# FY 2014 - FY 2015 Biennium Economic Report of the Governor

This publication, as required by Section 4-74a of the Connecticut General Statutes, is prepared by the Office of Policy and Management.

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February 6, 2013
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# ECONOMIC REPORT OF THE GOVERNOR

FY 2014 - FY 2015 Biennium

#### **INTRODUCTION**

This report fulfills the requirements of Section 4-74a of the General Statutes which stipulates that:

"The budget document shall include the recommendations of the Governor concerning the economy and shall include an analysis of the impact of both proposed spending and proposed revenue programs on the employment, production and purchasing power of the people and industries within the state."

This report is also designed to provide a brief profile of the State of Connecticut, the economy of the state, revenues and economic assumptions that support the Governor's budget, and an analysis of the impact of both proposed spending and proposed revenue programs on the economy of the State of Connecticut.

The report focuses on eight areas including: (1) the general characteristics of the state; (2) the profile of employment in the state; (3) an in-depth analysis of important Connecticut sectors; (4) the performance indicators the United States, the New England region, and Connecticut; (5) a discussion of the most important revenue sources; (6) the economic assumptions of the Governor's budget, including narratives on the foreign sector, the U.S. economy and the Connecticut economy, and a numerical comparison of some of the important indicators used in the preparation of the Governor's budget; (7) the revenue forecasts of the General Fund and the Special Transportation Fund; and (8) the expected impact of the Governor's budget on the economy of the State of Connecticut.

#### **EXECUTIVE SUMMARY**

Highlights included in this report are as follows:

#### **Population**

Over the past decade Connecticut's population grew at a rate of 3.8%, slightly faster than the 2.7% population growth in New England, but trailing far behind the 8.2% of the U.S. Connecticut continues to see net out migration, with a net decline in population of 60,917 residents over the past 5 years. Presently the relative size of Connecticut's elderly population (age 65+) cohort exceeds that of New England and the U.S., while its younger age cohorts (under 45) trail that of New England and that nation. More significantly, however, population projections indicate that over the next 20 years the age 65 and over cohort will grow by 56.8% while the working age population will decline 8.0%, resulting in Connecticut's aged dependency ratio nearly doubling in the next 20 years.

#### Housing

Connecticut's recent housing market indicators are mixed. For the first time since the start of the financial crisis, housing starts in Connecticut grew, increasing 10.6% in FY 2012, but trailed the U.S. growth rate of 20.4% during the same period. Median home prices decreased 4.1% in Connecticut in 2011, but fared better than the U.S. as a whole, which saw median home prices decrease 4.8%. Overall, median housing prices in Connecticut have fallen by 19.6% below their 2007 peak, compared to the U.S. falling 24.1% below its 2006 peak. Thirty year mortgage rates remain extremely low, averaging 4.1%, and foreclosure rates have declined to 7.3% from a high of 9.0% in 2010. Homeowner equity as a percentage of home values remains at a post World War II low.

#### **Employment**

In FY 2012 Connecticut gained 9,000 non-farm jobs, representing a 0.6% growth in jobs. During the recent financial crisis, Connecticut lost 117,000 jobs, and as of December 2012 has regained 28,700 jobs, or 24.4%. This is less than half the U.S. recovery rate, which has regained 54.4% of jobs as of December 2012. Manufacturing remains an important sector of Connecticut's economy, representing 10.2% of all non-farm jobs, compared to 9.0% in the U.S. and 8.9% in New England. Connecticut continues to see a decline in manufacturing employment, decreasing 0.2% in FY 2012, while New England and the U.S. both experienced growth in manufacturing employment. Nonmanufacturing employment gained 9,240 jobs, or 0.6%, in FY 2012, trailing the U.S.'s growth of 1.3%, but slightly edging out New England's growth of 0.5%. Within Connecticut's nonmanufacturing sector, services gained 12,950 jobs or 1.9%; transportation, trade and utilities gained 4,030 jobs or 1.4%; and government lost 5,230 jobs or 2.2%. In FY 2012, Connecticut's unemployment rate was 8.2%, comparable to the U.S.'s 8.1%, but significantly exceeding that of New England's 7.3%. This is 1.0% below Connecticut's 2011 peak of 9.2%.

#### **Energy**

Though the development of hydraulic fracturing promises a North American energy boom in the next decade, energy prices, particularly crude oil and gasoline, remained near all time highs in 2010 (the most recent data available). In 2010 Connecticut consumed 3.6 thousand BTU's per 2005 chained dollar of GDP, making it the most energy efficient state relative to output. Overall, Connecticut is 52% below the nation's average energy consumption and ranks 4th in energy efficiency per capita. Connecticut residents consumed 423.1 gallons of gasoline per capita, lower than the national average of 445.2. Connecticut's energy efficiency is most likely a byproduct of the high relative price of energy in the state. In 2010 Connecticut's overall energy costs were 37% higher than the national average and its electricity prices were 76% higher than the national average.

#### **Export Sector**

Exports play a crucial role in the economy. The U.S. trade deficit in 2011 was \$332.9 billion, as U.S. exports increased 13.6% to \$2,848.0 billion. Connecticut exports totaled \$16.2 billion and accounted for 7.0% of GSP in 2011. Over the past five years, Connecticut's exports have grown by an average of 4.1%. Transportation equipment, nonelectrical machinery and computer and electronic equipment are Connecticut's largest exporting industries and comprise 62.7% of exports.

#### **Defense Industry**

Prime defense contracts tend to be a leading indicator of Connecticut's economic activity. In federal fiscal year (FFY) 2011, Connecticut contractors were awarded \$12.3 billion in defense related prime contracts, up 10.7% from the \$11.1 billion awarded in FFY 2010. The three year moving average of defense industry contracts accounted for 5.1% of Connecticut's gross state product, down from 5.4% in 2010.

#### Retail Trade

Connecticut's retail trade in FY 2012 totaled \$53.2 billion, a 7.6% increase over FY 2011. Growth in non-durable sales outpaced growth in durable sales in FY 2012, at 8.5% and 5.2% respectively. U.S. E-commerce sales continued their rapid growth, increasing an estimated 15.4% compared to a 5.5% increase in traditional retail sales. Connecticut retail trade as a percentage of disposable income increased to 30.0% in FY 2012 from 28.1% in FY 2011.

#### Nonfinancial Debt

Total nonfinancial debt growth slowed to 3.6% in 2011 from 4.1% in 2010, far below the near 9% rate seen from 2003 to 2007. Total nonfinancial debt between 2000 and 2011 has grown 108.3%, far outpacing GDP growth of 51.0%. Federal indebtedness grew 199.2%, local government debt grew 150.6%, household debts grew 85.1% and business debts grew 78.4%. Connecticut's state government debt outstanding at the end of FY 2010 was \$30.2 billion, up from \$28.4 billion in FY 2009 and \$27.6 billion in FY 2008. Connecticut per capita state government debt was \$8,440

in FY 2010, compared to \$7,970 in FY 2009 and far above the fifty state average of \$3,727 in FY 2009.

#### **Gross State Product**

In 2011, Connecticut's real GSP grew 2.0% to \$201.4 billion, outpacing the U.S. and New England growth rate of 1.8%. Connecticut's real GSP growth in 2011 was slower than the 3.0% growth in 2010, but exceeded the -5.3% and -3.1% in 2009 and 2008 respectively. Per capita real GSP in Connecticut was 32% higher than that of the U.S.

#### **Personal Income**

Real personal income in Connecticut declined 0.6%, compared to 0.7% growth in the U.S. and 0.0% growth in New England. Connecticut's real personal income growth in 2011 was slower than the 4.3% growth in 2010, but exceeded the -2.5% and -4.4% declines experienced in 2009 and 2008 respectively. Though Connecticut possesses the highest per capita personal income at \$58,148 in FY 2012, its real per capita personal income declined 1.0% in FY 2012 compared to 0.4% and 0.2% declines for New England and the U.S. respectively.

#### **Economic Forecast**

Connecticut's personal income is expected to increase 4.9% in FY 2014 and 7.2% in FY 2015 to \$223,317 million and \$239,473 million respectively. Connecticut is projected to add 17,880 jobs in FY 2014 and 37,750 jobs in FY 2015, or a respective 1.1% and 2.3% growth. The unemployment rate is projected to decline 0.2% to 8.2% in FY 2014 and further decline to 6.7% in FY 2015.

#### GENERAL CHARACTERISTICS OF THE STATE OF CONNECTICUT

Connecticut, settled in 1633, became the fifth state to ratify the United States Constitution in 1788. The state is the most southern of the New England states, located on the northeast coast and bordered by Long Island Sound, New York, Massachusetts and Rhode Island. Connecticut enjoys a favorable location within New England and the rest of the Eastern seaboard, as rail, truck, air transport and ports in the region provide easy access to local and regional markets in this country, Canada, and even Europe and South America. Over one-quarter of the total population of the United States and more than 50% of the Canadian population live within a 500-mile radius of Connecticut.

Connecticut is highly urbanized with a population density of 738 persons for each of its 4,845.4 square miles of land, compared with 87 persons per square mile of land for the United States (3,536,338 square miles), based on 2010 census figures. Hartford, the capital, is a center for the insurance industry and a major service center for business and commerce. Industrial activity in the state is concentrated in two regions: the Naugatuck valley, extending from Bridgeport north, and a belt extending from Hartford west to New Britain and Bristol, and south to New Haven.

Connecticut is a mature and highly developed state, whose primary resources are the energies and skills of its citizens, who have benefited from the state's rich historical heritage and have continued its tradition of economic, social and cultural growth.

#### **Census Information**

The census is taken on April 1 of each census year. The 2010 Census of Population and Housing was the 23rd in a series that began in 1790 (with a count of four million residents in 18 states).

TABLE 1
CENSUS POPULATION COUNTS
(In Thousands)

|                              | Unite                                    | d States                    | New I                                | England                   | Connecticut                      |                       |
|------------------------------|--|-----------------------------|--------------------------------------|---------------------------|----------------------------------|-----------------------|
| <u>Year</u>                  | <u>Number</u>                            | % Growth                    | <u>Number</u>                        | % Growth                  | <u>Number</u>                    | % Growth              |
| 1930                         | 123,203                                  | 16.3                        | 8,166                                | 10.3                      | 1,607                            | 16.3                  |
| 1940                         | 132,165                                  | 7.2                         | 8,437                                | 3.3                       | 1,709                            | 6.3                   |
| 1950                         | 151,326                                  | 14.5                        | 9,314                                | 10.3                      | 2,007                            | 17.4                  |
| 1960                         | 179,323                                  | 18.5                        | 10,509                               | 12.8                      | 2,535                            | 26.3                  |
| 1970                         | 203,302                                  | 13.4                        | 11,847                               | 12.6                      | 3,032                            | 19.6                  |
| 1980                         | 226,542                                  | 11.4                        | 12,349                               | 4.2                       | 3,108                            | 2.5                   |
| 1990                         | 248,710                                  | 9.8                         | 13,207                               | 6.9                       | 3,287                            | 5.8                   |
| 2000                         | 281,422                                  | 13.2                        | 13,923                               | 5.4                       | 3,406                            | 3.6                   |
| 2010                         | 308,746                                  | 9.7                         | 14,445                               | 3.8                       | 3,574                            | 4.9                   |
| 1970<br>1980<br>1990<br>2000 | 203,302<br>226,542<br>248,710<br>281,422 | 13.4<br>11.4<br>9.8<br>13.2 | 11,847<br>12,349<br>13,207<br>13,923 | 12.6<br>4.2<br>6.9<br>5.4 | 3,032<br>3,108<br>3,287<br>3,406 | 19.<br>2.<br>5.<br>3. |

Source: U.S. Bureau of the Census

In 2010, the population in the 50 states and the District of Columbia totaled 308.7 million people. Since 1930, the population has risen in all three data series for all decades. However, since 1970, the rate of population growth in Connecticut and New England has been significantly lower than the prior three decades and lower than the nation for recent periods.

In the United States, the resident population, which excludes armed forces overseas, increased from 281,421,906 in 2000 to 308,745,538 in 2010, an increase of 9.7%, and the lowest increase since the 1930s. New England's population increased 3.8% from 2000 to 2010, also experiencing its slowest growth since the 1930s. Within New England, only Connecticut and New Hampshire experienced growth significantly higher than the regional average.

During the last few decades, the heavily populated states experienced a slowdown in the growth of their populations. This phenomenon was common in New England, the Middle Atlantic, the East North Central and the West North Central regions. The fastest growing states were those in the West, the South, the Pacific and the southern portion of the Mountain regions. The overall apportionment of seats in the U.S. House of Representatives generally changes as a result of each decennial census. Also, Connecticut's federal aid levels for certain grants will continue to fall as the state's estimated population size, relative to the nation's, decreases each year.

Resident population in Connecticut, according to figures from the 2010 census, was 3,574,097, an increase of 168,532 from the 3,405,565 figure of 2000. This represented growth of 4.9% for the decade, slower growth than was experienced by the nation as a whole for the fourth consecutive decade, but faster growth than New England for the first time since the 1960s. Between 2000 and 2010, the state's growth rate was the sixteenth lowest in the nation.

Connecticut's population growth weakened in 2004, as much of the rest of the country was recovering economically. The state's recovery was lagging as a result of a weak economy, a high relative cost of living, and a softened job market which collectively made the state less attractive. Just as Connecticut began to experience healthy growth in 2006 and 2007, a new recession began in December of 2007. As the economy weakened across the nation and the world in 2008 and 2009, there was no place that was economically prosperous, most people could no longer easily sell their homes, and cash was no longer plentiful. Migration throughout most of the country diminished. Changes in the state's population have generally, however, been the result of net out-migration. This net out-migration is not to be confused with overall population declines, because a surplus of births and foreign in-migration have offset domestic out-migration in most years. The migration of population to and from Connecticut over the last few decades generally parallels the performance of the state's economy, rising during expansion, and declining during recession. Connecticut counties experiencing faster growth during the 1990s generally were those not dominated by large urban areas.

The national population is estimated monthly by the United States Bureau of the Census for total population which includes armed forces overseas, resident population and civilian population. Population growth is a primary long-run determinant of the potential expansion path of the economy from both the supply and demand sides of the economy. The growth of the population and its composition have profound impacts on the labor force, education, housing, and the demand for consumer goods and services.

TABLE 2
COUNTY POPULATION IN CONNECTICUT

|               | 2000          | 2000           | 2010      | 2010           | Percent       |
|---------------|---------------|----------------|-----------|----------------|---------------|
| <u>County</u> | <u>Census</u> | <u>Percent</u> | Census    | <u>Percent</u> | <u>Change</u> |
| Fairfield     | 882,567       | 25.9           | 916,829   | 25.7           | 3.9           |
| Hartford      | 857,183       | 25.2           | 894,014   | 25.0           | 4.3           |
| Litchfield    | 182,193       | 5.3            | 189,927   | 5.3            | 4.2           |
| Middlesex     | 155,071       | 4.6            | 165,676   | 4.6            | 6.8           |
| New Haven     | 824,008       | 24.2           | 862,477   | 24.1           | 4.7           |
| New London    | 259,088       | 7.6            | 274,055   | 7.7            | 5.8           |
| Tolland       | 136,364       | 4.0            | 152,691   | 4.3            | 12.0          |
| Windham       | 109,091       | <u>3.2</u>     | 118,428   | <u>3.3</u>     | <u>8.6</u>    |
| TOTAL         | 3,405,565     | 100.0          | 3,574,097 | 100.0          | 4.9           |

Source: U.S. Bureau of the Census

Annual estimates of population as of mid-calendar year for each state are vital for comparing standards of living through per capita income, productivity through per capita Gross State Product, or a state's private activity bond limitation which, under federal law, is capped at a level dependent upon the size of the population. Estimates are prepared by the U.S. Bureau of the Census based on the number of births and deaths as well as a variety of factors to approximate net migration changes. These factors can include Medicare enrollees, motor vehicle registrations, building permits, licensed drivers, school enrollments, etc. To comply with the Connecticut General Statutes concerning state aid to municipalities, the Department of Public Health also prepares an annual mid-year estimate of population based on the number of births, deaths and school age population.

TABLE 3
MID-YEAR POPULATION
(In Thousands)

| Mid         | United        | d States | New England   |          | Connecticut    |          |
|-------------|---------------|----------|---------------|----------|----------------|----------|
| <u>Year</u> | <u>Number</u> | % Growth | <u>Number</u> | % Growth | <u>Number</u>  | % Growth |
| 2003        | 290,108       | 0.9      | 14,182        | 0.4      | 3,459          | 0.7      |
| 2004        | 292,805       | 0.9      | 14,207        | 0.2      | 3,484          | 0.3      |
| 2005        | 295,517       | 0.9      | 14,217        | 0.1      | 3,496          | 0.3      |
| 2006        | 298,380       | 1.0      | 14,246        | 0.2      | 3,517          | 0.3      |
| 2007        | 301,231       | 1.0      | 14,279        | 0.2      | 3,527          | 0.3      |
| 2008        | 304,094       | 1.0      | 14,340        | 0.4      | 3,546          | 0.5      |
| 2009        | 306,772       | 0.9      | 14,404        | 0.4      | 3,562          | 0.5      |
| 2010        | 309,326       | 0.8      | 14,463        | 0.4      | 3 <b>,</b> 577 | 0.4      |
| 2011        | 311,588       | 0.7      | 14,517        | 0.4      | 3,587          | 0.3      |
| 2012        | 313,914       | 0.7      | 14,563        | 0.3      | 3,590          | 0.1      |

Source: U.S. Bureau of the Census

In addition to naturally occurring births and deaths, the size of the total population is also a product of migration, the number of households and individuals moving into and out of the

state. The Internal Revenue Service (IRS) publishes data on changes in filing addresses used by federal income tax filers in successive years to determine migration between states. This data shows that between 2005 and 2010 Connecticut experienced a net decline in population of 60,917 residents due to migration alone that, when combined with births and deaths, results in a modest increase in population. This same data also shows that net migration out of the state has been accelerating, as migration into Connecticut has been generally declining and migration out has been generally increasing. Each of these trends, however, has eased somewhat during the period from 2007 to 2008, probably due to the recent poor economy.

TABLE 4
SIGNIFICANT MIGRATION PATTERNS IN STATE POPULATION

Changes in Connecticut's Population Due to Migration Between 2005 and 2010

| Major Source    | Major Sources of In Major Destination |                  | ons of Out  | States with Greate | States with Greatest Impact |  |
|-----------------|---------------------------------------|------------------|-------------|--------------------|-----------------------------|--|
| Migration to Co | <u>nnecticut</u>                      | Migration from C | Connecticut | On Connecticut M   | <u>ligration</u>            |  |
| New York        | 103,037                               | Florida          | (66,845)    | New York           | 36,192                      |  |
| Massachusetts   | 39,207                                | New York         | (63,687)    | Florida            | (32,583)                    |  |
| Florida         | 31,101                                | Massachusetts    | (42,127)    | North Carolina     | (13,379)                    |  |
| New Jersey      | 20,083                                | California       | (22,535)    | Georgia            | (7,049)                     |  |
| California      | 18,216                                | North Carolina   | (22,454)    | South Carolina     | (6,022)                     |  |
| Other States    | 154,687                               | Other States     | (220,181)   | Other States       | (41,394)                    |  |
| Outside US      | 19,177                                | Outside US       | (15,859)    | Outside US         | 3,318                       |  |
| Total In        | 385,511                               | Total Out        | (453,688)   | Total Net          | (60,917)                    |  |

Source: Internal Revenue Service

The 2000 and 2010 census counts are available for each of the 169 cities and towns in Connecticut. Using that information, it is possible to identify those growing at the fastest rates as well as the slowest growing municipalities in the state as seen in the table below.

TABLE 5
FASTEST AND SLOWEST GROWING MUNICIPALITIES IN CONNECTICUT

| City/Town         2000         2010         % Change         City/Town         2000         2010         % Change           Oxford         9,821         12,683         29.1%         Cornwall         1,434         1,420         -1.0%           Mansfield         20,720         26,543         28.1%         North Canaan         3,350         3,315         -1.0%           Sterling         3,099         3,830         23.6%         Old Saybrook         10,367         10,242         -1.2%           Union         693         854         23.2%         Enfield         45,212         44,654         -1.2%           Ellington         12,921         15,602         20.7%         Branford         28,683         28,026         -2.3%           Lyme         2,016         2,406         19.3%         East Hampton         13,352         12,959         -2.9%           Middlebury         6,451         7,575         17.4%         Bridgewater         1,824         1,727         -5.3%           Haddam         7,157         8,346         16.6%         Salisbury         3,977         3,741         -5.9%           Warren         1,254         1,461         16.5%         Sharon         2,96 | Fastest Growing Municipalities |              |              | Slowest Growing Municipalities |                  |                   |             |          |  |
|---|--------------------------------|--------------|--------------|--------------------------------|------------------|-------------------|-------------|----------|--|
| Oxford         9,821         12,683         29.1%         Cornwall         1,434         1,420         -1.0%           Mansfield         20,720         26,543         28.1%         North Canaan         3,350         3,315         -1.0%           Sterling         3,099         3,830         23.6%         Old Saybrook         10,367         10,242         -1.2%           Union         693         854         23.2%         Enfield         45,212         44,654         -1.2%           Ellington         12,921         15,602         20.7%         Branford         28,683         28,026         -2.3%           Lyme         2,016         2,406         19.3%         East Hampton         13,352         12,959         -2.9%           Middlebury         6,451         7,575         17.4%         Bridgewater         1,824         1,727         -5.3%           Haddam         7,157         8,346         16.6%         Salisbury         3,977         3,741         -5.9%           Warren         1,254         1,461         16.5%         Sharon         2,968         2,782         -6.3%  |                                | <u>Popul</u> | <u>ation</u> |                                |                  | <u>Population</u> |             |          |  |
| Mansfield20,72026,54328.1%North Canaan3,3503,315-1.0%Sterling3,0993,83023.6%Old Saybrook10,36710,242-1.2%Union69385423.2%Enfield45,21244,654-1.2%Ellington12,92115,60220.7%Branford28,68328,026-2.3%Lyme2,0162,40619.3%East Hampton13,35212,959-2.9%Middlebury6,4517,57517.4%Bridgewater1,8241,727-5.3%Haddam7,1578,34616.6%Salisbury3,9773,741-5.9%Warren1,2541,46116.5%Sharon2,9682,782-6.3%  | City/Town                      | <u>2000</u>  | <u>2010</u>  | % Change                       | <u>City/Town</u> | <u>2000</u>       | <u>2010</u> | % Change |  |
| Sterling       3,099       3,830       23.6%       Old Saybrook       10,367       10,242       -1.2%         Union       693       854       23.2%       Enfield       45,212       44,654       -1.2%         Ellington       12,921       15,602       20.7%       Branford       28,683       28,026       -2.3%         Lyme       2,016       2,406       19.3%       East Hampton       13,352       12,959       -2.9%         Middlebury       6,451       7,575       17.4%       Bridgewater       1,824       1,727       -5.3%         Haddam       7,157       8,346       16.6%       Salisbury       3,977       3,741       -5.9%         Warren       1,254       1,461       16.5%       Sharon       2,968       2,782       -6.3%  | Oxford                         | 9,821        | 12,683       | 29.1%                          | Cornwall         | 1,434             | 1,420       | -1.0%    |  |
| Union69385423.2%Enfield45,21244,654-1.2%Ellington12,92115,60220.7%Branford28,68328,026-2.3%Lyme2,0162,40619.3%East Hampton13,35212,959-2.9%Middlebury6,4517,57517.4%Bridgewater1,8241,727-5.3%Haddam7,1578,34616.6%Salisbury3,9773,741-5.9%Warren1,2541,46116.5%Sharon2,9682,782-6.3%   | Mansfield                      | 20,720       | 26,543       | 28.1%                          | North Canaan     | 3,350             | 3,315       | -1.0%    |  |
| Ellington       12,921       15,602       20.7%       Branford       28,683       28,026       -2.3%         Lyme       2,016       2,406       19.3%       East Hampton       13,352       12,959       -2.9%         Middlebury       6,451       7,575       17.4%       Bridgewater       1,824       1,727       -5.3%         Haddam       7,157       8,346       16.6%       Salisbury       3,977       3,741       -5.9%         Warren       1,254       1,461       16.5%       Sharon       2,968       2,782       -6.3%  | Sterling                       | 3,099        | 3,830        | 23.6%                          | Old Saybrook     | 10,367            | 10,242      | -1.2%    |  |
| Lyme       2,016       2,406       19.3%       East Hampton       13,352       12,959       -2.9%         Middlebury       6,451       7,575       17.4%       Bridgewater       1,824       1,727       -5.3%         Haddam       7,157       8,346       16.6%       Salisbury       3,977       3,741       -5.9%         Warren       1,254       1,461       16.5%       Sharon       2,968       2,782       -6.3%   | Union                          | 693          | 854          | 23.2%                          | Enfield          | 45,212            | 44,654      | -1.2%    |  |
| Middlebury       6,451       7,575       17.4%       Bridgewater       1,824       1,727       -5.3%         Haddam       7,157       8,346       16.6%       Salisbury       3,977       3,741       -5.9%         Warren       1,254       1,461       16.5%       Sharon       2,968       2,782       -6.3%   | Ellington                      | 12,921       | 15,602       | 20.7%                          | Branford         | 28,683            | 28,026      | -2.3%    |  |
| Haddam       7,157       8,346       16.6%       Salisbury       3,977       3,741       -5.9%         Warren       1,254       1,461       16.5%       Sharon       2,968       2,782       -6.3%  | Lyme                           | 2,016        | 2,406        | 19.3%                          | East Hampton     | 13,352            | 12,959      | -2.9%    |  |
| Warren 1,254 1,461 16.5% Sharon 2,968 2,782 -6.3%   | Middlebury                     | 6,451        | 7,575        | 17.4%                          | Bridgewater      | 1,824             | 1,727       | -5.3%    |  |
|   | Haddam                         | 7,157        | 8,346        | 16.6%                          | Salisbury        | 3,977             | 3,741       | -5.9%    |  |
| Canton 8,840 10,292 16.4% Sherman 3,827 3,581 -6.4%   | Warren                         | 1,254        | 1,461        | 16.5%                          | Sharon           | 2,968             | 2,782       | -6.3%    |  |
|   | Canton                         | 8,840        | 10,292       | 16.4%                          | Sherman          | 3,827             | 3,581       | -6.4%    |  |

State Average Growth

Source: U.S. Bureau of the Census

4.9%

#### Households

Demand for goods and services depends upon the level of household income and the total number of households. The number of households is a function of household size and population: for example, for a given population, as the size of the household declines, the number of households increases, which causes higher demand for housing and automobiles as well as household goods and services.

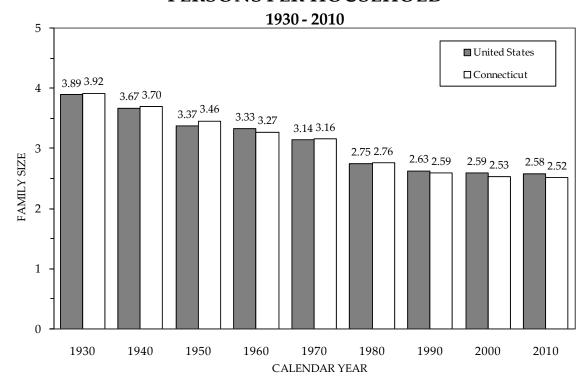
The number of households in Connecticut in 2010 was 1,371,087, up 5.3% from the 2000 Census estimate, and up 3.6% from the 2005 count. This is not unexpected in that it reflects the slow growth of Connecticut's population over the last several years. Family households include a householder and one or more other persons living in the same household who are related by birth, marriage or adoption. Non-family households include a householder living alone or with non-relatives.

TABLE 6 HOUSEHOLDS (In Thousands)

|               | <u>Households</u> |             |                      | <u>% Change</u> |             |  |
|---------------|-------------------|-------------|----------------------|-----------------|-------------|--|
| Calendar Year | <u>U.S.</u>       | Connecticut | <b>During Period</b> | <u>U.S.</u>     | Connecticut |  |
| 2000          | 105,480           | 1,302       | 2000-2005            | 5.3%            | 1.7%        |  |
| 2005          | 111,091           | 1,324       | 2005-2010            | 5.1%            | 3.6%        |  |
| 2010          | 116,716           | 1,371       | 2000-2010            | 10.7%           | 5.3%        |  |

Source: U.S. Bureau of the Census

#### PERSONS PER HOUSEHOLD



Source: U.S. Bureau of the Census

Between 1990 and 2010, the relatively stable population, the increasing number of households, and the changing mix in the types of households in Connecticut resulted in a decrease in average population per household in the state.

The decline in household size can be considered an indicator of social change. Society is adjusting its mores to fit the demands of new generations including: delaying marriage, both delaying and having fewer children, and the establishment of one or two person households by career minded men and women. Other social changes that result in smaller households are the increase in the elderly population and the increasing number of one parent families that are the consequence of the general rise in the number of divorces.

#### **Age Cohorts**

According to the latest data available, the distribution of Connecticut's population between age cohorts is somewhat different from that of the U.S. average. The state has a lower concentration of persons aged 18 to 44 years than either New England or the nation as a whole, and a higher concentration of persons aged 65 and over (especially 85 and over) than the nation as a whole. Growth in this older age cohort in Connecticut will accelerate as baby boomers age. The aging population will put pressure on state spending requirements, which could be exacerbated by state revenues that are not growing at the same rate as during the late 1990s. The National Center for Health Statistics estimated average life expectancy at birth to be 77.9 years in 2007, up from 73.7 years in 1980, 75.4 years in 1990, and 77.0 years in 2000. As life spans continue to increase nationally, this trend will impact retirement, social security, pension systems, health care, and other similar requirements.

TABLE 7
POPULATION DISTRIBUTION BY AGE IN 2010
(In Thousands)

|                      | <u>0 to 17</u> | 18 to 24 | 25 to 44 | 45 to 64 | <u>65 +</u> | <u>85 +</u> | <u>Total</u> |
|----------------------|----------------|----------|----------|----------|-------------|-------------|--------------|
| <b>United States</b> | 74,181         | 30,672   | 82,135   | 81,489   | 40,268      | 5,493       | 308,746      |
| % of Total           | 24.0           | 9.9      | 26.6     | 26.4     | 13.0        | 1.8         | 100          |
| New England          | 3,151          | 1,429    | 3,689    | 4,135    | 2,042       | 324         | 14,445       |
| % of Total           | 21.8           | 9.9      | 25.5     | 28.6     | 14.1        | 2.2         | 100          |
| Connecticut          | 817            | 327      | 905      | 1,019    | 507         | 85          | 3,574        |
| % of Total           | 22.9           | 9.1      | 25.3     | 28.5     | 14.2        | 2.4         | 100          |

Source: U.S. Bureau of the Census

# Population Projections

The U.S. Department of Commerce, Bureau of the Census, publishes population projections for the United States and the 50 states. Based on these projections, the elderly population (defined as those 65 years and over) continues to grow substantially. For every person over the age of 65, the number of workers aged 18 to 64 is expected to decrease 41.5 percent, from 4.5 workers in 2000 to 2.6 workers in 2030. The size of this cohort is not only growing rapidly, the average age is also increasing. The most senior subset, those aged 85 and older, is increasing at a faster

rate than the total elderly population in Connecticut. This significant growth will impact both the size and complexity of the demand for services required by this segment of Connecticut's population. There will be increased demand for health care facilities, public transportation, elderly housing, and other services. The cost of caring for the elderly may become much greater as the baby boom generation began to reach the age of sixty-five in 2011.

