	35,433	2.39	43.15
2017	17,184	36,282	2.46	57.36
2018	17,648	37,068	2.52	62.45
2019	18,099	37,825	2.58	69.03
2020	18,567	38,464	2.64	75.69
2021	18,983	39,056	2.70	82.62
2022	19,391	39,636	2.78	92.31
2023	19,809	40,172	2.85	105.16
2024	20,246	40,723	2.93	116.80
2025	20,682	41,306	3.00	124.41
2026	21,124	41,912	3.07	128.98
2027	21,588	42,520	3.14	132.31
2028	22,055	43,226	3.21	134.91
2029	22,541	43,963	3.28	136.39
2030	23,033	44,692	3.36	137.57
2031	23,531	45,444	3.44	138.78
2032	24,035	46,228	3.51	139.94
2033	24,558	47,036	3.60	142.37
2034	25,096	47,830	3.68	145.35
2035	25,649	48,627	3.77	148.97
2036	26,204	49,429	3.85	152.26
Avg Annual Growth				
2001-15	1.8%	1.2%	2.1%	5.8%
2015-16	2.5%	2.2%	0.9%	-23.9%
2015-25	2.4%	1.8%	2.4%	8.2%
2015-36	2.3%	1.7%	2.3%	4.8%

Source: IHS Global Insight

TABLE 3

INTERNATIONAL GDP FORECASTS BY TRAVEL REGION

CALENDAR YEAR	GROSS DOMESTIC PRODUCT (In Billions of 2010 U.S. Dollars) CANADA	EUROPE / AFRICA/ MIDDLE EAST	LATIN AMERICA / CARIBBEAN / MEXICO	JAPAN / PACIFIC BASIN / CHINA / OTHER ASIA / AUSTRALIA / NEW ZEALAND	WORLD
Historical					
2001	1,359	20,279	3,835	12,108	50,418
2008	1,605	25,004	5,011	17,110	63,741
2009	1,561	24,140	4,950	17,440	62,686
2010	1,614	24,863	5,247	18,736	65,424
2011	1,662	25,501	5,488	19,623	67,477
2012	1,694	25,703	5,644	20,554	69,137
2013	1,728	25,944	5,801	21,533	70,778
2014	1,770	26,371	5,865	22,459	72,620
2015E	1,789	26,777	5,839	23,402	74,355
Forecast					
2016	1,820	27,296	5,846	24,391	76,373
2017	1,861	27,923	5,956	25,455	78,697
2018	1,904	28,606	6,106	26,603	81,189
2019	1,949	29,288	6,284	27,870	83,821
2020	1,993	30,010	6,477	29,190	86,561
2021	2,037	30,746	6,673	30,572	89,333
2022	2,080	31,487	6,881	31,992	92,163
2023	2,123	32,235	7,099	33,437	95,055
2024	2,166	32,993	7,323	34,920	98,006
2025	2,210	33,751	7,554	36,413	100,970
2026	2,254	34,503	7,787	37,930	103,973
2027	2,298	35,267	8,027	39,467	107,033
2028	2,343	36,043	8,275	41,002	110,127
2029	2,388	36,829	8,531	42,529	113,240
2030	2,436	37,630	8,793	44,047	116,370
2031	2,483	38,439	9,065	45,599	119,560
2032	2,532	39,251	9,345	47,155	122,775
2033	2,582	40,076	9,633	48,761	126,074
2034	2,633	40,912	9,929	50,370	129,416
2035	2,685	41,757	10,233	51,998	132,810
2036	2,739	42,615	10,546	53,671	136,273
Avg Annual Growth					
2001-15	2.0%	2.0%	3.3%	4.9%	2.8%
2015-16	1.8%	3.5%	-0.3%	8.6%	5.2%
2015-25	2.1%	2.5%	2.6%	5.0%	3.4%
2015-36	2.0%	2.3%	2.8%	4.2%	3.0%

Source: Global Insight website, GDP Components Tables (Interim Forecast, Monthly)

TABLE 4

INTERNATIONAL GDP FORECASTS – SELECTED AREAS/COUNTRIES

CALENDAR YEAR	GROSS DOMESTIC PRODUCT (In Billions of 2010 U.S. Dollars) NORTH AMERICA (NAFTA)	EUROZONE	UNITED KINGDOM	JAPAN	CHINA
Historical					
2001	15,072	11,486	2,108	5,125	2,410
2008	17,666	12,983	2,471	5,569	4,999
2009	17,156	12,400	2,367	5,262	5,461
2010	17,630	12,648	2,404	5,510	6,041
2011	17,960	12,861	2,451	5,489	6,614
2012	18,374	12,764	2,480	5,585	7,125
2013	18,655	12,735	2,533	5,671	7,673
2014	19,105	12,847	2,608	5,663	8,231
2015E	19,542	13,044	2,671	5,692	8,791
Forecast					
2016	20,074	13,264	2,735	5,750	9,343
2017	20,630	13,499	2,803	5,784	9,938
2018	21,182	13,723	2,870	5,824	10,576
2019	21,736	13,923	2,933	5,896	11,260
2020	22,293	14,141	3,000	5,958	11,987
2021	22,797	14,364	3,069	6,017	12,758
2022	23,306	14,584	3,136	6,074	13,538
2023	23,836	14,802	3,204	6,131	14,322
2024	24,373	15,023	3,271	6,187	15,141
2025	24,908	15,238	3,339	6,243	15,959
2026	25,460	15,455	3,407	6,299	16,791
2027	26,031	15,673	3,478	6,352	17,632
2028	26,617	15,891	3,548	6,404	18,459
2029	27,216	16,112	3,621	6,455	19,260
2030	27,819	16,334	3,695	6,504	20,045
2031	28,433	16,559	3,770	6,550	20,850
2032	29,057	16,781	3,848	6,596	21,639
2033	29,698	17,006	3,926	6,641	22,452
2034	30,359	17,234	4,005	6,684	23,251
2035	31,039	17,461	4,085	6,727	24,047
2036	31,724	17,688	4,167	6,767	24,863
Avg Annual Growth					
2001-15	1.9%	0.9%	1.7%	0.8%	9.7%
2015-16	2.7%	1.7%	2.4%	1.0%	6.3%
2015-25	2.5%	1.6%	2.3%	0.9%	6.1%
2015-36	2.3%	1.5%	2.1%	0.8%	5.1%

Source: Global Insight website, GDP Components Tables (Interim Forecast, Monthly)

TABLE 5

U.S. COMMERCIAL AIR CARRIERS[1]

TOTAL SCHEDULED U.S. PASSENGER TRAFFIC

FISCAL	REVENUE PASSENGER ENPLANEMENTS (Millions)			REVENUE PASSENGER MILES (Billions)		
YEAR	DOMESTIC	INTERNATIONAL	TOTAL	DOMESTIC	INTERNATIONAL	TOTAL
Historical						
2001	625	57	682	508	183	691
2008	681	78	759	595	234	828
2009	631	74	704	549	221	770
2010	635	77	712	555	231	786
2011	650	81	731	572	242	815
2012	654	83	737	578	244	822
2013	654	85	739	584	250	834
2014	669	88	757	600	257	857
2015E	696	89	786	629	260	889
Forecast						
2016	726	93	819	654	266	921
2017	742	97	839	670	277	947
2018	760	101	860	688	289	977
2019	776	105	881	704	301	1,006
2020	790	109	899	719	313	1,033
2021	803	113	916	733	325	1,058
2022	814	117	931	745	337	1,083
2023	824	122	945	756	350	1,106
2024	835	126	961	768	362	1,131
2025	848	131	979	783	375	1,158
2026	863	135	998	798	388	1,186
2027	878	140	1,018	814	401	1,215
2028	895	145	1,040	833	414	1,247
2029	914	150	1,063	852	428	1,280
2030	932	155	1,087	872	442	1,314
2031	951	160	1,111	892	456	1,348
2032	971	165	1,136	913	471	1,384
2033	991	171	1,162	934	485	1,420
2034	1,011	176	1,188	956	500	1,456
2035	1,031	182	1,213	977	516	1,493
2036	1,052	188	1,240	999	532	1,531
Avg Annual Growth						
2001-15	0.8%	3.3%	1.0%	1.5%	2.5%	1.8%
2015-16	4.2%	4.3%	4.2%	4.1%	2.2%	3.6%
2015-25	2.0%	3.9%	2.2%	2.2%	3.7%	2.7%
2015-36	2.0%	3.6%	2.2%	2.2%	3.5%	2.6%

Source: Forms 41 and 298-C, U.S. Department of Transportation.

[1]Sum of U.S. Mainline and Regional Air Carriers.

TABLE 6

U.S. COMMERCIAL AIR CARRIERS[1]

SCHEDULED PASSENGER CAPACITY, TRAFFIC, AND LOAD FACTORS

	DOMESTIC			INTERNATIONAL			SYSTEM		
FISCAL YEAR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR
Historical									
2001	731	508	69.4	247	183	74.3	978	691	70.6
2008	750	595	79.3	293	234	79.9	1,042	828	79.5
2009	682	549	80.4	283	221	78.1	966	770	79.7
2010	679	555	81.7	281	231	82.1	961	786	81.8
2011	693	572	82.5	300	242	80.7	994	815	82.0
2012	694	578	83.2	300	244	81.4	995	822	82.6
2013	700	584	83.4	303	250	82.6	1,003	834	83.2
2014	711	600	84.4	315	257	81.4	1,026	857	83.5
2015E	744	629	84.5	323	260	80.7	1,066	889	83.4
Forecast									
2016	769	654	85.1	325	266	81.9	1,094	921	84.2
2017	785	670	85.3	339	277	81.9	1,124	947	84.3
2018	805	688	85.5	353	289	81.9	1,158	977	84.4
2019	823	704	85.6	368	301	81.8	1,191	1,006	84.4
2020	839	719	85.7	383	313	81.8	1,222	1,033	84.5
2021	854	733	85.8	398	325	81.8	1,252	1,058	84.5
2022	868	745	85.9	412	337	81.8	1,280	1,083	84.6
2023	880	756	86.0	428	350	81.8	1,307	1,106	84.6
2024	893	768	86.0	443	362	81.8	1,336	1,131	84.6
2025	909	783	86.1	458	375	81.8	1,368	1,158	84.6
2026	927	798	86.1	474	388	81.8	1,401	1,186	84.7
2027	945	814	86.2	490	401	81.8	1,435	1,215	84.7
2028	966	833	86.2	507	414	81.8	1,473	1,247	84.7
2029	988	852	86.3	524	428	81.8	1,512	1,280	84.7
2030	1,010	872	86.3	541	442	81.8	1,551	1,314	84.7
2031	1,033	892	86.3	558	456	81.8	1,591	1,348	84.7
2032	1,057	913	86.4	576	471	81.7	1,633	1,384	84.7
2033	1,082	934	86.4	594	485	81.7	1,676	1,420	84.7
2034	1,106	956	86.4	612	500	81.7	1,719	1,456	84.7
2035	1,131	977	86.4	631	516	81.7	1,762	1,493	84.7
2036	1,156	999	86.5	650	532	81.7	1,806	1,531	84.7
Avg Annual Growth									
2001-15	0.1%	1.5%		1.9%	2.5%		0.6%	1.8%	
2015-16	3.4%	4.1%		0.8%	2.2%		2.6%	3.6%	
2015-25	2.0%	2.2%		3.6%	3.7%		2.5%	2.7%	
2015-36	2.1%	2.2%		3.4%	3.5%		2.5%	2.6%	

Source: Forms 41 and 298-C, U.S. Department of Transportation.

[1]Sum of U.S. Mainline and Regional Air Carriers.