TABLE 8
PROJECTIONS OF THE POPULATION IN CONNECTICUT
(Mid-Year Resident Population In Thousands)

|                    | 1990          | 2000          | 2010          | Proj        | ections     | % Change  |
|--------------------|---------------|---------------|---------------|-------------|-------------|-----------|
| Age Group          | <u>Census</u> | <u>Census</u> | <u>Census</u> | <u>2020</u> | <u>2030</u> | 2010-2030 |
| Total              | 3,287.1       | 3,405.6       | 3,574.1       | 3,675.7     | 3,688.6     | 3.2%      |
| 0-17               | 737.6         | 841.7         | 817.0         | 816.3       | 823.4       | 0.8%      |
| 18-44              | 1,452.3       | 1,304.3       | 1,231.5       | 1,258.5     | 1,217.9     | (1.1%)    |
| 45-64              | 651.3         | 789.4         | 1,019.1       | 958.2       | 852.9       | (16.3%)   |
| 65 & Over          | 445.9         | 470.2         | 506.6         | 642.5       | 794.4       | 56.8%     |
| 85 & Over          | 47.1          | 64.3          | 84.9          | 105.6       | 132.4       | 55.9%     |
| Ratio<br>18-64/65+ | 4.7           | 4.5           | 4.4           | 3.5         | 2.6         | (40.9%)   |
| Median Age         | 34.4          | 37.4          | 40.0          | 39.7        | 41.1        | 2.8%      |

Source: U.S. Bureau of the Census, April 2005

More specifically, the following three tables call attention to some significant trends with particular implications to be considered as resource allocation decisions are made for the future. First, as shown in the following table, Connecticut is and will remain a very densely populated state in a very densely populated region of the country. This has implications for housing, transportation, law enforcement and natural resources, as well as other services.

TABLE 9
POPULATION DENSITY BY YEAR
(Persons per Square Mile)

|                      | 1990   | 2000   | 2010   | 2020              | 2030              |
|----------------------|--------|--------|--------|-------------------|-------------------|
|                      | Census | Census | Census | <b>Projection</b> | <b>Projection</b> |
| <b>United States</b> | 70.3   | 79.6   | 87.4   | 95.0              | 102.8             |
| Northeast            | 313.1  | 330.3  | 343.8  | 352.1             | 355.4             |
| Connecticut          | 678.4  | 702.8  | 738.3  | 758.6             | 761.3             |

Source: U.S. Bureau of the Census

In addition, a change is occurring in the age distribution of the population. As shown below, not only are the elderly increasing in number, but the non-elderly, on a relative scale, are decreasing, with the young and very young remaining a relatively stable portion of the total. This means that increasing pressure will be brought upon those between the ages of 18 and 65 to provide social and support services for the young and most particularly, the elderly.

TABLE 10
DEPENDENCY RATIOS\*

(Number of Dependent Population per 100 Provider Population)

| <b>Dependency Ratio</b> | <u>1980</u>  | <u>1990</u> | <u>2000</u> | <u>2010</u> | <u>2020</u> | <u>2030</u> |
|-------------------------|--------------|-------------|-------------|-------------|-------------|-------------|
| United States           | 65.1         | 61.5        | 61.6        | 59.0        | 67.2        | 76.1        |
| Connecticut             | 61.9         | 57.0        | 62.7        | 58.4        | 65.8        | 78.1        |
| Youth Dependency        |              |             |             |             |             |             |
| United States           | 46.5         | 41.3        | 41.5        | 38.2        | 40.0        | 41.5        |
| Connecticut             | 42.9         | 35.8        | 40.2        | 36.2        | 36.8        | 39.8        |
| Aged Dependency         |              |             |             |             |             |             |
| United States           | 18.6         | 20.2        | 20.1        | 20.7        | 27.2        | 34.6        |
| Connecticut             | 19.0         | 21.2        | 22.5        | 22.5        | 29.0        | 38.4        |
| Aged Female Dependency  | <u>Ratio</u> |             |             |             |             |             |
| United States           | 11.1         | 12.1        | 11.8        | 11.8        | 15.4        | 19.4        |
| Connecticut             | 11.5         | 12.8        | 13.4        | 13.1        | 17.0        | 22.5        |

<sup>\*</sup> The dependency ratio is the number of the target dependent population (i.e., the aged or youth or the two groups combined) divided by the segment of the population which has traditionally provided for the dependent population, through taxes for health and social programs, volunteer activities, etc. The provider group is generally considered to be those older than 17 and less than 65 years of age.

Source: U.S. Bureau of the Census, Population Distribution Branch

TABLE 11
POPULATION DISTRIBUTION BY RACE AND YEAR
(Percent of Total Population Based On Each Census)

|                  | United States |             | Northeast Region |             |             | Connecticut |   |             |             |             |
|------------------|---------------|-------------|------------------|-------------|-------------|-------------|---|-------------|-------------|-------------|
|                  | <u>1990</u>   | <u>2000</u> | <u>2010</u>      | <u>1990</u> | <u>2000</u> | <u>2010</u> |   | <u>1990</u> | <u>2000</u> | <u>2010</u> |
| White            | 83.9          | 75.1        | 72.4             | 85.6        | 77.5        | 74.4        |   | 89.6        | 81.6        | 77.6        |
| African-American | 12.3          | 12.3        | 12.6             | 11.4        | 11.4        | 11.8        |   | 8.6         | 9.1         | 10.1        |
| Asian            | 3.0           | 3.6         | 4.7              | 2.7         | 4.0         | 5.5         |   | 1.6         | 2.4         | 3.8         |
| American Indian  | 0.8           | 0.9         | 0.9              | 0.3         | 0.3         | 0.4         |   | 0.2         | 0.3         | 0.3         |
| Two Or More      | -             | 2.4         | 2.9              | -           | 2.3         | 2.6         |   | -           | 2.2         | 2.6         |
| Other            | _             | 5.6         | 6.4              |             | 4.6         | 5.3         | _ |             | 4.4         | 5.6         |
| Total            | 100.0         | 100.0       | 100.0            | 100.0       | 100.0       | 100.0       |   | 100.0       | 100.0       | 100.0       |
| Hispanic Origin  | 9.0           | 12.5        | 17.3             | 7.6         | 9.8         | 12.6        |   | 6.5         | 9.4         | 13.4        |

Note: The method of counting by race changed in 2000. Definitions of various race categories were changed and, for the first time, a respondent could indicate more than one race.

Source: U.S. Bureau of the Census

Finally, the racial and ethnic distribution of the state's population is changing. The white population is decreasing as a percentage of the total, as both the African-American and Hispanic groups increase as a percentage of the total population, with the Hispanic growth rate outpacing the African-American growth rate. Although Asians make up a very small percentage of the total population, Asians comprise the fastest growing group, while the American Indian population remains fairly stable. These same trends are occurring in the nation and the region.

#### **Housing**

The United States' financial systems have undergone significant turmoil in recent years. The housing sector, which prior to the Great Recession was one of the strongest pillars of the economy, played a pivotal role in precipitating the financial crisis and economic downturn. Record foreclosures due to the resetting of variable rate and subprime mortgages shocked the housing market and mortgage lenders, leading to the demise of some of the nation's largest financial institutions.

During the following years, homeowners watched the equity in their homes decline or disappear. Homes have not sold quickly, and they are still selling for less than they would have prior to the recession. Some homeowners responded to declining home values by cutting back on their spending. The weakness in the housing market has been a serious drag on overall economic activity across the nation during both the recession and the lackluster recovery.

TABLE 12 HOUSING STARTS (In Thousands)

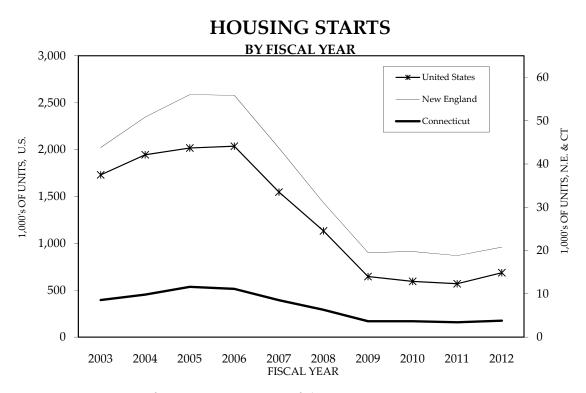
| United        | d States  | New I   | England  | Connecticut   |  |  |
|---------------|---|---|--|---|--|--|
| <u>Number</u> | % Growth  | <u>Number</u>   | % Growth   | <u>Number</u>   | % Growth   |  |
| 1,729.2       | 5.1   | 43.8  | (2.0)  | 8.5   | (7.2)  |  |
| 1,945.3       | 12.5  | 50.8  | 16.1   | 9.8   | 14.7   |  |
| 2,016.3       | 3.7   | 56.0  | 10.2   | 11.6  | 18.3   |  |
| 2,036.0       | 1.0   | 55.9  | (0.3)  | 11.1  | (4.1)  |  |
| 1,546.2       | (24.1)  | 43.7  | (21.8)   | 8.5   | (23.5)   |  |
| 1,132.4       | (26.8)  | 31.1  | (28.9)   | 6.3   | (26.0)   |  |
| 646.3         | (42.9)  | 19.5  | (37.1)   | 3.6   | (42.1)   |  |
| 594.0         | (8.1)   | 19.8  | 1.2  | 3.6   | (0.1)  |  |
| 569.5         | (4.1)   | 18.8  | (4.8)  | 3.4   | (6.1)  |  |
| 685.7         | 20.4  | 20.8  | 10.3   | 3.8   | 10.6   |  |
|               | Number<br>1,729.2<br>1,945.3<br>2,016.3<br>2,036.0<br>1,546.2<br>1,132.4<br>646.3<br>594.0<br>569.5 | 1,729.2     5.1       1,945.3     12.5       2,016.3     3.7       2,036.0     1.0       1,546.2     (24.1)       1,132.4     (26.8)       646.3     (42.9)       594.0     (8.1)       569.5     (4.1) | Number<br>1,729.2% Growth<br>5.1Number<br>43.81,945.312.550.82,016.33.756.02,036.01.055.91,546.2(24.1)43.71,132.4(26.8)31.1646.3(42.9)19.5594.0(8.1)19.8569.5(4.1)18.8 | Number         % Growth         Number         % Growth           1,729.2         5.1         43.8         (2.0)           1,945.3         12.5         50.8         16.1           2,016.3         3.7         56.0         10.2           2,036.0         1.0         55.9         (0.3)           1,546.2         (24.1)         43.7         (21.8)           1,132.4         (26.8)         31.1         (28.9)           646.3         (42.9)         19.5         (37.1)           594.0         (8.1)         19.8         1.2           569.5         (4.1)         18.8         (4.8) | Number         % Growth         Number         % Growth         Number           1,729.2         5.1         43.8         (2.0)         8.5           1,945.3         12.5         50.8         16.1         9.8           2,016.3         3.7         56.0         10.2         11.6           2,036.0         1.0         55.9         (0.3)         11.1           1,546.2         (24.1)         43.7         (21.8)         8.5           1,132.4         (26.8)         31.1         (28.9)         6.3           646.3         (42.9)         19.5         (37.1)         3.6           594.0         (8.1)         19.8         1.2         3.6           569.5         (4.1)         18.8         (4.8)         3.4 |  |

Source: U.S. Department of Commerce, Bureau of the Census

Recent indicators are mixed regarding the housing market. In 2011, multi-family housing starts increased, while single-family starts continued to decrease. In the first quarter of 2012, both single-family and multi-family housing starts increased relative to the first quarter of 2011. The market for rental properties was strong during the same period. In Connecticut, housing permits issued during the first ten months of 2012 increased 44.7% when compared to the same time period in 2011. On the other hand, the median price on a single family home decreased

during 2011 after stabilizing in 2010. There is some cause nationally for cautious optimism towards the housing market, but any recovery remains fragile.

After housing starts fell to record lows in FY 2011, they increased for the first time since the beginning of the Great Recession in FY 2012. In calendar 2010 fewer homes were started in the United States than in any year since the end of World War II, even though the current United States population is more than 2 times greater than the population at the end of World War II. The dramatic decline in housing starts over the last five years negatively impacted homebuilders, among others in the construction sector, and has undoubtedly contributed to the high unemployment rate nationwide. During FY 2012, housing starts in the U.S. rose 20.4% with approximately 685,668 starts being recorded nationally. In Connecticut, starts for new dwelling units increased 10.6% in FY 2012 to an annual rate of approximately 3,786 units.



Source: U.S. Department of Commerce, Bureau of the Census

Given that housing starts were low through the recent recession, it is no surprise that household formation has also been depressed. New households may be formed when couples separate, children move out of their family's home and when individuals live singly after previously sharing a residence. Conversely, households are reduced when young people move back home with their parents, and households combine to lower expenses. Economic conditions have promoted the latter behavior in recent years.

Census data from calendar years 2003 to 2007 indicates Americans built over 9.0 million units during these years. Over the same five-year period, the number of American households grew by only 6.7 million. Assuming a million of those units replaced older homes that were

destroyed or abandoned, it could be estimated that the United States entered this recession with an excess of approximately 1.3 million housing units from the prior five years.

Demand for these excess units will increase when households form at a faster rate than houses are built. However, as depicted in the following table, housing formations have been low in the last years of the decade and have only recently started to improve.

TABLE 13 U.S. HOUSING FORMATIONS (In Thousands)

|             | Total             | Change in       |
|-------------|-------------------|-----------------|
| Cal.        | Number of         | Households from |
| <u>Year</u> | <u>Households</u> | Previous Year   |
| 2001        | 108,209           | 3,504           |
| 2002        | 109,297           | 1,088           |
| 2003        | 111,278           | 1,981           |
| 2004        | 112,000           | 722             |
| 2005        | 113,343           | 1,343           |
| 2006        | 114,384           | 1,041           |
| 2007        | 116,011           | 1,627           |
| 2008        | 116,783           | 772             |
| 2009        | 117,181           | 398             |
| 2010        | 117,538           | 357             |
| 2011        | 118,682           | 1,144           |

Source: U.S. Bureau of the Census

A major indicator of housing activity is the number of building permits authorizing construction issued by local authorities. The following table shows the Connecticut counties in which privately owned housing permits were issued in calendar 2011, indicating the geographic distribution of housing construction activity.

TABLE 14 CONNECTICUT HOUSING PERMIT ACTIVITY Calendar Year 2011

|               | Total Units       |            | % Growth      |
|---------------|-------------------|------------|---------------|
| <u>County</u> | <b>Authorized</b> | % of Total | Over CY 2010  |
| Fairfield     | 937               | 29.5       | 1.2           |
| Hartford      | 600               | 18.9       | (25.9)        |
| Litchfield    | 111               | 3.5        | (32.3)        |
| Middlesex     | 190               | 6.0        | (31.9)        |
| New Haven     | 689               | 21.7       | (32.4)        |
| New London    | 209               | 6.6        | (39.2)        |
| Tolland       | 333               | 10.5       | 75.3          |
| Windham       | <u>104</u>        | <u>3.3</u> | <u>(48.0)</u> |
| State Total   | 3,173             | 100.0      | (19.3)        |

Source: Connecticut Department of Economic and Community Development

The Connecticut Department of Economic and Community Development (DECD), the lead agency for all matters relating to housing, tabulates this information and presents it in its annual report "Connecticut Housing Production & Permit Authorized Construction." It should be noted that construction is ultimately undertaken for all but a very small percentage of housing units authorized by permits. A major portion typically gets under way during the month of permit issuance and most of the remainder begins within the three following months. Because of this lag, housing permits reported do not represent the number of units actually put into construction for the period shown and should, therefore, not be interpreted as housing starts.

According to the report, calendar 2011 registered a 19.3% decrease in housing permit activity compared to calendar 2010. Only two of Connecticut's eight counties experienced an increase in housing permit activity over 2010. Tolland County experienced a significant increase of 75.3%, while Fairfield experienced a 1.2% increase. Windham experienced the most significant decrease in housing permit activity, with a 48.0% reduction over 2010.

Residential demolition permits issued during calendar 2011 totaled 1,148, an increase of 37.6% over calendar 2010. Hartford issued the most demolition permits with 279, followed by Westport (79) and Greenwich (66). Hartford alone accounted for 24.3% of all demolition permits in 2011. The calendar 2011 net change to Connecticut's housing inventory totaled a 22,577 increase in units. For comparison, the calendar 2010 net change was 3,098. And the calendar 2009 net change was 2,567. At the end of 2011, an estimated 1,477,682 housing units existed in Connecticut. The following table shows changes in Connecticut's housing unit inventory on a calendar basis from 2010 to 2011.

TABLE 15 CONNECTICUT HOUSING INVENTORY

|                    | Inventory     | % of         | Inventory   | % of         | Net           | Growth        |
|--------------------|---------------|--------------|-------------|--------------|---------------|---------------|
| Structure Type     | <u>2010</u>   | <u>Total</u> | <u>2011</u> | <u>Total</u> | <u>Change</u> | <u>Rate</u>   |
| One-Unit           | 950,446       | 64.4         | 951,992     | 64.4         | 1,546         | 0.16%         |
| Two-Units          | 119,757       | 8.1          | 119,775     | 8.1          | 18            | 0.02%         |
| Three & Four Units | 132,977       | 9.0          | 133,043     | 9.0          | 66            | 0.05%         |
| Five Or More Units | 259,280       | 17.6         | 259,680     | 17.6         | 400           | 0.15%         |
| Other              | <u>13,197</u> | 0.9          | 13,192      | 0.9          | <u>-5</u>     | <u>-0.04%</u> |
| Total Inventory    | 1,475,657     | 100.0        | 1,477,682   | 100.0        | 2,025         | 0.14%         |

Source: Connecticut Department of Economic and Community Development

#### **Median Sales Price of Housing**

Median sales price is the sales price at which half of the sales are above and half below the price. The median sales price data is for the sale of existing single-family homes. As shown in the following table, the median sales price in Connecticut in 2011 was \$257,880. Compared to the United States, Connecticut saw less reduction in 2011 over 2010, 4.1% compared to the 4.8% national change. Connecticut also fared better than the United States in the last seven years with a negative 16.0% change versus the United States at a negative 23.4% change.

TABLE 16 SALES PRICE OF EXISTING HOMES IN CONNECTICUT AND THE UNITED STATES (By Calendar Year)

| _           | Median Price |               |            |               |         | Affordabi   | ility Index   |           |               |
|-------------|--------------|---------------|------------|---------------|---------|-------------|---------------|-----------|---------------|
|             |              |               |            |               | CT      |             |               |           |               |
| Calendar    |              | %             |            | %             | as a %  |             | %             |           | %             |
| <u>Year</u> | <u>U.S.</u>  | <u>Change</u> | <u>CT</u>  | <u>Change</u> | of U.S. | <u>U.S.</u> | <u>Change</u> | <u>CT</u> | <u>Change</u> |
| 2005        | \$216,318    | 11.7          | \$307,129  | 9.8           | 142.0   | 130.70      | -7.6          | 109.57    | -6.3          |
| 2006        | \$218,299    | 0.9           | \$313,717  | 2.1           | 143.7   | 125.68      | -3.8          | 103.31    | -5.7          |
| 2007        | \$211,814    | -3.0          | \$320,803  | 2.3           | 151.5   | 136.21      | 8.4           | 107.20    | 3.8           |
| 2008        | \$189,783    | -10.4         | \$291,257  | -9.2          | 153.5   | 159.83      | 17.3          | 126.28    | 17.8          |
| 2009        | \$170,603    | -10.1         | \$257,452  | -11.6         | 150.9   | 185.39      | 16.0          | 160.08    | 26.8          |
| 2010        | \$173,989    | 2.0           | \$269,033  | 4.5           | 154.6   | 188.09      | 1.5           | 154.13    | -3.7          |
| 2011        | \$165,650    | -4.8          | \$257,880  | <b>-4.1</b>   | 155.7   | 209.80      | 11.5          | 170.07    | 10.3          |
| 05-11       |              |               |            |               |         |             |               |           |               |
| Change      | (\$50,668)   | (23.4)        | (\$49,249) | (16.0)        |         | 79.10       | 60.5          | 60.50     | 55.2          |
| CAGR*       |              | -4.4          |            | -2.9          |         |             | 8.2           |           | 7.6           |

\*Compound Annual Growth Rate for period of 2005-2011

Source: Moody's Economy.com

As the median price has fallen, the housing affordability has increased in the U.S. and Connecticut. To interpret the housing affordability index, a value of 100 means that a family with the median income has exactly enough income to qualify for a mortgage on a median-priced home. A value above 100 signifies that a family earning the median income has more than enough income to qualify for a mortgage loan on a median-priced home, assuming a 20% down payment. The previous table indicates that overall housing affordability has increased in the U.S. and Connecticut over the past seven years, indicating that housing prices are no longer outpacing income increases. The affordability index improved in both the United States and Connecticut in 2011. Although the affordability index continues to rise, the housing market is still far from a full recovery.

#### Age of Buyer or Renter

As Table 8 demonstrates, current population projections anticipate a decline in the 18-44 year old age group of 1.1% between 2010 and 2030, and an overall decline of 6.6% between the years 2000 and 2030. This is significant in the housing market for two reasons. First, this age group is the prime source of household formation. Consequently, a declining population of this age group, similar to what occurred in Connecticut during the 1990s, will slow the formation of new households, thus reducing the demand for starter homes. Moreover, weak demand for starter homes makes it harder for maturing families who already own starter homes to move up, thus reducing demand and appreciation throughout the housing market.

The age group of citizens 65 and older grew during the 1990s at a healthy rate of 5.6%. This age group is projected to grow rapidly during the next twenty years. Projected growth rates of the 65 and older age group are: 56.8% from 2010 to 2020, and 68.9% between the years 2000 and 2030. With the growth in this demographic, the housing market will see a shift in the type of housing units that are desirable. As more baby-boomers turn into empty-nesters, they will trade-down their large homes for smaller, easier to maintain condos and second homes. Demand for easier to maintain rental or condo units, particularly those targeted toward the elderly, will accelerate and boost the state's housing market, but at a cost. As the elderly population expands, additional benefits and services to care for this group will be required. How society will pay for these growing needs has yet to be determined.

#### Government Responses to the Housing Market

The federal government has taken several steps to mitigate the effects of the decline in the housing market. The Making Home Affordable (MHA) program offers services intended to stabilize the housing market and assist current homeowners facing financial duress. The Home Affordable Modification Program (HAMP) is available for homeowners facing imminent default. HAMP provided more than 1.2 million mortgage modifications through early October 2012, of which 10,627 were in Connecticut. In January, the Obama Administration extended the HAMP deadline through December 31, 2013. The Home Affordable Refinancing Program (HARP) is available for mortgages owned or guaranteed by Fannie Mae or Freddie Mac which are underwater. HARP provided more than one million refinancings through early 2012. The Federal Housing Authority (FHA) and Government Sponsored Enterprises (GSE) Fannie Mae and Freddie Mac, owned or guaranteed 90% of mortgage originations in 2010.

According to the National Association of Realtors (NAR), first-time purchasers fell from 39 percent of all homebuyers in 2010 to 33 percent 2011. This decline may have been caused by the expiration of the 2008 homebuyer credit program, which provided individuals and couples tax credits for purchasing their first home. Various estimates place the impact of the homebuyer tax credit on either pulling demand forward or releasing pent-up demand at 200,000–400,000 additional buyers.

#### **Changes in the Housing Market**

By December 2011, thirty-year fixed mortgage rates averaged 4.11%, 0.71 percentage points lower than the previous December. Interest rates continued to fall through 2012. By November 2012, thirty-year fixed rates had declined to 3.54%, a 13.4% decrease since the start of 2011.

Most recent reports on foreclosure rates indicate positive change. The Mortgage Bankers Association reported that mortgages 30 days or more past due declined to 7.27% of all mortgages in Connecticut in the third quarter of 2012, down from a high of 9.02% in the first quarter of 2010. It has been suggested that these figures indicate banks are stepping up efforts to move home loans through the foreclosure process.

#### **Home Equity**

A home's equity is calculated by taking the current market value of the home and subtracting the outstanding mortgage balance. This measure shows the amount of ownership homeowners have in their home. A decrease in home equity occurs if there is an increase in the amount of debt homeowners are taking on to pay for their homes or if housing values decline. In a recent report by the Federal Reserve, owners' equity as a percentage of household real estate is at its lowest point since World War II. Since 2000 average home equity has dropped 34%, from 60.5% in 2000 to 39.9% in 2011. This decline is likely due to a combination of increasing home mortgage debt and sharp declines in home values due to the 2008 recession.

TABLE 17 OWNERS' EQUITY AS A PERCENTAGE OF HOUSEHOLD REAL ESTATE (In Billions)

| Calendar    | Home           | Home       | Home          |
|-------------|----------------|------------|---------------|
| <u>Year</u> | <u>Values*</u> | Mortgages* | <u>Equity</u> |
| 1945        | 116.0          | 18.7       | 83.9%         |
| 1950        | 243.3          | 45.3       | 81.4%         |
| 1955        | 367.4          | 87.9       | 76.1%         |
| 1960        | 486.9          | 141.3      | 71.0%         |
| 1965        | 605.6          | 219.4      | 63.8%         |
| 1970        | 874.5          | 285.9      | 67.3%         |
| 1975        | 1,413.7        | 459.0      | 67.5%         |
| 1980        | 2,943.2        | 926.5      | 68.5%         |
| 1985        | 4,698.8        | 1,449.6    | 69.2%         |
| 1990        | 6,806.7        | 2,488.8    | 63.4%         |
| 1995        | 8,055.3        | 3,318.9    | 58.8%         |
| 2000        | 12,191.0       | 4,814.0    | 60.5%         |
| 2005        | 22,034.4       | 8,894.5    | 59.6%         |
| 2006        | 22,709.0       | 9,893.4    | 56.4%         |
| 2007        | 20,823.0       | 10,567.4   | 49.3%         |
| 2008        | 17,560.0       | 10,509.1   | 40.2%         |
| 2009        | 17,151.3       | 10,360.9   | 39.6%         |
| 2010        | 16,603.1       | 9,941.9    | 40.1%         |
| 2011        | 16,165.2       | 9,712.7    | 39.9%         |

Source: Federal Reserve "Flow of Funds" Table B.100 and L.100

<sup>\*</sup> In Nominal Dollars

#### **EMPLOYMENT PROFILE**

#### **Employment Estimates**

The employment estimates for most of the tables included in this section are from the U.S. Bureau of Labor Statistics and the Connecticut Labor Department. They are developed as part of the federal-state cooperative Current Employment Statistics (CES) Program. The estimates for the state and the labor market areas are based on the responses to surveys of 5,000 Connecticut employers registered with the Unemployment Insurance program. Companies are chosen to participate based on specifications from the U.S. Bureau of Labor Statistics. As a general rule, all large establishments are included in the survey as well as a sample of smaller employers. It should be noted, however, that this method of estimating employment may result in under-counting jobs created by agricultural and private household employees, the self-employed and unpaid family workers who are not included in the sample. The survey only counts total business payroll employment in the economy.

In an effort to provide a broader employment picture, the following table, based on residential employment, was developed. Total residential employment is estimated based on household surveys which include individuals excluded from establishment employment figures such as self-employed and workers in the agricultural sector. By this measure, residential employment in fiscal year 2012 increased by 16,810 jobs. Likewise, the level of establishment employment based on the survey response increased by 8,960 jobs in fiscal year 2012.

The following table provides a ten fiscal year historical profile of residential and establishment employment in Connecticut.

TABLE 18
CONNECTICUT SURVEY EMPLOYMENT COMPARISONS
(In Thousands)

| Fiscal      | Residential       |          | Establishment     |          |
|-------------|-------------------|----------|-------------------|----------|
| <u>Year</u> | <b>Employment</b> | % Growth | <b>Employment</b> | % Growth |
| 2003        | 1,696.31          | 0.27     | 1,652.43          | (1.38)   |
| 2004        | 1,697.49          | 0.07     | 1,643.68          | (0.53)   |
| 2005        | 1,708.15          | 0.63     | 1,656.95          | 0.81     |
| 2006        | 1,731.59          | 1.37     | 1,670.70          | 0.83     |
| 2007        | 1,756.61          | 1.45     | 1,689.69          | 1.14     |
| 2008        | 1,765.53          | 0.51     | 1,706.00          | 0.97     |
| 2009        | 1,756.16          | (0.53)   | 1,665.12          | (2.40)   |
| 2010        | 1,735.77          | (1.16)   | 1,605.94          | (3.55)   |
| 2011        | 1,742.41          | 0.38     | 1,618.61          | 0.79     |
| 2012        | 1,759.22          | 0.96     | 1,627.57          | 0.55     |

Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

#### **Nonagricultural Employment**

Nonagricultural employment includes all persons employed except federal military personnel, the self-employed, proprietors, unpaid family workers, farm and household domestic workers. Nonagricultural employment is comprised of the broad manufacturing sector and the nonmanufacturing sector. These two components of nonagricultural employment are discussed in detail in the following sections.

The following table shows a ten fiscal year historical profile of nonagricultural employment in the United States, the New England region, and Connecticut.

TABLE 19 NONAGRICULTURAL EMPLOYMENT (In Thousands)

| Fiscal      | United States |          | New 1         | England  | Connecticut   |          |
|-------------|---------------|----------|---------------|----------|---------------|----------|
| <u>Year</u> | <u>Number</u> | % Growth | <u>Number</u> | % Growth | <u>Number</u> | % Growth |
| 2003        | 130,117       | (0.58)   | 6,882         | (1.31)   | 1,652         | (1.38)   |
| 2004        | 130,473       | 0.27     | 6,853         | (0.42)   | 1,644         | (0.53)   |
| 2005        | 132,469       | 1.53     | 6,897         | 0.64     | 1,657         | 0.81     |
| 2006        | 135,010       | 1.92     | 6,951         | 0.79     | 1,671         | 0.83     |
| 2007        | 136,971       | 1.45     | 7,019         | 0.98     | 1,690         | 1.14     |
| 2008        | 137,731       | 0.55     | 7,067         | 0.68     | 1,706         | 0.97     |
| 2009        | 133,889       | (2.79)   | 6,923         | (2.04)   | 1,665         | (2.40)   |
| 2010        | 129,667       | (3.15)   | 6,750         | (2.49)   | 1,606         | (3.55)   |
| 2011        | 130,517       | 0.66     | 6,799         | 0.72     | 1,619         | 0.79     |
| 2012        | 132,300       | 1.37     | 6,833         | 0.49     | 1,628         | 0.55     |

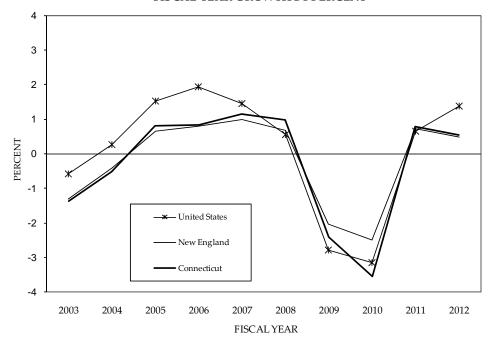
Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

In Connecticut, approximately 49% of total personal income is derived from wages earned by workers classified in the nonagricultural employment sector. Thus, increases in employment in this sector lead to increases in personal income growth and consumer demand. In addition, nonagricultural employment can be used to compare similarities and differences between economies, whether state or regional, and to observe structural changes within. These factors make nonagricultural employment figures a valuable indicator of economic activity.

Connecticut experienced positive growth in nonagricultural employment from fiscal year 2004 through fiscal year 2008. Since reaching a peak in fiscal year 2008, Connecticut lost approximately 100,000 nonagricultural jobs, due to the Great Recession. As of fiscal year 2012 Connecticut has regained approximately 22,000 nonagricultural jobs. The following chart provides a graphic presentation of the growth rates in nonagricultural employment for the three entities over a ten fiscal year period.

#### **NONAGRICULTURAL EMPLOYMENT**

FISCAL YEAR GROWTH BY PERCENT



Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

The following table shows employment growth rates for the United States and the State of Connecticut over six decades beginning in state fiscal year 1950. This table highlights the robust growth in nonagricultural employment for Connecticut prior to 1990 juxtaposed by the modest 2.2% growth between 1990 and 2000 and the negative 4.5% growth during the 2000-2010 time period which was significantly impacted by the Great Recession. While the United States did not show the same change in growth over the last two decades, the U.S. growth was negative in the 2000-2010 period with a 0.7% decline. Since 2010, employment growth has increased for both the United States and Connecticut by 2.0% and 1.3% respectively.

TABLE 20 NONAGRICULTURAL EMPLOYMENT LONG-TERM GROWTH RATES

|             | Growth               | Rates              | Cumulative C         | Growth Rates       |
|-------------|----------------------|--------------------|----------------------|--------------------|
| Fiscal Year | <b>United States</b> | <b>Connecticut</b> | <b>United States</b> | <b>Connecticut</b> |
| 1950-1960   | 23.4%                | 24.6%              | 23.4%                | 24.6%              |
| 1960-1970   | 31.6%                | 31.9%              | 62.4%                | 64.4%              |
| 1970-1980   | 27.3%                | 17.8%              | 106.7%               | 93.6%              |
| 1980-1990   | 20.4%                | 16.1%              | 148.8%               | 124.8%             |
| 1990-2000   | 19.8%                | 2.2%               | 198.2%               | 129.7%             |
| 2000-2010   | (0.7%)               | (4.5%)             | 196.0%               | 119.3%             |
| 2010-2012   | 2.0%                 | 1.3%               | 202.1%               | 122.2%             |

Source: U.S. Bureau of Labor Statistics

Throughout the last two decades, while manufacturing employment in Connecticut has been steadily declining, employment growth in nonmanufacturing industries has surged. Relatively rapid growth in the nonmanufacturing sector is a trend that is evident nationwide and reflects the increased importance of the service industry. This shift in employment provides for relatively more stable economic growth in the long run through the moderation of the peaks and troughs of economic cycles. However, in fiscal year 2012, while approximately 90% of the state's workforce was employed in nonmanufacturing jobs, up from roughly 50% in the early 1950s, this was up 1,300 jobs from fiscal 2005.

The following table depicts the decrease in the ratio of manufacturing employment to total employment in Connecticut over the last five decades.

TABLE 21
CONNECTICUT RATIO OF MANUFACTURING EMPLOYMENT
TO TOTAL EMPLOYMENT
(In Thousands)

|             |                   | ,                 | · · )             |                  |
|-------------|-------------------|-------------------|-------------------|------------------|
|             |                   |                   |                   | Ratio of Mfg.    |
| Fiscal      | Total             | Manufacturing     | NonMfg.           | Employment to    |
| <u>Year</u> | <b>Employment</b> | <b>Employment</b> | <b>Employment</b> | Total Employment |
| 1950        | 766.1             | 379.9             | 386.2             | 49.6             |
| 1955        | 874.7             | 423.2             | 451.6             | 48.4             |
| 1960        | 915.2             | 407.1             | 508.1             | 44.5             |
| 1965        | 1,033.0           | 436.2             | 596.8             | 42.2             |
| 1970        | 1,198.1           | 441.8             | 756.3             | 36.9             |
| 1975        | 1,224.6           | 389.8             | 834.8             | 31.8             |
| 1980        | 1,428.4           | 440.8             | 987.6             | 30.9             |
| 1985        | 1,558.2           | 408.0             | 1,150.2           | 26.2             |
| 1990        | 1,623.5           | 341.0             | 1,282.5           | 21.0             |
| 1995        | 1,556.2           | 251.8             | 1,304.3           | 16.2             |
| 2000        | 1,682.1           | 236.8             | 1,445.4           | 14.1             |
| 2005        | 1,656.9           | 196.7             | 1,460.3           | 11.9             |
| 2010        | 1,605.9           | 166.2             | 1,439.7           | 10.4             |
| 2012        | 1,627.6           | 166.0             | 1,461.6           | 10.2             |
|             |                   |                   |                   |                  |

Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

The chart on the right provides a breakdown of Connecticut employment in fiscal year 2012. As is evident, Connecticut employment is highly concentrated in nonmanufacturing employment sectors with only 10.2% of Connecticut laborers employed in the manufacturing sector. The services sector, which includes the professional and business, education and health, and leisure and hospitality segments (included in Other Services), is clearly the leading sector with 43.8% of those working employed in that classification.

Other
Nonmanufacturing
5.1%

Other Services
12.2%

Finance (FIRE)
8.2%

Professional &

Business

12.0%

Fiscal Year 2012 Connecticut Employment

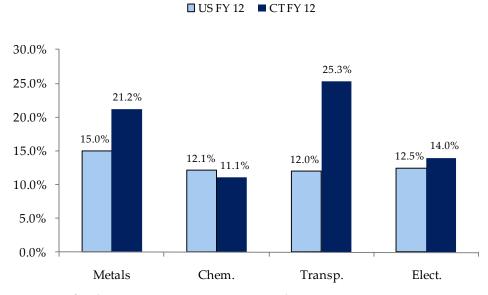
19.6%

#### **Manufacturing Employment**

Even with declines in overall manufacturing employment, the ratio of manufacturing employment to total employment still defines Connecticut as one of the major manufacturing and industrial states in the country. Based on the level of personal income derived from this sector, Connecticut ranks nineteenth in the nation for its dependency on manufacturing. Within this broad definition, the manufacturing sector can be further broken down into the major components of the sector. The largest employer in this industry is United Technologies Corporation. Two of its largest divisions are Sikorsky, based in Stratford, and Pratt & Whitney, based in East Hartford; both are in the aerospace industry.

Over the last decade the state's distribution of manufacturing employment has remained relatively stable. Defense expenditures have stabilized the transportation equipment sector as evidenced by the percentage of total state manufacturing employment in that sector at 21.2% in fiscal year 2002 and 25.3% in fiscal year 2012. The metals manufacturing sector employment figures as a percent of total state manufacturing have remained stable over the past decade at approximately 20.5% in fiscal 2002 and 21.2% in fiscal 2012. The other major manufacturing sectors, electronic and electrical manufacturing and chemical, plastics, and rubber, makeup approximately 14.0% and 11.1% of the total manufacturing sector respectively in fiscal 2012. The distribution of employment figures within the manufacturing sector highlights that Connecticut manufacturing is diversified, but has a greater reliance on the metals and transportation equipment sectors.

# COMPARISON OF MANUFACTURING EMPLOYMENT IN CERTAIN SECTORS (As A Percentage Of Total Manufacturing Employment)



Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

In fiscal year 2012, manufacturing employment in the state declined slightly by 0.16%. In contrast, New England and the United States continued an upward trend with growth rates of 0.11% and the 1.93% respectively.

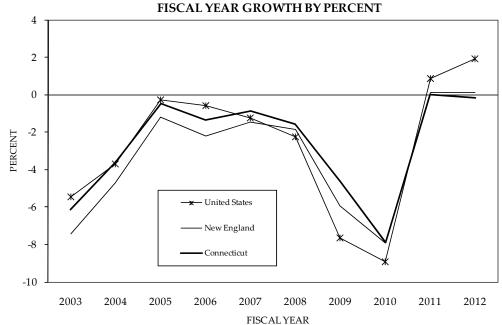
TABLE 22
MANUFACTURING EMPLOYMENT
(In Thousands)

| Fiscal      | United        | l States | New E         | ingland  | Conn          | nnecticut |  |
|-------------|---------------|----------|---------------|----------|---------------|-----------|--|
| <u>Year</u> | <u>Number</u> | % Growth | <u>Number</u> | % Growth | <u>Number</u> | % Growth  |  |
| 2003        | 14,879.00     | (5.45)   | 788.32        | (7.44)   | 204.96        | (6.13)    |  |
| 2004        | 14,327.50     | (3.71)   | 751.23        | (4.70)   | 197.60        | (3.59)    |  |
| 2005        | 14,288.75     | (0.27)   | 742.36        | (1.18)   | 196.64        | (0.48)    |  |
| 2006        | 14,203.00     | (0.60)   | 725.96        | (2.21)   | 193.99        | (1.35)    |  |
| 2007        | 14,024.75     | (1.26)   | 715.20        | (1.48)   | 192.32        | (0.86)    |  |
| 2008        | 13,708.08     | (2.26)   | 702.02        | (1.84)   | 189.26        | (1.59)    |  |
| 2009        | 12,657.83     | (7.66)   | 660.17        | (5.96)   | 180.45        | (4.65)    |  |
| 2010        | 11,530.25     | (8.91)   | 607.91        | (7.92)   | 166.22        | (7.89)    |  |
| 2011        | 11,627.67     | 0.84     | 608.51        | 0.10     | 166.30        | 0.01      |  |
| 2012        | 11,852.00     | 1.93     | 609.20        | 0.11     | 166.03        | (0.16)    |  |

Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

Historically, manufacturing employment closely parallels the business cycle, typically expanding when the economy is healthy and contracting during recessionary periods, as it did during the early 1980s. However, this relationship changed in the latter part of the 1980s, as contractions in manufacturing employment were not initially accompanied by a recession. Other factors, such as heightened foreign competition, smaller defense budgets, and improved productivity, played a significant role in affecting the overall level of manufacturing employment in Connecticut.

# MANUFACTURING EMPLOYMENT



Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

The erosion of the state's manufacturing base reflects the national trend away from traditional industries, both durable and nondurable. More of U.S. demand is being satisfied by foreign producers who can manufacture goods more cheaply. The upward trend of higher productivity has enabled Connecticut manufacturers to make more with fewer workers. Even with the structural change, manufacturing employment in Connecticut still accounts for 10.2% of all nonfarm payroll jobs, compared with 9.0% in the U.S. and 8.9% in New England through fiscal year 2012. The following table provides a breakdown of the state's manufacturing employment by industry and indicates percentage changes for the year and since the start of the decade for each of the manufacturing sectors.

Manufacturing employment showed little signs of improvement in fiscal year 2012 over fiscal year 2011. Metal manufacturing was the only industry with significant employment growth of 3.3% over fiscal year 2011. The largest reductions in employment were seen in food, beverage and tobacco which dropped over 3.6%, and printing, publishing and textile which dropped over 2.4% over the same period. The percent change from fiscal year 2002 to 2012 demonstrates the overall decline in manufacturing employment over the last decade.

TABLE 23
CONNECTICUT MANUFACTURING EMPLOYMENT BY INDUSTRY
(In Thousands)

| (           | ,   |   |   |   |
|-------------|---|---|---|---|
|             |   |   | Percent   | Change  |
| FY          | FY  | FY  | FY 2011 to  | FY 2002 to  |
| <u>2002</u> | <u>2011</u>   | <u>2012</u>   | FY 2012   | FY 2012   |
| 46.34       | 42.13   | 41.96   | (0.40)  | (9.44)  |
| 44.75       | 34.04   | 35.15   | 3.28  | (21.45)   |
| 31.32       | 23.24   | 23.25   | 0.03  | (25.77)   |
| 27.86       | 18.58   | 18.38   | (1.09)  | (34.05)   |
| 21.80       | 12.57   | 12.27   | (2.38)  | (43.70)   |
| 21.23       | 14.88   | 14.69   | (1.31)  | (30.81)   |
| 8.56        | 8.05  | 7.77  | (3.56)  | (9.23)  |
| 16.45       | 12.80   | 12.56   | (1.91)  | (23.67)   |
| 218.31      | 166.30  | 166.03  | (0.17)  | (23.95)   |
|             | 2002<br>46.34<br>44.75<br>31.32<br>27.86<br>21.80<br>21.23<br>8.56<br>16.45 | 2002       2011         46.34       42.13         44.75       34.04         31.32       23.24         27.86       18.58         21.80       12.57         21.23       14.88         8.56       8.05         16.45       12.80 | 2002         2011         2012           46.34         42.13         41.96           44.75         34.04         35.15           31.32         23.24         23.25           27.86         18.58         18.38           21.80         12.57         12.27           21.23         14.88         14.69           8.56         8.05         7.77           16.45         12.80         12.56 | FY         FY         FY         FY 2011 to           2002         2011         2012         FY 2012           46.34         42.13         41.96         (0.40)           44.75         34.04         35.15         3.28           31.32         23.24         23.25         0.03           27.86         18.58         18.38         (1.09)           21.80         12.57         12.27         (2.38)           21.23         14.88         14.69         (1.31)           8.56         8.05         7.77         (3.56)           16.45         12.80         12.56         (1.91) |

Source: U.S. Bureau of Economic Analysis, Connecticut Labor Department

The following table ranks the 50 states in terms of their relative dependence on manufacturing wages as a percentage of total personal income.

TABLE 24
MANUFACTURING WAGES AS A PERCENT OF PERSONAL INCOME BY STATE
Fiscal Year 2012
(In Millions)

|           |                | Personal      | Mfg.         |          |   |      |               | Personal      | Mfg.     |          |
|-----------|----------------|---------------|--------------|----------|---|------|---------------|---------------|----------|----------|
| Rank      | <u>State</u>   | <u>Income</u> | Wages        | <u>%</u> | R | lank | <u>State</u>  | <u>Income</u> | Wages    | <u>%</u> |
| 1         | Indiana        | \$<br>237,099 | \$<br>28,101 | 11.85%   |   | 26   | Texas         | \$1,052,048   | \$56,775 | 5.40%    |
| 2         | Wisconsin      | 228,950       | 24,939       | 10.89%   |   | 27   | Massachusetts | 356,383       | 19,108   | 5.36%    |
| 3         | Michigan       | 363,928       | 33,391       | 9.18%    |   | 28   | Maine         | 51,680        | 2,758    | 5.34%    |
| 4         | Iowa           | 127,990       | 11,018       | 8.61%    |   | 29   | Georgia       | 358,432       | 19,035   | 5.31%    |
| 5         | Ohio           | 444,962       | 36,873       | 8.29%    |   | 30   | Nebraska      | 79,433        | 4,115    | 5.18%    |
| 6         | New Hampshire  | 61,112        | 4,837        | 7.92%    |   | 31   | Louisiana     | 178,575       | 9,161    | 5.13%    |
| 7         | South Carolina | 158,498       | 11,987       | 7.56%    |   | 32   | Rhode Island  | 46,624        | 2,248    | 4.82%    |
| 8         | Kansas         | 118,915       | 8,794        | 7.39%    |   | 33   | Oklahoma      | 145,886       | 6,942    | 4.76%    |
| 9         | Kentucky       | 151,128       | 10,976       | 7.26%    |   | 34   | New Jersey    | 467,891       | 21,741   | 4.65%    |
| 10        | Minnesota      | 241,825       | 17,465       | 7.22%    |   | 35   | Arizona       | 230,985       | 10,686   | 4.63%    |
| 11        | Alabama        | 169,366       | 12,157       | 7.18%    |   | 36   | South Dakota  | 36,782        | 1,679    | 4.57%    |
| 12        | Oregon         | 147,881       | 10,413       | 7.04%    |   | 37   | West Virginia | 63,046        | 2,682    | 4.25%    |
| 13        | Tennessee      | 238,207       | 16,623       | 6.98%    |   | 38   | Colorado      | 229,276       | 8,332    | 3.63%    |
| 14        | North Carolina | 353,180       | 23,551       | 6.67%    |   | 39   | Virginia      | 378,581       | 13,404   | 3.54%    |
| 15        | Vermont        | 26,449        | 1,756        | 6.64%    |   | 40   | Delaware      | 38,018        | 1,314    | 3.46%    |
| 16        | Mississippi    | 96,691        | 6,399        | 6.62%    |   | 41   | North Dakota  | 33,559        | 1,063    | 3.17%    |
| 17        | Arkansas       | 100,462       | 6,639        | 6.61%    |   | 42   | Maryland      | 300,369       | 9,026    | 3.01%    |
| 18        | Illinois       | 568,822       | 36,642       | 6.44%    |   | 43   | New York      | 1,001,649     | 25,338   | 2.53%    |
| <u>19</u> | Connecticut    | 208,756       | 13,319       | 6.38%    |   | 44   | New Mexico    | 72,015        | 1,710    | 2.37%    |
| 20        | Washington     | 305,931       | 19,498       | 6.37%    |   | 45   | Florida       | 763,320       | 17,381   | 2.28%    |
| 21        | Utah           | 96,453        | 5,985        | 6.21%    |   | 46   | Montana       | 36,750        | 737      | 2.01%    |
| 22        | Pennsylvania   | 546,619       | 32,235       | 5.90%    |   | 47   | Nevada        | 101,543       | 2,007    | 1.98%    |
| 23        | California     | 1,670,369     | 96,651       | 5.79%    |   | 48   | Wyoming       | 27,629        | 530      | 1.92%    |
| 24        | Idaho          | 52,804        | 2,983        | 5.65%    |   | 49   | Alaska        | 33,595        | 517      | 1.54%    |
| 25        | Missouri       | 231,343       | 12,749       | 5.51%    |   | 50   | Hawaii        | 60,020        | 527      | 0.88%    |
|           |                |               |              |          |   |      |               |               |          |          |

United States \$13,138,179 \$719,672 5.48%

Source: U.S. Department of Commerce, Bureau of Economic Analysis

#### **Nonmanufacturing Employment**

The nonmanufacturing sector is comprised of industries that provide a service. Services differ significantly from manufactured goods in that the output is generally intangible, it is produced and consumed concurrently, and it cannot be inventoried. Connecticut's nonmanufacturing sector consists of the industries listed in the following table. Over the last three decades, nonmanufacturing employment has risen in importance to the Connecticut economy, reflecting the overall national trend away from manufacturing.

Nonmanufacturing employment gained approximately 9,240 positions and increased by approximately 0.6% from fiscal year 2011 to 2012. This growth was due in large part to an increase in the services sector which grew by 1.9% (12,950 additional employed). The education and health sector also experienced the largest percentage growth from fiscal year 2002 to 2012 with a 24.4% gain during that period.

The following table provides detail on Connecticut's nonmanufacturing employment by industry and indicates percentage changes for the year and over a ten year period for each of the sectors.

TABLE 25
CONNECTICUT NONMANUFACTURING EMPLOYMENT BY INDUSTRY
(In Thousands)

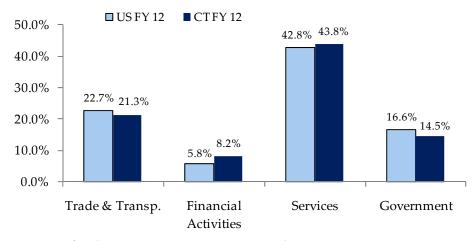
|                            |          |             |             | Percent    | Change     |
|----------------------------|----------|-------------|-------------|------------|------------|
|                            | FY       | FY          | FY          | FY 2011 to | FY 2002 to |
| <u>Industry</u>            | 2002     | <u>2011</u> | <u>2012</u> | FY 2012    | FY 2012    |
| Construction & Mining      | 65.84    | 51.34       | 51.24       | (0.19)     | (22.17)    |
| Information                | 42.68    | 31.60       | 31.68       | 0.26       | (25.76)    |
| Transp., Trade & Utilities | 311.10   | 292.19      | 296.22      | 1.38       | (4.78)     |
| Transp., & Warehousing     | 40.29    | 41.70       | 43.28       | 3.77       | 7.40       |
| Utilities                  | 9.07     | 7.85        | 7.79        | (0.81)     | (14.12)    |
| Wholesale                  | 66.55    | 63.03       | 64.55       | 2.41       | (3.01)     |
| Retail                     | 195.18   | 179.60      | 180.60      | 0.56       | (7.47)     |
| Finance (FIRE)             | 142.85   | 135.60      | 133.12      | (1.83)     | (6.81)     |
| Finance & Insurance        | 122.21   | 116.75      | 114.69      | (1.76)     | (6.15)     |
| Real Estate                | 20.64    | 18.85       | 18.43       | (2.25)     | (10.74)    |
| Services                   | 646.52   | 699.87      | 712.82      | 1.85       | 10.25      |
| Professional & Business    | 205.97   | 192.97      | 195.67      | 1.40       | (5.00)     |
| Education & Health         | 256.53   | 310.90      | 319.03      | 2.62       | 24.36      |
| Leisure & Hospitality      | 121.13   | 135.36      | 137.86      | 1.85       | 13.81      |
| All Other Services         | 62.89    | 60.64       | 60.25       | (0.65)     | (4.20)     |
| Government                 | 248.18   | 241.71      | 236.48      | (2.17)     | (4.71)     |
| Federal                    | 21.39    | 18.40       | 17.74       | (3.58)     | (17.06)    |
| State                      | 70.21    | 67.77       | 66.38       | (2.04)     | (5.45)     |
| Local                      | 156.58   | 155.54      | 152.35      | (2.05)     | (2.70)     |
| Total Nonmanufacturing     |          |             |             |            |            |
| Employment                 | 1,457.17 | 1,452.31    | 1,461.55    | 0.64       | 0.30       |

Note: Totals may not agree with detail due to rounding.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

The following chart provides a comparison of select nonmanufacturing sectors in Connecticut to national results.

COMPARISON OF NONMANUFACTURING EMPLOYMENT IN CERTAIN SECTORS (As A Percentage Of Total Non-Manufacturing Employment)



Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

The following table and chart provide a ten fiscal year profile of nonmanufacturing employment in the United States, the New England region, and Connecticut.

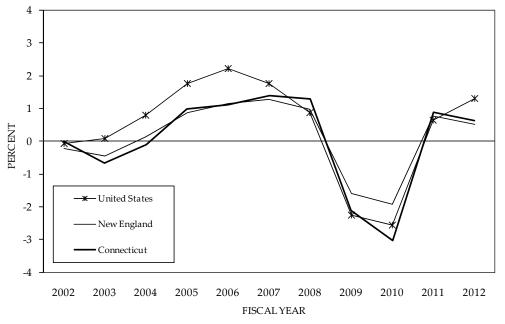
TABLE 26 NONMANUFACTURING EMPLOYMENT (In Thousands)

| Fiscal      | United        | l States | New E         | New England |               | ecticut  |
|-------------|---------------|----------|---------------|-------------|---------------|----------|
| <u>Year</u> | <u>Number</u> | % Growth | <u>Number</u> | % Growth    | <u>Number</u> | % Growth |
| 2003        | 115,240       | 0.1      | 6,093         | (0.5)       | 1,448         | (0.7)    |
| 2004        | 116,147       | 0.8      | 6,102         | 0.1         | 1,446         | (0.1)    |
| 2005        | 118,180       | 1.8      | 6,155         | 0.9         | 1,460         | 1.0      |
| 2006        | 120,806       | 2.2      | 6,225         | 1.1         | 1,477         | 1.1      |
| 2007        | 122,941       | 1.8      | 6,304         | 1.3         | 1,497         | 1.4      |
| 2008        | 124,021       | 0.9      | 6,365         | 1.0         | 1,517         | 1.3      |
| 2009        | 121,234       | (2.2)    | 6,263         | (1.6)       | 1,485         | (2.1)    |
| 2010        | 118,140       | (2.6)    | 6,143         | (1.9)       | 1,440         | (3.0)    |
| 2011        | 118,891       | 0.6      | 6,190         | 0.8         | 1,452         | 0.9      |
| 2012        | 120,449       | 1.3      | 6,223         | 0.5         | 1,462         | 0.6      |

Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

# NONMANUFACTURING EMPLOYMENT

FISCAL YEAR GROWTH BY PERCENT



Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

Annual salaries for Connecticut's nonmanufacturing industries are listed in the following table. The figures were derived by dividing total wage and salary disbursements by employment. Percent changes over the previous year and over the decade are also provided. Salaries for each of these industries grew year over year and since fiscal year 2002.

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TABLE 27
CONNECTICUT NONMANUFACTURING ANNUAL SALARIES

|                                  |             |             |             | Percent    | Change     |
|----------------------------------|-------------|-------------|-------------|------------|------------|
|                                  | FY          | FY          | FY          | FY 2011 to | FY 2002 to |
| <u>Industry</u>                  | <u>2002</u> | <u>2011</u> | <u>2012</u> | FY 2012    | FY 2012    |
| Construction                     | \$50,173    | \$61,261    | \$62,669    | 2.3        | 24.9       |
| Information                      | 55,741      | 74,938      | 82,441      | 10.0       | 47.9       |
| Transp., Trade & Utilities       | 38,173      | 45,682      | 46,863      | 2.6        | 22.8       |
| Wholesale Trade                  | 66,037      | 80,814      | 83,966      | 3.9        | 27.2       |
| Retail Trade                     | 27,529      | 31,612      | 32,184      | 1.8        | 16.9       |
| Finance, Ins. & Real Estate      | 90,378      | 129,331     | 137,582     | 6.4        | 52.2       |
| Professional & Business Services | 58,057      | 76,337      | 80,178      | 5.0        | 38.1       |
| Education & Health Services      | 38,018      | 47,943      | 48,644      | 1.5        | 27.9       |
| Leisure & Hospitality Services   | 19,470      | 22,117      | 23,083      | 4.4        | 18.6       |
| Government                       | 44,487      | 57,212      | 59,512      | 4.0        | 33.8       |
| Federal                          | 66,732      | 95,881      | 105,007     | 9.5        | 57.4       |
| State and Local                  | 42,388      | 53,828      | 55,820      | 3.7        | 31.7       |

Source: U.S. Bureau of Economic Analysis

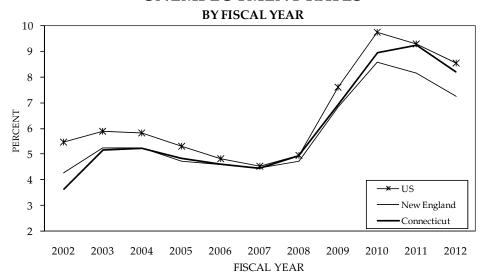
#### **Unemployment Rate**

The unemployment rate is the proportion of persons in the civilian labor force who do not have jobs but are actively looking for work. The rate is based upon a monthly survey in which household members are asked a series of questions, one of which is whether a jobless person has looked for work at some time during the preceding four weeks. Those looking for work are considered in the labor force but unemployed. The following table shows the unemployment rate for the U.S., the New England region, and Connecticut over a ten year period. Given the recession, it is no surprise unemployment rates remained high in the U.S., the New England region and Connecticut from fiscal year 2009 through fiscal year 2012.

TABLE 28 UNEMPLOYMENT RATES

| Fiscal Year | <b>United States</b> | New England | Connecticut |
|-------------|----------------------|-------------|-------------|
| 2003        | 5.9                  | 5.2         | 5.2         |
| 2004        | 5.8                  | 5.2         | 5.2         |
| 2005        | 5.3                  | 4.7         | 4.9         |
| 2006        | 4.8                  | 4.6         | 4.6         |
| 2007        | 4.5                  | 4.5         | 4.5         |
| 2008        | 5.0                  | 4.7         | 4.9         |
| 2009        | 7.6                  | 6.8         | 6.9         |
| 2010        | 9.7                  | 8.6         | 8.9         |
| 2011        | 9.3                  | 8.1         | 9.2         |
| 2012        | 8.5                  | 7.3         | 8.2         |

#### **UNEMPLOYMENT RATES**



Source: U.S. Bureau of Labor Statistics, Connecticut Labor Department

## **SECTOR ANALYSIS**

## **Energy**

Over the past two hundred years, energy supplies and the mode of energy use in the United States have reflected the country's industrialization, economic development, and social transformation. Because the U.S. is dependent on imported energy, economic activity hinges more upon the availability and stability of its supply in the world market. In the past 37 years, all of the nation's five recessions were concurrent with the energy disruptions that occurred worldwide: in 1991 (Iraq invaded Kuwait), in 1981 (Iran/Iraq war), in 1979 (Iranian Revolution), and in 1973 (Arab Oil Embargo). The March 2001 recession followed an energy supply disturbance that occurred in late 2000 when petroleum inventories remained relatively low and the price reached a then-record high of \$37.80 per barrel, the highest since the Gulf War of 1991. The latest recession, which began in December 2007, was also presaged by a hike in oil prices and was accompanied by the joint crises in the housing and financial markets. West Texas Intermediate (WTI) crude oil crept up to a monthly average high of \$94.62 a barrel in November 2007, up nearly 60% from a year earlier. The price continued to rise to an all time monthly record high of \$133.93 a barrel in June 2008, but, within less than a year, dropped 71% to a low of \$39.16 a barrel in February of 2009 as the global economy slowed down. Crude oil prices hovered around \$70 a barrel in late 2010 as the economy recovered but surpassed \$100 a barrel again at the end of 2011. During the first three quarters of 2012, the average price of WTI was \$96.11 per barrel.

The United States, like the rest of the industrialized world, relies heavily on three fossil fuels: crude oil, coal, and natural gas. The following three sections describe energy production and consumption for the world, the United States, and Connecticut.

## Worldwide

World oil supply increased while demand increased only slightly in 2011 from 2010 levels. Demand from emerging economies in Asia such as India, China, and South Korea continued to rise. World oil supply and demand among countries or regions continued to be significantly imbalanced. The following table illustrates the disparity between the world's suppliers of oil and its users. Members of the Organization of Petroleum Exporting Countries (OPEC) supplied 35.15 million barrels per day (MBPD) in 2011 and consumed 9.11 MBPD, generating a 26.04 MBPD surplus. The Organization for Economic Cooperation and Development (OECD), on the other hand, consumed more than it supplied. In 2011, the OECD consumed 46.15 MBPD, while supplying only 21.63 MBPD, registering a 24.85 MBPD deficit.

The United States consumed 18.95 MBPD in 2011, down slightly from 19.18 MBPD consumed in 2010. The country supplied 10.13 MBPD in 2011, up from 9.69 MPBD supplied in 2010. The country had a 46.6% dependency rate on foreign oil supplies, the lowest rate since 1993. The U.S. accounted for 21.76% of global demand and 11.63% of global supply. Deficits between supply and demand also exist in larger economies such as China, Japan, France, and Germany. However, the International Energy Agency (IEA) now forecasts that the United States will become a net oil exporter around 2030. This change is attributable to the development of new oil production technologies as well as increasing fuel efficiency.

TABLE 29 WORLD OIL SUPPLY AND DEMAND Calendar 2011

|                      | Supp           | oly          |                       | Dema           | and          |
|----------------------|----------------|--------------|-----------------------|----------------|--------------|
|                      | Millions       |              | •                     | Millions       |              |
|                      | of Barrels     | % of         |                       | of Barrels     | % of         |
|                      | <u>Per Day</u> | <u>Total</u> |                       | <u>Per Day</u> | <u>Total</u> |
| Total OECD (a)       | 21.61          | 24.8%        | Total OECD            | 46.15          | 53.0%        |
| <b>United States</b> | 10.13          | 11.6%        | <b>United States</b>  | 18.95          | 21.8%        |
| Canada               | 3.60           | 4.1%         | Canada                | 2.29           | 2.6%         |
| Mexico               | 2.96           | 3.4%         | Mexico                | 2.13           | 2.4%         |
| North Sea (b)        | 3.36           | 3.9%         | Japan                 | 4.46           | 5.1%         |
| Other OECD           | 1.57           | 1.8%         | Germany               | 2.40           | 2.8%         |
|                      |                |              | France                | 1.79           | 2.1%         |
| Total OPEC (c)       | 35.15          | 40.4%        | Italy                 | 1.45           | 1.7%         |
| Saudi Arabia         | 11.15          | 12.8%        | <b>United Kingdom</b> | 1.61           | 1.8%         |
| Iran                 | 4.23           | 4.9%         | Other OECD            | 11.06          | 12.7%        |
| Iraq                 | 2.63           | 3.0%         |                       |                |              |
| Other OPEC           | 17.13          | 19.7%        | Total Non-OECD        | 41.45          | 47.6%        |
|                      |                |              | Former USSR           | 4.27           | 4.9%         |
| Total Non-OECD       | 30.32          | 34.8%        | China                 | 8.92           | 10.2%        |
| Former USSR (d)      | 13.31          | 15.3%        | India                 | 3.43           | 3.9%         |
| China                | 4.29           | 4.9%         | OPEC                  | 9.11           | 10.5%        |
| Other                | <u>12.72</u>   | 14.6%        | Other                 | <u>15.71</u>   | 18.0%        |
| Total 2011 Supply    | 87.08          | 100.0%       | Total 2011 Demand     | 87.42          | 100.0%       |
| Total 2010 Supply    | 86.79          |              | Total 2010 Demand     | 87.36          |              |
| Change               | 0.29           | 0.3%         | Change                | 0.06           | 0.1%         |

## Note:

- (a) The OECD includes the United States, Western European countries, Australia, Canada, Japan, and New Zealand.
- (b) North Sea includes the United Kingdom Offshore, Norway, Denmark, Netherlands Offshore, and Germany Offshore.
- (c) The OPEC includes Algeria, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.
- (d) The Former USSR includes Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan

Source: U.S. Dept. of Energy, Energy Information Administration (EIA)

Demand in China and India, Asia's two most populous and fastest growing economies, continued its upward trend, accounting for 14.2% of the worldwide demand total in 2011, up from 5.5% in 1991. China, the world's second largest consumer, switched from a net exporter of oil in 1995, and began running an increasing oil deficit as its economy continued to grow at a brisk pace. In 2011 China consumed 8.92 MBPD while supplying 4.29 MBPD, leaving a 4.63 MBPD deficit. China has a 51.8% dependence rate on foreign oil, surpassing the U.S. In light of energy security concerns as well as soaring world demand and fierce competition for resources, China has augmented crude and oil product stockpiles, encouraged businesses to invest in oil and gas fields, and secured long term supply contracts abroad.