TABLE 7

U.S. COMMERCIAL AIR CARRIERS[1]

TOTAL SCHEDULED U.S. INTERNATIONAL PASSENGER TRAFFIC

	REVENUE PASSENGER ENPLANEMENTS				REVENUE PASSENGER MILES			
FISCAL YEAR	ATLANTIC (Mil)	LATIN AMERICA (Mil)	PACIFIC (Mil)	TOTAL INTERNATIONAL (Mil)	ATLANTIC (Bil)	LATIN AMERICA (Bil)	PACIFIC (Bil)	TOTAL INTERNATIONAL (Bil)
Historical								
2001	20	23	11	55	86	37	59	183
2008	26	39	13	78	113	61	60	234
2009	25	37	12	74	109	58	55	221
2010	25	40	13	77	109	63	59	231
2011	25	42	14	81	112	67	64	242
2012	25	44	14	83	108	70	66	244
2013	25	46	14	85	107	75	69	250
2014	25	49	14	88	108	80	69	257
2015E	25	51	14	89	107	83	71	260
Forecast								
2016	25	54	14	93	108	86	73	266
2017	26	56	15	97	113	89	75	277
2018	27	58	15	101	118	94	77	289
2019	28	61	15	105	123	99	80	301
2020	29	64	16	109	127	104	82	313
2021	30	67	16	113	132	109	84	325
2022	31	70	17	117	136	114	87	337
2023	32	73	17	121	141	120	89	350
2024	33	76	18	126	145	125	92	362
2025	33	79	18	130	149	131	95	375
2026	34	82	19	135	154	137	97	388
2027	35	86	19	140	158	143	100	401
2028	36	89	20	145	162	149	103	414
2029	37	93	20	150	167	156	106	428
2030	38	96	21	155	172	162	108	442
2031	39	100	21	160	176	169	111	456
2032	40	104	22	165	181	176	114	471
2033	41	108	22	171	186	183	117	485
2034	42	112	23	176	191	190	120	500
2035	43	116	23	182	196	197	123	516
2036	44	120	24	188	201	205	126	531
Avg Annual Growth								
2001-15	1.3%	5.8%	1.5%	3.5%	1.5%	5.9%	1.3%	2.6%
2015-16	2.1%	5.9%	2.0%	4.3%	0.9%	3.5%	2.8%	2.2%
2015-25	3.1%	4.5%	2.6%	3.9%	3.4%	4.7%	2.9%	3.7%
2015-36	2.8%	4.2%	2.6%	3.6%	3.1%	4.4%	2.8%	3.5%

Source: Forms 41 and 298-C, U.S. Department of Transportation.

[1]Sum of U.S. Mainline and Regional Air Carriers.

TABLE 8

U.S. AND FOREIGN FLAG CARRIERS

TOTAL PASSENGER TRAFFIC TO/FROM THE UNITED STATES

CALENDAR YEAR	TOTAL PASSENGERS BY WORLD TRAVEL AREA (Millions)				
	ATLANTIC	LATIN AMERICA	PACIFIC	U.S./CANADA TRANSBORDER	TOTAL
Historical					
2001	47	39	23	19	129
2008	57	50	26	22	154
2009	55	48	24	20	148
2010	56	53	27	22	157
2011	58	57	28	23	166
2012	61	61	31	25	177
2013	63	65	32	26	186
2014	66	69	34	28	197
2015E	69	73	35	29	206
Forecast					
2016	72	77	36	29	214
2017	75	78	38	30	221
2018	78	80	40	32	230
2019	81	83	41	33	239
2020	85	87	43	34	249
2021	88	90	45	35	259
2022	91	94	47	37	269
2023	95	98	49	38	280
2024	98	102	51	39	291
2025	102	106	53	41	302
2026	105	111	55	42	314
2027	109	116	58	43	326
2028	113	121	60	45	338
2029	117	126	62	46	351
2030	121	131	64	48	364
2031	125	137	66	50	377
2032	129	142	68	51	391
2033	134	148	70	53	405
2034	138	155	72	55	420
2035	143	161	74	57	436
2036	148	168	77	59	452
Avg Annual Growth					
2001-15	2.7%	4.6%	3.0%	2.9%	3.4%
2015-16	3.5%	4.7%	2.8%	1.6%	3.5%
2015-25	3.9%	3.8%	4.3%	3.5%	3.9%
2015-36	3.7%	4.0%	3.8%	3.5%	3.8%

Source: US Customs & Border Protection data processed and released by Department of Commerce; data also received from Transport Canada.

TABLE 9

U.S. COMMERCIAL AIR CARRIERS' FORECAST ASSUMPTIONS[1]

SEATS PER AIRCRAFT MILE AND PASSENGER TRIP LENGTH

	AVERAGE SEATS PER AIRCRAFT MILE			AVERAGE PASSENGER TRIP LENGTH		
FISCAL YEAR	DOMESTIC (Seats/Mile)	INT'L. (Seats/Mile)	SYSTEM (Seats/Mile)	DOMESTIC (Miles)	INT'L. (Miles)	SYSTEM (Miles)
Historical						
2001	128	227	143	812	3,234	1,013
2008	121	219	138	874	2,985	1,091
2009	122	219	140	870	3,008	1,093
2010	122	216	140	875	2,988	1,104
2011	123	217	141	880	2,993	1,114
2012	123	214	141	884	2,951	1,116
2013	125	214	143	894	2,942	1,130
2014	127	215	146	897	2,917	1,132
2015E	132	216	149	903	2,912	1,131
Forecast						
2016	133	216	150	902	2,856	1,124
2017	134	216	151	903	2,868	1,130
2018	135	217	152	905	2,872	1,135
2019	136	217	153	908	2,874	1,142
2020	136	217	154	910	2,874	1,148
2021	137	217	155	913	2,876	1,155
2022	138	218	156	915	2,878	1,162
2023	138	218	157	918	2,879	1,170
2024	139	218	158	920	2,876	1,177
2025	139	219	159	923	2,873	1,183
2026	140	219	159	925	2,870	1,189
2027	140	219	160	928	2,867	1,194
2028	141	220	161	930	2,864	1,199
2029	141	220	161	933	2,860	1,204
2030	142	220	162	935	2,857	1,209
2031	142	220	163	938	2,853	1,213
2032	143	221	163	940	2,850	1,218
2033	143	221	164	943	2,844	1,222
2034	144	221	164	945	2,838	1,226
2035	144	222	165	948	2,831	1,231
2036	145	222	166	950	2,825	1,235

Source: Forms 41 and 298-C, U.S. Department of Transportation.

[1]Sum of U.S. Mainline and Regional Air Carriers.

TABLE 10

U. S. MAINLINE AIR CARRIERS

SCHEDULED PASSENGER TRAFFIC

FISCAL YEAR	REVENUE PASSENGER ENPLANEMENTS (Millions)			REVENUE PASSENGER MILES (Billions)		
	DOMESTIC	INTERNATIONAL	SYSTEM	DOMESTIC	INTERNATIONAL	SYSTEM
Historical						
2001	545	54	598	483	182	666
2008	522	75	596	521	232	753
2009	477	71	548	478	220	698
2010	473	75	548	480	230	710
2011	488	79	567	497	241	738
2012	495	80	575	503	243	746
2013	498	82	580	511	248	759
2014	515	85	600	527	255	782
2015E	543	87	631	556	259	815
Forecast						
2016	572	91	663	581	265	846
2017	584	94	679	595	276	871
2018	598	98	697	611	288	898
2019	611	102	714	626	299	925
2020	623	107	729	639	312	950
2021	633	111	743	651	324	974
2022	642	115	756	661	336	997
2023	649	119	768	671	348	1,019
2024	658	123	781	682	361	1,042
2025	668	128	796	694	373	1,067
2026	680	132	812	708	386	1,094
2027	692	137	829	722	399	1,121
2028	706	142	848	738	412	1,151
2029	720	147	867	756	426	1,182
2030	735	152	887	773	440	1,213
2031	750	157	907	791	454	1,245
2032	765	162	928	809	468	1,277
2033	781	168	949	828	483	1,311
2034	797	173	970	847	498	1,345
2035	813	179	992	866	514	1,379
2036	829	185	1,014	885	529	1,414
Avg Annual Growth						
2001-15	0.0%	3.5%	0.4%	1.0%	2.5%	1.5%
2015-16	5.2%	4.4%	5.1%	4.6%	2.3%	3.8%
2015-25	2.1%	3.9%	2.4%	2.2%	3.7%	2.7%
2015-36	2.0%	3.6%	2.3%	2.2%	3.5%	2.7%

Source: Form 41, U.S. Department of Transportation.

TABLE 11

U.S. MAINLINE AIR CARRIERS

SCHEDULED PASSENGER CAPACITY, TRAFFIC, AND LOAD FACTORS

	DOMESTIC			INTERNATIONAL			SYSTEM		
FISCAL YEAR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR
Historical									
2001	690	483	70.0	245	182	74.4	935	666	71.2
2008	650	521	80.2	290	232	80.0	940	753	80.1
2009	588	478	81.4	281	220	78.2	869	698	80.3
2010	581	480	82.7	279	230	82.2	860	710	82.5
2011	594	497	83.6	299	241	80.8	893	738	82.6
2012	599	503	84.1	298	243	81.5	896	746	83.2
2013	607	511	84.2	301	248	82.6	907	759	83.7
2014	620	527	85.0	313	255	81.4	933	782	83.8
2015E	653	556	85.1	321	259	80.8	974	815	83.7
Forecast									
2016	678	581	85.8	323	265	81.9	1,001	846	84.5
2017	692	595	85.9	337	276	81.9	1,029	871	84.6
2018	709	611	86.1	351	288	81.9	1,060	898	84.7
2019	725	626	86.3	366	299	81.9	1,091	925	84.8
2020	739	639	86.4	381	312	81.9	1,120	950	84.9
2021	752	651	86.5	395	324	81.9	1,147	974	84.9
2022	764	661	86.6	410	336	81.9	1,174	997	84.9
2023	774	671	86.7	425	348	81.9	1,199	1,019	85.0
2024	786	682	86.7	440	361	81.8	1,226	1,042	85.0
2025	800	694	86.8	456	373	81.8	1,256	1,067	85.0
2026	815	708	86.9	472	386	81.8	1,287	1,094	85.0
2027	831	722	86.9	488	399	81.8	1,319	1,121	85.0
2028	849	738	86.9	504	412	81.8	1,353	1,151	85.0
2029	869	756	87.0	521	426	81.8	1,390	1,182	85.0
2030	888	773	87.0	538	440	81.8	1,426	1,213	85.1
2031	908	791	87.1	555	454	81.8	1,463	1,245	85.1
2032	929	809	87.1	573	468	81.8	1,502	1,277	85.1
2033	950	828	87.1	591	483	81.8	1,541	1,311	85.1
2034	972	847	87.2	609	498	81.8	1,581	1,345	85.1
2035	993	866	87.2	628	514	81.8	1,621	1,379	85.1
2036	1,015	885	87.2	647	529	81.8	1,662	1,414	85.1
Avg Annual Growth									
2001-15	-0.4%	1.0%		1.9%	2.5%	0.6%	0.3%	1.5%	
2015-16	3.8%	4.6%		0.8%	2.3%	1.4%	2.8%	3.8%	
2015-25	2.0%	2.2%		3.6%	3.7%	0.1%	2.6%	2.7%	
2015-36	2.1%	2.2%		3.4%	3.5%	0.1%	2.6%	2.7%	

Source: Form 41, U.S. Department of Transportation.

TABLE 12

U.S. MAINLINE AIR CARRIERS

SCHEDULED INTERNATIONAL PASSENGER ENPLANEMENTS

FISCAL	REVENUE PASSENGER ENPLANEMENTS (MIL)			
YEAR	ATLANTIC	LATIN AMERICA	PACIFIC	TOTAL
Historical				
2001	20	22	11	54
2008	26	36	13	75
2009	25	34	12	71
2010	25	37	13	75
2011	25	40	14	79
2012	25	41	14	80
2013	25	43	14	82
2014	25	46	14	85
2015E	25	49	14	87
Forecast				
2016	25	52	14	91
2017	26	54	15	94
2018	27	56	15	98
2019	28	59	15	102
2020	29	62	16	107
2021	30	64	16	111
2022	31	67	17	115
2023	32	70	17	119
2024	33	73	18	123
2025	33	76	18	128
2026	34	80	19	132
2027	35	83	19	137
2028	36	86	20	142
2029	37	90	20	147
2030	38	93	21	152
2031	39	97	21	157
2032	40	101	22	162
2033	41	105	22	168
2034	42	109	23	173
2035	43	113	23	179
2036	44	117	24	185
Avg Annual Growth				
2001-15	1.3%	5.9%	1.5%	3.5%
2015-16	2.1%	6.2%	2.0%	4.4%
2015-25	3.1%	4.6%	2.6%	3.9%
2015-36	2.8%	4.3%	2.6%	3.6%

Source: Form 41, U.S. Department of Transportation.

TABLE 13

U.S. MAINLINE AIR CARRIERS

SCHEDULED PASSENGER CAPACITY, TRAFFIC, AND LOAD FACTORS BY INTERNATIONAL TRAVEL REGIONS

	ATLANTIC			LATIN AMERICA			PACIFIC			INTERNATIONAL		
FISCAL YEAR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR	ASMs (BIL)	RPMs (BIL)	% LOAD FACTOR
Historical												
2001	113	86	76.4	53	37	69.2	79	59	75.2	245	182	74.4
2008	141	113	80.0	74	59	79.3	75	60	80.6	290	232	80.0
2009	138	109	78.9	73	56	76.8	70	55	78.3	281	220	78.2
2010	131	109	82.9	78	62	79.2	70	59	84.1	279	230	82.2
2011	138	112	80.7	82	66	79.9	78	64	81.8	299	241	80.8
2012	132	108	81.5	84	68	80.9	81	66	82.0	298	243	81.5
2013	128	107	83.3	90	73	81.1	83	69	83.1	301	248	82.6
2014	132	108	81.7	97	78	80.6	84	69	82.0	313	255	81.4
2015E	133	107	80.0	101	81	80.3	86	71	82.5	321	259	80.8
Forecast												
2016	131	108	82.2	104	84	80.4	88	73	83.3	323	265	81.9
2017	138	113	82.2	109	88	80.4	90	75	83.3	337	276	81.9
2018	144	118	82.2	114	92	80.4	93	77	83.3	351	288	81.9
2019	150	123	82.2	121	97	80.4	95	80	83.3	366	299	81.9
2020	155	127	82.2	127	102	80.4	98	82	83.3	381	312	81.9
2021	160	132	82.2	133	107	80.4	101	84	83.3	395	324	81.9
2022	166	136	82.2	140	112	80.4	104	87	83.3	410	336	81.9
2023	171	141	82.2	147	118	80.4	107	89	83.3	425	348	81.9
2024	176	145	82.2	154	124	80.4	110	92	83.3	440	361	81.8
2025	182	149	82.2	161	129	80.4	114	95	83.3	456	373	81.8
2026	187	154	82.2	168	135	80.4	117	97	83.3	472	386	81.8
2027	192	158	82.2	175	141	80.4	120	100	83.3	488	399	81.8
2028	198	162	82.2	183	147	80.4	123	103	83.3	504	412	81.8
2029	203	167	82.2	191	154	80.4	127	106	83.3	521	426	81.8
2030	209	172	82.2	199	160	80.4	130	108	83.3	538	440	81.8
2031	214	176	82.2	207	167	80.4	133	111	83.3	555	454	81.8
2032	220	181	82.2	216	173	80.4	137	114	83.3	573	468	81.8
2033	226	186	82.2	225	180	80.4	140	117	83.3	591	483	81.8
2034	232	191	82.2	233	188	80.4	144	120	83.3	609	498	81.8
2035	238	196	82.2	243	195	80.4	147	123	83.3	628	514	81.8
2036	244	201	82.2	252	203	80.4	151	126	83.3	647	529	81.8
Avg Annual Growth												
2001-15	1.2%	1.5%		4.7%	5.8%		0.6%	1.3%		1.9%	2.5%	
2015-16	-1.8%	0.9%		3.4%	3.6%		1.8%	2.8%		0.8%	2.3%	
2015-25	3.1%	3.4%		4.8%	4.8%		2.8%	2.9%		3.6%	3.7%	
2015-36	2.9%	3.1%		4.4%	4.5%		2.7%	2.8%		3.4%	3.5%	

Source: Form 41, U.S. Department of Transportation.

TABLE 14

U.S. MAINLINE AIR CARRIER FORECAST ASSUMPTIONS

SEATS PER AIRCRAFT MILE

FISCAL YEAR	DOMESTIC (Seats/Mile)	INTERNATIONAL ATLANTIC (Seats/Mile)	INTERNATIONAL LATIN AMERICA (Seats/Mile)	INTERNATIONAL PACIFIC (Seats/Mile)	INTERNATIONAL TOTAL (Seats/Mile)	SYSTEM (Seats/Mile)
Historical						
2001	146	233	175	304	234	162
2008	150	229	177	292	225	167
2009	151	230	176	291	224	169
2010	152	232	172	287	221	169
2011	152	231	173	283	221	170
2012	153	230	172	278	219	170
2013	154	233	172	276	219	171
2014	155	236	173	276	220	172
2015E	158	237	174	272	220	174
Forecast						
2016	158	238	174	273	220	174
2017	159	238	175	274	220	175
2018	160	239	175	274	220	176
2019	160	239	176	275	220	176
2020	161	240	176	276	221	177
2021	161	240	177	277	221	178
2022	162	241	177	277	221	179
2023	162	241	178	278	221	179
2024	163	242	178	279	222	180
2025	164	242	179	280	222	181
2026	164	243	179	280	222	181
2027	164	243	180	281	222	182
2028	165	244	180	282	223	183
2029	165	244	181	283	223	183
2030	166	245	181	283	223	184
2031	166	245	182	284	223	184
2032	167	246	182	285	224	185
2033	167	246	183	286	224	185
2034	168	247	183	286	224	186
2035	168	247	184	287	225	186
2036	168	248	184	288	225	187

Source: Form 41, U.S. Department of Transportation.

TABLE 15

U.S. MAINLINE AIR CARRIER FORECAST ASSUMPTIONS

AVERAGE PASSENGER TRIP LENGTH

FISCAL YEAR	DOMESTIC (Miles)	INTERNATIONAL ATLANTIC (Miles)	INTERNATIONAL LATIN AMERICA (Miles)	INTERNATIONAL PACIFIC (Miles)	INTERNATIONAL TOTAL (Miles)	SYSTEM (Miles)
Historical						
2001	887	4,212	1,688	5,229	3,405	1,013
2008	999	4,333	1,652	4,583	3,100	1,091
2009	1,003	4,402	1,646	4,550	3,098	1,093
2010	1,015	4,433	1,660	4,587	3,077	1,104
2011	1,017	4,415	1,655	4,707	3,068	1,114
2012	1,017	4,356	1,668	4,725	3,040	1,116
2013	1,026	4,313	1,693	4,774	3,023	1,130
2014	1,024	4,321	1,696	4,910	2,993	1,132
2015E	1,023	4,336	1,669	5,080	2,969	1,131
Forecast						
2016	1,017	4,287	1,628	5,120	2,909	1,124
2017	1,018	4,309	1,636	5,133	2,921	1,130
2018	1,021	4,330	1,644	5,146	2,925	1,135
2019	1,023	4,352	1,652	5,157	2,925	1,142
2020	1,026	4,374	1,660	5,169	2,924	1,148
2021	1,028	4,391	1,669	5,180	2,925	1,155
2022	1,031	4,409	1,677	5,190	2,925	1,162
2023	1,034	4,427	1,685	5,200	2,925	1,170
2024	1,036	4,444	1,690	5,209	2,921	1,177
2025	1,039	4,462	1,694	5,218	2,918	1,183
2026	1,041	4,475	1,698	5,226	2,914	1,189
2027	1,044	4,489	1,702	5,234	2,910	1,194
2028	1,047	4,502	1,707	5,242	2,906	1,199
2029	1,049	4,516	1,711	5,248	2,902	1,204
2030	1,052	4,525	1,715	5,255	2,897	1,209
2031	1,054	4,534	1,719	5,260	2,893	1,213
2032	1,057	4,543	1,724	5,266	2,889	1,218
2033	1,060	4,552	1,725	5,270	2,883	1,222
2034	1,062	4,557	1,727	5,275	2,876	1,226
2035	1,065	4,561	1,729	5,278	2,869	1,231
2036	1,068	4,566	1,731	5,282	2,862	1,235

Source: Form 41, U.S. Department of Transportation.

TABLE 16

U.S. MAINLINE AIR CARRIER FORECAST ASSUMPTIONS

PASSENGER YIELDS

	REVENUE PER PASSENGER MILE					
	DOMESTIC		INTERNATIONAL		SYSTEM	
FISCAL YEAR	CURRENT $ (Cents)	FY 2015 $ (Cents)	CURRENT $ (Cents)	FY 2015 $ (Cents)	CURRENT $ (Cents)	FY 2015 $ (Cents)
Historical						
2001	13.54	18.19	10.34	13.89	13.36	17.95
2008	13.11	14.48	13.37	14.77	13.90	15.35
2009	11.95	13.24	11.68	12.94	12.35	13.68
2010	12.62	13.74	12.84	13.98	12.98	14.14
2011	13.62	14.45	14.09	14.95	13.90	14.75
2012	14.08	14.59	14.74	15.27	14.19	14.70
2013	14.42	14.70	14.80	15.09	14.28	14.56
2014	15.11	15.16	14.94	14.98	14.74	14.78
2015E	14.73	14.73	14.20	14.20	14.36	14.36
Forecast						
2016	14.39	14.26	13.69	13.57	13.98	13.86
2017	15.19	14.65	13.99	13.49	14.63	14.10
2018	15.58	14.66	14.26	13.41	14.97	14.09
2019	15.99	14.70	14.50	13.33	15.32	14.09
2020	16.40	14.72	14.76	13.25	15.68	14.07
2021	16.83	14.73	15.04	13.17	16.05	14.05
2022	17.35	14.78	15.36	13.09	16.49	14.05
2023	17.92	14.87	15.67	13.01	16.96	14.08
2024	18.43	14.91	15.98	12.93	17.40	14.07
2025	18.85	14.89	16.27	12.85	17.76	14.03
2026	19.19	14.82	16.54	12.77	18.07	13.95
2027	19.52	14.73	16.82	12.69	18.37	13.86
2028	19.84	14.63	17.10	12.61	18.66	13.76
2029	20.14	14.52	17.39	12.54	18.95	13.66
2030	20.43	14.40	17.68	12.47	19.23	13.56
2031	20.74	14.29	17.99	12.40	19.53	13.46
2032	21.05	14.18	18.28	12.32	19.83	13.36
2033	21.39	14.08	18.59	12.24	20.15	13.27
2034	21.74	13.99	18.90	12.16	20.48	13.18
2035	22.12	13.90	19.22	12.08	20.82	13.09
2036	22.49	13.81	19.55	12.01	21.17	13.01
Avg Annual Growth						
2001-15	0.6%	-1.5%	2.3%	0.2%	0.5%	-1.6%
2015-16	-2.3%	-3.2%	-3.6%	-4.5%	-2.6%	-3.5%
2015-25	2.5%	0.1%	1.4%	-1.0%	2.1%	-0.2%
2015-36	2.0%	-0.3%	1.5%	-0.8%	1.9%	-0.5%

Source: Form 41, U.S. Department of Transportation.

TABLE 17

U.S. MAINLINE AIR CARRIER FORECAST ASSUMPTIONS

INTERNATIONAL PASSENGER YIELDS BY REGION

	REVENUE PER PASSENGER MILE							
	ATLANTIC		LATIN AMERICA		PACIFIC		TOTAL INTERNATIONAL	
FISCAL	CURRENT $	FY 2015 $	CURRENT $	FY 2015 $	CURRENT $	FY 2015 $	CURRENT $	FY 2015 $
YEAR	(Cents)	(Cents)	(Cents)	(Cents)	(Cents)	(Cents)	(Cents)	(Cents)
Historical								
2001	9.71	13.05	13.38	17.97	9.38	12.60	10.34	13.89
2008	13.29	14.67	14.19	15.67	12.73	14.06	13.37	14.77
2009	11.25	12.46	12.99	14.39	11.20	12.40	11.68	12.94
2010	12.73	13.87	13.33	14.52	12.50	13.61	12.84	13.98
2011	13.48	14.31	15.13	16.06	14.07	14.93	14.09	14.95
2012	13.95	14.45	15.79	16.35	14.95	15.49	14.74	15.27
2013	14.45	14.73	15.80	16.10	14.30	14.57	14.80	15.09
2014	14.84	14.88	15.76	15.81	14.15	14.19	14.94	14.98
2015E	14.64	14.64	14.50	14.50	13.21	13.21	14.20	14.20
Forecast								
2016	14.55	14.42	13.61	13.48	12.53	12.42	13.69	13.57
2017	14.88	14.34	13.86	13.36	12.80	12.34	13.99	13.49
2018	15.17	14.27	14.10	13.26	13.05	12.28	14.26	13.41
2019	15.45	14.20	14.30	13.15	13.28	12.21	14.50	13.33
2020	15.74	14.13	14.54	13.05	13.53	12.14	14.76	13.25
2021	16.06	14.06	14.78	12.94	13.79	12.07	15.04	13.17
2022	16.41	13.99	15.06	12.84	14.09	12.01	15.36	13.09
2023	16.77	13.92	15.34	12.73	14.39	11.94	15.67	13.01
2024	17.12	13.85	15.61	12.63	14.68	11.88	15.98	12.93
2025	17.45	13.78	15.85	12.52	14.96	11.82	16.27	12.85
2026	17.76	13.71	16.09	12.42	15.23	11.76	16.54	12.77
2027	18.08	13.64	16.33	12.32	15.51	11.70	16.82	12.69
2028	18.41	13.57	16.59	12.23	15.78	11.64	17.10	12.61
2029	18.74	13.51	16.84	12.14	16.07	11.59	17.39	12.54
2030	19.06	13.44	17.09	12.05	16.36	11.53	17.68	12.47
2031	19.40	13.37	17.37	11.97	16.66	11.48	17.99	12.40
2032	19.75	13.30	17.62	11.87	16.96	11.43	18.28	12.32
2033	20.10	13.24	17.87	11.77	17.27	11.37	18.59	12.24
2034	20.47	13.17	18.14	11.67	17.60	11.32	18.90	12.16
2035	20.85	13.11	18.41	11.57	17.93	11.27	19.22	12.08
2036	21.23	13.04	18.68	11.47	19.26	11.22	19.55	12.01
Avg Annual Growth								
2001-15	3.0%	0.8%	0.6%	-1.5%	2.5%	0.3%	2.3%	0.2%
2015-16	-0.6%	-1.5%	-6.2%	-7.0%	-5.2%	-6.0%	-3.6%	-4.5%
2015-25	1.8%	-0.6%	0.9%	-1.5%	1.3%	-1.1%	1.4%	-1.0%
2015-36	1.8%	-0.5%	1.2%	-1.1%	1.8%	-0.8%	1.5%	-0.8%

Source: Form 41, U.S. Department of Transportation.