TABLE 30 WORLD OIL & NATURAL GAS RESERVES December 30, 2011

|                         |                | ,            |                  |              |  |  |  |
|-------------------------|----------------|--------------|------------------|--------------|--|--|--|
|                         | Oi             | 1            | Gas              | Gas          |  |  |  |
|                         | Billions of    | % of         | Trillions of     | % of         |  |  |  |
|                         | <u>Barrels</u> | <u>Total</u> | Cubic Feet       | <u>Total</u> |  |  |  |
| North America           | 217.5          | 13.2%        | 382.3            | <b>5.2</b> % |  |  |  |
| United States           | 30.9           | 1.9%         | 299.8            | 4.1%         |  |  |  |
| Mexico                  | 11.4           | 0.7%         | 70.0             | 0.2%         |  |  |  |
| Canada                  | 175.2          | 10.6%        | 12.5             | 1.0%         |  |  |  |
| Central & South America | 325.4          | 19.7%        | 267.7            | 3.6%         |  |  |  |
| Venezuela               | 296.5          | 17.9%        | 195.2            | 2.7%         |  |  |  |
| Europe and Eurasia*     | 141.1          | 8.5%         | 2,778.8          | 37.8%        |  |  |  |
| European Union          | 6.7            | 0.4%         | 64.4             | 1.8%         |  |  |  |
| Russia                  | 88.2           | 5.3%         | 1,575.0          | 21.4%        |  |  |  |
| Middle East             | 795.0          | 48.1%        | 2,826.3          | 38.4%        |  |  |  |
| Saudi Arabia            | 265.4          | 16.1%        | 287.8            | 3.9%         |  |  |  |
| Iran                    | 151.2          | 9.1%         | 1168.6           | 15.9%        |  |  |  |
| Iraq                    | 143.1          | 8.7%         | 126.7            | 1.7%         |  |  |  |
| Kuwait                  | 101.5          | 6.1%         | 63.0             | 0.9%         |  |  |  |
| Other Mid. East         | 133.8          | 8.1%         | 1,180.2          | 16.0%        |  |  |  |
| Africa                  | 132.4          | 8.0%         | 513.2            | <b>7.0</b> % |  |  |  |
| Libya                   | 47.1           | 2.9%         | 52.8             | 0.7%         |  |  |  |
| Nigeria                 | 37.2           | 2.3%         | 180.5            | 2.5%         |  |  |  |
| Asia Pacific            | <u>41.3</u>    | <u>2.5%</u>  | <u>592.5</u>     | 8.0%         |  |  |  |
| Total 2011 estimate     | 1,652.6        | 100.0%       | <b>7,360.9</b> 1 | 100.0%       |  |  |  |
| Total 2010 estimate     | 1,622.1        |              | 6,926.3          |              |  |  |  |
| Change                  | 30.5           | 1.9%         | 434.6            | 6.3%         |  |  |  |

Note: \* Comprises the continents of Europe and Asia Totals may not add due to rounding.

Source: BP Statistical Review of World Energy, June 2012.

The previous table shows world oil and natural gas reserves by country. Oil or natural gas reserves are the estimated quantities that are recoverable in the future from known reservoirs under the existing technological, operating and economic conditions. Resources that currently are not technologically recoverable but could become recoverable in the future as technologies advance may also be added to the reserve. Energy companies whose equities are traded on the U.S. stock market are required to report their holdings of proved reserves.

Total world oil reserves increased 30.5 billion barrels (BBs) to 1,652.6 BBs in 2011. This increase was driven largely by Iraq, where reserves increased by 28.1 BBs. Venezuela has also driven recent increases in world oil reserves; during a five year period from 2006-2011 proved reserves increased 239.6%, to 296.5 BBs. Venezuela's proven oil reserves are now larger than those of Saudi Arabia. Canada also shares a major portion of the world's oil reserves, due to the tar sands in Alberta, Canada. Recent increases in Canada's resources could potentially help the U.S. shift its dependency on Middle Eastern oil. U.S. oil reserves were steady at 30.9 BBs in 2011, reflecting no change over the previous year.

Total world natural gas reserves increased 6.3% in 2011. By the year's end, proven reserves stood at 7,360.9 trillion cubic feet (TCFs). Russia, a significant exporter of natural gas to Europe, held 21.4% of these reserves. Middle Eastern countries held 38.4% of world reserves. Natural gas reserves in the United States have increased in recent years due to the development of horizontal drilling and hydraulic fracturing ("fracking") technologies used to extract shale gas. During a five year period from 2006-2011 proven reserves in the U.S. increased 88.7 TCFs, or 42%.

World energy reserves continue to mirror the pattern of disparity found in the oil supply market. The share of world oil reserves held by all OPEC countries is 72.4%. The Middle East controls 48.1% of world oil reserves with Saudi Arabia controlling approximately 16.1% of the total, followed by Iran's 9.1% and Iraq's 8.7%. The Middle East countries controlled 38.4% of natural gas reserves.

#### **United States**

The U.S. has the largest demand for world oil. While the country contains 4.5% of the world population and supplies 11.6% of world oil, it consumes 21.8% of world oil. The nation has long been a net energy importer, although America's energy dependence has decreased in recent years. According to the *Annual Energy Review*, the U.S. consumed 97.30 quadrillion British Thermal Units (QBTU's) of energy in 2011, which was 2.2 times the 1960 level. On the other hand, energy use has decreased 3.9% from its peak in 2007.

Whereas the U.S. produced 78.10 QBTU's and exported 10.36 QBTU's in 2011, it required net imports of 18.23 QBTU's, which represented 18.7% of total national energy consumption, compared to 22.1% in 2010, 25.3% in 2000, 16.7% in 1990, and 6.0% in 1960. In 2011, 77.6% of energy produced in the U.S. was from fossil fuels (coal, 28.4%; natural gas, 33.9%; and crude oil, 15.4%). Coal and crude, both domestic and imported, have historically been the leading energy sources in the U.S. However, natural gas has been increasingly prominent since the 1980s. The International Energy Agency (IEA) forecasts that natural gas will outpace oil as the leading source of energy in the United States by 2030.

National energy consumption has increased at a compound annual growth rate of 0.7% over the past two decades. Growth in energy consumption has trended along with economic conditions, up during periods of healthy economic growth and down during periods of sluggish growth. Growth in energy consumption also reflects the movement of prices, higher during periods of relatively low or stable prices and down during periods of price increases. The following table illustrates the breakdown of energy usage in the U.S. in 2011 by fuel type and by economic sector. As can be seen, petroleum products are currently the most important energy source for the U.S. economy. The 35.28 quadrillion petroleum-generated BTU's accounted for 36.3% of U.S. fuel consumption, followed by natural gas at 24.85 QBTU's and coal at 19.64 QBTU's. These three fuel sources together accounted for approximately 82% of U.S. fuel consumption. Nuclear power and hydroelectric power were distant followers.

TABLE 31 U.S. ENERGY CONSUMPTION IN 2011 (Quadrillion BTU's)

|                 | Resi -         | Com-           | In-      | Trans-           | Electric   |              | % of         |
|-----------------|----------------|----------------|----------|------------------|------------|--------------|--------------|
| <u>Fuels</u>    | <u>dential</u> | <u>mercial</u> | dustrial | <u>portation</u> | Generation | <u>Total</u> | <u>Total</u> |
| Natural Gas     | 4.83           | 3.23           | 8.32     | 0.74             | 7.74       | 24.85        | 25.5%        |
| Petroleum       | 1.14           | 0.68           | 8.06     | 25.11            | 0.29       | 35.28        | 36.3%        |
| Coal            | 0.01           | 0.05           | 1.61     | 0.00             | 17.99      | 19.64        | 20.2%        |
| Nuclear         | 0.00           | 0.00           | 0.00     | 0.00             | 8.26       | 8.26         | 8.5%         |
| Renewables      |                |                |          |                  |            |              |              |
| Hydroelectric   | 0.00           | 0.00           | 0.02     | 0.00             | 3.15       | 3.17         | 3.3%         |
| Other*          | 0.61           | 0.13           | 2.28     | 1.15             | 1.92       | 5.96         | 6.1%         |
| Electricity     | 4.86           | 4.50           | 3.33     | 0.03             | 0.00       | 12.84        | 13.2%        |
| Electric Losses | <u>10.18</u>   | 9.43           | 6.97     | 0.05             | (39.35)    | (12.71)      | (13.1)%      |
| Total Demand    | 21.62          | 18.02          | 30.59    | 27.08            | 0.00       | 97.30        | 100.0%       |
| % of Total      | 22.2%          | 18.5%          | 31.4%    | 27.8%            | 0.0%       | 100.0%       |              |

Note: \* Includes power generated from wood, biofuels, wind, waste, geothermal, tide, and solar/photovoltaic, as well as imported electricity.

Totals may not add due to rounding.

Source: U.S. Dept. of Energy, Energy Information Administration, Annual Energy Review 2011

The U.S. lags other developed countries in utilizing renewable energy. Hydroelectricity, for example, provided approximately 3.15% of electric generation in the U.S., versus 61.7% in Canada. Capital investments in alternative renewable energy from solar, hydroelectric, wind, biofuels, and geothermal have increased dramatically in the U.S.; nonetheless, their share of power production is still small. Green energy in total in the U.S. is expected to play an increasingly important role and therefore grow faster than non-green energy sources as awareness of the environmental consequence of greenhouse gas emissions and energy efficiency rises. Operable nuclear plants declined to 104 units through 2011, down from a peak of 112 units in 1990. Nonetheless, nuclear generation of electricity accounted for 21% of domestic total electricity output in 2011. The U.S. is the world's largest nuclear power producer, accounting for more than 30% of worldwide nuclear electricity production. Issues of plant and public safety, radioactive waste disposal, and high capital investment and maintenance risks have slowed the expansion of nuclear power plants. However, with concerns over rising fossil fuel prices and the greenhouse gas effect, plans for new nuclear generation

capacity have increased. Prior to the Fukushima Daiichi nuclear facility disaster in 2011, it was expected that 4 to 6 new units may come on line by 2018. There is currently one new nuclear reactor under construction in the United States at the existing Watts Bar Nuclear Generating Station in Tennessee.

There are five energy-use sectors: residential, commercial, industrial, transportation, and electric power generation. The first four sectors are end-users while the last one is the intermediate-user that consists of all utility and non-utility facilities and equipment used in the electricity industry. Of the four end-users, the industrial sector was the most prevalent, using 30.59 QBTU's in 2011, followed by transportation at 27.08 QBTU's, residential at 21.62 QBTU's, and commercial at 18.02 QBTU's.

In contrast to the relatively smooth trends in the other sectors, industrial consumption has shown the greatest fluctuation, dropping sharply in 1975, 1980-83, 2001-03, and 2008-09 in response to high oil prices and economic slowdown. The electric power generation sector consumes and also produces energy. Energy losses occur throughout the entire electrical system beginning with utility generation in fossil-fired, nuclear or hydroelectric power plants all the way to the end-users. Energy losses are approximately two-thirds of total energy input during the conversion process of heat energy into mechanical energy for turning electric generators. Of the electricity generated, it is estimated that about 7% is lost in transmission and distribution.

#### **Crude Oil Prices**

Crude oil prices have a long history of large fluctuations that affect the world and U.S. economies as well as inflation levels. In 1973, the year of the Arab Oil Embargo, crude oil prices in the U.S. measured by the composite Refiners' Acquisition Cost averaged \$4.15 per barrel. After two consecutive supply disturbances brought on by the Iranian Revolution in 1979 and the Iran-Iraq war in 1980, oil prices reached \$35.28 per barrel in 1981. Long-term prices then trended down to a low of \$12.54 per barrel by 1998 and then stayed in the \$20 range until mid-2003. Crude oil prices started to creep up above \$30 per barrel in late 2003, soared to the mid \$90s in 2008 and near \$134 per barrel in mid 2008. It then plummeted 70% to close in the low \$40s per barrel range in late 2008 and returned to hover around the mid \$70s in late 2009 and in the low \$80s in late 2010. By mid 2011 prices rose above \$100 and then returned to the high \$90s late in the year. Prices hovered between \$91 and \$110 per barrel throughout 2012. The world oil market becomes more vulnerable as inventory levels tighten, consumption from rapidly growing emerging markets expands, and the U.S. dollar depreciates. In real terms as adjusted for inflation, 2011's \$98.81 per barrel price as measured in 2010 dollars became the new high, surpassing the last annual peak of \$95.95 per barrel registered in 2008.

Long term oil prices are expected to trend up as world demand grows faster than the rate of discovery of new supplies. The following factors are driving prices higher: new oil fields are harder to find, crude oil is more costly to extract, underinvestment had been occurring for years in this industry, and mounting demand for oil from the emerging economies, the Middle East, some industrialized countries, and elsewhere. It is estimated that 70% of the existing oil fields are more than 30 years old. Oil reserves in the Middle East and Persian Gulf region may be nearing maturity or depletion. As the world economy continues to grow, the increasing demand will more than offset any savings gained from efficiency and conservation. Although

new discoveries such as Tiber Prospect and Jack Field in the Gulf of Mexico and the Tupi Field in Brazil may add hundreds of billions of barrels of crude oil reserves, meaningful production due to technical limitations and environmental concerns may not happen for years to come.

TABLE 32 CRUDE OIL PRICES AND U.S. CONSUMPTION

Refiners' Crude Oil Acquisition Costs\* Per Barrel

|             |            | In       |             |            | In       |
|-------------|------------|----------|-------------|------------|----------|
| <u>Year</u> | Current \$ | 2010 \$* | <u>Year</u> | Current \$ | 2010 \$* |
| 1973        | 4.15       | 20.38    | 2003        | 28.53      | 28.56    |
| 1975        | 10.38      | 42.07    | 2004        | 36.98      | 42.69    |
| 1980        | 28.07      | 74.28    | 2005        | 50.24      | 56.09    |
| 1981        | 35.24      | 84.54    | 2006        | 60.24      | 65.16    |
| 1985        | 26.75      | 54.21    | 2007        | 67.94      | 71.45    |
| 1990        | 22.22      | 37.70    | 2008        | 94.74      | 95.95    |
| 1995        | 17.23      | 24.65    | 2009        | 59.29      | 60.26    |
| 2000        | 28.26      | 35.79    | 2010        | 76.69      | 76.69    |
| 2001        | 22.95      | 28.26    | 2011        | 101.93     | 98.81    |
| 2002        | 24.10      | 29.21    | 2012**      | 102.59     | 97.66    |

Note: \* Adjusted by 2010 CPI-U, where 1982-1984 = 100.00 and 2010 = 218.06.

\*\* Average for the first eight months.

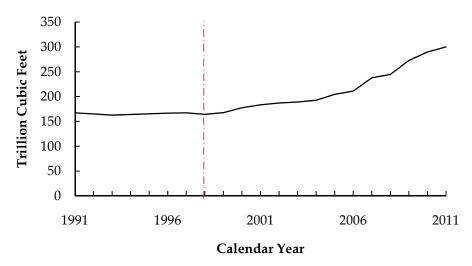
Source: U.S. Department of Energy, Energy Information Administration

## **Shale Energy**

Oil producers in the United States are increasingly able to extract natural gas and petroleum from shale formations across the country. Increased production of these resources is attributable to the development of horizontal drilling and hydraulic fracturing ("fracking") technology. In the process of fracking, producers pump a mixture of water, sand, and chemicals into shale wells to extract natural gas and petroleum. In conjunction with horizontal drilling, this technique has made the development of shale energy sources economically feasible. As a result, energy resources in the country have increased. The following chart shows the amount of proven natural gas reserves in the United States in trillion cubic feet (TCF) from 1991 to 2011. The dashed line represents the first commercially successful use of fracking in 1998. As the graph shows, the amount of proven natural gas reserves has grown dramatically since the introduction of this technology.

Energy observers predict that natural gas and petroleum from shale formations will continue to improve the United States' energy production. The U.S. Energy Information Administration (EIA) forecasts that natural gas production will increase 44% between 2011 and 2040, from 23.0 TCF to 33.1 TCF. The International Energy Agency (IEA) forecasts that the U.S. will surpass Saudi Arabia as the world's largest oil producer by 2020 and that North America will become a net oil exporter by 2030. They attribute these gains to shale oil and other non-traditional petroleum resources. Connecticut's energy market may benefit from development of shale resources. The state is located in close proximity to the Marcellus shale formation in New York and Pennsylvania, one of the nation's largest shale formations.

U.S. Proven Natural Gas Reserves, 1991-2011



Dashed line represents first commercial use of horizontal fracturing ("fracking"), in 1998.

Source: BP Statistical Review of World Energy 2012

## **Efficiency**

Increasing efficiency has been a focal point of the nation's energy conservation policy. Energy regulatory agencies have been aggressively protecting the environment by promoting energy-efficient products over the past two decades. The National Appliance Energy Conservation Act of 1987 set minimum efficiency standards for 13 appliances and prohibited the sale if standards were not met. In 1992, the EPA embarked upon "Energy Star" as a voluntary labeling program to identify and promote energy-efficient products to reduce greenhouse gas emissions. Energy Star products use less energy and help protect the environment. The Energy Star label now covers product categories from small battery chargers to central air conditioners. It includes appliances, electronics, heating and cooling equipment, office equipment, lighting, commercial food services, and new buildings and plants with additional energy-saving features that are 20–30% more efficient than standard homes.

To promote energy efficient buildings in the U.S., Leadership in Energy and Environmental Design (LEED), a non-profit organization under the U.S. Green Building Council (USGBC), provides green building rating standards for environmentally sustainable construction and design.

Aside from energy conservation, increases in productivity also play a vital role in efficiency. Productivity, a crucial ingredient in the economy's long-term vitality, is a measure of economic efficiency which relates to how effectively economic inputs are converted into output. Productivity is measured by comparing the amount of goods and services produced with the inputs that are used in production. A measure of efficiency is the amount of energy used to produce a dollar of Gross Domestic Product (GDP). The following table compares U.S. consumption of fuel sources and illustrates the nation's improvement in energy efficiency.

TABLE 33
U.S. PRIMARY ENERGY CONSUMPTION & ENERGY EFFICIENCY

|             | U.S. Energy Consumption |               | GDP         | BTU         |               |
|-------------|-------------------------|---------------|-------------|-------------|---------------|
| Calendar    | Total                   | Percent       | Billion     | Per \$1 GDP | Percent       |
| <u>Year</u> | Quadrillion BTU's       | <u>Change</u> | (In 2005\$) | (In 2005\$) | <u>Change</u> |
| 1975        | 72.00                   |               | 4,875.5     | 14,768      |               |
| 1980        | 78.12                   | 8.5%          | 5,834.0     | 13,390      | (9.3%)        |
| 1985        | 76.49                   | (2.1%)        | 6,843.4     | 11,177      | (16.5%)       |
| 1990        | 84.65                   | 10.7%         | 8,027.0     | 10,546      | (5.7%)        |
| 1995        | 91.17                   | 7.7%          | 9,086.0     | 10,034      | (4.9%)        |
| 2000        | 98.98                   | 2.2%          | 11,216.4    | 8,825       | (12.1%)       |
| 2005        | 100.51                  | 1.5%          | 12,623.0    | 7,962       | (9.8%)        |
| 2006        | 99.86                   | (0.7%)        | 12,958.5    | 7,706       | (3.2%)        |
| 2007        | 101.55                  | 1.7%          | 13,206.4    | 7,689       | (0.2%)        |
| 2008        | 99.30                   | (2.2%)        | 13,161.9    | 7,545       | (1.9%)        |
| 2009        | 94.58                   | (4.8%)        | 12,757.9    | 7,413       | (1.7%)        |
| 2010        | 98.00                   | 3.6%          | 13,063.0    | 7,502       | 1.2%          |
| 2011        | 97.30                   | (0.7%)        | 13,299.1    | 7,316       | (2.5%)        |
|             |                         |               |             |             |               |

Source: U.S. Dept. of Energy, Energy Information Administration, *Annual Energy Review 2011* U.S. Dept. of Commerce, Bureau of Economic Analysis

Between 1975 and 2011, energy consumption per dollar of real GDP trended down at a compound annual rate of 1.9% per year. In 1975, 14,768 BTU's of energy were required to produce \$1 of GDP measured in 2005 dollars; by 2011, that number had decreased to 7,316 BTU's, a 50.5% reduction. The decline in energy consumption per dollar of GDP resulted from efficiency improvements and a structural shift from energy intensive industries to those that consume less energy but create more value added products such as finance, banking, and professional services. However, improvements in energy efficiency vary from period to period, depending upon energy prices, consumers' consumption habits, and technology improvements. Efficiency tends to stagnate when fuel prices decline; as oil prices fall, the incentive to conserve energy diminishes.

## Oil Stability Program

To protect against supply disruptions, the United States began to create a Strategic Petroleum Reserve (SPR) under the Energy Policy and Conservation Act of 1975 (EPCA). The SPR program was established as a 750 million barrel capacity crude oil reserve with the objective of achieving a maximum draw-down rate within 15 days of the notice to proceed. To maximize long-term protection against oil supply disruptions, President George W. Bush in late 2001 directed the Secretary of Energy to fill the SPR up to its 700 million barrel capacity. As of November 2012, the reserve held 694.9 million barrels of crude oil, accounting for 65% of crude oil stocks.

In early 2000, a shortage of home heating oil sent prices to a high of \$2.45 per gallon from \$1.00 per gallon a year earlier. To reduce such risk in the future, the U.S. Department of Energy established the Northeast Home Heating Oil Reserve under the SPR program. The maximum inventory of heating oil in the reserve is 2 million barrels, which will provide relief for approximately 10 days. This reserve program was permanently established in March of 2001 as

a part of America's energy readiness effort, separating it from the Strategic Petroleum Reserve. Heating oil is the dominant fuel used for home heating in Connecticut with 46.3% of all homes in Connecticut using heating oil as the primary heating fuel.

#### Connecticut

Connecticut is one of the most energy efficient states in the nation. The state consumed 3.6 thousand BTU's per 2005 chained dollar of Gross State Product in 2010, the latest available data. Connecticut was the most efficient among the 50 states based on this measure, behind only the District of Columbia. Connecticut was 52% below the national average of 7.5 thousand BTU's. When compared to the national per person consumption, Connecticut residents are moderate energy users. Connecticut consumed 211 million BTU's per capita in 2010, ranking 47th among the 50 states plus the District of Columbia. Only Rhode Island, New York, Hawaii, and California consumed less. Connecticut was 33.2% below than the national figure of 316 million BTU's per capita. The state has few indigenous energy sources, and it must import nearly all the energy that it consumes. This situation affects Connecticut consumers' energy choices and results in prices that are higher than the national average. In 2010, Connecticut residents spent \$25.63 per million BTU, compared to \$18.73 for the nation.

TABLE 34
CONSUMER ENERGY PRICES IN THE UNITED STATES AND CONNECTICUT
Nominal Dollars Per Million BTU in 2010

|                       | Natural | Motor           | Residential         | All *            | Retail             | Total         |
|-----------------------|---------|-----------------|---------------------|------------------|--------------------|---------------|
|                       | Gas     | <u>Gasoline</u> | <b>Heating Fuel</b> | <u>Petroleum</u> | <b>Electricity</b> | <b>Energy</b> |
| Connecticut           | \$8.86  | \$22.99         | \$12.25             | \$22.49          | \$50.92            | \$25.65       |
| United States         | \$7.41  | \$21.98         | \$11.70             | \$20.32          | \$28.92            | \$18.73       |
| CT as a % of the U.S. | 120%    | 105%            | 105%                | 111%             | 176%               | 137%          |

Note: \* Includes motor gasoline, residential and distillate fuel oil, liquefied petroleum gases, and jet fuel, etc.

Source: U.S. Department of Energy, Energy Information Administration, State Data 2010

The above table compares various prices to the national average for natural gas, motor gasoline, residential heating oil, residential electricity, and total average energy paid by consumers. Overall energy costs in Connecticut in 2010 were 37% higher than the national average. Retail electricity prices were 76% higher than the national average. Although the electric industry has been deregulated since the late 1990s, Connecticut's retail electric rates were among the highest in the 48 continental states. To maintain utility rate stability, utility providers have entered into long-term fixed contracts and paid a hefty premium. Many power plants in Connecticut are old and less efficient. Nearly 31% of the power plants in Connecticut are more than 40 years old (the normal service life) and due for retirement. In addition, Connecticut's capacity need in the southwestern region of the state combined with an older transmission system requires long distance delivery and incurs large transmission losses, increasing operational costs.

The following table breaks down the amount and percentage share of total energy consumed in Connecticut by fuel source in 2010, the latest available data. When compared to the national average, petroleum has supplied more of Connecticut's energy needs relative to coal and natural gas. This is because petroleum is more easily transported than other types of fuel and fuel oil has been the major source to heat homes. In 2011, 46.3% of Connecticut households used fuel oil for home heating, followed by natural gas at 32.4%, electricity at 15.3%, and liquefied petroleum gases at 3.2%, and others at 2.8%. The state's petroleum products are received at the ports in New Haven, New London, and Bridgeport, and shipped by barge on the Connecticut River to central Connecticut.

TABLE 35 CONNECTICUT ENERGY CONSUMPTION IN 2010 (Trillion BTU's)

|                 | Resi-          | Com-           | In-             | Trans-     | Electric          | CT           | % of CT        | % of US      |
|-----------------|----------------|----------------|-----------------|------------|-------------------|--------------|----------------|--------------|
| <u>Fuels</u>    | <u>dential</u> | <u>mercial</u> | <u>dustrial</u> | portation  | <u>Generation</u> | <u>Total</u> | <u>Total</u>   | <u>Total</u> |
| Natural Gas     | 43.8           | 41.7           | 24.7            | 7.0        | 86.6              | 203.8        | 27.0%          | 25.5%        |
| Petroleum       | 74.4           | 16.5           | 11.9            | 235.9      | 4.8               | 343.5        | 45.6%          | 36.3%        |
| Coal            | 0.0            | 0.0            | 0.0             | 0.0        | 28.7              | 28.7         | 3.8%           | 20.2%        |
| Nuclear         | 0.0            | 0.0            | 0.0             | 0.0        | 175.1             | 175.1        | 23.2%          | 8.5%         |
| Hydroelectric   | 0.0            | 0.0            | 0.0             | 0.0        | 3.8               | 3.8          | 0.5%           | 3.3%         |
| Other           | 4.1            | 0.4            | 3.7             | 0.0        | 19.3              | 27.5         | 3.6%           | 6.1%         |
| Deliv. Elec.    | 44.6           | 45.8           | 12.7            | 0.6        | 0.0               | 103.7        | 13.8%          | 13.2%        |
| Deliv. Losses   | 80.0           | 82.3           | <u>22.7</u>     | <u>1.1</u> | (318.3)           | (132.2)      | <u>(17.5%)</u> | (13.1%)      |
| Total Demand    | 247.0          | 186.6          | 75.7            | 244.6      | 0.0               | 753.9        | 100.0%         | 100.0%       |
| % of Total-CT   | 32.8%          | 24.8%          | 10.0%           | 32.4%      | 0.0%              | 100.0%       |                |              |
| % of Total-U.S. | 22.2%          | 18.5%          | 31.4%           | 27.8%      | 0.0%              | 100.0%       |                |              |

Note: Other includes power generated from wood, biofuels, wind, waste, geothermal, tide, and solar/photovoltaic, as well as imported electricity.

Totals may not add due to rounding.

Source: U.S. Department of Energy, Energy Information Administration, State Energy Data 2010

A comparison of the U.S. and Connecticut's electric generation sectors shows additional differences in energy mixes. The United States is much more dependent on coal and less reliant on nuclear energy than is Connecticut. In 2011, the state generated 33,745,221 net megawatt hours of electricity, mostly using nuclear power. Retail sales were at 29,858,993 megawatt hours of electricity. This implies that the state was more than 100% electricity self-sufficient, unlike 2000, when the state generated only 56.8% of its demand, relying heavily on imports from other states and Canada for the balance of its need, when certain nuclear reactors were shut down for servicing.

The power grid that supplies electricity to the entire state is owned and operated by both private and municipal electric companies. Transmission lines connect Connecticut with New York, other New England states and Canada. These interconnections allow the companies serving Connecticut to meet large or unexpected electric load requirements from resources located outside of Connecticut's borders.

All electric utilities in the state are members of the New England Power Pool and operate as part of the regional bulk power system. An independent system operator, ISO New England Inc., operates this regional system. In 2011, there were 1,608,712 electric consumers in Connecticut. Of these, 90.4% were residential customers, 9.3% were commercial customers, and 0.3% were industrial and transportation customers. Approximately 90% of the electricity was sold by two investor-owned companies: Connecticut Light & Power and United Illuminating.

Natural gas is delivered to Connecticut through pipelines that traverse the state. Natural gas pipeline supplies are generally shipped to Connecticut from Canada and the Gulf of Mexico area, although development of the Marcellus Shale Formation in New York and Pennsylvania could provide additional supply to the region. Connecticut also receives liquefied natural gas (LNG) through the interstate pipelines from a terminal located in Boston, Massachusetts which is supplied by LNG tanker ships. Natural gas service is provided to parts of the state through one municipal and three private gas distribution companies. Since 1996, the state's Public Utilities Regulatory Authority (formerly DPUC) has allowed some competitive market forces to enter the natural gas industry in the state. Commercial and industrial gas consumers can choose non-regulated suppliers for their natural gas requirements. Natural gas is delivered to consumers using the local distribution company's mains and pipelines. Located at or near the end of pipelines, Connecticut's distribution companies have to pay higher transportation costs and outbid other buyers in order to gain access rights to the gas wellhead.

## Gasoline Consumption and Automotive Fuel Economy

In the U.S., highway vehicles consume approximately 98% of all gasoline, with about 2% used for other purposes such as agriculture, aviation, construction and boating. During 2010, the latest data available, gasoline consumption in the U.S. totaled 137.6 billion gallons, the equivalent of 8.98 million barrels per day. Gasoline consumption in Connecticut totaled 1.51 billion gallons, accounting for 1.1% of the nation's consumption. In 2010, Connecticut had approximately 1,500 gasoline stations, accounting for some 1.0% of the U.S. total. The table below shows gasoline consumption during the past ten years for the U.S. and Connecticut.

In 2010, Connecticut residents consumed 423.1 gallons of gasoline per capita, versus 445.2 gallons per capita for the nation. Per capita consumption is attributable to several factors such as income levels, traffic conditions, average weight of vehicles, distance that residents drive to work or shop, and the percentage of workers telecommuting or ride sharing. As one of the smallest and most densely populated states in the nation, Connecticut residents generally commute shorter distances to work and shop. However, gasoline consumption has grown faster in Connecticut versus the nation, narrowing the per capita consumption gap. During the decade between 2001 and 2010, per capita gasoline consumption in Connecticut averaged 96.0% of nation's level, increasing from 91.5% for the decade between 1991 and 2000.

As the highest per capita personal income state in the nation, Connecticut residents tend to own more automobiles. Connecticut residents owned 0.56 private and commercial automobiles per capita in 2010, versus 0.42 units for the nation. Also, Connecticut had 821 driver licenses per 1,000 residents in 2010, compared to 681 licenses for the nation. A survey conducted by Sterling's shows that Connecticut residents trail the nation in the use of car pooling. In June of 2010, the average one-way commute in Connecticut took 26.4 minutes with 80.1% of commuters driving their own car alone and 9.4% carpooling with others, compared to 27.8 minutes, 76.3%, and 12.3%, respectively, for the nation.