TABLE 18

U.S. MAINLINE AIR CARRIER FORECAST ASSUMPTIONS

JET FUEL PRICES

	DOMESTIC		INTERNATIONAL		SYSTEM	
FISCAL	CURRENT $	FY 2015 $	CURRENT $	FY 2015 $	CURRENT $	FY 2015 $
YEAR	(Cents)	(Cents)	(Cents)	(Cents)	(Cents)	(Cents)
Historical						
2001	82.66	110.64	86.37	115.68	83.68	112.42
2008	292.53	323.01	314.57	347.35	299.65	330.88
2009	202.07	223.80	208.27	230.66	204.14	226.09
2010	219.16	238.67	220.12	239.71	219.49	239.02
2011	289.32	307.04	288.10	305.75	288.87	306.56
2012	314.56	325.90	309.52	320.68	312.64	323.92
2013	308.91	314.91	299.39	305.20	305.24	311.17
2014	300.70	301.66	292.56	293.49	297.61	298.55
2015E	207.33	207.33	211.76	211.76	208.98	208.98
Forecast						
2016	153.94	152.56	157.23	155.82	155.17	153.78
2017	178.60	172.19	182.42	175.87	180.02	173.56
2018	196.50	184.88	200.70	188.84	198.06	186.36
2019	216.74	199.27	221.38	203.53	218.47	200.86
2020	237.67	213.31	242.75	217.87	239.56	215.01
2021	259.41	227.08	264.96	231.93	261.48	228.89
2022	288.28	245.71	294.45	250.96	290.58	247.66
2023	326.54	270.98	333.52	276.77	329.14	273.14
2024	363.73	294.19	371.50	300.48	366.62	296.53
2025	390.54	308.43	398.89	315.02	393.65	310.88
2026	407.57	314.60	416.28	321.32	410.81	317.10
2027	419.47	316.49	428.44	323.25	422.81	319.01
2028	428.48	315.99	437.64	322.74	431.89	318.50
2029	434.06	312.91	443.34	319.60	437.51	315.40
2030	438.18	308.94	447.55	315.55	441.67	311.40
2031	442.07	304.66	451.52	311.17	445.59	307.08
2032	445.78	300.30	455.31	306.72	449.33	302.69
2033	452.66	298.10	462.33	304.47	456.26	300.47
2034	461.58	296.99	471.44	303.33	465.25	299.35
2035	472.52	297.07	482.62	303.42	476.28	299.44
2036	483.07	296.76	493.39	303.11	486.91	299.12
Avg Annual Growth						
2001-15	6.8%	4.6%	6.6%	4.4%	6.8%	4.5%
2015-16	-25.8%	-26.4%	-25.8%	-26.4%	-25.8%	-26.4%
2015-25	6.5%	4.1%	6.5%	4.1%	6.5%	4.1%
2015-36	4.1%	1.7%	4.1%	1.7%	4.1%	1.7%

Source: Form 41, U.S. Department of Transportation

TABLE 19

U.S. COMMERCIAL AIR CARRIERS

AIR CARGO REVENUE TON MILES[1, 2, 3]

FISCAL YEAR	ALL-CARGO CARRIER RTMS (Millions)			PASSENGER CARRIER RTMS (Millions)			TOTAL RTMS (Millions)		
	DOMESTIC	INT'L.	TOTAL	DOMESTIC	INT'L.	TOTAL	DOMESTIC	INT'L.	TOTAL
Historical									
2001	9,992	7,380	17,372	3,946	7,167	11,112	13,938	14,547	28,485
2008	12,261	17,516	29,777	2,147	6,905	9,052	14,408	24,421	38,829
2009	10,275	13,834	24,110	1,623	5,266	6,889	11,899	19,100	30,999
2010	11,243	16,733	27,976	1,580	6,332	7,912	12,823	23,065	35,888
2011	10,601	18,980	29,581	1,446	6,250	7,696	12,047	25,230	37,277
2012	10,886	18,310	29,196	1,360	5,952	7,313	12,246	24,262	36,509
2013	10,996	16,741	27,737	1,354	5,700	7,053	12,350	22,441	34,790
2014	11,226	16,356	27,581	1,451	6,148	7,598	12,676	22,503	35,180
2015E	11,672	16,403	28,075	1,417	6,456	7,873	13,089	22,858	35,947
Forecast									
2016	11,908	17,454	29,362	1,434	6,768	8,202	13,343	24,222	37,565
2017	12,172	18,651	30,822	1,455	7,125	8,579	13,626	25,775	39,402
2018	12,296	19,807	32,103	1,458	7,454	8,912	13,754	27,261	41,015
2019	12,451	20,994	33,445	1,465	7,781	9,246	13,916	28,775	42,691
2020	12,653	22,234	34,888	1,477	8,116	9,593	14,130	30,351	44,481
2021	12,789	23,410	36,198	1,480	8,415	9,896	14,269	31,825	46,094
2022	12,840	24,633	37,474	1,474	8,719	10,193	14,315	33,352	47,667
2023	12,881	25,956	38,837	1,467	9,045	10,512	14,348	35,000	49,349
2024	12,897	27,331	40,228	1,457	9,376	10,832	14,354	36,706	51,060
2025	12,917	28,684	41,600	1,447	9,685	11,132	14,364	38,369	52,732
2026	12,944	30,107	43,050	1,438	10,005	11,443	14,382	40,111	54,493
2027	12,962	31,597	44,559	1,428	10,332	11,760	14,390	41,929	56,319
2028	12,988	33,139	46,127	1,419	10,662	12,081	14,407	43,801	58,208
2029	13,003	34,717	47,721	1,409	10,989	12,397	14,412	45,706	60,118
2030	13,021	36,319	49,340	1,399	11,308	12,706	14,420	47,627	62,046
2031	13,026	37,974	51,000	1,387	11,628	13,015	14,413	49,601	64,014
2032	13,032	39,670	52,702	1,376	11,945	13,321	14,408	51,615	66,022
2033	13,048	41,445	54,493	1,366	12,270	13,635	14,413	53,715	68,129
2034	13,062	43,292	56,354	1,355	12,599	13,954	14,417	55,891	70,308
2035	13,072	45,206	58,279	1,344	12,931	14,275	14,417	58,137	72,554
2036	13,081	47,170	60,251	1,333	13,259	14,593	14,415	60,429	74,844
Avg Annual Growth									
2001-15	1.1%	5.9%	3.5%	-7.1%	-0.7%	-2.4%	-0.4%	3.3%	1.7%
2015-16	2.0%	6.4%	4.6%	1.2%	4.8%	4.2%	1.9%	6.0%	4.5%
2015-25	1.0%	5.7%	4.0%	0.2%	4.1%	3.5%	0.9%	5.3%	3.9%
2015-36	0.5%	5.2%	3.7%	-0.3%	3.5%	3.0%	0.5%	4.7%	3.6%

Source: Form 41, U.S. Department of Transportation

[1]Includes freight/express and mail revenue ton miles on mainline air carriers and regionals/commuters.

[2]Domestic figures from 2000 through 2002 exclude Airborne Express, Inc.; international figures for 2003 and beyond include new reporting of contract service by U.S. carriers for foreign flag carriers.

[3]Domestic figures from 2003 and beyond include Airborne Express. Inc.

TABLE 20

U.S. COMMERCIAL AIR CARRIERS

INTERNATIONAL AIR CARGO REVENUE TON MILES BY REGION[1, 2]

FISCAL YEAR	ATLANTIC (MILLIONS)	LATIN AMERICA (MILLIONS)	PACIFIC (MILLIONS)	OTHER INTERNATIONAL (MILLIONS)	TOTAL (MILLIONS)
Historical					
2001	5,282	1,867	6,949	1,320	15,418
2008	6,415	2,336	9,050	6,620	24,421
2009	5,740	1,793	6,855	4,711	19,100
2010	6,865	1,991	8,348	5,860	23,065
2011	7,236	1,832	9,105	7,057	25,230
2012	7,026	1,870	8,569	6,797	24,262
2013	6,662	1,789	8,184	5,806	22,441
2014	6,887	1,740	8,429	5,447	22,503
2015	6,746	1,623	9,138	5,351	22,858
Forecast					
2016E	7,012	1,572	10,027	5,611	24,222
2017	7,320	1,577	10,989	5,889	25,775
2018	7,637	1,598	11,856	6,170	27,261
2019	7,953	1,629	12,736	6,457	28,775
2020	8,292	1,663	13,643	6,753	30,351
2021	8,627	1,687	14,461	7,049	31,825
2022	8,974	1,707	15,320	7,350	33,352
2023	9,337	1,732	16,271	7,660	35,000
2024	9,711	1,760	17,258	7,977	36,706
2025	10,089	1,782	18,202	8,295	38,369
2026	10,477	1,804	19,211	8,619	40,111
2027	10,881	1,827	20,272	8,949	41,929
2028	11,299	1,851	21,367	9,283	43,801
2029	11,730	1,877	22,480	9,619	45,706
2030	12,173	1,901	23,595	9,958	47,627
2031	12,629	1,924	24,745	10,303	49,601
2032	13,098	1,946	25,919	10,652	51,615
2033	13,583	1,969	27,152	11,011	53,715
2034	14,087	1,993	28,435	11,376	55,891
2035	14,609	2,019	29,762	11,747	58,137
2036	15,146	2,043	31,113	12,127	60,429
Avg Annual Growth					
2001-15	1.8%	-1.0%	2.0%	10.5%	2.9%
2015-16	3.9%	-3.1%	9.7%	4.9%	6.0%
2015-25	4.1%	0.9%	7.1%	4.5%	5.3%
2015-36	3.9%	1.1%	6.0%	4.0%	4.7%

Source: Form 41, U.S. Department of Transportation

[1]Includes freight/express and mail revenue ton miles on mainline air carriers and regionals/commuters.

[2]Figures for 2003 and beyond include new reporting of contract service by U.S. carriers for foreign flag carriers.

TABLE 21

U.S. MAINLINE AIR CARRIERS

PASSENGER JET AIRCRAFT

CALENDAR	LARGE NARROWBODY				LARGE WIDEBODY				LARGE	REGIONAL	TOTAL
YEAR	2 ENGINE	3 ENGINE	4 ENGINE	TOTAL	2 ENGINE	3 ENGINE	4 ENGINE	TOTAL	JETS	JETS	JETS
Historical											
2001	3,412	187	0	3,599	451	89	85	625	4,224	26	4,250
2008	3,170	10	1	3,181	471	9	44	524	3,705	79	3,784
2009	3,108	9	1	3,118	447	9	42	498	3,616	78	3,694
2010	3,120	8	1	3,129	470	9	43	522	3,651	71	3,722
2011	3,127	7	1	3,135	471	7	41	519	3,654	76	3,730
2012	3,123	7	0	3,130	480	3	40	523	3,653	82	3,735
2013	3,159	5	0	3,164	482	0	40	522	3,686	93	3,779
2014	3,224	2	0	3,226	473	0	37	510	3,736	98	3,834
2015E	3,322	2	0	3,324	492	0	31	523	3,847	99	3,946
Forecast											
2016	3,431	2	0	3,433	509	0	22	531	3,964	101	4,065
2017	3,473	2	0	3,475	539	0	9	548	4,023	129	4,152
2018	3,502	2	0	3,504	560	0	0	560	4,064	139	4,203
2019	3,538	2	0	3,540	569	0	0	569	4,109	149	4,258
2020	3,568	2	0	3,570	572	0	0	572	4,142	161	4,303
2021	3,603	2	0	3,605	586	0	0	586	4,191	169	4,360
2022	3,634	1	0	3,635	605	0	0	605	4,240	171	4,411
2023	3,675	0	0	3,675	615	0	0	615	4,290	173	4,463
2024	3,707	0	0	3,707	627	0	0	627	4,334	175	4,509
2025	3,809	0	0	3,809	625	0	0	625	4,434	178	4,612
2026	3,828	0	0	3,828	636	0	0	636	4,464	181	4,645
2027	3,851	0	0	3,851	651	0	0	651	4,502	183	4,685
2028	3,898	0	0	3,898	663	0	0	663	4,561	185	4,746
2029	3,949	0	0	3,949	674	0	0	674	4,623	187	4,810
2030	4,020	0	0	4,020	693	0	0	693	4,713	187	4,900
2031	4,076	0	0	4,076	715	0	0	715	4,791	185	4,976
2032	4,122	0	0	4,122	740	0	0	740	4,862	185	5,047
2033	4,162	0	0	4,162	768	0	0	768	4,930	185	5,115
2034	4,211	0	0	4,211	793	0	0	793	5,004	185	5,189
2035	4,261	0	0	4,261	815	0	0	815	5,076	185	5,261
2036	4,314	0	0	4,314	840	0	0	840	5,154	185	5,339
Avg Annual Growth											
2001-15	-0.2%	-27.7%	N/A	-0.6%	0.6%	N/A	-7.0%	-1.3%	-0.7%	10.0%	-0.5%
2015-16	3.3%	0.0%	N/A	3.3%	3.5%	N/A	-29.0%	1.5%	3.0%	2.0%	3.0%
2015-25	1.4%	-100.0%	N/A	1.4%	2.4%	N/A	N/A	1.8%	1.4%	6.0%	1.6%
2015-36	1.3%	-99.9%	N/A	1.2%	2.6%	N/A	N/A	2.3%	1.4%	3.0%	1.5%

TABLE 22

U.S. MAINLINE AIR CARRIERS

CARGO JET AIRCRAFT

CALENDAR	LARGE NARROWBODY				LARGE WIDEBODY				
YEAR	2 ENGINE	3 ENGINE	4 ENGINE	TOTAL	2 ENGINE	3 ENGINE	4 ENGINE	TOTAL	TOTAL
Historical									
2001	180	343	143	666	190	192	85	467	1,133
2008	163	116	29	308	274	207	82	563	871
2009	154	107	30	291	253	196	82	531	822
2010	153	104	31	288	265	200	97	562	850
2011	176	89	26	291	281	203	96	580	871
2012	187	67	12	266	292	188	93	573	839
2013	192	15	2	209	296	175	64	535	744
2014	216	14	0	230	294	170	69	533	763
2015E	225	19	0	244	309	156	72	537	781
Forecast									
2016	227	19	0	246	312	149	72	533	779
2017	232	19	0	251	328	139	73	540	791
2018	237	19	0	256	349	126	73	548	804
2019	241	19	0	260	372	113	74	559	819
2020	247	17	0	264	395	100	75	570	834
2021	250	16	0	266	411	98	77	586	852
2022	255	11	0	266	427	95	78	600	866
2023	244	10	0	254	441	93	80	614	868
2024	256	9	0	265	455	91	81	627	892
2025	258	0	0	258	469	89	83	641	899
2026	262	0	0	262	485	87	84	656	918
2027	271	0	0	271	500	85	87	672	943
2028	273	0	0	273	517	82	89	688	961
2029	275	0	0	275	532	80	92	704	979
2030	277	0	0	277	549	75	94	718	995
2031	279	0	0	279	569	71	97	737	1,016
2032	280	0	0	280	589	66	99	754	1,034
2033	283	0	0	283	609	62	102	773	1,056
2034	284	0	0	284	629	58	104	791	1,075
2035	286	0	0	286	649	54	107	810	1,096
2036	287	0	0	287	668	50	109	827	1,114
Avg Annual Growth									
2001-15	1.6%	-18.7%	N/A	-6.9%	3.5%	-1.5%	-1.2%	1.0%	-2.6%
2015-16	0.9%	0.0%	N/A	0.8%	1.0%	-4.5%	0.0%	-0.7%	-0.3%
2015-25	1.4%	N/A	N/A	0.6%	4.3%	-5.5%	1.4%	1.8%	1.4%
2015-36	1.2%	N/A	N/A	0.8%	3.7%	-5.3%	2.0%	2.1%	1.7%

TABLE 23

TOTAL JET FUEL AND AVIATION GASOLINE FUEL CONSUMPTION

U.S. CIVIL AVIATION AIRCRAFT

(Millions of Gallons)

FISCAL YEAR	JET FUEL					AVIATION GASOLINE			TOTAL FUEL CONSUMED
	U.S. AIR CARRIERS[1, 2]			GENERAL AVIATION	TOTAL	AIR CARRIER	GENERAL AVIATION	TOTAL	
	DOMESTIC	INT'L.	TOTAL						
Historical									
2001	15,350	5,893	21,243	918	22,162	2	279	335	21,350
2008	13,397	6,499	19,896	1,706	21,602	2	248	250	21,852
2009	11,896	6,033	17,929	1,447	19,376	2	227	229	19,606
2010	11,973	6,290	18,263	1,435	19,698	2	221	223	19,921
2011	12,092	6,547	18,639	1,456	20,095	2	216	218	20,313
2012	12,124	6,595	18,720	1,435	20,155	2	206	208	20,363
2013	12,044	6,418	18,461	1,260	19,721	2	197	199	19,920
2014	12,167	6,348	18,514	1,466	19,981	2	210	212	20,192
2015E	12,542	6,471	19,013	1,471	20,485	2	208	210	20,695
Forecast									
2016	12,834	6,459	19,293	1,497	20,789	2	207	209	20,998
2017	12,973	6,664	19,637	1,536	21,173	2	206	208	21,381
2018	13,136	6,877	20,014	1,576	21,590	2	206	208	21,798
2019	13,273	7,092	20,365	1,617	21,982	2	206	208	22,190
2020	13,393	7,308	20,701	1,660	22,361	2	206	208	22,569
2021	13,489	7,511	21,000	1,702	22,702	2	206	208	22,911
2022	13,555	7,714	21,269	1,734	23,003	2	206	208	23,211
2023	13,602	7,919	21,521	1,766	23,287	2	206	208	23,495
2024	13,672	8,124	21,796	1,800	23,597	2	206	208	23,805
2025	13,770	8,325	22,095	1,836	23,931	2	207	209	24,139
2026	13,881	8,525	22,407	1,871	24,278	2	207	209	24,486
2027	13,995	8,728	22,723	1,903	24,626	2	206	208	24,834
2028	14,136	8,933	23,068	1,939	25,007	2	207	209	25,216
2029	14,282	9,137	23,419	1,978	25,397	2	207	209	25,606
2030	14,422	9,340	23,762	2,017	25,779	2	207	209	25,988
2031	14,563	9,545	24,108	2,056	26,164	2	207	209	26,373
2032	14,708	9,749	24,457	2,096	26,553	2	208	210	26,762
2033	14,852	9,956	24,808	2,137	26,945	2	208	210	27,155
2034	14,989	10,165	25,154	2,177	27,331	2	208	210	27,542
2035	15,125	10,375	25,500	2,224	27,724	2	209	211	27,935
2036	15,260	10,586	25,845	2,267	28,112	2	209	211	28,323
Avg Annual Growth									
2001-15	-1.4%	0.7%	-0.8%	3.4%	-0.6%	0.0%	-2.1%	-3.3%	-0.2%
2015-16	2.3%	-0.2%	1.5%	1.7%	1.5%	0.0%	-0.7%	-0.7%	1.5%
2015-25	0.9%	2.6%	1.5%	2.2%	1.6%	0.0%	-0.1%	-0.1%	1.6%
2015-36	0.9%	2.4%	1.5%	2.1%	1.5%	0.0%	0.0%	0.0%	1.5%

Source: Air carrier jet fuel, Form 41, U.S. Department of Transportation; all others, FAA APO estimates.

[1]Includes both passenger (mainline and regional air carrier) and cargo carriers.

[2]Forecast assumes 1.0% annual improvement in available seat miles per gallon for U.S. Commercial Air Carrier

TABLE 24

U.S. REGIONAL CARRIER FORECAST ASSUMPTIONS

	AVERAGE SEATS PER AIRCRAFT MILE			AVERAGE PASSENGER TRIP LENGTH			REVENUE PER PASSENGER MILE**	
FISCAL	DOMESTIC	INT'L.	TOTAL	DOMESTIC	INT'L.	TOTAL	CURRENT $	2015 $
YEAR	(Seats/Mile)	(Seats/Mile)	(Seats/Mile)	(Miles)	(Miles)	(Miles)	(Cents)	(Cents)
Historical								
2001	40	43	41	302	303	302	31.65	42.52
2008	53	53	53	461	533	462	21.04	23.23
2009	55	53	55	457	512	458	17.04	18.88
2010	56	53	56	464	503	465	15.74	17.14
2011	56	53	56	467	531	468	15.10	16.03
2012	56	55	56	467	606	470	13.16	13.64
2013	56	55	56	469	641	472	11.66	11.88
2014	57	57	57	473	669	477	11.39	11.42
2015E	60	57	60	475	691	479	12.17	12.17
Forecast								
2016	61	58	61	474	688	477	11.89	11.78
2017	62	58	62	476	691	479	12.55	12.10
2018	63	58	63	478	694	481	12.87	12.11
2019	64	58	63	480	697	483	13.20	12.14
2020	64	59	64	482	700	485	13.54	12.15
2021	65	59	65	484	703	487	13.90	12.16
2022	65	59	65	486	706	489	14.32	12.20
2023	66	60	66	488	709	491	14.79	12.27
2024	66	60	66	490	711	493	15.21	12.30
2025	67	60	67	491	714	495	15.55	12.28
2026	67	61	67	493	717	497	15.83	12.22
2027	68	61	68	495	720	499	16.10	12.15
2028	68	61	68	497	723	501	16.36	12.07
2029	69	61	69	499	726	503	16.61	11.98
2030	69	62	69	501	729	505	16.85	11.88
2031	70	62	70	503	732	507	17.11	11.79
2032	70	62	70	505	735	509	17.36	11.69
2033	71	63	71	507	738	511	17.64	11.62
2034	71	63	71	509	740	513	17.93	11.54
2035	72	63	72	511	743	515	18.24	11.47
2036	72	64	72	513	746	517	18.54	11.39
Avg Annual Growth								
2001-15	2.8%	2.1%	2.8%	3.3%	6.1%	3.3%	-6.6%	-8.5%
2015-16	1.5%	0.5%	1.5%	-0.4%	-0.4%	-0.4%	-2.3%	-3.2%
2015-25	1.1%	0.5%	1.1%	0.3%	0.3%	0.3%	2.5%	0.1%
2015-36	0.9%	0.5%	0.9%	0.4%	0.4%	0.4%	2.0%	-0.3%

Source: Form 41 and 298C, U.S. Department of Transportation.

** Reporting carriers.

TABLE 25

U.S. REGIONAL CARRIERS

SCHEDULED PASSENGER TRAFFIC

(In Millions)

FISCAL	REVENUE PASSENGERS			REVENUE PASSENGER MILES		
YEAR	DOMESTIC	INTERNATIONAL	TOTAL	DOMESTIC	INTERNATIONAL	TOTAL
Historical						
2001	80	3	84	24,299	947	25,246
2008	159	4	163	73,305	1,867	75,172
2009	154	3	157	70,374	1,304	71,678
2010	162	3	164	75,030	1,347	76,377
2011	162	2	164	75,513	1,270	76,783
2012	159	3	162	74,330	1,856	76,187
2013	155	3	158	72,956	1,851	74,807
2014	154	3	157	72,953	1,926	74,878
2015E	153	2	155	72,753	1,548	74,301
Forecast						
2016	154	2	156	72,999	1,553	74,552
2017	158	2	160	74,910	1,594	76,503
2018	161	2	164	77,018	1,638	78,656
2019	165	2	167	78,974	1,680	80,654
2020	168	2	170	80,734	1,717	82,452
2021	170	2	173	82,363	1,752	84,115
2022	173	3	175	83,835	1,783	85,619
2023	175	3	177	85,154	1,812	86,965
2024	177	3	180	86,635	1,843	88,478
2025	180	3	182	88,349	1,879	90,228
2026	183	3	185	90,208	1,919	92,127
2027	186	3	189	92,118	1,960	94,078
2028	190	3	192	94,313	2,006	96,320
2029	193	3	196	96,630	2,056	98,686
2030	197	3	200	98,942	2,105	101,047
2031	201	3	204	101,365	2,156	103,521
2032	206	3	209	103,888	2,210	106,098
2033	210	3	213	106,478	2,265	108,743
2034	214	3	217	109,046	2,320	111,365
2035	218	3	221	111,641	2,375	114,016
2036	223	3	226	114,288	2,431	116,719
Avg Annual Growth						
2001-15	4.7%	-2.4%	4.5%	8.1%	3.6%	8.0%
2015-16	0.7%	0.7%	0.7%	0.3%	0.3%	0.3%
2015-25	1.6%	1.6%	1.6%	2.0%	2.0%	2.0%
2015-36	1.8%	1.8%	1.8%	2.2%	2.2%	2.2%

Source: Form 41 and 298C, U.S. Department of Transportation.