TABLE 36
GASOLINE CONSUMPTION IN THE UNITED STATES & CONNECTICUT

|             | U.S. Total     | Annual*       | CT Total       | Annual*       | <u>G</u> al | llons Per | <u>Capita</u> |
|-------------|----------------|---------------|----------------|---------------|-------------|-----------|---------------|
| Calendar    | Gallons        | %             | Gallons        | %             |             |           | CT/U.S.       |
| <u>Year</u> | <u>(000's)</u> | <u>Change</u> | <u>(000's)</u> | <u>Change</u> | <u>U.S.</u> | <u>CT</u> | <u>(%)</u>    |
| 1990        | 110,184,150    |               | 1,301,715      |               | 441.4       | 395.4     | 89.6%         |
| 1995        | 120,875,789    | 1.9%          | 1,302,750      | 0.0%          | 453.9       | 388.7     | 85.6%         |
| 2000        | 132,279,950    | 1.8%          | 1,476,340      | 2.5%          | 468.8       | 432.7     | 92.3%         |
| 2005        | 140,338,710    | 1.2%          | 1,614,697      | 1.8%          | 474.5       | 464.3     | 97.9%         |
| 2006        | 140,320,089    | 0.0%          | 1,566,875      | (3.0%)        | 469.9       | 449.6     | 95.7%         |
| 2007        | 140,436,133    | 0.1%          | 1,567,360      | 0.0%          | 465.7       | 449.3     | 96.5%         |
| 2008        | 136,499,418    | (2.8%)        | 1,494,164      | (4.7%)        | 448.5       | 426.5     | 95.1%         |
| 2009        | 136,877,949    | 0.3%          | 1,512,081      | 1.2%          | 446.4       | 424.4     | 95.1%         |
| 2010        | 137,592,937    | 0.5%          | 1,514,622      | 0.2%          | 445.2       | 423.1     | 95.0%         |
| Average     |                |               |                |               |             |           |               |
| 2001-10     |                |               |                |               | 466.1       | 454.5     | 96.0%         |

<sup>\*</sup> Annualized using compound annual growth rate formula

Source: U. S. Dept. of Transp., Office of Highway Information Management, *Highway Statistics* 

## **Corporate Average Fuel Economy (CAFE)**

Emissions of carbon dioxide from motor vehicles represent over 30% of the total greenhouse gas emissions in the U.S. In 1973, requirements for Corporate Average Fuel Economy (CAFE) in motor vehicles were first proposed in the wake of Arab oil embargo. In 1975, the Energy Policy and Conservation Act established the CAFE system and authorized the Department of Transportation to set automobile fuel efficiency standards, starting in model year (MY) 1978 for passenger cars and MY 1979 for light trucks. The measurement of CAFE is performed by the U.S. Environmental Protection Agency. The chart below illustrates the automotive fuel economy history for the CAFE standards for passenger cars and light trucks and their average miles per gallon (MPG) that had been produced. While CAFE standards for light trucks have continued to increase from 17.5 MPG in MY 1982 to 23.5 MPG in MY 2010, standards for passenger cars remained the same at 27.5 MPG from 1990 to 2010. However, the Obama Administration has proposed two new increases fuel efficiency standards. The first proposal increases CAFE standards for MY 2011-2016. The second proposal increases CAFE standards further for MY 2017-2025. As a result, the standard for passenger cars was 32.7 mpg in MY 2012, while the standard for light trucks was 25.2 mpg. Standards for both will increase to an average of 54.5 mpg by MY 2025.

Increases in fuel efficiency varied over the past three and a half decades, accelerating during the 1970s and 1980s while remaining relatively constant during the 1990s. Fuel efficiency accelerated again during the 2000s and 2010s. MY 2012 was a banner year that raised MPG to an historic high of 35.2 MPG for passenger cars and 25.0 MPG for light trucks. During the 1970s and 1980s, more efficient engines and smaller cars were produced. However, light trucks gained market share in the 1990s and continued into the early 2000s while sales for high-powered, four-wheel drive cars, and larger, heavier, less fuel-efficient models increased, reducing the average MPG rating for new vehicles. In 1987, the total fleet fuel economy peaked

at 26.2 MPG when light trucks made up 28.1% of the market. Total fleet fuel economy finally returned to 1987 levels in 2007. Light truck sales have remained relatively constant over the past decade. In 2004 light trucks sales peaked with at 55.3% and then began trending downward to a low of 47.5% in 2009. By 2010 light trucks rebounded taking 50.4% of market sales.

## 35.0 32.5 Average MPG - Passenger Cars 30.0 27.5 25.0 22.5 Average MPG - Light Trucks 20.0 CAFE Standards - Light Trucks 17.5 15.0 1978 1983 1988 1993 1998 2003 2008 Model Year

## Miles Per Gallon (MPG) for CAFE Standards and Produced Vehicles

Source: U.S. Dept. of Transportation, National Highway Traffic Safety Administration

Federal law imposes a civil penalty of \$5.50 for each tenth of a MPG by which a manufacturer's CAFE level falls short of the standard, multiplied by the total number of passenger automobiles or light trucks produced by the manufacturer in that model year. To further improve air quality and fuel efficiency, the U.S. Congress in 2007 passed the Energy Independence and Security Act that required the fuel efficiency standard to increase to 35 MPG by MY 2020. In the spring of 2009, the federal government accelerated those requirements and moved up the deadline to MY 2016.

## **Fluctuations in Gasoline Prices**

The price of gasoline is one of the most closely watched items by consumers. In December 2011, The U.S. Bureau of Labor Statistics assigned a relative weight of 5.273% to this single component to calculate the CPI-U index, the consumer price index for all urban consumers.

Short-term gasoline prices have long been known for their drastic volatility, often rising and dropping markedly during short periods of time. The average retail gasoline price for all grades in the U.S. in October of 2012 was \$3.84 per gallon, compared to \$3.52 in October of 2011 and \$2.84 in October of 2010. The average retail price for all grades hit an all time high of \$4.14 in July of 2008, before plummeting to \$1.74 in December that same year. During the first ten months of 2012, average monthly prices fluctuated 16%, from \$3.33 to \$3.98 per gallon. In 2011, prices fluctuated 21%, from \$3.14 to \$3.98. Calendar year 2010 was an unusually stable period;

prices fluctuated 11%, from \$2.17 and \$3.03. In 2009, they fluctuated 32%, from \$1.84 to \$2.71 per gallon. In 2008, they fluctuated an extraordinary 58%.

Changes in gasoline price are determined by the cost of crude oil, the fundamental law of supply and demand of fuel, any disruption of refinery operations, inventory levels, seasonality and weather conditions, the regulation of environmental standards and geopolitical conditions. California's November 2010 retail price of all grades branded gasoline of \$3.79 per gallon, for example, can be broken down into four categories as follows: crude oil (\$2.69, 71.0%), federal & state taxes (\$0.64, 17.0%), refining costs and profits (\$0.14, 3.7%), and distribution and marketing (\$0.32, 8.4%) when domestic West Texas Intermediate crude oil averaged \$91.82 per barrel. Since the tax portion is relatively stable, the three other categories were the major driving forces in gasoline prices. In July 2008, when average crude prices reached an all time high at \$133.40 per barrel, crude oil cost accounted for 72% of gasoline prices.

TABLE 37
RETAIL MOTOR GASOLINE PRICES
(Dollars per Gallon, Regular Gasoline)

| Calendar    |               |             | Average Real Price  |
|-------------|---------------|-------------|---------------------|
| <u>Year</u> | Nominal Price | Real Price* | (for the Decade of) |
| 1950        | \$0.27        | \$1.62      | \$1.54              |
| 1960        | 0.31          | 1.48        | 1.40                |
| 1970        | 0.36          | 1.30        | 1.40                |
| 1980        | 1.25          | 2.61        | 1.70                |
| 1990        | 1.16          | 1.61        | 1.27                |
| 2000        | 1.51          | 1.70        | 2.34                |
| 2005        | 2.30          | 2.3         | -                   |
| 2006        | 2.59          | 2.51        | -                   |
| 2007        | 2.80          | 2.64        | -                   |
| 2008        | 3.27          | 3.01        | -                   |
| 2009        | 2.35          | 2.14        | -                   |
| 2010        | 2.79          | 2.52        | -                   |
| 2011        | 3.53          | 3.42        | -                   |
| 2012**      | 3.68          | 3.50        | -                   |

Note: Prices for 1950 to 1970 are leaded regular; 1980 and after are unleaded regular.

Source: U.S. Dept. of Energy, Energy Information Administration

The long run nominal price shows a relatively stable upward trend except for sharp upticks in the early 1980s and the most recent years. The table below shows the history of retail motor gasoline prices in the U.S. Prices averaged approximately 30 cents per gallon during the 1950s through the early 1970s. Prices began increasing after the Arab oil embargo in 1973. They rose to an average of to \$3.27 per gallon in 2008, but declined to an average of \$2.79 per gallon in 2010. The real prices listed below are adjusted for inflation; all prices are listed in 2010 dollars. In 2008, the average real price reached a high of \$3.01 per gallon in 2010 dollars. The real price of

<sup>\*</sup> Real prices are in chained 2010 dollars

<sup>\*\*</sup> First three quarters of 2012

gasoline dipped in 2009 and 2010, but rose again to \$3.50 per gallon in the first three quarters of 2012.

## **Gasoline Prices In Developed Countries**

Gasoline prices in the U.S. may rank among the lowest in the world for oil-importing countries, and even lower than some oil-exporting countries. Average gasoline prices in the European countries are more than double that of the U.S.

In 2010, according to the "GIZ International Fuel Prices 2010/2011 – Data Preview" report, the latest available data, the average retail fuel price in mid-November 2010, in the U.S. was \$2.87 per gallon, compared to a wide range of \$0.087 in Venezuela and \$0.37 in Iran to \$9.54 in Turkey and \$9.61 in Eritrea.

TABLE 38
END-USER GASOLINE PRICES AMONG DEVELOPED COUNTRIES
Unleaded Premium Gasoline, 1st Quarter 2012

|                  |                 |                  |                    | Tax          | U.S. End-User   |
|------------------|-----------------|------------------|--------------------|--------------|-----------------|
|                  | Before          |                  | End-User           | As a % of    | Price as a % of |
| <u>Country</u>   | <u>Tax (\$)</u> | <u>Tax *(\$)</u> | <u> Price (\$)</u> | <u>Price</u> | Other Country   |
| France           | 4.08            | 3.80             | 7.88               | 48.2%        | 27.2%           |
| Germany          | 4.02            | 4.10             | 8.12               | 50.5%        | 26.0%           |
| Italy            | 5.13            | 3.54             | 8.67               | 40.8%        | 32.1%           |
| Spain            | 4.33            | 2.66             | 6.99               | 38.0%        | 34.5%           |
| United Kingdom   | 4.08            | 3.95             | 8.03               | 49.2%        | 26.6%           |
| Average of Above | 4.33            | 3.61             | 7.94               | 45.4%        | 29.3%           |
| Japan            | 4.41            | 2.59             | 7.00               | 37.0%        | 35.4%           |
| Canada           | 4.23            | 0.96             | 5.19               | 18.5%        | 70.9%           |
| USA              | 3.25            | 0.49             | 3.74               | 13.1%        |                 |
|                  |                 |                  |                    |              |                 |

Note: \* Excise tax only

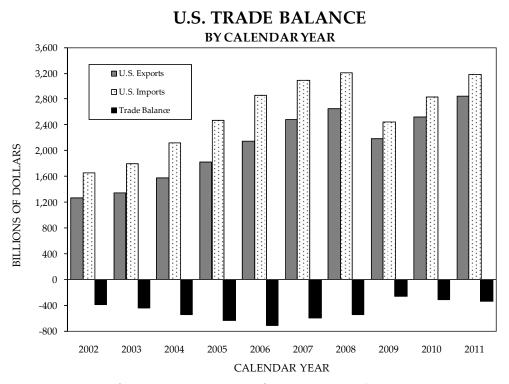
Source: International Energy Agency, *Key World Energy Statistics* 2012, U.S. Department of Energy, Alternate Fuels Data Center

Due to heavy subsidies, fuel prices in most Middle Eastern countries are below the price for crude oil on the world market. Taxes on transportation fuels, in addition to steep taxes on car purchases and ownership, have been used as a way to reduce traffic and prevent environmental damage, as well as to conserve energy. Many European countries such as the United Kingdom, France, and Germany have used a high tax policy on fuel to discourage car use and hence gasoline consumption. The above table shows the retail price of gasoline among selected countries in the first quarter of 2012. The tax portion of the price of gasoline in the U.S. accounted for only 13.1% of the retail price, compared to 49.2% in the U.K. and 50.5% in Germany. Of the \$0.49 per gallon excise tax in the U.S., 18.4 cents per gallon was the federal fuel tax with the remainder attributable to state taxes. While fuel taxes in most European OECD countries continued to increase, the U.S. federal fuels tax has remained at 18.4 cents per gallon since August of 1993.

## **Export Sector**

Trade has played an important role in the U.S. economy. U.S. real exports and imports of goods and services accounted for 29.8% of Gross Domestic Product (GDP) in 2011, up from the previous peak of 28.8% in 2008. The increase over the past decade is attributed to the growth in the U.S. and worldwide economies which accelerated export and import activities. Exports and a favorable balance of payments have traditionally been important to the growth of the U.S. affecting employment, production, and income. Real exports of goods and services have been significantly boosting economic growth over the past decades. Total trade exports have grown 125.4% from 2002 through 2011, while total trade imports have grown 92.1% over the same time period.

The following graph illustrates the United States' trade balance for the past ten years. In 2011, the deficit increased to \$332.9 billion, up from \$310.8 billion in 2010. The recent improvement in the trade deficit is primarily attributable to the depth of the domestic recession in the U.S. that caused a sharp decline in demand for imported goods as well as increased surpluses in the investment income and service transaction categories.



Source: U.S. Department of Commerce, Bureau of Economic Analysis

Consistent with what has recently occurred, the United States trade balances in the past decade generally improved during recession years and deteriorated during recovery and expansionary periods. Trade deficits narrowed in 1991, 2001 and 2009 when the U.S. experienced an economic slowdown, whereas deficits widened during the boom years that were experienced during most of the 1990s and 2000s until 2007 when the latest recession began. The U.S. price elasticity of demand for foreign goods and services is greater than our major trade partners' elasticity of demand for U.S. goods and services resulting in unfavorable trade balances during U.S. economic recoveries.

TABLE 39 U.S. TRADE DEFICIT BY CATEGORY

(In Billions of Dollars)

|                                 | (III DIIII     | ons of Do      | mars)          |                |                |         |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|---------|
|                                 |                | 2010           |                |                | 2011           |         |
|                                 | <b>Exports</b> | <u>Imports</u> | <u>Balance</u> | <b>Exports</b> | <b>Imports</b> | Balance |
| Total Trade                     | 2,518.8        | 2,829.6        | (310.8)        | 2,848.0        | 3,180.9        | (332.9) |
| Merchandise                     | 1,288.9        | 1,934.0        | (645.1)        | 1,497.4        | 2,235.8        | (738.4) |
| Foods/Beverages                 | 107.7          | 92.5           | 15.2           | 126.2          | 108.2          | 18.0    |
| Industrial Supplies & Materials | 406.0          | 622.9          | (216.9)        | 518.7          | 782.1          | (263.4) |
| Capital Goods, Excluding Autos  | 447.8          | 450.3          | (2.5)          | 493.2          | 513.4          | (20.1)  |
| Autos                           | 112.0          | 225.6          | (113.6)        | 133.1          | 255.2          | (122.1) |
| Consumer Goods                  | 165.2          | 486.5          | (321.3)        | 175.0          | 517.4          | (342.4) |
| Others                          | 50.2           | 56.1           | (5.9)          | 51.2           | 59.5           | (8.3)   |
| Services                        | 553.6          | 403.2          | 150.4          | 606.0          | 427.4          | 178.5   |
| Travel & Transportation         | 175.3          | 154.0          | 21.3           | 195.8          | 164.5          | 31.3    |
| Royalties, License fees, etc.   | 362.5          | 214.0          | 148.4          | 391.0          | 228.6          | 162.4   |
| Other Services                  | 15.9           | 35.2           | (19.3)         | 19.1           | 34.4           | (15.2)  |
| Investment Income               | 676.3          | 492.4          | 183.9          | 744.6          | 517.6          | 227.0   |
| Direct Investment               | 444.0          | 146.1          | 297.9          | 480.2          | 158.6          | 321.7   |
| Other Private Investment        | 225.1          | 196.4          | 28.7           | 256.6          | 212.5          | 44.1    |
| U.S. Gov't Receipts/Payments    | 1.5            | 137.1          | (135.6)        | 1.9            | 132.7          | (130.8) |
| Compensation of Employees       | 5.6            | 12.8           | (7.2)          | 5.8            | 13.8           | (8.0)   |
|                                 |                |                | nt Change Fi   |                |                |         |
| Total Trade                     | 15.5           | 16.0           | 19.8           | 13.1           | 12.4           | 7.1     |
| Merchandise                     | 20.5           | 22.8           | 27.5           | 16.2           | 15.6           | 14.5    |
| Foods/Beverages                 | 14.7           | 11.6           | 37.8           | 17.2           | 17.0           | 18.1    |
| Industrial Supplies & Materials | 32.0           | 30.2           | 26.8           | 27.7           | 25.6           | 21.4    |
| Capital Goods, Excluding Autos  | 14.4           | 20.4           | (114.4)        | 10.1           | 14.0           | 704.1   |
| Autos                           | 37.0           | 41.7           | 46.7           | 18.9           | 13.1           | 7.4     |
| Consumer Goods                  | 10.5           | 12.8           | 14.0           | 5.9            | 6.3            | 6.6     |
| Others                          | 10.0           | 13.4           | 53.6           | 2.0            | 5.9            | 39.2    |
| Services                        | 8.7            | 5.4            | 18.8           | 9.5            | 6.0            | 18.7    |
| Travel & Transportation         | 12.1           | 8.6            | 46.3           | 11.7           | 6.8            | 47.4    |
| Royalties, License fees, etc.   | 8.0            | 4.0            | 14.3           | 7.9            | 6.8            | 9.4     |
| Other Services                  | (7.1)          | 0.8            | 8.4            | 20.5           | (2.3)          | (21.1)  |
| Investment Income               | 12.4           | 2.2            | 53.6           | 10.1           | 5.1            | 23.5    |
| Direct Investment               | 24.1           | 39.4           | 17.8           | 8.2            | 8.5            | 8.0     |
| Other Private Investment        | (3.6)          | (10.5)         | 103.2          | 14.0           | 8.2            | 53.5    |
| U.S. Gov't Receipts/Payments    | (68.8)         | (5.0)          | (2.8)          | 29.3           | (3.2)          | (3.6)   |
| Compensation of Employees       | 3.0            | (3.9)          | (8.6)          | 3.0            | 8.0            | 11.8    |

Note: Percent changes were derived before rounding to billions. Source: U.S. Department of Commerce, Bureau of Economic Analysis

#### Merchandise Trade

According to the U.S. Department of Commerce, international trade is classified into three categories: merchandise trade, service transactions, and investment income. There are six subcategories within merchandise trade including: foods and beverages; industrial supplies and materials; capital goods excluding autos; autos; consumer goods and others. The deficit in merchandise trade increased significantly by 14.5% and registered \$738.4 billion in 2011, up from \$645.1 billion in 2010.

United States merchandise imports have been concentrated among four categories: industrial supplies and materials, capital goods excluding autos, autos, and consumer goods. These four categories accounted for 92.5% of total merchandise imports in 2011. In contrast, U.S. exports have been concentrated in two categories: capital goods and industrial supplies and materials. These two categories accounted for approximately 67.6% of the country's merchandise exports in 2011. Industrial supplies and materials were the largest export for the United States at \$518.7 billion in 2011. Within this category nonagricultural supplies and products was the largest contributor at \$496.4 billion.

Of the total trade deficit of \$332.9 billion, consumer goods and industrial supplies and materials accounted for the largest portions of the deficit, reaching \$342.4 billion and \$263.4 billion, respectively in 2011. Consumer goods consist of durables and nondurables. Durable goods include household and kitchen appliances such as radio and stereo equipment, televisions and video receivers, bicycles, watches, toys and sporting goods. Nondurables include footwear, apparel, medical, dental and pharmaceutical preparations. The trade deficit in the consumer goods category increased in 2011 by 6.6%.

The second largest portion of the deficit occurred in industrial supplies and materials. This category includes energy products, iron and steel, metal products, lumber and paper and chemicals excluding medicinals. In 2011, the U.S. imported \$782.1 billion worth of these goods compared to the \$518.7 billion that the U.S. exported. The industrial supplies and materials trade deficit at \$263.4 billion represents a 21.4% increase from 2010's deficit of \$216.9 billion.

The third largest portion of the merchandise trade deficit occurred in the auto category at \$122.1 billion, an increase of 7.4% from 2010's deficit of \$113.6 billion.

## **Service Transactions**

The United States is highly competitive in the delivery of services. The surplus in service transactions increased to \$178.5 billion in 2011, from a surplus of \$150.4 billion in 2010. Imports increased 6.0% to \$427.4 billion while exports of services increased 9.5% to \$606.0 billion. Of the \$178.5 billion total surplus in 2011, \$162.4 billion was attributable to royalty and license fees, which more than offset the deficit in other services.

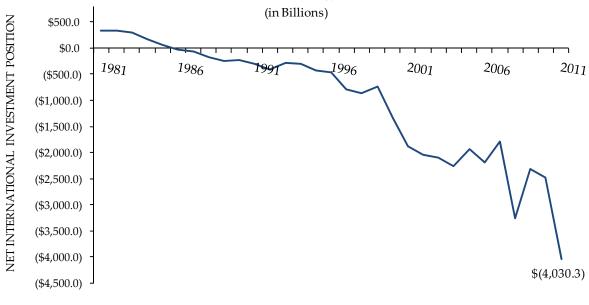
#### **Investment Income**

The balance in investment income registered a surplus of \$227.0 billion, a 23.5% increase from 2010. Investment income contains two components: 1) receipts generated from U.S.-owned assets abroad including direct investments, other private securities such as U.S. government-

owned securities as well as corporate bonds and stocks, and 2) compensation receipts of workers employed abroad in international organizations and foreign embassies stationed in the U.S., including wages, salaries, and benefits. Payments are the counterpart of U.S. receipts; they are paid on foreign-owned assets invested in the U.S. There are six major types of foreign assets in the United States, including U.S. government securities held by foreign governments and the private sector, direct investments, and liabilities captured by private bonds, corporate stocks and U.S. banks.

According to the U.S. Department of Commerce, in calendar 2011 foreign assets in the U.S., measured at current cost, increased by \$2,390.6 billion, or 14.9%, to \$25,162.6 billion, compared to a decrease of \$834.0 billion, or negative 4.1%, to \$21,132 billion for U.S. assets abroad. This placed U.S. international investment at a net negative of \$4,030.3 billion. U.S. direct investment in assets abroad continues to exceed foreign direct investment in the U.S. In 2011, the U.S.'s direct investment abroad was \$4,681.6 billion and foreign direct investment in the U.S. was \$2,908.8 billion, registering \$1,772.8 billion in net investment. Foreign assets in the United States are mostly in securities such as bonds and stocks issued by the U.S. Treasury and corporations.

# NET INTERNATIONAL INVESTMENT POSITION OF THE U.S. AT YEAR-END



Source: U.S. Department of Commerce, "Survey of Current Business", July 2012

The following table shows U.S. trade transactions by area for 2011. The goods, services and income payments trade deficit in 2011 was \$332.9 billion, an increase of \$22.1 billion. In 2011 the United States imported more from the Asia and Pacific area, Africa, Europe, and the Middle East than it exported to those regions but exported more than imported in the same year to Canada and Latin America. Exports to Canada outpaced imports at a record level in 2011.

CALENDAR YEAR

TABLE 40
U.S. INTERNATIONAL TRANSACTIONS
(By Area, In Billions of Dollars)

|                      |                | 2010           |                | _        |                | 2011           |                |
|----------------------|----------------|----------------|----------------|----------|----------------|----------------|----------------|
|                      | <b>Exports</b> | <u>Imports</u> | <u>Balance</u> |          | <b>Exports</b> | <u>Imports</u> | <u>Balance</u> |
| <b>Total Trade</b>   | 2,518.8        | 2,829.6        | (310.8)        |          | 2,848.0        | 3,180.9        | (332.9)        |
| Europe               | 802.6          | 786.5          | 16.1           |          | 882.9          | 886.3          | (3.4)          |
| Canada               | 351.0          | 331.0          | 20.0           |          | 402.9          | 373.7          | 29.2           |
| Latin America (1)    | 547.0          | 516.2          | 30.8           |          | 633.1          | 599.5          | 33.6           |
| Asia and Pacific (2) | 631.4          | 980.7          | (349.3)        |          | 713.0          | 1,067.4        | (354.4)        |
| Africa               | 49.7           | 94.7           | (45.1)         |          | 57.9           | 103.9          | (46.1)         |
| Middle East          | 81.5           | 103.0          | (21.5)         |          | 99.8           | 133.3          | (33.5)         |
| Others (3)           | 55.6           | 17.5           | 38.1           |          | 58.4           | 16.8           | 41.6           |
|                      |                |                |                |          |                |                |                |
| European Union (4)   | 675.0          | 664.6          | 10.4           |          | 733.9          | 738.4          | (4.5)          |
| Australia            | 54.6           | 22.7           | 31.9           |          | 66.0           | 24.6           | 41.4           |
| Japan                | 128.1          | 203.7          | (75.6)         |          | 135.8          | 215.4          | (79.6)         |
| China                | 126.2          | 423.8          | (297.6)        |          | 144.3          | 456.4          | (312.1)        |
|                      |                | D              | . 61           |          | ъ .            | 2/             |                |
| m . 1m . 1           |                |                | ercent Char    | ige Fron |                |                |                |
| Total Trade          | 15.5           | 16.0           | 19.8           |          | 13.1           | 12.4           | 7.1            |
| Europe               | 7.0            | 8.2            | (30.3)         |          | 10.0           | 12.7           | (121.1)        |
| Canada               | 24.9           | 24.4           | 34.5           |          | 14.8           | 12.9           | 46.3           |
| Latin America (1)    | 17.9           | 15.5           | 78.5           |          | 15.7           | 16.1           | 9.0            |
| Asia and Pacific (2) | 22.4           | 19.1           | 13.6           |          | 12.9           | 8.8            | 1.5            |
| Africa               | 15.6           | 32.1           | 56.9           |          | 16.6           | 9.7            | 2.2            |
| Middle East          | 11.4           | 15.0           | 30.9           |          | 22.5           | 29.4           | 55.4           |
| Others (3)           | 3.9            | 12.6           | 0.3            |          | 5.1            | (4.3)          | 9.4            |
| European Union (4)   | 5.2            | 7.6            | (56.5)         |          | 8.7            | 11.1           | (143.5)        |
| Australia            | 21.2           | 17.9           | 23.8           |          | 20.9           | 8.4            | 29.8           |
| Japan                | 5.7            | 20.3           | 57.2           |          | 6.0            | 5.7            | 5.2            |
| China                | 32.4           | 19.0           | 14.1           |          | 14.3           | 7.7            | 4.9            |

- (1) Includes Argentina, Brazil, Mexico, Venezuela, and other Western Hemisphere countries
- (2) Includes Australia, China, Hong Kong, India, Japan, Republic of Korea, Singapore, Taiwan, and other Asia and Pacific countries
- (3) Includes figures for International Organizations and unallocated areas
- (4) Includes 27 member states: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Netherlands, & United Kingdom

Source: U.S. Department of Commerce, Bureau of Economic Analysis

In 2011, the United States imported \$456.4 billion worth of goods, services and income payments from China while exporting only \$144.3 billion to that country. The resulting trade deficit with China was \$312.1 billion in 2011, 4.9% higher than the 2010 deficit of \$297.6 billion. The top five U.S. imports from China in 2011 were electrical machinery and equipment at \$98.7 billion, power generation equipment at \$94.9 billion, toys and games at \$22.6 billion, furniture at \$20.5 billion, and footwear at \$16.7 billion. To further illustrate the disparity in trade between the two countries; while the amount of electrical machinery and equipment imported into the U.S. from China was \$94.9 billion in 2011, that same commodity was the top U.S. export to China at only \$10.8 billion.

## **Connecticut Exports**

In Connecticut, the export sector has assumed an important role in overall economic growth. State exports of goods for the past five years averaged 6.8% of Gross State Product (GSP).

According to figures published by the United States Department of Commerce, which were adjusted and enhanced by the World Institute for Social and Economic Research to capture a greater percent of indirect exports, Connecticut exports of commodities totaled \$16,211.9 million in 2011. The state's economy benefits from goods produced not only for direct shipment abroad but also from those that are ultimately exported from other states. These indirect exports are important in industries whose products require further processing such as primary metals, fabricated metal products and chemicals. In addition, indirect exports are important in industries whose products constitute components and parts for assembly into machinery, electrical equipment and transportation equipment.

Connecticut industries that rely most heavily on exports are Transportation Equipment (NAICS 336), Nonelectrical Machinery (NAICS 333) and Computer & Electronic Equipment (NAICS 334). NAICS refers to the North American Industry Classification System, which replaced the Standard Industrial Classification (SIC) system and was implemented in 1997. The top three industries accounted for 62.7% of Connecticut's foreign sales in 2011. The following table shows the breakdown of major products by NAICS code for the past five years. In 2011, transportation equipment, which includes aircraft engines and spare parts, gas turbines, and helicopters, spacecraft, etc. accounted for 42.4% of total exports slightly down from 43.5% of exports in 2010. In terms of average annual growth from 2007 to 2011, Plastics and Rubber posted the strongest growth at 9.9%, followed by Electrical Equipment at 5.1%.

Overall growth in exports of commodities for the past five years averaged 4.1%. Exports of \$16.1 billion are estimated to account for 7.0% of Connecticut Gross State Product (GSP) in 2011, which is slightly lower than the 7.3% in 2010.

TABLE 41
COMMODITY EXPORTS ORIGINATING IN CONNECTICUT BY PRODUCT
(In Millions)

|              |                       |                | •           | ,              |                |                | Percent      | Average        |
|--------------|-----------------------|----------------|-------------|----------------|----------------|----------------|--------------|----------------|
|              |                       |                |             |                |                |                | of 2011      | Growth         |
| <b>NAICS</b> | <u>Industry</u>       | <u>2007</u>    | <u>2008</u> | <u>2009</u>    | <u>2010</u>    | <u>2011</u>    | <u>Total</u> | <u>07-11</u>   |
| 322          | Paper                 | 147.7          | 147.2       | 169.3          | 181.9          | 176.5          | 1.1%         | 4.6%           |
| 325          | Chemicals             | 1,447.9        | 1,575.7     | 833.4          | 922.3          | 913.4          | 5.6%         | <i>-</i> 10.9% |
| 326          | Plastics and Rubber   | 212.4          | 251.1       | 228.7          | 254.8          | 310.3          | 1.9%         | 9.9%           |
| 331          | Primary Metal         | 480.4          | 509.0       | 316.6          | 536.7          | 568.2          | 3.5%         | 4.3%           |
| 332          | Fabricated Metal      | 585.9          | 622.3       | 547.3          | 615.9          | 673.0          | 4.2%         | 3.5%           |
| 333          | Machinery, exc. Elec. | 1,618.5        | 1,555.8     | 1,439.0        | 1,549.0        | 1,853.2        | 11.4%        | 3.4%           |
| 334          | Comp. & Electronic    | 1,297.6        | 1,294.2     | 1,037.6        | 1,305.6        | 1,439.8        | 8.9%         | 2.6%           |
| 335          | Electrical Equipment  | 606.1          | 603.4       | 489.8          | 604.1          | 739.4          | 4.6%         | 5.1%           |
| 336          | Transportation        | 5,813.1        | 6,500.2     | 6,428.2        | 6,987.1        | 6,866.7        | 42.4%        | 4.3%           |
| 339          | Misc. MFG             | 229.5          | 272.4       | 291.3          | 252.7          | 240.1          | 1.5%         | 1.1%           |
|              | Other                 | <u>1,359.8</u> | 2,052.8     | <u>2,197.6</u> | <u>2,846.5</u> | <u>2,431.3</u> | <u>15.0%</u> | 15.6%          |
| Total C      | Commodity Exports     | 13,799.1       | 15,384.1    | 13,978.9       | 16,056.4       | 16,211.9       | 100.0%       | 4.1%           |
|              | % Growth              | 12.7%          | 11.5%       | <b>-</b> 9.1%  | 14.9%          | 1.0%           |              |                |
| Gross S      | State Product (\$M)   | 221,133        | 219,449     | 213,534        | 221,347        | 230,090        |              |                |
|              | % Growth              | 5.6%           | -0.8%       | -2.7%          | 3.7%           | 3.9%           |              | 1.4%           |
| Exports      | s as a % of GSP       | 6.2%           | 7.0%        | 6.5%           | 7.3%           | 7.0%           |              | 6.8%           |

Source: Connecticut Department of Economic and Community Development

The bulk of Connecticut's exports are shipped by air from Bradley International Airport and by sea from the port of New Haven. In 2011, exports originating from Connecticut totaled \$16.2 billion, with 61.5% of the total being shipped by air, 22.7% being delivered by sea, and the remaining 15.8% being transported inland by railroad or truck to Canada, Mexico or other states for further shipment to other countries. This compares with 55.4% by air, 17.6% by sea, and 27.5% by land for exports totaling \$4.5 billion in 1990. This reflects the demand for meeting just-in-time inventory requirements, as the majority of goods produced are transported by air as it provides more frequent departures and faster transit times.