TABLE 26

U.S. REGIONAL CARRIERS

SCHEDULED PASSENGER CAPACITY, TRAFFIC, AND LOAD FACTORS

	DOMESTIC			INTERNATIONAL			TOTAL		
FISCAL YEAR	ASMs (MIL)	RPMs (MIL)	% LOAD FACTOR	ASMs (MIL)	RPMs (MIL)	% LOAD FACTOR	ASMs (MIL)	RPMs (MIL)	% LOAD FACTOR
Historical									
2001	41,418	24,299	58.7	1,633	947	58.0	43,051	25,246	58.6
2008	99,469	73,305	73.7	2,632	1,867	70.9	102,101	75,172	73.6
2009	94,664	70,374	74.3	1,859	1,304	70.2	96,523	71,678	74.3
2010	98,461	75,030	76.2	1,857	1,347	72.5	100,318	76,377	76.1
2011	99,075	75,513	76.2	1,818	1,270	69.9	100,893	76,783	76.1
2012	95,748	74,330	77.6	2,595	1,856	71.5	98,343	76,187	77.5
2013	93,084	72,956	78.4	2,448	1,851	75.6	95,532	74,807	78.3
2014	91,169	72,953	80.0	2,560	1,926	75.2	93,729	74,878	79.9
2015E	90,679	72,753	80.2	2,103	1,548	73.6	92,782	74,301	80.1
Forecast									
2016	90,661	72,999	80.5	2,103	1,553	73.8	92,764	74,552	80.4
2017	92,988	74,910	80.6	2,157	1,594	73.9	95,145	76,503	80.4
2018	95,560	77,018	80.6	2,217	1,638	73.9	97,777	78,656	80.4
2019	97,945	78,974	80.6	2,272	1,680	74.0	100,216	80,654	80.5
2020	100,086	80,734	80.7	2,321	1,717	74.0	102,407	82,452	80.5
2021	102,065	82,363	80.7	2,367	1,752	74.0	104,432	84,115	80.5
2022	103,851	83,835	80.7	2,409	1,783	74.0	106,260	85,619	80.6
2023	105,448	85,154	80.8	2,446	1,812	74.1	107,894	86,965	80.6
2024	107,247	86,635	80.8	2,488	1,843	74.1	109,735	88,478	80.6
2025	109,334	88,349	80.8	2,536	1,879	74.1	111,870	90,228	80.7
2026	111,601	90,208	80.8	2,589	1,919	74.1	114,189	92,127	80.7
2027	113,932	92,118	80.9	2,643	1,960	74.2	116,575	94,078	80.7
2028	116,616	94,313	80.9	2,705	2,006	74.2	119,321	96,320	80.7
2029	119,450	96,630	80.9	2,771	2,056	74.2	122,221	98,686	80.7
2030	122,277	98,942	80.9	2,836	2,105	74.2	125,114	101,047	80.8
2031	125,242	101,365	80.9	2,905	2,156	74.2	128,147	103,521	80.8
2032	128,331	103,888	81.0	2,977	2,210	74.2	131,308	106,098	80.8
2033	131,502	106,478	81.0	3,050	2,265	74.3	134,552	108,743	80.8
2034	134,646	109,046	81.0	3,123	2,320	74.3	137,769	111,365	80.8
2035	137,824	111,641	81.0	3,197	2,375	74.3	141,020	114,016	80.9
2036	141,064	114,288	81.0	3,272	2,431	74.3	144,336	116,719	80.9
Avg Annual Growth									
2001-15	5.8%	8.1%		1.8%	3.6%	1.7%	5.6%	8.0%	
2015-16	0.0%	0.3%		0.0%	0.3%	0.4%	0.0%	0.3%	
2015-25	1.9%	2.0%		1.9%	2.0%	0.1%	1.9%	2.0%	
2015-36	2.1%	2.2%		2.1%	2.2%	0.0%	2.1%	2.2%	

Source: Form 41 and 298C, U.S. Department of Transportation.

TABLE 27

U.S. REGIONAL CARRIERS

PASSENGER AIRCRAFT

AS OF JANUARY 1	REGIONAL AIRCRAFT											
	LESS THAN 9 SEATS	10 TO 19 SEATS	20 TO 30 SEATS	31 TO 40 SEATS			OVER 40 SEATS			TOTAL FLEET		
				PROP	JET	TOTAL	PROP	JET*	TOTAL	NON JET	JET	TOTAL
Historical												
2001	490	250	248	445	110	555	148	672	820	1,581	782	2,363
2008	451	107	68	180	25	205	121	1,730	1,851	927	1,755	2,682
2009	466	103	65	153	29	182	115	1,722	1,837	902	1,751	2,653
2010	440	92	82	144	28	172	99	1,728	1,827	857	1,756	2,613
2011	447	94	67	113	27	140	135	1,683	1,818	857	1,710	2,567
2012	394	90	55	115	23	138	104	1,559	1,663	758	1,582	2,340
2013	337	94	52	37	0	37	51	1,642	1,693	571	1,642	2,213
2014	321	90	56	32	0	32	56	1,602	1,658	555	1,602	2,157
2015E	346	68	13	32	0	32	57	1,628	1,685	516	1,628	2,144
Forecast												
2016	337	66	13	31	0	31	59	1,527	1,586	506	1,527	2,033
2017	322	63	12	30	0	30	61	1,522	1,583	488	1,522	2,010
2018	198	61	12	29	0	29	63	1,474	1,537	363	1,474	1,837
2019	187	58	11	27	0	27	65	1,453	1,518	348	1,453	1,801
2020	181	56	11	26	0	26	67	1,420	1,487	341	1,420	1,761
2021	171	53	10	25	0	25	69	1,384	1,453	328	1,384	1,712
2022	165	51	10	24	0	24	71	1,375	1,446	321	1,375	1,696
2023	157	49	9	23	0	23	72	1,399	1,471	310	1,399	1,709
2024	150	46	9	22	0	22	74	1,414	1,488	301	1,414	1,715
2025	142	44	8	21	0	21	76	1,430	1,506	291	1,430	1,721
2026	132	41	8	19	0	19	78	1,460	1,538	278	1,460	1,738
2027	124	39	7	18	0	18	80	1,488	1,568	268	1,488	1,756
2028	117	36	7	17	0	17	81	1,524	1,605	258	1,524	1,782
2029	111	34	7	16	0	16	83	1,550	1,633	251	1,550	1,801
2030	103	32	6	15	0	15	85	1,580	1,665	241	1,580	1,821
2031	95	29	6	14	0	14	86	1,612	1,698	230	1,612	1,842
2032	87	27	5	13	0	13	88	1,650	1,738	220	1,650	1,870
2033	78	24	5	11	0	11	89	1,686	1,775	207	1,686	1,893
2034	70	22	4	10	0	10	91	1,718	1,809	197	1,718	1,915
2035	62	19	4	9	0	9	92	1,751	1,843	186	1,751	1,937
2036	54	17	3	8	0	8	93	1,786	1,879	175	1,786	1,961
Avg Annual Growth												
2001-15	-2.5%	-8.9%	-19.0%	-17.1%	N/A	-18.4%	-6.6%	6.5%	5.3%	-7.7%	5.4%	-0.7%
2015-16	-2.6%	-2.9%	0.0%	-3.1%	N/A	-3.1%	3.5%	-6.2%	-5.9%	-1.9%	-6.2%	-5.2%
2015-25	-8.5%	-4.3%	-4.7%	-4.1%	N/A	-4.1%	2.9%	-1.3%	-1.1%	-5.6%	-1.3%	-2.2%
2015-36	-8.5%	-6.4%	-6.7%	-6.4%	N/A	-6.4%	2.4%	0.4%	0.5%	-5.0%	0.4%	-0.4%

Source: The Velocity Group for the Regional Airline Association through 2004.

*Independence Air A319 aircraft are included in Table 20 - U.S. Mainline Air Carriers Passenger Jet Aircraft.

TABLE 28

ACTIVE GENERAL AVIATION AND AIR TAXI AIRCRAFT

AS OF DEC. 31	FIXED WING						ROTORCRAFT			EXPERI-MENTAL**	SPORT AIRCRAFT**	OTHER	TOTAL GENERAL AVIATION FLEET	TOTAL PISTONS	TOTAL TURBINES
	PISTON			TURBINE											
	SINGLE ENGINE	MULTI-ENGINE	TOTAL	TURBO PROP	TURBO JET	TOTAL	PISTON	TURBINE	TOTAL						
Historical*															
2001	145,034	18,192	163,226	6,596	7,787	14,383	2,292	4,491	6,783	20,421	N/A	6,633	211,446	165,518	18,874
2008	145,497	17,515	163,012	8,907	11,042	19,949	3,498	6,378	9,876	23,364	6,811	5,652	228,664	166,510	26,327
2009	140,649	16,474	157,123	9,055	11,268	20,323	3,499	6,485	9,984	24,419	6,547	5,480	223,876	160,622	26,808
2010	139,519	15,900	155,419	9,369	11,484	20,853	3,588	6,514	10,102	24,784	6,528	5,684	223,370	159,007	27,367
2011E	136,895	15,702	152,597	9,523	11,650	21,173	3,411	6,671	10,082	24,275	6,645	5,681	220,453	156,008	27,844
2012	128,847	14,313	143,160	10,304	11,793	22,097	3,292	6,763	10,055	26,715	2,001	5,006	209,034	146,452	28,860
2013	124,398	13,257	137,655	9,619	11,637	21,256	3,137	6,628	9,765	24,918	2,056	4,277	199,927	140,792	27,884
2014	126,036	13,146	139,182	9,777	12,362	22,139	3,154	6,812	9,966	26,191	2,231	4,699	204,408	142,336	28,951
2015E	125,050	13,085	138,135	9,570	12,475	22,045	3,245	6,995	10,240	26,435	2,410	4,615	203,880	141,380	29,040
Forecast															
2016	124,055	13,025	137,080	9,420	12,635	22,055	3,340	7,200	10,540	26,590	2,590	4,570	203,425	140,420	29,255
2017	123,140	12,955	136,095	9,310	12,870	22,180	3,435	7,410	10,845	26,850	2,770	4,560	203,300	139,530	29,590
2018	122,245	12,905	135,150	9,235	13,125	22,360	3,525	7,615	11,140	27,055	2,945	4,550	203,200	138,675	29,975
2019	121,365	12,855	134,220	9,195	13,395	22,590	3,610	7,820	11,430	27,270	3,130	4,545	203,185	137,830	30,410
2020	120,485	12,810	133,295	9,190	13,680	22,870	3,690	8,020	11,710	27,485	3,310	4,525	203,195	136,985	30,890
2021	119,585	12,760	132,345	9,215	13,975	23,190	3,770	8,215	11,985	27,690	3,490	4,525	203,225	136,115	31,405
2022	118,690	12,715	131,405	9,270	14,285	23,555	3,850	8,410	12,260	27,925	3,675	4,520	203,340	135,255	31,965
2023	117,785	12,655	130,440	9,350	14,610	23,960	3,930	8,605	12,535	28,060	3,860	4,510	203,365	134,370	32,565
2024	116,875	12,595	129,470	9,465	14,965	24,430	4,010	8,795	12,805	28,310	4,040	4,500	203,555	133,480	33,225
2025	115,960	12,545	128,505	9,600	15,340	24,940	4,090	8,990	13,080	28,500	4,230	4,490	203,745	132,595	33,930
2026	115,045	12,480	127,525	9,775	15,735	25,510	4,170	9,185	13,355	28,735	4,410	4,495	204,030	131,695	34,695
2027	114,130	12,420	126,550	9,985	16,150	26,135	4,250	9,380	13,630	29,010	4,585	4,485	204,395	130,800	35,515
2028	113,225	12,340	125,565	10,205	16,580	26,785	4,330	9,575	13,905	29,340	4,760	4,480	204,835	129,895	36,360
2029	112,345	12,260	124,605	10,440	17,040	27,480	4,410	9,770	14,180	29,525	4,935	4,465	205,190	129,015	37,250
2030	111,495	12,175	123,670	10,705	17,520	28,225	4,490	9,960	14,450	29,850	5,110	4,470	205,775	128,160	38,185
2031	110,685	12,095	122,780	10,990	18,015	29,005	4,570	10,160	14,730	30,155	5,275	4,465	206,410	127,350	39,165
2032	109,905	12,015	121,920	11,295	18,520	29,815	4,655	10,365	15,020	30,455	5,445	4,465	207,120	126,575	40,180
2033	109,155	11,930	121,085	11,610	19,045	30,655	4,740	10,580	15,320	30,755	5,610	4,460	207,885	125,825	41,235
2034	108,445	11,850	120,295	11,935	19,600	31,535	4,825	10,795	15,620	31,090	5,775	4,445	208,760	125,120	42,330
2035	107,780	11,765	119,545	12,280	20,175	32,455	4,915	11,020	15,935	31,365	5,940	4,445	209,685	124,460	43,475
2036	107,160	11,695	118,855	12,635	20,770	33,405	5,005	11,250	16,255	31,640	6,100	4,440	210,695	123,860	44,655
Avg Annual Growth															
2001-15	-1.1%	-2.3%	-1.2%	2.7%	3.4%	3.1%	2.5%	3.2%	3.0%	1.9%	N/A	-2.6%	-0.3%	-1.1%	3.1%
2015-16	-0.8%	-0.5%	-0.8%	-1.6%	1.3%	0.0%	2.9%	2.9%	2.9%	0.6%	7.5%	-1.0%	-0.2%	-0.7%	0.7%
2015-25	-0.8%	-0.4%	-0.7%	0.0%	2.1%	1.2%	2.3%	2.5%	2.5%	0.8%	5.8%	-0.3%	0.0%	-0.6%	1.6%
2015-36	-0.7%	-0.5%	-0.7%	1.3%	2.5%	2.0%	2.1%	2.3%	2.2%	0.9%	4.5%	-0.2%	0.2%	-0.6%	2.1%

* Source: 2001-2010, 2012-2014, FAA General Aviation and Air Taxi Activity (and Avionics) Surveys.