The following table shows the ten major foreign countries to which state firms export their products. In 2011 France continued as the largest destination country at 12.2%, followed by Canada, Germany, Mexico, and China. These five countries accounted for 44.2% of total state exports in 2011. Exports to Belgium have grown the fastest in the past five years at an average growth rate of 47.3%. Exports to China have grown from 2007-2011 at a rate of 23.2%, followed by the Netherlands with 19.6% growth over the same period.

TABLE 42 COMMODITY EXPORTS ORIGINATING IN CONNECTICUT BY COUNTRY (In Millions of Dollars)

|                    |             |             |             |                |                |             |              | 2007-2011   |
|--------------------|-------------|-------------|-------------|----------------|----------------|-------------|--------------|-------------|
|                    |             |             |             |                |                |             | Percent      | Average     |
|                    | 2011        |             |             |                |                |             | of 2011      | Growth      |
| <u>Destination</u> | <u>Rank</u> | <u>2007</u> | <u>2008</u> | <u>2009</u>    | <u>2010</u>    | <u>2011</u> | <u>Total</u> | <u>Rate</u> |
| France             | 1           | 1,410.9     | 1,733.5     | 2,216.5        | 2,225.7        | 1,971.0     | 12.2%        | 8.7%        |
| Canada             | 2           | 1,879.1     | 1,912.2     | 1,444.9        | 1,622.5        | 1,717.2     | 10.6%        | -2.2%       |
| Germany            | 3           | 1,450.5     | 1,454.4     | 1,306.3        | 1,268.2        | 1,383.9     | 8.5%         | -1.2%       |
| Mexico             | 4           | 784.9       | 1,045.7     | 757.0          | 989.4          | 1,098.4     | 6.8%         | 8.85        |
| China              | 5           | 565.1       | 676.1       | 752.8          | 1,023.8        | 982.5       | 6.1%         | 14.8%       |
| United Kingdom     | 6           | 855.4       | 874.6       | 648.4          | 652.8          | 686.8       | 4.2%         | -5.3%       |
| Japan              | 7           | 622.5       | 671.5       | 484.3          | 477.1          | 579.8       | 3.6%         | -1.8%       |
| Netherlands        | 8           | 470.7       | 404.2       | 233.7          | 567.7          | 551.4       | 3.4%         | 4.0%        |
| Belgium            | 9           | 450.6       | 523.1       | 235.4          | 765.7          | 546.4       | 3.4%         | 4.9%        |
| United Arab        |             |             |             |                |                |             |              |             |
| Emirates           | 10          | 71.0        | 142.8       | 104.8          | 103.0          | 541.8       | 3.3%         | 66.2%       |
| Other Areas        |             | 5,238.6     | 5,946.1     | <u>5,794.7</u> | <u>6,360.6</u> | 6,152.7     | 38.0%        | 4.1%        |
| Total              |             | 13,799.1    | 15,384.1    | 13,978.9       | 16,056.4       | 16,211.9    | 100.0%       | 4.1%        |

Source: Connecticut Department of Economic and Community Development

In an effort to create jobs and investment, the Connecticut Department of Economic and Community Development has continued to work with a number of foreign companies to establish branches in Connecticut. As a result of this work, foreign countries continually invest and own firms in the state. This foreign investment is an important stimulus for Connecticut's economic growth and future productivity as 7.3% of the state's total private industry employment in 2010 was a result of foreign investment. In 2010, 101,200 Connecticut workers were employed by foreign-controlled companies. Major sources of foreign investment in Connecticut in 2010 included the Netherlands, the United Kingdom, Germany, and France.

The Connecticut Department of Economic and Community Development continues to promote international trade to increase Connecticut's global competitiveness. The methods employed to promote international trade include providing export assistance to Connecticut companies as well as providing assistance to foreign companies interested in expanding or relocating in Connecticut.

Further information regarding assistance, services, or publications is available through:

State of Connecticut
Department of Economic and Community Development
505 Hudson Street
Hartford, Connecticut 06106
(860) 270-8166, 270-8067, or 270-8068
http://www.state.ct.us/ecd

## **Connecticut's Defense Industry**

The defense industry is an integral part of Connecticut's manufacturing sector, and has been since the inception of the United States as a nation. The state's economy is still affected by the volume of defense contracts awarded or subcontracted to Connecticut firms.

In federal fiscal year (FFY) 2011, contractors in the state were awarded \$12.3 billion worth of defense-related prime contracts, with the heaviest concentration in the state's transportation equipment sector. This was up 10.8% from the \$11.1 billion received in awards in FFY 2010. Of the total awarded, the following five companies were the top contractors in the state, primarily for the described areas of work:

1. United Technologies Corp. Aircraft, Engines & Turbines

General Dynamics Corp.
 Eurpac Service Inc.
 Thomas J. Lipton Inc.
 Colt Defense LLC.
 Submarines

 Food Products

 Food Products
 Firearms

The following table shows the distribution of prime defense contracts in the state by program or type of work, with a heavy reliance on submarines and rotary wing aircraft, which is very different from the national distribution of all contracts awarded. It is this concentration in large weapon programs which plays a role in the volatility of state awards.

TABLE 43
VALUE OF PRIME CONTRACT AWARDS BY PROGRAM IN FFY 2011
(In Millions)

| Connecticut Program   | <u>Value</u> | <u>Percent</u> | <u>United States Program</u> | <u>Value</u> | <u>Percent</u> |
|-----------------------|--------------|----------------|------------------------------|--------------|----------------|
| Submarines            | \$3,839      | 31.2%          | Aircraft, Fixed Wing         | \$19,120     | 5.8%           |
| Aircraft, Rotary Wing | 2,579        | 21.0%          | Engineering & Tech Services  | 12,788       | 3.9%           |
| Gas Turbines and Jet  | 1,991        | 16.2%          | General Healthcare Services  | 11,156       | 3.4%           |
| Engines               |              |                |                              |              |                |
| Defense Aircraft,     | 838          | 6.8%           | Aircraft, Rotary Wing        | 8,225        | 2.5%           |
| Operational           |              |                |                              |              |                |
| Maintenance, Repair   | 367          | 3.0%           | Other Automatic Data         | 8,105        | 2.4%           |
| of Equip.             |              |                | Processing (ADP) &           |              |                |
|                       |              |                | Telecommunications Svcs.     |              |                |
| Other                 | 2,694        | 21.9%          | Other                        | 269,909      | 82.0%          |
| Total                 | \$12,308     | 100.0%         | Total                        | \$329,304    | 100.0%         |

Source: Federal Procurement Data System (FPDS.gov)

The following table displays the geographic distribution of prime defense contracts within the state, with the majority of the work in Fairfield, New London and Hartford Counties.

TABLE 44
GEOGRAPHIC DISTRIBUTION OF CONNECTICUT PRIME CONTRACT AWARDS
(And Total Awards in Thousands of Dollars)

| County of   |                      |                      |              |
|-------------|----------------------|----------------------|--------------|
| Contractor  | FFY 2009             | FFY 2010             | FFY 2011     |
| Fairfield   | 34.9%                | 36.4%                | 35.9%        |
| Hartford    | 28.3%                | 29.6%                | 26.2%        |
| Litchfield  | 2.0%                 | 0.3%                 | 0.4%         |
| Middlesex   | 0.7%                 | 1.1%                 | 0.4%         |
| New Haven   | 0.7%                 | 0.7%                 | 0.8%         |
| New London  | 33.2%                | 31.7%                | 36.1%        |
| Tolland     | 0.1%                 | 0.1%                 | 0.1%         |
| Windham     | 0.1%                 | 0.1%                 | 0.1%         |
| State Total | $10\overline{0.0\%}$ | $10\overline{0.0\%}$ | 100.0%       |
|             |                      |                      |              |
| State Total | \$11,833,738         | \$11,121,417         | \$12,307,957 |

Source: Federal Procurement Data System

Prime defense contracts have tended to be "leading" indicators of the state's economic activity. This means that changes in defense contract awards precede changes in employment. However, new defense contract awards cannot be directly converted into anticipated employment gains or losses because: a) contracts have different terms and different completion dates; b) subcontracting on prime awards may be done by firms in different states; c) research and development contracts are usually capital intensive rather than labor intensive; d) there often exists a time lag between contract award and funding availability; and e) as productivity improvements are achieved over time by manufacturers, the same (or greater) amount of work can be done by fewer employees. Although employment is affected by the defense budget, the state's economic activity is not immediately impacted by fluctuations in defense contracts.

To compare the relative volatility of contract awards with employment, the coefficient of variation is used: the larger the number, the greater the volatility. It is derived by dividing the standard deviation of a variable by its mean. The coefficient of variation for the state's defense contract awards, over the past decade, was 0.236 compared with 0.024 for transportation equipment employment. This implies that the fluctuations in employment are milder than the fluctuations in defense contract awards. Because most defense contract awards are long-term projects, there is usually a backlog of unfinished orders in the pipeline, allowing continued employment even if new contracts are not received.

From \$6.1 billion in FFY 2002, real defense contract awards, the value of contracts after accounting for inflation, increased to \$10.9 billion in FFY 2011. This represents an annual percentage growth rate of 6.6% per year from FFY 2002 to FFY 2011, with virtually all of the growth spurred by the wars on terrorism and in Iraq and Afghanistan.

TABLE 45 CONNECTICUT DEFENSE CONTRACT AWARDS AND RELATED EMPLOYMENT

|             |            |        | Connecticut       |        | Defense      |               |  |  |
|-------------|------------|--------|-------------------|--------|--------------|---------------|--|--|
|             | Defense    |        | Transportation    |        | Contract     | Contract      |  |  |
| Federal     | Contract   |        | Equipment         |        | Awards in    |               |  |  |
| Fiscal      | Awards     | %      | <b>Employment</b> | %      | 2005 Dollars | %             |  |  |
| <u>Year</u> | (\$ 000's) | Growth | <u>(\$ 000's)</u> | Growth | (\$ 000's)   | <u>Growth</u> |  |  |
| 2002        | 5,613,953  | 31.5   | 45.92             | (2.0)  | 6,095,497    | 29.5          |  |  |
| 2003        | 8,065,771  | 43.7   | 43.72             | (4.8)  | 8,562,389    | 40.5          |  |  |
| 2004        | 8,834,575  | 9.5    | 43.09             | (1.4)  | 9,136,065    | 6.7           |  |  |
| 2005        | 8,963,788  | 1.5    | 43.38             | 0.7    | 8,963,788    | (1.9)         |  |  |
| 2006        | 7,664,577  | (14.5) | 43.67             | 0.7    | 7,426,916    | (17.1)        |  |  |
| 2007        | 8,598,583  | 12.2   | 43.51             | (0.4)  | 8,096,594    | 9.0           |  |  |
| 2008        | 12,217,543 | 42.1   | 44.14             | 1.5    | 11,086,700   | 36.9          |  |  |
| 2009        | 11,833,738 | (3.1)  | 43.49             | (1.5)  | 10,777,539   | (2.8)         |  |  |
| 2010        | 11,121,417 | (6.0)  | 42.30             | (2.7)  | 9,956,505    | (7.6)         |  |  |
| 2011        | 12,307,957 | 10.7   | 42.13             | (0.4)  | 10,863,157   | 9.1           |  |  |
| Coefficien  | t of       |        |                   |        |              |               |  |  |
| Variat      | ion 0.236  |        | 0.024             |        | 0.234        |               |  |  |

Sources: U.S. Department of Defense, Bureau of Labor Statistics; Federal Procurement Data System

TABLE 46 COMPARISON OF U.S. AND CONNECTICUT DEFENSE CONTRACT AWARDS

|             | Connecticut   |        |               |               | U.S.          |               |               |        |
|-------------|---------------|--------|---------------|---------------|---------------|---------------|---------------|--------|
|             | Defense       |        | 3-year        |               | Defense       |               | 3-year        |        |
| Federal     | Contract      |        | Moving        |               | Contract      |               | Moving        |        |
| Fiscal      | Awards        | %      | Average       | %             | Awards        | %             | Average       | %      |
| <u>Year</u> | (\$ Millions) | Growth | (\$ Millions) | <u>Growth</u> | (\$ Millions) | <u>Growth</u> | (\$ Millions) | Growth |
| 2002        | 5,614         | 31.5   | 4,020         | 25.4          | 161,351       | 17.1          | 149,542       | 8.6    |
| 2003        | 8,066         | 43.7   | 5,983         | 48.8          | 195,865       | 21.4          | 164,983       | 10.3   |
| 2004        | 8,835         | 9.5    | 7,505         | 25.4          | 205,931       | 5.1           | 187,716       | 13.8   |
| 2005        | 8,964         | 1.5    | 8,621         | 14.9          | 239,312       | 16.2          | 213,703       | 13.8   |
| 2006        | 7,665         | (14.5) | 8,488         | (1.6)         | 261,894       | 9.4           | 235,712       | 10.3   |
| 2007        | 8,599         | 12.2   | 8,409         | (0.9)         | 299,089       | 14.2          | 266,765       | 13.2   |
| 2008        | 12,218        | 42.1   | 9,494         | 12.9          | 354,542       | 18.5          | 305,175       | 14.4   |
| 2009        | 11,834        | (3.1)  | 10,883        | 14.6          | 330,554       | (6.8)         | 328,062       | 7.5    |
| 2010        | 11,121        | (6.0)  | 11,724        | 7.7           | 322,659       | (2.4)         | 335,918       | 2.4    |
| 2011        | 12,308        | 10.7   | 11,754        | 0.3           | 329,304       | 2.1           | 327,506       | (2.5)  |

Coefficient of

Variation 0.236 0.248

Source: U.S. Department of Defense, Federal Procurement Data System

The coefficient of variation for Connecticut's defense contract awards over the past decade was 0.236, compared to 0.248 for the U.S., reflecting a pattern of fluctuations in the state's annual levels of defense contract awards which is not inconsistent with that of awards nationally. This is a break from most analyses in the past that have demonstrated greater volatility at the state level.

As defense contract awards normally take several years to complete, the 3-year moving average is better reflection of actual production activities. Overall defense changes in Connecticut have historically been more severe and more volatile than the national average. Both of these factors have negative implications for the state's economy. Volatility imposes difficulties for the industry in terms of long term planning, making future capital investment less likely and decreasing the dollars devoted to research and development.

Connecticut's total defense awards, based on a three year moving average, increased at an annual percentage growth rate of 12.7% during the nine-year period from 2002 to 2011, compared to a percentage growth rate of 11.8% for the nation. Most of this growth came between 2002 and 2005 and in the most recent fiscal years because Connecticut has been much more dependent on contracts that include procurement of aircraft, engines and ships than is the nation as a whole, and these contracts declined through most of the 1990s. During the 1990s, defense policy strategies shifted from a focus on the threat of global conflict to regional contingencies. Procurement practices shifted from an emphasis on full production of new systems to the development of prototypes; therefore, defense procurement had been falling at a faster rate than overall defense spending, although the war on terrorism resulted in another shift in procurement strategy.

The relative share of defense related production activity, measured by the size of the moving average of defense contract awards compared to Gross State Product (GSP), hovered around 2.0% and below in the late 1990s, rose to 4.0% in FFY 2004 and has generally hovered around 4.0% to 5% since then. In comparison, this share was 9.8% in 1982. The following table provides a ten year history of U.S. and Connecticut defense awards and the proportion of state GSP such awards represent.

In FFY 2011, while Connecticut ranked eighth in total defense contracts awarded, it ranked third in per capita defense dollars awarded with a figure of \$3,437. This figure was 3.3 times the national average of \$1,055. In 2010, Connecticut ranked eighth in total defense contracts awarded and second in per capita defense dollars awarded with a figure of \$3,112. This was 3.0 times the national average of \$1,032 for that year.

The wars in Afghanistan and Iraq and the war on terrorism created a need for replacements for lost equipment and systems, spare parts, and new features on existing systems as new needs were identified in the ever-changing environment. The winding down of those wars, combined with the need for fiscal restraint at the national level, will likely result in lower growth for this sector.

TABLE 47
CONNECTICUT DEFENSE CONTRACT AWARDS AND GSP

|             | Connecticut   | U.S.          |         | Cal. Year     | 3-year        |         |
|-------------|---------------|---------------|---------|---------------|---------------|---------|
|             | Defense       | Defense       |         | CT GSP        | Average       | CT      |
| Federal     | Contract      | Contract      |         | Current       | CT            | Awards  |
| Fiscal      | Awards        | Awards        | CT as % | Dollars       | Awards        | as % of |
| <u>Year</u> | (\$ Millions) | (\$ Millions) | of U.S. | (\$ Millions) | (\$ Millions) | CT GSP  |
| 2002        | 5,614         | 161,351       | 3.5     | 168,617       | 4,020         | 2.4     |
| 2003        | 8,066         | 195,865       | 4.1     | 171,585       | 5,983         | 3.5     |
| 2004        | 8,835         | 205,931       | 4.3     | 184,290       | 7,505         | 4.1     |
| 2005        | 8,964         | 239,312       | 3.7     | 194,131       | 8,621         | 4.4     |
| 2006        | 7,665         | 261,894       | 2.9     | 205,685       | 8,488         | 4.1     |
| 2007        | 8,599         | 299,089       | 2.9     | 219,229       | 8,409         | 3.8     |
| 2008        | 12,218        | 354,542       | 3.4     | 221,071       | 9,494         | 4.3     |
| 2009        | 11,834        | 330,554       | 3.6     | 214,057       | 10,883        | 5.1     |
| 2010        | 11,121        | 322,659       | 3.4     | 218,337       | 11,724        | 5.4     |
| 2011        | 12,308        | 329,304       | 3.7     | 229,142       | 11,754        | 5.1     |
| Coefficier  | at of         |               |         |               |               |         |

Coefficient of

Variation 0.236 0.248

Source: U.S. Department of Defense, Department of Commerce, Federal Procurement Data System

Some of the primary defense systems of interest to Connecticut include:

- 1. The CH-53K Heavy Lift Helicopter
- 2. The UH-60 Utility Helicopter (Blackhawk)
- 3. The S-70i Black Hawk Helicopter
- 4. The MH-60R Helicopter (Seahawk)
- 5. The MH-60S Helicopter (Seahawk)
- 6. The C-17 Globemaster Aircraft
- 7. The F-15 Aircraft
- 8. The F-16 Aircraft
- 9. The F-22 RaptorAircraft
- 10. The F-35 Joint Strike Fighter (JSF) Aircraft
- 11. The H-92 Superhawk
- 12. The S-70B Seahawk
- 13. The SA-38B Surveillance Aircraft
- 14. The SA2-37B Reconnaissance Aircraft
- 15. The Virginia Class Submarine

TABLE 48 COMPARISON OF STATE PRIME CONTRACT AWARDS Federal Fiscal Year 2011

|                |             |             | \$ Per        |             |                |            |             | \$ Per        |             |
|----------------|-------------|-------------|---------------|-------------|----------------|------------|-------------|---------------|-------------|
|                | Prime       |             | Capita        |             |                | Prime      |             | Capita        |             |
|                | Contract    |             | Prime         |             |                | Contract   |             | Prime         |             |
|                | Awards      |             | Contract      |             |                | Awards     |             | Contract      |             |
| <u>State</u>   | (\$ 000's)  | <u>Rank</u> | <u>Awards</u> | <u>Rank</u> | <u>State</u>   | (\$ 000's) | <u>Rank</u> | <u>Awards</u> | <u>Rank</u> |
| Virginia       | 42,753,811  | 1           | 5,280         | 1           | Florida        | 12,348,886 | 6           | 648           | 26          |
| Maine          | 5,054,869   | 22          | 3,806         | 2           | Louisiana      | 2,949,470  | 27          | 645           | 27          |
| Connecticut    | 12,307,957  | <u>8</u>    | 3,437         | <u>3</u>    | New Mexico     | 1,334,503  | 36          | 641           | 28          |
| Alaska         | 1,822,494   | 33          | 2,522         | 4           | Oklahoma       | 2,409,964  | 30          | 636           | 29          |
| Maryland       | 12,473,029  | 5           | 2,140         | 5           | Indiana        | 4,032,302  | 24          | 619           | 30          |
| Hawaii         | 2,814,736   | 28          | 2,047         | 6           | South Dakota   | 466,455    | 43          | 566           | 31          |
| Alabama        | 9,767,304   | 10          | 2,034         | 7           | Nevada         | 1,477,758  | 35          | 543           | 32          |
| Arizona        | 12,908,077  | 4           | 1,991         | 8           | North Dakota   | 366,906    | 44          | 536           | 33          |
| Mississippi    | 5,494,758   | 21          | 1,845         | 9           | Vermont        | 334,229    | 45          | 534           | 34          |
| Massachusetts  | 12,115,554  | 9           | 1,839         | 10          | Ohio           | 5,521,199  | 20          | 478           | 35          |
| Missouri       | 8,818,787   | 11          | 1,467         | 11          | Illinois       | 6,068,659  | 18          | 472           | 36          |
| Kentucky       | 6,189,613   | 17          | 1,417         | 12          | Tennessee      | 2,770,195  | 29          | 433           | 37          |
| Colorado       | 6,316,009   | 16          | 1,234         | 13          | North Carolina | 4,067,435  | 23          | 421           | 38          |
| Texas          | 30,588,301  | 3           | 1,191         | 14          | Nebraska       | 741,439    | 42          | 402           | 39          |
| Washington     | 7,838,361   | 12          | 1,148         | 15          | New York       | 7,645,212  | 13          | 393           | 40          |
| California     | 40,454,604  | 2           | 1,073         | 16          | Iowa           | 1,190,184  | 38          | 389           | 41          |
| Wisconsin      | 5,835,714   | 19          | 1,022         | 17          | Michigan       | 3,650,995  | 25          | 370           | 42          |
| New Hampsh.    | 1,284,630   | 37          | 975           | 18          | Delaware       | 310,824    | 46          | 343           | 43          |
| Pennsylvania   | 12,309,322  | 7           | 966           | 19          | Arkansas       | 954,515    | 39          | 325           | 44          |
| New Jersey     | 7,462,267   | 15          | 846           | 20          | Montana        | 294,986    | 47          | 296           | 45          |
| Utah           | 2,289,498   | 31          | 813           | 21          | Minnesota      | 1,570,447  | 34          | 294           | 46          |
| Georgia        | 7,540,807   | 14          | 768           | 22          | Wyoming        | 129,819    | 50          | 228           | 47          |
| Rhode Island   | 799,673     | 40          | 761           | 23          | Oregon         | 795,527    | 41          | 205           | 48          |
| South Carolina | 3,501,844   | 26          | 748           | 24          | West Virginia  | 226,414    | 48          | 122           | 49          |
| Kansas         | 2,038,700   | 32          | 710           | 25          | Idaho          | 185,513    | 49          | 117           | 50          |
| U.S. Total \$3 | 328,682,200 |             | 1,055         |             |                |            |             |               |             |

Source: Federal Procurement Data System (FPDS.gov), Bureau of the Census

## **Retail Trade in Connecticut**

Consumer spending on goods and services, ranging from pencils to refrigerators to haircuts to electricity, accounted for approximately seventy percent of the gross domestic product (GDP) in fiscal 2012. During the last decade, variations in retail trade closely matched variations in GSP growth, making retail trade an important barometer of economic health.

The North American Industry Classification includes establishments that engage in selling merchandise for personal or household consumption and rendering services incidental to the sale of the goods in the retail trade industry. The North American Industry Classification System (NAICS) codes for retail trade are from NAICS 44 to NAICS 45. In general, retail establishments are classified in these codes according to the principal lines of commodities sold (apparel, groceries, etc.) or the usual trade designation (liquor store, drug store, etc.).

The following table shows the major group in each NAICS code as well as the state's retail trade history for the past two fiscal years. Retail sales reflect the pulse of economic conditions: they perform strongly as the economy expands whereas they perform poorly during a recession. Connecticut retail trade in fiscal 2012 totaled \$53.2 billion, a 7.6% increase over fiscal year 2011 and the second straight year of increased total trade.

TABLE 49
RETAIL TRADE IN CONNECTICUT
(In Millions)

|                               |                                   | FY           | % of         | FY           | % of         | %             |
|-------------------------------|-----------------------------------|--------------|--------------|--------------|--------------|---------------|
| <b>NAICS</b>                  | <u>Industry</u>                   | <u>2011</u>  | <u>Total</u> | <u>2012</u>  | <u>Total</u> | <u>Change</u> |
| 441                           | Motor Vehicle and Parts Dealers   | \$7,610      | 15.4%        | \$7,996      | 15.0%        | 5.1%          |
| 442                           | Furniture and Home Furnishings    | 1,221        | 2.5%         | 1,182        | 2.2%         | (3.3)%        |
|                               | Stores                            |              |              |              |              |               |
| 443                           | Electronics and Appliance Stores  | 1,582        | 3.2%         | 1,748        | 3.3%         | 10.4%         |
| 444                           | Building Material and Garden      | 2,845        | 5.8%         | 3,023        | 5.7%         | 6.2%          |
| 445                           | Food and Beverage Stores          | 10,222       | 20.7%        | 10,799       | 20.3%        | 5.6%          |
| 446                           | Health and Personal Care Stores   | 5,066        | 10.2%        | 4,667        | 8.8%         | (7.9)%        |
| 447                           | Gasoline Stations                 | 3,426        | 6.9%         | 3,788        | 7.1%         | 10.5%         |
| 448                           | Clothing and Clothing Accessories | 2,739        | 5.5%         | 2,827        | 5.3%         | 3.2%          |
|                               | Stores                            |              |              |              |              |               |
| 451                           | Sporting Goods, Hobby, Book and   | 1,013        | 2.0%         | 978          | 1.8%         | (3.5)%        |
|                               | Music Stores                      |              |              |              |              |               |
| 452                           | General Merchandise Stores        | 5,275        | 10.7%        | 5,376        | 10.1%        | 1.9%          |
| 453                           | Miscellaneous Store Retailers     | 4,757        | 9.6%         | 5,016        | 9.4%         | 5.4%          |
| 454                           | Nonstore Retailers                | <u>3,677</u> | 7.4%         | <u>5,809</u> | 10.9%        | <u>58.0%</u>  |
|                               | Total                             | \$49,433     | 100.0%       | \$53,209     | 100.0%       | 7.6%          |
|                               |                                   |              |              |              |              |               |
| Durables                      | s (NAICS 441,442, 443, 444)       | \$13,258     | 26.8%        | \$13,949     | 26.2%        | 5.2%          |
| Nondurables (All Other NAICS) |                                   | \$36,175     | 73.2%        | \$39,260     | 73.8%        | 8.5%          |
|                               | ,                                 | •            |              | •            |              |               |

Source: Connecticut Department of Revenue Services

Retail trade can be broken down into two major categories; durable and nondurable goods. Durable goods are items that presumably last three years or more and include such items as automobiles, furniture, and appliances. Nondurable goods have a shorter life span and include such items as food, gas, apparel, and other miscellaneous products. Durable goods are normally big-ticket items that are sensitive to interest rates and the overall economic climate. Purchases of durable goods increase when interest rates decrease or consumers' income grows and consumer confidence increases as was the case in fiscal 2012 when durable goods sales grew by 5.2%.

Sales of durable goods experience greater fluctuations during changing economic conditions. Growth in sales at retail stores that concentrate on durable goods tends to increase faster than the growth in gross state product during expansionary years and experience greater declines during recessionary years. Sales of nondurable goods are typically less volatile as most items are deemed "necessities" and relatively inelastic regardless of price variations. Necessities include such items as food, footwear, clothing, gasoline, and drugs. The previous table shows that Connecticut sales of nondurable goods increased by 8.5% in fiscal 2012.

In addition to the traditional transactions occurring in Connecticut-based "bricks and mortar" establishments, a significant amount of retail activity is also taking place within and beyond the state's borders through mail and on-line order sales.

U.S. Supreme Court rulings forbid states from forcing retailers to collect sales tax unless the seller has a physical presence in the state where the purchase is made (nexus). As retail sales via the Internet grew rapidly, the U.S. Department of Commerce started estimating e-commerce quarterly transactions in late 1999. In fiscal 2012, national retail e-commerce sales are estimated at \$208.1 billion, accounting for 4.9% of total retail sales of \$4,267.8 billion. Retail transactions through the Internet in general have increased much faster than traditional brick and mortar sales. Estimated e-commerce retail sales rose by 15.4% in fiscal 2012 compared to a 5.5% increase for traditional retail sales. The estimate of e-commerce sales does not include travel agencies, financial services, manufacturers, and wholesalers.

Connecticut has seen an erosion of its tax base due to the Internet sales trend. In a study conducted by the University of Tennessee's Center for Business and Economic Research in April 2009, it was estimated that in 2012, Connecticut would lose approximately \$67.3 million in state revenue due to e-commerce. Although the Office of Policy and Management believes that the revenue loss is significant, the exact amount is difficult to determine as more traditional "bricks and mortar" retailers with nexus in Connecticut establish internet sales channels and collect the state sales tax. The issue is compounded by the fact that in those instances where an internet retailer does not collect the tax, voluntary compliance by most residents to pay the use tax on such transactions has been low.

Currently, state and local governments as well as the private sector have undertaken a joint effort referred to as the Streamlined Sales Tax Project (SSTP). The project's aim is to fundamentally restructure the national sales tax system by creating a uniform taxable base, thereby simplifying tax administration among the states. The Streamlined Sales and Use Tax Agreement went into effect in October of 2005. As of December 2012, 24 of the 44 states who have authorized the participation in SSTP have enacted legislation to fully comply with the agreement to become full-member states, including New Jersey, Rhode Island, and Vermont.

Connecticut is currently one of the 44 states referred to as a participant state, as it has not enacted legislation to modify its sales tax.

For years, the world's largest internet retailer, Amazon, has fought against state efforts to require the collection of sales taxes on its sales. As it seems that the taxation of online sales is a foregone conclusion, as more and more states pass creative legislation that indirectly circumvents current restrictions, including California and Connecticut, Amazon has now joined the effort to work toward a national standard on taxing online sales. In addition, Amazon's desire to shorten delivery time has necessitated additional warehouse facilities in closer proximity to customers, thereby creating nexus in more jurisdictions.

Retail trade as a percentage of disposable income in Connecticut increased to 30.0% in fiscal 2012, from 28.1% in FY 2011. The increase reflects higher growth in the demand for goods, and to a lesser extent for services than disposable income. The state's per capita disposable income of \$49,350 in FY 2012 was 31.9% above the national average of \$37,403. In FY 2012, Connecticut per capita retail trade was estimated at \$14,808. With the highest per capita disposable income in the nation, continued long-term growth in retail sales is expected. In general, wealthier people tend to purchase more expensive cars and replace them more frequently. The same may be applicable for other durable goods such as computer equipment, appliances and furniture. Additional factors that affect the level of expenditures include tax burden, consumer confidence, economic climate as well as the condition of a household's balance sheet.