**Experimental Light-sport category that was previously shown under Sport Aircraft is moved under Experimental Aircraft category, starting in 2012.

Note: An active aircraft is one that has a current registration and was flown at least one hour during the calendar year.

TABLE 29

ACTIVE GENERAL AVIATION AND AIR TAXI HOURS FLOWN

(In Thousands)

CALENDAR YEAR	FIXED WING						ROTORCRAFT			EXPERI-	SPORT	OTHER	TOTAL GENERAL AVIATION HOURS	TOTAL PISTONS	TOTAL TURBINES
	PISTON			TURBINE											
	SINGLE ENGINE	MULTI-ENGINE	TOTAL	TURBO PROP	TURBO JET	TOTAL	PISTON	TURBINE	TOTAL	MENTAL**	AIRCRAFT**				
Historical*															
2001	16,549	2,644	19,193	1,773	2,654	4,427	474	1,478	1,952	1,157	N/A	287	27,016	19,667	5,905
2008	12,746	2,328	15,074	2,457	3,600	6,057	751	2,470	3,222	1,155	293	209	26,009	15,825	8,527
2009	11,730	1,903	13,634	2,215	3,161	5,376	755	2,248	3,003	1,286	286	178	23,763	14,389	7,624
2010	12,161	1,818	13,979	2,325	3,375	5,700	794	2,611	3,405	1,226	311	181	24,802	14,773	8,311
2011E	11,844	1,782	13,626	2,463	3,407	5,870	757	2,654	3,411	1,203	278	181	24,570	14,383	8,524
2012	11,442	1,766	13,207	2,733	3,418	6,151	731	2,723	3,454	1,243	169	180	24,404	13,938	8,874
2013	10,706	1,646	12,352	2,587	3,488	6,076	636	2,312	2,949	1,191	173	135	22,876	12,989	8,388
2014	10,395	1,573	11,967	2,613	3,881	6,494	818	2,424	3,242	1,244	165	158	23,271	12,786	8,918
2015E	10,312	1,555	11,867	2,582	3,913	6,495	748	2,493	3,240	1,260	180	154	23,196	12,615	8,988
Forecast															
2016	10,225	1,541	11,767	2,564	4,016	6,580	739	2,585	3,323	1,283	194	152	23,300	12,505	9,165
2017	10,151	1,530	11,681	2,556	4,164	6,720	737	2,680	3,417	1,311	208	152	23,490	12,417	9,401
2018	10,084	1,519	11,603	2,554	4,315	6,869	756	2,775	3,531	1,337	223	152	23,714	12,359	9,644
2019	10,023	1,510	11,532	2,561	4,464	7,025	774	2,871	3,645	1,364	238	152	23,956	12,307	9,896
2020	9,946	1,505	11,451	2,570	4,619	7,189	799	2,967	3,766	1,391	253	152	24,201	12,250	10,155
2021	9,879	1,497	11,377	2,589	4,771	7,361	824	3,061	3,885	1,418	268	152	24,461	12,201	10,422
2022	9,800	1,495	11,295	2,611	4,921	7,531	849	3,150	3,999	1,448	284	151	24,708	12,144	10,681
2023	9,724	1,492	11,217	2,639	5,068	7,707	873	3,239	4,112	1,473	299	151	24,960	12,090	10,946
2024	9,650	1,490	11,141	2,671	5,227	7,899	896	3,317	4,213	1,505	315	151	25,223	12,036	11,216
2025	9,596	1,489	11,086	2,710	5,389	8,099	918	3,396	4,313	1,533	331	151	25,513	12,003	11,494
2026	9,536	1,489	11,025	2,764	5,548	8,311	940	3,475	4,415	1,564	347	151	25,813	11,965	11,786
2027	9,483	1,491	10,974	2,824	5,707	8,531	962	3,553	4,515	1,598	363	151	26,133	11,937	12,084
2028	9,424	1,492	10,916	2,885	5,877	8,762	984	3,630	4,614	1,632	379	151	26,454	11,900	12,392
2029	9,368	1,494	10,863	2,954	6,056	9,010	1,004	3,707	4,712	1,659	394	151	26,788	11,867	12,717
2030	9,321	1,496	10,817	3,032	6,236	9,268	1,024	3,783	4,807	1,691	410	151	27,143	11,841	13,050
2031	9,285	1,496	10,780	3,113	6,425	9,538	1,044	3,861	4,905	1,722	426	151	27,521	11,824	13,399
2032	9,240	1,498	10,738	3,198	6,610	9,808	1,064	3,941	5,005	1,753	442	151	27,896	11,802	13,749
2033	9,197	1,500	10,697	3,288	6,800	10,087	1,085	4,024	5,109	1,784	457	151	28,285	11,781	14,112
2034	9,158	1,502	10,660	3,379	6,994	10,373	1,105	4,107	5,212	1,818	473	150	28,687	11,766	14,480
2035	9,146	1,503	10,649	3,478	7,216	10,694	1,127	4,193	5,321	1,849	489	150	29,152	11,776	14,887
2036	9,119	1,505	10,623	3,575	7,422	10,997	1,149	4,281	5,430	1,876	505	150	29,582	11,772	15,278
Avg Annual Growth															
2001-15	-3.3%	-3.7%	-3.4%	2.7%	2.8%	2.8%	3.3%	3.8%	3.7%	0.6%	N/A	-4.4%	-1.1%	-3.1%	3.0%
2015-16	-0.8%	-0.9%	-0.8%	-0.7%	2.6%	1.3%	-1.2%	3.7%	2.6%	1.8%	8.0%	-1.0%	0.4%	-0.9%	2.0%
2015-25	-0.7%	-0.4%	-0.7%	0.5%	3.3%	2.2%	2.1%	3.1%	2.9%	2.0%	6.3%	-0.2%	1.0%	-0.5%	2.5%
2015-36	-0.6%	-0.2%	-0.5%	1.6%	3.1%	2.5%	2.1%	2.6%	2.5%	1.9%	5.0%	-0.1%	1.2%	-0.3%	2.6%

* Source: 2001-2010, 2012-2014, FAA General Aviation and Air Taxi Activity (and Avionics) Surveys.

**Experimental Light-sport category that was previously shown under Sport Aircraft is moved under Experimental Aircraft category, starting in 2012.

Note: An active aircraft is one that has a current registration and was flown at least one hour during the calendar year.

TABLE 30

ACTIVE PILOTS BY TYPE OF CERTIFICATE

AS OF DEC. 31	STUDENTS	RECREA-TIONAL	SPORT PILOT	PRIVATE	COMMERCIAL	AIRLINE TRANSPORT	ROTOR-CRAFT ONLY	GLIDER ONLY	TOTAL PILOTS	TOTAL LESS AT PILOTS	INSTRUMENT RATED PILOTS[1]
Historical*											
2001	94,420	316	N/A	243,823	120,502	144,702	7,727	8,473	619,963	475,261	315,276
2008	80,989	252	2,623	222,596	124,746	146,838	14,647	21,055	613,746	466,908	325,247
2009	72,280	234	3,248	211,619	125,738	144,600	15,298	21,268	594,285	449,685	323,495
2010	119,119 [2]	212	3,682	202,020	123,705	142,198	15,377	21,275	627,588	485,390	318,001
2011	118,657	227	4,066	194,441	120,865	142,511	15,220	21,141	617,128	474,617	314,122
2012	119,946	218	4,493	188,001	116,400	145,590	15,126	20,802	610,576	464,986	311,952
2013	120,285	238	4,824	180,214	108,206	149,824	15,114	20,381	599,086	449,262	307,120
2014	120,546	220	5,157	174,883	104,322	152,933	15,511	19,927	593,499	440,566	306,066
2015	122,729	190	5,482	170,718	101,164	154,730	15,566	19,460	590,039	435,309	304,329
Forecast											
2016	123,900	190	5,900	170,450	98,700	155,000	15,575	19,270	588,985	433,985	304,400
2017	124,650	190	6,350	168,250	96,750	155,400	15,645	19,240	586,475	431,075	303,900
2018	125,200	190	6,850	165,950	95,200	155,400	15,800	19,190	583,780	428,380	303,450
2019	125,700	190	7,200	164,050	94,000	155,700	16,035	19,095	581,970	426,270	303,250
2020	126,150	190	7,600	164,350	93,000	156,200	16,330	19,075	582,895	426,695	303,950
2021	126,600	185	8,000	163,600	92,200	156,600	16,685	19,025	582,895	426,295	304,300
2022	127,000	185	8,400	161,650	91,550	156,900	17,080	18,965	581,730	424,830	304,150
2023	127,400	185	8,850	159,300	91,050	157,300	17,510	19,010	580,605	423,305	303,950
2024	127,750	185	9,300	157,350	90,650	157,800	17,965	18,980	579,980	422,180	303,900
2025	128,150	185	9,750	156,000	90,350	158,600	18,440	18,915	580,390	421,790	304,100
2026	128,500	180	10,200	155,100	90,050	159,300	18,935	18,860	581,125	421,825	304,550
2027	128,900	180	10,650	154,350	89,850	160,000	19,440	18,795	582,165	422,165	305,000
2028	129,300	180	11,100	153,750	89,700	160,900	19,960	18,810	583,700	422,800	305,650
2029	129,650	180	11,550	153,300	89,550	161,800	20,485	18,790	585,305	423,505	306,300
2030	130,000	180	12,000	152,850	89,400	162,800	21,015	18,835	587,080	424,280	307,000
2031	130,350	180	12,450	152,500	89,300	163,800	21,555	18,835	588,970	425,170	307,700
2032	130,650	180	12,900	152,150	89,200	164,800	22,105	18,860	590,845	426,045	308,500
2033	131,000	180	13,300	151,600	89,150	165,700	22,665	18,875	592,470	426,770	309,150
2034	131,250	180	13,700	151,150	89,100	166,600	23,235	18,830	594,045	427,445	309,850
2035	131,550	180	14,150	150,600	89,000	167,600	23,820	18,835	595,735	428,135	310,550
2036	131,800	180	14,600	150,200	88,950	168,600	24,420	18,825	597,575	428,975	311,300
Avg Annual Growth											
2001-15	1.9%	-3.6%	N/A	-2.5%	-1.2%	0.5%	5.1%	6.1%	-0.4%	-0.6%	-0.3%
2015-16	1.0%	0.0%	7.6%	-0.2%	-2.4%	0.2%	0.1%	-1.0%	-0.2%	-0.3%	0.0%
2015-25	0.4%	-0.3%	5.9%	-0.9%	-1.1%	0.2%	1.7%	-0.3%	-0.2%	-0.3%	0.0%
2015-36	0.3%	-0.3%	4.8%	-0.6%	-0.6%	0.4%	2.2%	-0.2%	0.1%	-0.1%	0.1%

* Source: FAA U.S. Civil Airmen Statistics.

[1]Instrument rated pilots should not be added to other categories in deriving total.

[2]In July 2010, the FAA issued a rule that increased the duration of validity for student pilot certificates for pilots under the age of 40 from 36 to 60 months. This resulted in the increase in active student pilots to 119,119 from 72,280 at the end of 2009.

Note: An active pilot is a person with a pilot certificate and a valid medical certificate.

TABLE 31

GENERAL AVIATION AIRCRAFT FUEL CONSUMPTION

(In Millions of Gallons)

CALENDAR YEAR	FIXED WING				ROTORCRAFT		EXPERI-MENTAL**/ OTHER	SPORT**	TOTAL FUEL CONSUMED		
	PISTON		TURBINE								
	SINGLE ENGINE	MULTI-ENGINE	TURBO-PROP	TURBO-JET	PISTON	TURBINE			AVGAS	JET FUEL	TOTAL
Historical*											
2001	180	76	149	727	7	43	15	N/A	279	918	1,198
2008	143	69	230	1,313	11	162	23	1	248	1,706	1,954
2009	132	57	209	1,105	11	134	26	1	227	1,447	1,674
2010	133	54	187	1,123	11	125	22	1	221	1,435	1,656
2011E	130	53	195	1,125	10	136	21	1	216	1,456	1,672
2012	126	54	209	1,077	10	149	16	1	206	1,435	1,641
2013	117	54	189	945	9	126	16	1	197	1,260	1,457
2014	120	48	199	1,135	11	132	29	1	210	1,466	1,676
2015E	119	48	196	1,140	10	135	31	1	208	1,471	1,680
Forecast											
2016	118	47	192	1,165	10	140	31	1	207	1,497	1,704
2017	117	47	191	1,202	10	143	31	1	206	1,536	1,742
2018	116	46	190	1,239	10	148	32	1	206	1,576	1,782
2019	115	46	189	1,275	10	152	33	1	206	1,617	1,823
2020	114	46	190	1,313	11	157	34	1	206	1,660	1,866
2021	113	46	190	1,350	11	162	35	1	206	1,702	1,908
2022	113	46	191	1,378	11	165	35	1	206	1,734	1,940
2023	111	45	192	1,405	12	169	36	1	206	1,766	1,972
2024	111	45	193	1,435	12	172	37	2	206	1,800	2,006
2025	110	45	196	1,464	12	175	37	2	207	1,836	2,042
2026	109	45	199	1,492	13	180	38	2	207	1,871	2,077
2027	108	45	201	1,520	13	182	38	2	206	1,903	2,109
2028	107	45	205	1,549	13	185	39	2	207	1,939	2,146
2029	106	45	210	1,580	13	188	40	2	207	1,978	2,184
2030	106	45	214	1,611	14	192	40	2	207	2,017	2,224
2031	105	45	219	1,643	14	194	41	2	207	2,056	2,264
2032	104	45	225	1,674	14	198	42	2	208	2,096	2,304
2033	103	45	230	1,705	14	202	43	2	208	2,137	2,344
2034	103	45	235	1,736	15	206	43	2	208	2,177	2,385
2035	102	45	241	1,773	15	210	44	2	209	2,224	2,433
2036	101	45	247	1,805	15	215	45	2	209	2,267	2,476
Avg Annual Growth											
2001-15	-2.9%	-3.3%	2.0%	3.3%	2.5%	8.6%	5.1%	N/A	-2.1%	3.4%	2.4%
2015-16	-1.0%	-0.9%	-1.7%	2.1%	-1.4%	3.2%	1.1%	8.0%	-0.7%	1.7%	1.4%
2015-25	-0.8%	-0.5%	0.0%	2.5%	2.0%	2.6%	2.0%	6.1%	-0.1%	2.2%	2.0%
2015-36	-0.8%	-0.2%	1.1%	2.2%	2.0%	2.2%	1.8%	4.9%	0.0%	2.1%	1.9%

*Source: FAA APO Estimates.

**Experimental Light-sport category that was previously shown under Sport Aircraft is moved under Experimental Aircraft category, starting in 2012.

Note: Detail may not add to total because of independent rounding.

TABLE 32

TOTAL COMBINED AIRCRAFT OPERATIONS AT AIRPORTS

WITH FAA AND CONTRACT TRAFFIC CONTROL SERVICE

(In Thousands)

FISCAL	AIR	AIR TAXI/	GENERAL AVIATION			MILITARY				NUMBER OF TOWERS	
YEAR	CARRIER	COMMUTER	ITINERANT	LOCAL	TOTAL	ITINERANT	LOCAL	TOTAL	TOTAL	FAA	CONTRACT
Historical											
2001	14,763	10,882	21,433	16,194	37,626	1,479	1,438	2,917	66,188	266	206
2008	13,780	11,032	17,493	14,081	31,574	1,285	1,246	2,531	58,917	264	239
2009	12,836	9,521	15,571	12,448	28,019	1,305	1,280	2,586	52,962	264	244
2010	12,658	9,410	14,864	11,716	26,580	1,309	1,298	2,607	51,255	264	244
2011	12,866	9,279	14,528	11,437	25,965	1,319	1,311	2,630	51,123	264	248
2012	12,873	8,994	14,522	11,608	26,130	1,309	1,270	2,579	50,755	264	250
2013	12,776	8,803	14,117	11,688	25,806	1,275	1,276	2,552	50,057	264	252
2014	13,015	8,440	13,979	11,675	25,654	1,270	1,245	2,515	49,624	264	252
2015E	13,755	7,895	13,887	11,691	25,578	1,292	1,203	2,495	49,723	264	252
Forecast											
2016	14,498	7,499	13,903	11,776	25,679	1,292	1,203	2,495	50,172	264	252
2017	15,000	7,390	13,942	11,822	25,765	1,292	1,203	2,495	50,651	264	252
2018	15,562	7,177	13,982	11,869	25,851	1,292	1,203	2,495	51,086	264	252
2019	16,168	6,916	14,022	11,916	25,938	1,292	1,203	2,495	51,517	264	252
2020	16,834	6,641	14,062	11,963	26,026	1,292	1,203	2,495	51,996	264	252
2021	17,561	6,294	14,103	12,011	26,114	1,292	1,203	2,495	52,464	264	252
2022	18,350	5,837	14,144	12,059	26,203	1,292	1,203	2,495	52,885	264	252
2023	18,980	5,544	14,184	12,108	26,292	1,292	1,203	2,495	53,311	264	252
2024	19,373	5,528	14,226	12,156	26,382	1,292	1,203	2,495	53,778	264	252
2025	19,706	5,579	14,267	12,206	26,473	1,292	1,203	2,495	54,253	264	252
2026	20,053	5,631	14,309	12,255	26,564	1,292	1,203	2,495	54,743	264	252
2027	20,403	5,685	14,351	12,305	26,656	1,292	1,203	2,495	55,239	264	252
2028	20,751	5,738	14,393	12,355	26,749	1,292	1,203	2,495	55,733	264	252
2029	21,096	5,792	14,436	12,406	26,842	1,292	1,203	2,495	56,225	264	252
2030	21,440	5,847	14,479	12,457	26,936	1,292	1,203	2,495	56,719	264	252
2031	21,786	5,902	14,522	12,509	27,031	1,292	1,203	2,495	57,214	264	252
2032	22,147	5,958	14,566	12,561	27,126	1,292	1,203	2,495	57,726	264	252
2033	22,518	6,016	14,609	12,613	27,222	1,292	1,203	2,495	58,251	264	252
2034	22,906	6,075	14,653	12,666	27,319	1,292	1,203	2,495	58,795	264	252
2035	23,299	6,137	14,698	12,719	27,416	1,292	1,203	2,495	59,348	264	252
2036	23,695	6,199	14,742	12,772	27,514	1,292	1,203	2,495	59,904	264	252
Avg Annual Growth											
2001-15	-0.5%	-2.3%	-3.1%	-2.3%	-2.7%	-1.0%	-1.3%	-1.1%	-2.0%		
2015-16	5.4%	-5.0%	0.1%	0.7%	0.4%	0.0%	0.0%	0.0%	0.9%		
2015-25	3.7%	-3.4%	0.3%	0.4%	0.3%	0.0%	0.0%	0.0%	0.9%		
2015-36	2.6%	-1.1%	0.3%	0.4%	0.3%	0.0%	0.0%	0.0%	0.9%		

Source: FAA Air Traffic Activity.

TABLE 33

TOTAL TRACON OPERATIONS
(In Thousands)

FISCAL YEAR	AIR CARRIER	AIR TAXI/ COMMUTER	GENERAL AVIATION	MILITARY	TOTAL
Historical					
2001	15,879	11,308	19,270	3,465	49,921
2008	14,443	11,048	15,763	2,400	43,654
2009	13,302	9,623	14,151	2,399	39,475
2010	13,174	9,511	13,864	2,438	38,987
2011	13,068	9,349	13,503	2,375	38,295
2012	13,045	8,977	13,424	2,332	37,778
2013	12,914	8,797	13,048	2,225	36,984
2014	13,186	8,390	13,018	2,229	36,823
2015E	13,964	7,864	13,079	2,286	37,193
Forecast					
2016	14,702	7,426	13,040	2,286	37,455
2017	15,203	7,303	13,101	2,286	37,893
2018	15,761	7,064	13,156	2,286	38,267
2019	16,362	6,771	13,211	2,286	38,631
2020	17,024	6,465	13,270	2,286	39,045
2021	17,745	6,080	13,328	2,286	39,439
2022	18,525	5,572	13,380	2,286	39,763
2023	19,150	5,244	13,434	2,286	40,115
2024	19,544	5,221	13,495	2,286	40,547
2025	19,879	5,272	13,558	2,286	40,995
2026	20,228	5,323	13,622	2,286	41,459
2027	20,580	5,377	13,686	2,286	41,929
2028	20,930	5,431	13,750	2,286	42,397
2029	21,277	5,484	13,814	2,286	42,862
2030	21,624	5,539	13,879	2,286	43,327
2031	21,973	5,593	13,944	2,286	43,795
2032	22,335	5,648	14,010	2,286	44,279
2033	22,709	5,707	14,078	2,286	44,780
2034	23,099	5,767	14,147	2,286	45,300
2035	23,495	5,830	14,217	2,286	45,829
2036	23,894	5,894	14,288	2,286	46,361
Avg Annual Growth					
2001-15	-0.9%	-2.6%	-2.7%	-2.9%	-2.1%
2015-16	5.3%	-5.6%	-0.3%	0.0%	0.7%
2015-25	3.6%	-3.9%	0.4%	0.0%	1.0%
2015-36	2.6%	-1.4%	0.4%	0.0%	1.1%

Source: FAA Air Traffic Activity.

TABLE 34

IFR AIRCRAFT HANDLED

AT FAA EN ROUTE TRAFFIC CONTROL CENTERS

(In Thousands)

FISCAL YEAR	IFR AIRCRAFT HANDLED				
	AIR CARRIER	AIR TAXI/ COMMUTER	GENERAL AVIATION	MILITARY	TOTAL
Historical					
2001	24,866	8,303	8,025	4,039	45,232
2008	23,895	10,179	7,671	3,649	45,394
2009	22,407	8,562	6,332	2,993	40,293
2010	22,342	8,624	6,550	2,982	40,498
2011	23,432	9,010	6,557	2,228	41,227
2012	23,651	8,932	6,472	1,860	40,915
2013	23,205	8,673	6,440	1,676	39,994
2014	24,267	8,507	6,741	1,830	41,346
2015E	25,270	7,847	7,007	1,795	41,918
Forecast					
2016	25,975	7,711	7,061	1,795	42,541
2017	26,692	7,579	7,119	1,795	43,185
2018	27,371	7,424	7,161	1,795	43,751
2019	28,049	7,257	7,198	1,795	44,299
2020	28,771	7,089	7,242	1,795	44,897
2021	29,456	6,944	7,281	1,795	45,475
2022	30,097	6,780	7,307	1,795	45,978
2023	30,767	6,614	7,338	1,795	46,513
2024	31,511	6,456	7,380	1,795	47,142
2025	32,237	6,339	7,425	1,795	47,796
2026	32,885	6,320	7,475	1,795	48,476
2027	33,548	6,299	7,528	1,795	49,170
2028	34,219	6,274	7,582	1,795	49,869
2029	34,895	6,244	7,635	1,795	50,570
2030	35,570	6,220	7,690	1,795	51,276
2031	36,207	6,241	7,746	1,795	51,988
2032	36,861	6,263	7,803	1,795	52,722
2033	37,534	6,286	7,863	1,795	53,477
2034	38,229	6,310	7,927	1,795	54,261
2035	38,929	6,345	7,994	1,795	55,064
2036	39,631	6,388	8,063	1,795	55,876
Avg Annual Growth					
2001-15	0.1%	-0.4%	-1.0%	-5.6%	-0.5%
2015-16	2.8%	-1.7%	0.8%	0.0%	1.5%
2015-25	2.5%	-2.1%	0.6%	0.0%	1.3%
2015-36	2.2%	-1.0%	0.7%	0.0%	1.4%

Source: FAA Air Traffic Activity