According to the 2007 economic census on retail sales, a survey that is done once every five years by the U.S. Department of Commerce, Connecticut had \$52.2 billion of retail sales, up from \$42.0 billion in 2002. Retail sales varied among the state's eight counties with most sales concentrated in Fairfield, Hartford, and New Haven. These three counties accounted for 79.2% of total sales, with the remaining 20.8% spread among the other five counties. The following two tables provide detail on retail sales activity by county. Growth in sales also varied among counties. Between 2002 and 2007, Hartford increased the fastest at 35.2%, followed by Tolland at 34.9%, compared to a less than 20% growth for Fairfield and Litchfield.

Although the retail trade sector is one of the major sources of jobs in the Connecticut economy, the number of establishments has declined. In 2007, the sector had 13,807 establishments down from 13,861 in 2002.

TABLE 50
RETAIL SALES IN CONNECTICUT BY COUNTY

|                         | Per            |              |                  |                   |             |            |              |              |  |  |  |
|-------------------------|----------------|--------------|------------------|-------------------|-------------|------------|--------------|--------------|--|--|--|
|                         |                | %            | Number           | Employee          | Employees   | Number     | Annual       | %            |  |  |  |
|                         | Sales          | Of           | of               | Sales             | Per         | of         | Payroll      | of           |  |  |  |
|                         | <u>(\$M)</u>   | <u>Total</u> | <b>Employees</b> | <u>(\$ 000's)</u> | Establish.  | Establish. | <u>(\$M)</u> | <u>Total</u> |  |  |  |
| A. 2002 Economic Census |                |              |                  |                   |             |            |              |              |  |  |  |
| Fairfield               | 13,931.1       | 33.2%        | 54,834           | 254.1             | 14.1        | 3,876      | 1,524.3      | 33.6%        |  |  |  |
| Hartford                | 10,220.4       | 24.4%        | 50,872           | 200.9             | 15.2        | 3,347      | 1,101.7      | 24.3%        |  |  |  |
| Litchfield              | 2,090.3        | 5.0%         | 8,830            | 236.7             | 11.3        | 784        | 212.8        | 4.7%         |  |  |  |
| Middlesex               | 1,607.9        | 3.8%         | 8,346            | 192.7             | 11.2        | 743        | 187.2        | 4.1%         |  |  |  |
| New Haven               | 9,268.4        | 22.1%        | 44,627           | 207.7             | 13.9        | 3,218      | 985.8        | 21.8%        |  |  |  |
| New London              | 3,011.9        | 7.2%         | 14,752           | 204.2             | 13.2        | 1,119      | 319.4        | 7.0%         |  |  |  |
| Tolland                 | 894.3          | 2.1%         | 4,522            | 197.8             | 11.7        | 387        | 98.1         | 2.2%         |  |  |  |
| Windham                 | 928.4          | 2.2%         | 5,024            | <u>184.8</u>      | <u>13.0</u> | <u>387</u> | <u>101.8</u> | <u>2.2%</u>  |  |  |  |
| Total                   | 41,952.7       | 100.0%       | 191,807          | 218.7             | 13.8        | 13,861     | 4,531.1      | 100.0%       |  |  |  |
| B. 2007 Economic Census |                |              |                  |                   |             |            |              |              |  |  |  |
| Fairfield               | 15,702.2       | 30.1%        | 53,738           | 292.2             | 14.3        | 3,770      | 1,648.8      | 32.0%        |  |  |  |
| Hartford                | 13,820.7       | 26.5%        | 53,241           | 259.6             | 15.6        | 3,423      | 1,310.7      | 25.4%        |  |  |  |
| Litchfield              | 2,458.2        | 4.7%         | 9,059            | 271.4             | 11.5        | 788        | 239.8        | 4.6%         |  |  |  |
| Middlesex               | 2,129.2        | 4.1%         | 8,300            | 256.5             | 11.1        | 749        | 209.9        | 4.1%         |  |  |  |
| New Haven               | 11,785.3       | 22.6%        | 46,058           | 255.9             | 14.5        | 3,172      | 1,112.5      | 21.6%        |  |  |  |
| New London              | 3,883.0        | 7.4%         | 15,660           | 248.0             | 13.9        | 1,123      | 390.4        | 7.6%         |  |  |  |
| Tolland                 | 1,206.3        | 2.3%         | 5,207            | 231.7             | 12.8        | 406        | 126.3        | 2.4%         |  |  |  |
| Windham                 | <u>1,180.6</u> | 2.3%         | 4,870            | <u>242.4</u>      | <u>13.0</u> | <u>376</u> | <u>122.0</u> | 2.3%         |  |  |  |
| Total                   | 52,165.5       | 100.0%       | 196,133          | 266.0             | 14.2        | 13,807     | 5,160.4      | 100.0%       |  |  |  |
| C. Growth (%            | ) from 200     | 02 to 200    | <u>)7</u>        |                   |             |            |              |              |  |  |  |
| Fairfield               | 12.7           |              | (2.0)            | 15.0              | 1.4         | (2.7)      | 8.2          |              |  |  |  |
| Hartford                | 35.2           |              | 4.7              | 29.2              | 2.6         | 2.3        | 19.0         |              |  |  |  |
| Litchfield              | 17.6           |              | 2.6              | 14.7              | 1.8         | 0.5        | 12.7         |              |  |  |  |
| Middlesex               | 32.4           |              | (0.6)            | 33.1              | (0.9)       | 0.8        | 12.7         |              |  |  |  |
| New Haven               | 27.2           |              | 3.2              | 23.2              | 4.3         | (1.4)      | 12.1         |              |  |  |  |
| New London              | 28.9           |              | 6.2              | 21.4              | 5.3         | 0.4        | 22.2         |              |  |  |  |
| Tolland                 | 34.9           |              | 15.1             | 17.1              | 9.4         | 4.9        | 28.7         |              |  |  |  |
| Windham                 | 27.2           |              | (3.1)            | 31.2              | 0.0         | (2.8)      | 19.8         |              |  |  |  |
| vviiidiidiii            | 21.2           |              | ` ,              | J1.4              |             | (2.0)      |              |              |  |  |  |
| Total                   | 24.3           |              | 2.3              | 21.6              | 2.9         | (0.4)      | 13.9         |              |  |  |  |

Source: U.S. Department of Commerce, 2007 Economic Census

The following table compares retail sales with personal income growth and changes in population. Slower sales growth in Fairfield reflected negative growth in population and number of establishments while the healthy sales growth in Tolland reflected the 4.9% increase in the number of establishments as well as an above average increase in personal income and population.

TABLE 51
RETAIL SALES, INCOME AND POPULATION BY COUNTY

|             | Retail Sales | Personal Income (\$B) |             |            | Pop         | Population (000's) |            |  |
|-------------|--------------|-----------------------|-------------|------------|-------------|--------------------|------------|--|
|             | % Change     |                       |             | % Change   |             | % Change           |            |  |
|             | '02 to '07   | <u>2002</u>           | <u>2007</u> | '02 to '07 | <u>2002</u> | <u>2007</u>        | '02 to '07 |  |
| Fairfield   | 12.7%        | 53.43                 | 70.75       | 32.4%      | 890.6       | 889.1              | (0.2%)     |  |
| Hartford    | 35.2%        | 34.15                 | 44.25       | 29.6%      | 864.5       | 874.1              | 1.1%       |  |
| Litchfield  | 17.6%        | 7.29                  | 9.41        | 29.1%      | 185.7       | 188.5              | 1.5%       |  |
| Middlesex   | 32.4%        | 6.32                  | 8.43        | 33.3%      | 159.2       | 164.0              | 3.0%       |  |
| New Haven   | 27.2%        | 30.56                 | 38.55       | 26.2%      | 832.4       | 843.6              | 1.4%       |  |
| New London  | 28.9%        | 9.52                  | 12.06       | 26.7%      | 263.1       | 264.5              | 0.5%       |  |
| Tolland     | 34.9%        | 4.93                  | 6.52        | 32.3%      | 142.0       | 148.2              | 4.4%       |  |
| Windham     | 27.2%        | 3.27                  | 4.10        | 25.2%      | 111.0       | 116.7              | 5.1%       |  |
| Connecticut | 24.3%        | 149.47                | 194.07      | 29.8%      | 3,448.4     | 3,488.6            | 1.2%       |  |

Source: U.S. Department of Commerce, Bureau of Economic Analysis

## **Small Business in Connecticut**

Small businesses in the nation, as well as in Connecticut, play an important role in overall economic activity. Small businesses are often cited as major labor generators, important job providers, and the primary technological innovators. Studies have shown that small businesses contributed the majority of the scientific and technological advances and developments in the twentieth century. They tend to be externally efficient which leads to the creation of new products, new jobs, and new processes. On the other hand, large business firms tend to be internally efficient, which leads to substituting capital for labor and focusing on cutting operational costs. In addition, small businesses help develop the free enterprise system, deterring monopoly formation by providing competition. With greater innovation and product differentiation occurring within small businesses, large firms are forced to improve productivity in order to respond to marketplace competition, thereby increasing society's social well-being and standard of living.

Structurally, small businesses tend mostly to be sole proprietorships and partnerships, and, to a lesser extent, corporations. These organizations range from "mom and pop" stores to high-tech instrument laboratories. The definition of a small business, however, varies, and may even change over time.

Theoretically, a small business firm is one that does not benefit from an economy of scale available to large firms. The U.S. Small Business Administration (SBA), in determining eligibility for loans and assistance, takes into account whether the entity concerned is dominant in its market. Other criteria include the amount of annual receipts and number of employees, which may vary by industry. The definition of small business varies from state to state based on comparative size in the regional economy, industrial structure, and policy emphasis.

According to Connecticut General Statutes, Chapter 588r, a small business is a firm with an employee size of 500 or less. It includes employees in any subsidiary or affiliate of a

corporation, partnership, or sole proprietorship, operating for profit. For entities focused on special innovative research programs, the size of a small business is based upon federal guidelines.

According to the classification of the U.S. Department of Commerce, businesses can be broken down into several groups by employment size. Since the definition for small business is not generally agreed upon, the Department of Commerce, simply lists all employment classes for comparison rather than identifying them by specific size.

In 2010, the latest year for which complete, consistent and comparable data is available, among the total 89,234 establishments employing 1,436,992 persons in Connecticut, small businesses with fewer than 100 employees accounted for 79.5% of total establishments and 35.1% of the total labor force.

The table on the following page shows the breakdown of employment for manufacturing and non-manufacturing sectors and the distribution statistics for establishments and employment by business size in Connecticut. This table demonstrates that while small businesses constitute a major part of the state's employment, they have been decreasing in size as a part of the total economy, especially between 2005 and 2010.

The table also shows that, similarly to 2005, small business firms play as important of a role in the manufacturing sector as the nonmanufacturing sector. In 2010, manufacturing businesses with less than 500 employees accounted for 50.3% of manufacturing employment, compared to 50.6% in 2005. In the nonmanufacturing sector, small business firms accounted for 49.6% of all employment in that sector, down slightly from 50.5% in 2005. Cumulatively, small businesses accounted for 49.7% of total employment in 2010, though 84.3% of business establishments were firms of less than 500 employees.

Between 2000 and 2010, the two recessions that occurred during the decade had a very noticeable impact on both small businesses and total employment in Connecticut. In 2010, total employment in the state was down 7.1% from 2000, but small businesses were hit especially hard, particularly in the manufacturing sector. From 2000-2010, the number of firms with less than 500 employees in the manufacturing sector decreased by 28.3%, compared to a decrease of 4.8% in the nonmanufacturing sector. Overall, small business employment decreased 8% from 2000 to 2010.

TABLE 52
SMALL BUSINESS EMPLOYMENT IN CONNECTICUT
(Size of Employment in Thousands)

| Calendar Year          | 1 to 4         | <u>5 to 9</u> | <u>10 to 19</u> | 20 to 99      | 100 to 499        | <u>500&amp;up</u> | <u>Total</u>   |
|------------------------|----------------|---------------|-----------------|---------------|-------------------|-------------------|----------------|
| A. Employment          |                |               | Manu            | facturing E   | <u>mployment</u>  |                   |                |
| 2000                   | 3.5            | 6.1           | 12.1            | 44.3          | 40.8              | 125.9             | 232.8          |
| 2005                   | 3.3            | 5.9           | 10.5            | 39.5          | 34.6              | 91.5              | 185.3          |
| 2010                   | 3.1            | 5.1           | 8.8             | 31.5          | 28.2              | 75.9              | 152.6          |
| (# Change, 00-10)      | -0.4           | -1.0          | -3.3            | -12.8         | -12.6             | -50.0             | -80.2          |
| (% Growth, 00-10)      | <i>-</i> 11.4% | -16.4%        | -27.3%          | -28.9%        | -30.9%            | -39.7%            | <i>-</i> 34.5% |
| (% Growth, 00-05)      | -5.7%          | -3.3%         | -13.2%          | -10.8%        | -15.2%            | -27.3%            | -20.4%         |
| (% Growth, 05-10)      | -6.1%          | -13.6%        | -16.2%          | -20.3%        | -18.5%            | -17.0%            | <i>-</i> 17.6% |
|                        |                |               | Nonmar          | nufacturing   | <b>Employment</b> |                   |                |
| 2000                   | 72.9           | 85.5          | 101.0           | 227.2         | 181.2             | 644.8             | 1,313.5        |
| 2005                   | 72.6           | 85.2          | 101.9           | 230.6         | 189.2             | 665.1             | 1,344.6        |
| 2010                   | 68.7           | 78.1          | 97.9            | 210.8         | 181.4             | 647.5             | 1,284.4        |
| (# Change, 00-10)      | -4.2           | -7.4          | -3.1            | -16.4         | 0.2               | 2.7               | -29.1          |
| (% Growth, 00-10)      | -5.8%          | -8.7%         | -3.1%           | <i>-</i> 7.2% | 0.1%              | 0.4%              | -2.2%          |
| (% Growth, 00-05)      | -0.4%          | -0.4%         | 0.9%            | 1.5%          | 4.4%              | 3.1%              | 2.4%           |
| (% Growth, 05-10)      | <i>-</i> 5.4%  | -8.3%         | -3.9%           | -8.6%         | <b>-4</b> .1%     | -2.6%             | <i>-</i> 4.5%  |
|                        |                |               | <u>T</u>        | otal Emplo    | <u>yment</u>      |                   |                |
| 2000                   | 76.4           | 91.6          | 114.1           | 271.4         | 222.0             | 770.6             | 1,546.3        |
| 2005                   | 75.9           | 91.1          | 112.4           | 270.1         | 223.9             | 756.6             | 1,529.8        |
| 2010                   | 71.9           | 83.2          | 106.8           | 242.3         | 209.5             | 723.4             | 1,437.0        |
| (# Change, 00-10)      | <b>-</b> 4.5   | -8.4          | <b>-</b> 7.3    | <b>-2</b> 9.1 | -12.5             | -47.2             | -109.3         |
| (% Growth, 00-10)      | -5.9%          | -9.2%         | -6.4%           | -10.7%        | -5.6%             | -6.1%             | <i>-</i> 7.1%  |
| (% Growth, 00-05)      | -0.7%          | -0.5%         | <i>-</i> 1.5%   | -0.5%         | 0.9%              | -1.8%             | <i>-</i> 1.1%  |
| (% Growth, 05-10)      | <i>-</i> 5.3%  | -8.7%         | -5.0%           | -10.3%        | -6.4%             | -4.4%             | -6.1%          |
| B. Total Establishmen  | ts             |               |                 |               |                   |                   |                |
| 2010                   | 41.6           | 12.8          | 8.4             | 8.1           | 4.3               | 14                | 89.2           |
| C. Distribution of Est | ablishmen      | ıts & Emp     | loyment, 2      | 010           |                   |                   |                |
| Establishments         | 46.6%          | 14.3%         | 9.4%            | 9.1%          | 4.8%              | 15.7%             | 100.0%         |
| Cumulative             | 46.6%          | 61.0%         | 70.4%           | 79.5%         | 84.3%             | 100.0%            |                |
| Total Employment       | 5.0%           | 5.8%          | 7.4%            | 16.9%         | 14.6%             | 50.3%             | 100.0%         |
| Cumulative             | 5.0%           | 10.8%         | 18.2%           | 35.1%         | 49.7%             | 100.0%            |                |
| Nonmfg Employ.         | 5.3%           | 6.1%          | 7.6%            | 16.4%         | 14.1%             | 50.4%             | 100.0%         |
| Cumulative             | 5.3%           | 11.4%         | 19.1%           | 35.5%         | 49.6%             | 100.0%            |                |

Note: Totals may not add due to rounding.

Source: U.S. Bureau of the Census

Small businesses are constantly facing operational difficulties and at the same time confronting competition from larger firms. To ensure constant growth for the economy, it is imperative that policy makers pay special attention to small businesses. Recognizing that small business is an important engine of economic growth, the State has aggressively created and provided a wide range of programs and services aimed to help expand or set-up new businesses. The Connecticut Department of Economic and Community Development (DECD) has partnered with the Connecticut Economic Resource Center, Inc. to provide programs such as counseling, training, financing, technical assistance, and trade information to assist this important sector.

For more information, please write or contact the following:

Connecticut Economic Resource Center, Inc. 805 Brook Street, Building 4
Rocky Hill, CT 06067
<a href="http://cerc.com/">http://cerc.com/</a>
1-860-571-7136
1-800-392-2122
Fax: 1-860-571-7150

Connecticut Department of Economic and Community Development
Research Division
505 Hudson Street
Hartford, CT 06106
<a href="http://www.ct.gov/ecd/">http://www.ct.gov/ecd/</a>
1-860-270-8000

#### Nonfinancial Debt

For many years, national attention has been centered on the issue of the federal budget and trade deficits, as well as the level of indebtedness of domestic nonfinancial entities. Domestic Nonfinancial Debt (DNFD) is the aggregate net indebtedness of all nonfinancial borrowers in the United States. It includes the borrowings of all levels of government, business and households. It excludes the debt of foreigners and the liabilities of financial intermediaries such as commercial banks, thrift institutions and finance companies. As required by the Full Employment and Balanced Growth Act of 1978, DNFD is compiled quarterly by the Federal Reserve System.

The following table shows the 22-year history from 1990 to 2011 for total DNFD and each of its components. In 2011, the year-end total domestic nonfinancial debt outstanding was \$37,832.60 billion, approximately 2.5 times of GDP.

Hovering at a 9% growth rate from 2003 through 2007, total non-financial debt slowed to a growth of 3.1% in 2009, 4.1% in 2010, and 3.6% in 2011 due to the financial crisis that hit the U.S. economy in mid 2008. Total non-financial debt between 2000 and 2011 has grown 108.3%, outpacing the growth in GDP of 51.0%. Among the four components listed on the table below, Federal indebtedness grew the fastest at 199.2% while business debts grew the slowest at 78.4%. Households continued to grow steadily at 85.1% and local government at increased significantly to 150.6%. Prior to 1990, household borrowing trailed that of businesses; however, faster growth since 1991 in home mortgages and consumer credit coupled with a

steady increase in income helped catapult household borrowing to the top. Nonetheless, a number of large federal fiscal stimulus programs starting in 2008 including tax rebate checks, the American Recovery & Reinvestment Act (ARRA), job creation, etc. resulted in three consecutive years of more than \$1.2 trillion a year of federal borrowing. This represented more than 20% of the annual growth, yielding a public sector increase of 186.5% over the past decade versus only 81.9% for the private sector. Of the total \$37.83 trillion nonfinancial debt outstanding, households accounted for 34.2%, followed by nonfinancial business at 31.1%, the federal government at 26.8%, and state and local governments at 7.9%. Debt outstanding in the private sector accounted for 65.3% of the total in 2011, down from 74.8% in 2000.

TABLE 53
DOMESTIC NON-FINANCIAL DEBT (DNFD) OUTSTANDING BY SECTOR IN THE U.S.
In Billions of Dollars at Yearend

|  |                     |                     |                     | 2011         | Gro      | owth     |
|--|---------------------|---------------------|---------------------|--------------|----------|----------|
|  |                     |                     |                     | % of         | (1990    | (2000    |
|  | <u>1990</u>         | <u>2000</u>         | <u>2011</u>         | <u>Total</u> | to 2000) | to 2011) |
| 1. Private Sector                      |                     |                     |                     |              |          |          |
| a. Households                          |                     |                     |                     |              |          |          |
| Home Mortgages                         | \$2,488.8           | \$4,798.4           | \$9,721.6           | 25.7%        | 92.8%    | 102.6%   |
| Consumer Credit                        | 824.4               | 1,741.3             | 2,631.7             | 7.0%         | 111.2%   | 51.1%    |
| Other                                  | <u>267.7</u>        | <u>447.6</u>        | <u>580.4</u>        | 1.5%         | 67.2%    | 29.7%    |
| Sub-Total                              | \$3,580.9           | \$6,987.3           | \$12,933.7          | 34.2%        | 95.1%    | 85.1%    |
| b. Business                            |                     |                     |                     |              |          |          |
| Mortgages                              | \$1,205.5           | \$1,586.8           | \$3,329.0           | 8.8%         | 31.6%    | 109.8%   |
| Bank Loans                             | 1,250.0             | 2,107.1             | 5,076.0             | 13.4%        | 68.6%    | 140.9%   |
| Other                                  | <u>1,554.8</u>      | <u>2,901.9</u>      | <u>3,364.1</u>      | 8.9%         | 86.6%    | 15.9%    |
| Sub-Total                              | \$3,768.5           | \$6,595.8           | \$17,769.1          | 31.1%        | 75.0%    | 78.4%    |
| Sub-Total - Private Sector             | \$7,349.4           | \$13,583.1          | \$24,702.8          | 65.3%        | 84.8%    | 81.9%    |
| 2. Public Sector                       |                     |                     |                     |              |          |          |
| c. Federal Government                  | \$2,498.1           | \$3,385.1           | \$10,127.6          | 26.8%        | 35.5%    | 199.2%   |
| d. State & Local Gov't                 | <u>9,487.4</u>      | <u>1,197.9</u>      | 3,002.2             | 7.9%         | 21.3%    | 150.6%   |
| Sub-Total - Public Sector              | \$3,485.6           | \$4,583.0           | \$13,129.8          | 34.7%        | 31.5%    | 186.5%   |
| Total DNFD                             | \$10,834.9          | \$18,166.1          | \$37,832.6          | 100.0%       | 67.7%    | 108.3%   |
| GDP, 4th Quarter<br>DNFD as a % of GDP | \$ 5,846.0<br>185.3 | \$10,129.8<br>179.3 | \$15,321.0<br>246.9 |              | 73.3%    | 51.2%    |

Source: Board of Governors of the Federal Reserve System U.S. Department of Commerce

The DNFD-to-GDP ratio stood at 246.9% in 2011, up from 179.3% in 2000, implying a faster growth in nonfinancial debt than GDP in the past decade. The DNFD-to-GDP ratio gained speed in the late 1980s as a result of a combination of nearly double-digit increases in federal borrowings and the deregulation of the financial markets. During the 1980s, non-bank

financial institutions funneled funds more freely between the suppliers of capital and consumers, creating a more competitive and efficient market. The ratio declined in the 1990s as federal debt fell and the growth in borrowings by state and local governments slowed, which was also accompanied by more robust GDP growth. However, during the 2000s the ratio rebounded rapidly, resulting from an accommodative fiscal and monetary policy, less stringent financing standards on mortgages, and an economic recovery that stimulated borrowing and higher spending levels in both the household and business sectors.

#### **Household Borrowing**

Household borrowing, which includes home mortgages, consumer credit, and other miscellaneous items, totaled \$12.93 trillion by the end of 2011. Long run growth in household borrowing experienced a faster upward trend than the other three categories, accelerating at a double digit pace for five consecutive years during the housing-boom between 2002 and 2006. Total household borrowing has declined in the past three consecutive years. Starting in 2009 household borrowing declined to a -1.7% growth rate and continued to decline to -2.2% in 2010 and -1.6% in 2011 when housing, as well as the consumer credit market, experienced one of the worst financial conditions since the end of WWII. The ratio of consumer borrowing to GDP rose to 84.4% in late 2011, up from 69.0% in 2001. Household borrowing continued to decline in early 2010 as consumers continued to refrain from spending, paid off debt and increased savings to strengthen their balance sheets.

Faster growth in household borrowing was due fundamentally to the low personal savings rate, leaving borrowing as the only available avenue for households. In the first half of the 1990s, growth in household borrowings averaged only 6.3% per year as sluggish income growth, the depressed value of real estate, and increased health insurance and educational costs made consumers more cautious. In the second half of the 1990s, average household borrowings climbed to 7.5% per year as a result of the continued healthy growth in income from wages, capital gains, and an appreciation in home values. During the last economic recovery between 2002 and 2006, growth in borrowing averaged 11.0% per year as a buildup of wealth generated by increases in income, an appreciation in real estate, favorably low interest rates, and loosened credit standards fueled a borrowing and spending surge. The U.S. savings rate, defined as personal saving as a percentage of disposable income, averaged only 2.7% between 2000 and 2007, dropping from an average of 5.4% in the 1990s, 8.5% in the 1980s, and 9.6% in the 1970s. The U.S. savings rate deteriorated to a low of 1.8% in mid 2007, before rising to 6.2% in mid-2009, and has since stayed near 4.0%. Concerned about job losses and beaten-down home equity, households are saving more while paying down debt, boosting the savings rate. These measures have led to slow growth in personal consumption and economic growth. A 1% increase in the savings rate is equivalent to a spending decrease of approximately \$115 billion for the nation's economy, which equates to 0.9% of GDP. In Connecticut, a 1% increase in the savings rate would decrease spending by \$2.0 billion.

Net household asset levels, which include home and financial equities, also affected household borrowing. Net home equity (value of homes less mortgage liabilities) grew in importance to the economy, increasing 77% from its low in 1999 to its peak in early 2006. Since 2006, net home equity decreased 53% by the end of 2010. The share of net home equity of total family net assets has played an important role on borrowing. Research shows that rising home prices have a bigger influence on credit creation and spending than that of rising

equity prices. Home value appreciation is perceived as more permanent and consistent with a higher propensity to consume by the public relative to gains in the stock market that are volatile and ephemeral in nature. Unlike capital gains on stocks, benefits realized through mortgage refinancing due to the appreciation of homes or lower mortgage rates can be cashed out without tax liability. Refinancing frees up more money for spending, paying off old debts or investments in a second home. The Tax Payer Relief Act of 1997 also allows a tax exemption of up to \$500,000 of gain for joint filers or \$250,000 for single filers.

Among total household borrowing of \$12.93 trillion in 2011, home mortgage loans accounted for \$9.72 trillion, or 75.2% of household borrowing, followed by consumer credit at \$2.63 trillion, or 20.3%, with the remainder in other miscellaneous items. After six consecutive years of double-digit expansion, growth in home mortgages slowed in 2007 and started to decline in late 2008 as a correction related to sub-prime and Alt-A mortgages engulfed consumers. As plunging housing prices were coupled with reset provisions on certain mortgages and a slowdown in the economy, delinquency rates on all residential real estate loans increased, from 6.63% in 2008 to 10.42% in 2009, again to 10.14% by 2010, and stagnating at 10.21% as of 2011. Although the volume of resets on exotic mortgages peaked between mid-2007 and mid-2008, a backlog of unsold units and rising foreclosures continued to build up the inventory pipeline. Responding to rising risks, lenders tightened their already restrictive lending policies. A series of financial crises such as the collapse of Lehman Brothers Financial Co., the nationalization of Fannie Mae and Freddie Mac along with trouble at other financial companies nearly froze the credit market. At the same time, the economy began bearing the brunt of significant job losses. Even the federal government's Troubled Asset Relief Program (TARP) and other stabilizing plans were not quick enough to stem the financial disaster. Failed banks increased and the FDIC's Deposit Insurance Fund was battered.

Consumer credit, not secured by real estate, is comprised of non-revolving credit (such as automobile and personal loans) and revolving credit (which includes credit card debt and store charges). It totaled \$2.6 trillion in late 2011, with non-revolving credit accounting for approximately 66.8% of the total consumer credit. Over the years, consumer credit has helped finance a large expansion in spending for consumer non-durables as more consumers rely on credit cards for making purchases online or by telephone. Total consumer credit outstanding in late 2011 increased by 9.3%, with revolving credit increasing by 6.4%. Consumer deleveraging has been a recent trend for households to reduce their debts. Delinquency rates on credit card loans have improved to 3.26% in late 2011 from 4.15% in late 2010. Research shows that the age group being hit harder during this past recession, when available home equity was slim and unemployment was high, was older debtors who are age 55 or older. More than two-thirds of the individuals in this group who filed bankruptcy blamed excessive credit card debts.

#### **Business Borrowing**

Business borrowings include debts owed by corporations, nonfarm corporations and farms. Total borrowings were \$11.77 trillion at the end of 2011. Borrowing instruments include corporate bonds, commercial paper, municipal securities, bank loans, mortgages, and others. Mortgages, corporate bonds, and others were divided almost evenly among the total. Business borrowings in 2011 began to slowly rise, with corporate bonds increasing by 8.2%, commercial paper by 40.3%, and bank loans 8.9%, but declined in other areas with mortgages dropping by

3.0%. The Federal Reserve's near-zero interest rates and quantitative easing policy pushed the cost of debt to a favorably low level. Taking advantage of this opportunity of low interest rates, businesses replaced short term debt by extending debt maturities, bought back equity, and hoarded cash. Cash balances as a percentage of total assets on non-financial corporate balance sheets accounted for 7.4% in late 2010, the highest level since 1959. Earning and profit conditions continued to improve both in the financial and non-financial sectors in late 2010, and the recession ended in December 2009, as businesses began to invest once again. Investment in equipment and software improved for the first time since 2006 increasing by 14.0% from the prior year. Inventories to sales ratios continued their downward trend in nearly all sectors, including wholesalers and retailers. The inventories to sales ratio for manufacturing decreased from a ratio of 1.34 in 2011 to 1.28 in 2012, though the total inventories to sales ratio increased slightly from 1.27 in 2011 to 1.28 in 2012. Declines in inventory to sale ratios signal cost cutting measures which can lead to reductions in employment.

#### **Government Borrowing**

The U.S. federal budget has long been operating under deficits. The federal deficit started surging in the early 1980s from an expansionary fiscal policy and tax cuts, intending to sacrifice a short-term loss in revenue for a long-term gain through more rapid economic growth. This expectation, however, was not fully realized and deficits persisted into the late 1990s.

After registering deficits in most of the 1990s the federal budget on unified basis, which includes all operating and trust funds such as Social Security and Medicare programs, turned to a surplus in 1998 and reached a high of \$254.8 billion in federal fiscal year (FFY) 2000. Federal operations, however, turned red again in FFY 2002 and continued to deteriorate with a deficit of \$1,415.7 billion in FFY 2009, \$1,294.2 in FFY 2010, and \$1,296.8 in FFY 2011. The deficit in FFY 2012 is estimated at \$1,089.4 billion, brought about by the federal government's sizable bailout and stimulus programs and the continued recessionary economy. The \$700 billion financial bailout known as the Troubled Asset Relief Program (TARP), and the \$787 billion economic stimulus program, per the American Recovery and Reinvestment Act (ARRA), along with increases in Medicare, Medicaid, unemployment insurance, Social Security, and defense, boosted federal spending for FFY 2009, FFY 2010 and FFY 2011. At the same time, tax receipts declined due to the effects of the recession and tax cuts from the ARRA program. The federal government in FFY 2011 spent an estimated \$1.64 for every dollar it took in, a slight increase from \$1.62 in FFY 2010. As the federal operating budget continued to post a deficit, the national debt also increased. Interest payments were the fourth largest single budgeted disbursement category, after defense, Social Security, and Medicare. By the end of FFY 2011, gross debt outstanding registered \$16.1 trillion, up 8.6% from FFY 2011, following increases of 8.6% and 13.9% in the previous two years. In FFY 2011, per capita debt outstanding was approximately \$45,252, up from \$40,049 in FFY 2009. The federal budget deficit in the U.S. in 2012 is estimated at -7.0% of its GDP, according to The Economist, compared to -9.5% in Japan, -8.4% in Great Britain, -3.5% in Canada, -4.5% in France, and 0.2% in Germany. The U.S.'s deficit of 11.9% of GDP in FFY 2009 was a record high since WWII, declining to -8.0% in FFY2010. Research shows that a continued deficit of 4% of GDP and higher may hinder economic growth as it may create a risk of inflation, higher interest rates, dissaving, a crowding out of private investments and a devaluation of the dollar.

Of the 2011 total federal gross debt of \$16.07 trillion, \$11.27 trillion, or 70%, was held by the public and \$4.80 billion, or 30%, by intra-governmental agencies. Public holders include individuals, corporations, state or local governments, foreign governments, and other entities outside of the United States while intra-governmental agencies hold federal securities in trust funds, revolving funds, and other special funds. The federal statutes authorize federal agencies such as the Federal Reserve Bank and various trust funds to invest in U.S. Treasury securities. The national debt of \$16.07 trillion in FFY 2011 stood at 105% of GDP.

Debt outstanding by state and local government, which includes states, counties, municipalities and other local entities, continued to increase at a faster rate in 2012 due to a widening in operating budget gaps brought about by a faster increase in expenditures than receipts. Weakness in wage growth, consumer spending, and corporate profits depressed state revenues. Interest payments grew by 4.4% in 2012 to \$120.4 billion, accounting for 5.4% of total current expenditures. Interest and principal payments in the next few years are expected to increase as federal stimulus grants wane and weak economic conditions persist, which have forced state and local governments to borrow in order to bridge the budget gap. The requirement of the balanced budget by all states, except Vermont, may delay the recovery of the national economy.

According to the U.S. Census Bureau's "State Government Finances," state government debt outstanding in Connecticut at the end of fiscal 2010, the latest available year, was \$30.2 billion, compared to \$28.4 billion in 2009 and \$27.6 billion in 2008. Connecticut per capita state government debt was \$8,440 in fiscal 2010, compared to \$7,970 in fiscal 2009 and \$7,772 in fiscal 2008. The fifty state average registered at \$3,727 in fiscal 2009, compared to \$3,634 and \$3,449 in 2008 and 2007, respectively.

Connecticut's overall credit rating is determined by four major rating agencies: Moody's Investors Service, Standard & Poor's Corporation, Fitch Investors Service, Inc., and Kroll Bond Ratings. As of the end of November 2012, Connecticut's General Obligation bonds are rated Aa3 by Moody's with a "stable" credit outlook and AA by Standard & Poor's Corporation, Fitch Investors Service, Inc., and Kroll Bond Ratings with a "stable" credit outlook. The rating process provides information for investors about risk. Low ratings will generally result in higher borrowing costs.

#### Savings by U.S. Households

A low personal savings rate has been a concern for some time as it will negatively impact our economy and society. Consumers' imprudent financing of consumption has created an unsustainable level of consumer debt, lowering potential economic growth, and may result in social problems. We have been witnessing a reversal of consumer-financing behavior that has caused a sudden drop in consumption and resulted in economic instability. The lower national savings rate has not generated sufficient funds domestically to support the investment necessary to sustain long-run economic growth. This has created a situation requiring excessive reliance on foreign capital and an unfavorable current account balance.

#### SAVINGS BY U.S. HOUSEHOLDS 650 14 As of 2011 Quarter 4 12 600 Net Worth As % of Disp. Pers. Inc. 10 Savings Rate (%) 550 8 6 500 4 450 Savings Rate 2 Net Worth as % of DPI 400 1975 1985 1995 1955 1965 2005 Calendar Year

Source: U.S. Department of Commerce, Bureau of Economic Analysis (BEA), Board of Governors of the Federal Reserve System

The solid line on the above chart shows the national savings rate for U.S. consumers from 1955 through the fourth quarter of 2010. After remaining at an average of 8.7% between 1955 and 1980, the U.S. savings rate had been trending down from a high of 11.9% in late 1981 to a low of 1.2% in mid 2005, before bouncing back to 3.4% in the last quarter of 2011. The average savings rate for the past 5 decades is 6.9%. The savings rate is defined as personal savings divided by disposable personal income. Disposable personal income is defined as total personal income less "personal current taxes," which includes personal tax and certain nontax payments to governments, but excludes sales tax and property tax payments. Personal savings is defined as disposable personal income less consumption expenditures (including consumer durables), interest payments, and net transfer payments to the rest of the world.

The savings rate is often criticized because, by definition, personal income does not include the sale of existing assets. Realization of capital gains or losses from the appreciation or depreciation of assets such as stocks, bonds and antique collections, etc. are excluded in personal income, leading to under-/overvaluation of the income level. The definition of personal consumption outlay includes expenditures that might arguably be considered investments. For example, the purchase of a computer, a consumer durable, for education or training is treated as consumption. Mortgage interest payments also could be considered part of an investment. These expenditures are essentially "hidden savings". In today's economy, education and training, rather than physical capital, are the major inputs for economic growth.

Education expenditures at all levels in the U.S. in 2008 accounted for approximately 5.5% of GDP, compared to 7.7% in Denmark, the highest among major industrialized nations, and 3.4% in Japan, according to data compiled by The World Bank. Critics therefore conclude that our lower national savings rate may be due to an understated personal income with overstated consumption.

The chart also shows how the savings rate is affected by economic conditions by depicting the net worth of consumers as a percentage of disposable personal income. After the mid 1970s, the "wealth effect" took hold as people began to spend more because they had more assets to leverage and finance their consumption. This relative net worth has generally moved inversely with the savings rate. Before 1980, the savings rate was trending upward, with the relative net worth generally decreasing. During this period, before various innovative and creative financing mechanisms were available to the middle class, people generally lived on cash. During hard times, they may have saved less, left existing savings untouched to grow as long as possible, and eventually lived on what they had saved. After the 1970s, when credit cards and home equity loans became available to more households, savings rates decreased but net worth as a percentage of disposable personal income generally increased due to the acceleration in capital gains. During generally good economic times, people believe they are wealthier and spend more, driving the savings rate down. People had been spending more because they had greater assets and the ability to obtain financing secured by these assets. The recent increase in households' saving rates reflects both a reduction in indebtedness and a continuing improvement in their balance sheet.

#### **Household Balance Sheet**

The Federal Reserve Bank's "Flow of Funds Accounts" contains statistics on the assets, liabilities, and net worth for the household sector. The table below shows these three components that comprise a balance sheet for 1955, 2000, and 2011, to evaluate the financial position of the nation's households.

#### Assets

Total assets can be categorized into three components: real estate assets, stock related assets, and other assets (including bank deposits, bonds, money market fund shares, and consumer durable goods). In the fourth quarter of 2011, household assets totaled \$73.60 trillion with real estate comprising 24.8% of total assets; stocks, 36.0%; and the remaining 39.1% in other assets, compared to 26.2%, 19.5%, and 54.2%, respectively, in 1955. This reflects that real estate assets and stock related assets rose in importance over the past 5 decades. Nonetheless, holdings of other assets remain an important share of household assets with corporate bonds continuing to grow at an average rate of 7.4%, compared to an overall growth rate of 3.2%.

TABLE 54
BALANCE SHEET OF HOUSEHOLDS AND NON-PROFIT ORGANIZATIONS
In Billions of Dollars

|    |                            |             | 1955         | % of         | 2000               | % of         |                | % of         | Average     |
|----|----------------------------|-------------|--------------|--------------|--------------------|--------------|----------------|--------------|-------------|
|    |                            | <u>1955</u> | In Real \$*  | <u>Total</u> | <u>In Real \$*</u> | <u>Total</u> | <u>2011</u>    | <u>Total</u> | Growth**    |
| A. | Assets                     |             |              |              |                    |              |                |              |             |
|    | 1. Real Estate             | 414.7       | 3,388.8      | 26.2%        | 16,936.0           | 26.9%        | 18,270.0       | 25.8%        | 3.1%        |
|    | 2. Stock related           | 308.5       | 2,521.0      | 19.5%        | 25,221.0           | 40.0%        | 26,519.0       | 36.7%        | 4.4%        |
|    | 3. Other                   | 857.4       | 7,006.4      | 54.2%        | 20,906.6           | 33.2%        | 28,806.1       | 37.4%        | 2.5%        |
|    | 3a. Time & Saving          |             |              |              |                    |              |                |              |             |
|    | Deposits                   | 105.1       | 858.8        | 6.6%         | 3,820.3            | 6.1%         | 6,778.7        | 9.0%         | 3.7%        |
|    | 3b. Corporate Bonds        | 5.0         | 40.9         | 0.3%         | 694.3              | 1.1%         | 2,118.1        | 2.6%         | 7.2%        |
|    | 3c. Gov't Securities***    | 88.0        | <u>719.1</u> | <u>5.6%</u>  | <u>1,398.5</u>     | 2.2%         | <u>2,467.3</u> | 3.1%         | <u>2.1%</u> |
|    | Total                      | 1,580.6     | 12,916.2     | 100.0%       | 63,063.5           | 100.0%       | 73,595.1       | 100.0%       | 3.2%        |
|    |                            |             |              |              |                    |              |                |              |             |
| В. | Liabilities                |             |              |              |                    |              |                |              |             |
|    | 1. Home Mortgages          | 87.8        | 717.5        | 61.0%        | 6,044.1            | 65.1%        | 9,721.6        | 72.1%        | 4.9%        |
|    | 2. Consumer Credit         | 43.0        | 351.4        | 29.9%        | 2,193.4            | 23.6%        | 2,631.7        | 17.5%        | 3.6%        |
|    | 3. Other                   | <u>13.1</u> | <u>107.0</u> | <u>9.1%</u>  | <u>1,052.4</u>     | <u>11.3%</u> | <u>1,131.4</u> | <u>10.5%</u> | <u>4.9%</u> |
|    | Total                      | 143.9       | 1,175.9      | 100.0%       | 9,289.8            | 100.0%       | 13,484.7       | 100.0%       | 4.6%        |
| C  | Net Worth                  | 1,436.7     | 11,740.3     |              | 53,773.7           |              | 60,110.4       |              | 2.9%        |
| C. | 1. Net Home Equity         | 371.8       | 3,038.2      |              | 10,891.9           |              | 8,548.4        |              | 1.9%        |
|    | 2. As a % of Net Worth     | 22.8%       | 22.8%        |              | 20.2%              |              | 14.2%          |              | 1.5 /0      |
|    | 3. Per Capita Net Worth    |             | 70,754.1     |              | 190,575.8          |              | 192,294        |              | 1.8%        |
|    | o. Ter capital vet vvortil | Ψ)          | 70,701.1     |              | 170,070.0          |              | 172,271        |              | 1.070       |
| D. | As a % of Total Assets     |             |              |              |                    |              |                |              |             |
|    | 1. Home Mortgages          | 5.6%        |              |              | 9.6%               |              | 13.2%          |              |             |
|    | 2. Liabilities             | 9.1%        |              |              | 14.7%              |              | 18.3%          |              |             |
|    | 3. Net worth               | 90.9%       |              |              | 85.3%              |              | 81.7%          |              |             |
|    |                            |             |              |              |                    |              |                |              |             |

Note:

Source: Board of Governors of the Federal Reserve System

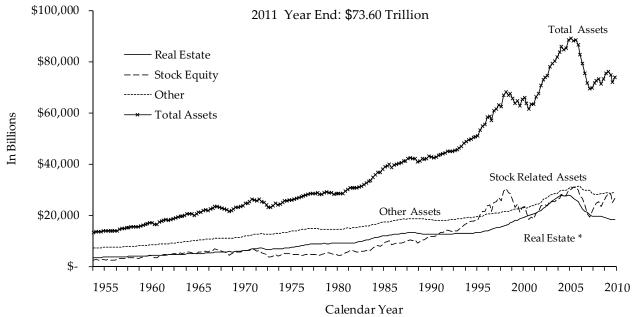
<sup>\*</sup> Real dollar is calculated by using the CPI-U in fourth quarter of 2011

<sup>\*\*</sup> Average annual real growth from 1955 to 2011

<sup>\*\*\*</sup> Includes Treasury and Municipal securities

The chart below demonstrates that total assets began picking up steam in 1970 as financial vehicles such as home equity loans, credit cards, and before-tax retirement programs became popular. Total real assets reached a peak of \$83.6 trillion in first quarter of 2007 and then declined sharply, reflecting current recessionary economic conditions.





<sup>\*</sup> Includes non-profit real estate that accounts for 10% of household real estate assets Stock Related Assets = Corporate equity assets + Mutual Fund Shares + Pension Fund Reserves assets Other Assets = Bank deposits + Bonds + Money Market Accounts

Source: Board of Governors of the Federal Reserve System

After trailing the other two asset groups, stock related assets overtook them in the early 1990s, then started declining in 1999, and by 2002 had converged with the other two categories. Of the three assets categories, real estate assets and other assets have been generally moving upward, while stock related assets fluctuated wildly. The growth in real estate assets slowed in 2007 and reversed course in 2008 as the housing sector retrenched and equity markets retreated from their recent highs. The massive use of home mortgages and the over-application of mortgage derivatives in the financial markets began to unwind with the rise in home foreclosures and created a world financial debacle in 2007 that worsened into 2008 and 2009.

#### Liabilities

Household liabilities totaled \$13.48 trillion in late 2011. Home mortgages accounted for 72.1% of the total with consumer credit at 19.5% and other liabilities at 8.4%. This compared to 61.0%, 29.9%, and 9.1%, respectively, in 1955, reflecting a much faster growth in home mortgage borrowings. Since 2002, growth in home mortgages has accelerated and outpaced the other two categories. Supported by extraordinarily favorable mortgage rates and an aggressive mortgage lending strategy, demand for homes and refinancings soared during the middle of the last decade. Consumer credit primarily includes auto loans, personal loans, and credit card balances.

#### Net Worth

Net worth (assets less liabilities) measures the resulting financial condition of consumers, which affects the overall economy through its wealth impact on consumers' spending and business activities. Net worth totaled \$60.11 trillion in late 2011. When measured in 2010 dollars, real net worth grew from \$11.74 trillion in 1955 to an all time high of \$68.88 trillion in the first quarter of 2007 and then declined to \$53.64 trillion in 2009. Per capita real net worth increased from \$70,754 in 1955 to \$194,692 in 2011, with annual growth averaging 1.8%. Per capita real net worth reached its peak of \$229,246 in first quarter of 2007 as value of real estate and stock related equities appreciated. Per capita net worth then declined as recession and deep depreciation in the housing market took its toll. Over the period between 2000 and 2011, per capita real net worth increased 1.2%, from \$190,575 in 2000 to \$192,924 in 2011.

Along with the increase in net worth has come the additional burden of greater liabilities. In 1955 liabilities accounted for 9.1% of total assets, yet by 2011 they had risen to 18.3% of assets. The primary driver of this change was an increase in home mortgage liability. Indeed, the ratio of home mortgages to total assets grew from 5.6% in 1955, to 9.6% in 2000, and further up to 13.2% in 2011. The increasing use of debt to finance American lifestyles has also increased the proportion of income that must be devoted to repaying that debt. Debt service, which consists of the required payments on outstanding mortgage and consumer debt, as a percentage of disposable personal income has gradually risen from 10.98% in 1980, the earliest available data, to 13.06% in 2009 and then declined sharply to 11.14% in 2011.

#### **PERFORMANCE INDICATORS**

This section is devoted to performance trends of various economic indicators for three entities; the United States, the New England region and Connecticut. Statistics are provided indicating the relative economic performance of these entities and showing both their strong and weak points.

#### **Gross Product**

Gross National Product (GNP) is defined as the aggregate current market value of final goods and services produced by a nation's citizens and capital, regardless of location, in a given period of time. GNP was generally used as a measure of a nation's economic performance to track the cyclical ups and downs of the economy, but GNP reflects more than domestic activity; products produced by citizens outside territorial borders are included, while products produced by foreign workers and capital located in the nation are excluded. As a result, Gross Domestic Product (GDP) which measures all economic activity within a territory, and is consistent with other economic indicators such as employment and shipments of manufactured goods, has been adopted as a better measure of economic activity within a territory.

Because prices of goods and services change over time, both GNP and GDP may also change, even if there has been no change in physical output. Therefore, to measure changes in real output, they are adjusted by an index of the general price level and expressed in constant dollars. Other things being equal, when real gross product rises, the economy is experiencing an expansion; when real gross product falls the economy is experiencing a decline. In the past, a fixed-weighted inflation index, the GDP deflator, had been used to measure real output, but with the rapid change in technology, price movements for certain commodities actually grew less than the price for all goods on average. As such, the traditional measurement of real product had misstated the growth in output as it moved away from the base year, creating what is known as substitution bias. To correct for this bias, the U.S. Department of Commerce, Bureau of Economic Analysis, uses a chained-type inflation index based on calendar year 2000.

One measure of a state's economic performance is Gross State Product (GSP). Like GDP, GSP is the current market value of all final goods and services produced by labor and property located in a state. In 2011, the State of Connecticut produced \$230.1 billion worth of goods and services and \$201.4 billion worth of goods and services in 2005 chained type dollars. This was an increase between 2010 and 2011 of 3.9% in current dollars and 2.0% in real dollars.

Between 2006 and 2011, the output contribution of FIRE (Finance, Insurance and Real Estate) significantly increased, while manufacturing, construction and retail trade fell, and most everything else remained fairly constant. The broadly defined services in the private sector, which includes industries in information, professional and technical services, health care and education, FIRE and other services, have increased to 63.7% of total GSP in 2011 from 60.0% in 2006. During this period, the shift toward services also continued for the nation as a whole, rising from 51.0% of GDP in 2006 to 52.4% in 2011. Typically, an increasing share of service production should help smooth the business cycle, reducing the span and depth of recessions and prolonging the length of expansions. Normally, activities in service sectors relative to manufacturing are less susceptible to pent-up demand, less subject to inventory-induced swings, less intensive in capital requirements, and somewhat less vulnerable to foreign competition. Connecticut began moving toward services sooner than the nation as a whole.

TABLE 55 GROSS PRODUCT

| C   | alendar     | ndar United States * |          | New Er         | ngland * | Connecticut    |          |
|-----|-------------|----------------------|----------|----------------|----------|----------------|----------|
|     | <u>Year</u> | <u>Dollars</u>       | % Growth | <u>Dollars</u> | % Growth | <u>Dollars</u> | % Growth |
| A.  | Million     | s of Current D       | Oollars  |                |          |                |          |
|     | 2006        | 13,377,200           | 6.0      | 720,730        | 5.1      | 209,487        | 6.7      |
|     | 2007        | 14,028,675           | 4.9      | 751,780        | 4.3      | 221,133        | 5.6      |
|     | 2008        | 14,291,550           | 1.9      | 760,814        | 1.2      | 219,449        | (0.8)    |
|     | 2009        | 13,973,650           | (2.2)    | 755,220        | (0.7)    | 213,534        | (2.7)    |
|     | 2010        | 14,498,925           | 3.8      | 785,607        | 4.0      | 221,347        | 3.7      |
|     | 2011        | 15,075,675           | 4.0      | 812,998        | 3.5      | 230,090        | 3.9      |
| % ] | Increase    | ('06 to '11)         | 12.7     |                | 12.8     |                | 9.8      |
| В.  | Constar     | nt Dollars**         |          |                |          |                |          |
|     | 2006        | 12,958,475           | 2.7      | 699,902        | 2.1      | 203,431        | 3.6      |
|     | 2007        | 13,206,375           | 1.9      | 710,415        | 1.5      | 208,854        | 2.7      |
|     | 2008        | 13,161,925           | (0.3)    | 704,506        | (0.8)    | 202,473        | (3.1)    |
|     | 2009        | 12,757,950           | (3.1)    | 681,957        | (3.2)    | 191,722        | (5.3)    |
|     | 2010        | 13,062,975           | 2.4      | 705,524        | 3.5      | 197,451        | 3.0      |
|     | 2011        | 13,299,100           | 1.8      | 717,987        | 1.8      | 201,386        | 2.0      |
| % ] | Increase    | ('06 to '11)         | 2.6      |                | 2.6      |                | (1.0)    |

<sup>\*</sup> Sum of State's Gross State Products.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Connecticut's production is concentrated in two areas: finance, insurance and real estate (FIRE) and manufacturing (ignoring the broad category of services). Production in these two industries accounted for 43.3% of total production in Connecticut, compared to 32.4% for the nation, down slightly from 43.6% in 2006. This demonstrates that Connecticut's economy is more heavily concentrated in a few industries than the nation as a whole and this concentration has changed little in recent years. Additionally, Connecticut's portion of U.S. total GSP has remained constant at 1.58%.

<sup>\*\* 2005</sup> chained dollar series are calculated as the product of the chain-type quantity index and the 2005 current-dollar value of the corresponding series, divided by 100. The system for these calculations was converted from SIC Codes to the NAICS system starting in 1998.

TABLE 56
GROSS PRODUCT BY SOURCE
(In Billions of Current Dollars)

|                                  |                | Calendar 2006 |               |            |                | Calendar 2011 |               |            |  |
|----------------------------------|----------------|---------------|---------------|------------|----------------|---------------|---------------|------------|--|
| <u>Industry</u>                  | <u>U.S.</u>    | <u>%</u>      | <u>CT</u>     | <u>%</u>   | <u>U.S.</u>    | <u>%</u>      | <u>CT</u>     | <u>%</u>   |  |
| Agriculture, Forest & Fisheries  | 122.5          | 0.9           | 0.320         | 0.2        | 177.8          | 1.2           | 0.304         | 0.1        |  |
| Construction & Mining            | 880.8          | 6.6           | 7.540         | 3.6        | 807.9          | 5.4           | 5.858         | 2.5        |  |
| Manufacturing                    | 1,648.4        | 12.4          | 27.178        | 13.0       | 1,837.0        | 12.3          | 25.008        | 10.9       |  |
| Wholesale Trade                  | 769.7          | 5.8           | 11.308        | 5.4        | 844.9          | 5.6           | 12.345        | 5.4        |  |
| Retail Trade                     | 875.8          | 6.6           | 11.725        | 5.6        | 917.0          | 6.1           | 11.925        | 5.2        |  |
| Transportation & Utilities       | 630.0          | 4.7           | 6.885         | 3.3        | 669.6          | 4.5           | 7.094         | 3.1        |  |
| Information                      | 590.6          | 4.4           | 7.697         | 3.7        | 662.3          | 4.4           | 9.069         | 3.9        |  |
| Finance, Insurance, Real Estate  | 2,765.3        | 20.8          | 64.194        | 30.6       | 3,007.9        | 20.1          | 74.480        | 32.4       |  |
| Professional, Technical Services | 947.5          | 7.1           | 15.098        | 7.2        | 1,171.1        | 7.8           | 16.858        | 7.3        |  |
| Health Care & Education          | 1,015.3        | 7.6           | 17.969        | 8.6        | 1,320.5        | 8.8           | 23.087        | 10.0       |  |
| Other Services                   | 1,463.7        | 11.0          | 20.662        | 9.9        | 1,681.3        | 11.2          | 23.052        | 10.0       |  |
| Government                       | <u>1,579.8</u> | <u>11.9</u>   | <u>18.909</u> | <u>9.0</u> | <u>1,883.7</u> | <u>12.6</u>   | <u>21.009</u> | <u>9.1</u> |  |
| Total                            | 13,289.2       | 100.0         | 209.485       | 100.0      | 14,981.0       | 100.0         | 230.090       | 100.0      |  |
| Broadly Defined Services*        |                | 51.1          |               | 60.0       |                | 52.4          |               | 63.7       |  |
| CT as a % of U.S. Total GSP      |                |               | 1.58          |            |                |               | 1.58          |            |  |

<sup>\*</sup>Note: Broadly Defined Services includes Information, FIRE, Professional/Tech Services, Health Care/Education and Other Services

Source: U.S. Department of Commerce, Bureau of Economic Analysis

#### Per Capita Gross Product

Growth in gross product may not sufficiently reflect the overall improvement in the well being of an economy. Gross product may rise significantly, but population may increase even more rapidly, signifying no real improvement in the well being of the economy. Therefore, real per capita gross product, which takes into account increases in population and inflation provides a better measure of the standard of living among differing economies.

Growth in Connecticut slowed during and following the recession of 2001, reflecting a struggle to recover from a deeper recession compared with the impact on the United States. The ratio of Connecticut's real per-capita output relative to the United States was generally increasing between 2004 and 2008, suggesting that Connecticut did eventually pull out of that recession with strength. The latest data shows that the most recent recession hit Connecticut hard in 2009, with real per-capita output dropping 3.1%. The economy continued to slowly recover in 2011 with real per-capita output rising 3.7% in Connecticut compared to 3.2% for the nation. Both per-capita output and real per-capita output for the state relative to the nation remained constant between 2006 and 2011 at approximately 133% of the U.S. level.

<sup>\*\*</sup> Please note that United States GDP contained in Table 55 reflects a most recent update. However, that update did not include a breakdown by industry, therefore the above table contains a previous estimate.

TABLE 57 PER CAPITA GROSS PRODUCT

#### A. In Current Dollars

| Calendar    | United         | l States | New 1          | England  | Connecticut    |          |           |
|-------------|----------------|----------|----------------|----------|----------------|----------|-----------|
| <u>Year</u> | <u>Dollars</u> | % Growth | <u>Dollars</u> | % Growth | <u>Dollars</u> | % Growth | % of U.S. |
| 2006        | 44,833         | 5.0      | 50,593         | 4.9      | 59,556         | 6.4      | 133       |
| 2007        | 46,571         | 3.9      | 52,649         | 4.1      | 62,692         | 5.3      | 135       |
| 2008        | 46,997         | 0.9      | 53,055         | 0.8      | 61,894         | (1.3)    | 132       |
| 2009        | 45,551         | (3.1)    | 52,433         | (1.2)    | 59,951         | (3.1)    | 132       |
| 2010        | 46,873         | 2.9      | 54,354         | 3.7      | 61,887         | 3.2      | 132       |
| 2011        | 48,383         | 3.2      | 56,098         | 3.2      | 64,151         | 3.7      | 133       |
| % Increase  | ('06 to '11)   | 7.9      |                | 10.9     |                | 7.7      |           |

#### B. In 2005 Chained Dollars

| Calendar    | United         | d States | New            | England  | Connecticut    |          |           |
|-------------|----------------|----------|----------------|----------|----------------|----------|-----------|
| <u>Year</u> | <u>Dollars</u> | % Growth | <u>Dollars</u> | % Growth | <u>Dollars</u> | % Growth | % of U.S. |
| 2006        | 43,429         | 1.7      | 48,689         | 1.6      | 57,835         | 3.3      | 133       |
| 2007        | 43,841         | 0.9      | 49,295         | 1.2      | 59,211         | 2.4      | 135       |
| 2008        | 43,282         | (1.3)    | 48,743         | (1.1)    | 57,106         | (3.6)    | 132       |
| 2009        | 41,588         | (3.9)    | 47,144         | (3.3)    | 53,827         | (5.7)    | 129       |
| 2010        | 42,230         | 1.5      | 48,346         | 2.5      | 55,206         | 2.6      | 131       |
| 2011        | 42,682         | 1.1      | 48,970         | 1.3      | 56,148         | 1.7      | 132       |
| % Increase  | ('06 to '11)   | (1.7)    |                | 0.6      |                | (2.9)    |           |

Source: U.S. Department of Commerce, Bureau of Economic Analysis & Bureau of the Census

#### **Productivity and Unit Labor Cost**

Gross State Product provides the information to gauge Connecticut's efficiency in the use of labor, i.e., labor productivity. Rising productivity leads to an improved standard of living and curbs inflationary pressures. In the table on the following page, the column entitled Hourly Production shows labor productivity as the ratio of total output to total workhours in Connecticut's manufacturing sector. On an hourly basis, nominal output in the manufacturing sector increased from \$84.1 in 2001 to \$117.9 in 2011, a 40.1% increase in output per hour over the period compared to only a 25.1% increase in the Consumer Price Index over the same period.

Another approach allows for the assessment of the labor cost for each \$1 of product produced the unit labor cost. Labor cost is one of the major input costs and is often cited as a critical indicator of competitiveness. The column labeled Unit Labor Cost shows the monetary cost which is equal to the average hourly wages of each worker divided by productivity. Connecticut continues to enjoy a downward trend in labor costs when the productivity factor is included. Per \$1 of output costs, the unit labor cost has declined from 21.4 cents in 2002 to 20.7 cents in 2011, a 3.5% reduction over the period, even while production workers have enjoyed a 35.2% increase in average hourly wages.

Overall, productivity depends upon a broad range of factors. Other than wages, the quality of management as well as the size of and quantity of capital stock invested in the form of plant, machinery and equipment, and the employment of new technologies impact productivity. Any increase in labor productivity is the combined result of all these factors.

TABLE 58
CONNECTICUT'S MANUFACTURING LABOR PRODUCTIVITY

|             | Manufact.      | Production | Hourly            | Total     | Average      |                        |
|-------------|----------------|------------|-------------------|-----------|--------------|------------------------|
| Cal.        | GSP            | Workhours  | Production        | Wages     | Hourly       | <b>Unit Labor Cost</b> |
| <u>Year</u> | (Million)      | (Million)  | (Output Per Hour) | (Million) | <u>Wages</u> | (¢ Per \$1 Output)     |
| 2002        | \$21,109       | \$250.9    | \$84.1            | \$4,525.6 | \$18.0       | 21.4¢                  |
| 2003        | \$21,144       | \$243.7    | \$86.8            | \$4,478.2 | \$18.4       | 21.2¢                  |
| 2004        | \$24,216       | \$231.2    | \$104.8           | \$4,509.9 | \$19.5       | 18.6¢                  |
| 2005        | \$23,729       | \$223.5    | \$106.2           | \$4,500.0 | \$20.1       | 19.0¢                  |
| 2006        | \$26,836       | \$219.6    | \$122.2           | \$4,549.1 | \$20.7       | 17.0¢                  |
| 2007        | \$27,035       | \$235.8    | \$114.6           | \$5,019.7 | \$21.3       | 18.6¢                  |
| 2008        | \$24,952       | \$218.0    | \$114.5           | \$4,841.6 | \$22.2       | 19.4¢                  |
| 2009        | \$20,507       | \$194.6    | \$105.4           | \$4,529.5 | \$23.3       | 22.1¢                  |
| 2010        | \$20,727       | \$187.0    | \$110.9           | \$4,496.8 | \$24.0       | 21.7¢                  |
| 2011        | \$21,798       | \$184.9    | \$117.9           | \$4,510.2 | \$24.4       | 20.7¢                  |
| % Inc       | rease ('02-'11 | 1)         | 40.1              |           | 35.2         | (3.5)                  |

Source: U.S. Department of Commerce, Bureau of Economic Analysis

U.S. Department of Commerce, Bureau of the Census, "Annual Survey of Manufactures"

U.S. Department of Labor, Bureau of Labor Statistics

#### Value Added

In order to more accurately assess the performance of the manufacturing sector, one must look beyond employment figures. Employment figures provide only a one dimensional view of what is actually occurring in the manufacturing sector of the Connecticut economy. Although Connecticut lost 211,000 manufacturing jobs (56.0%) between calendar year 1977 and 2011, this is partially mitigated by a long-term increase in productivity per worker.

Value added is the market value of a firm's output less the value of inputs which it purchased from other firms. Changes in productivity over time can be measured by dividing the value that is added to a product by the total number of production workers involved in producing that good.

The following table lists value added per production worker for Connecticut and the U.S.

TABLE 59
VALUE ADDED PER PRODUCTION WORKER
(In Current Dollars)

|  |  |   | % Change  |  | Cumul   | ative %   | Ratio of  |  |
|--|--|---|---|--|---|---|---|--|
| Cal.   |  | United  | From I  | From Prior   |   | From 1972   | Conn. Value   |  |
| <u>Year</u>  | Conn.  | <u>States</u>   | Conn.   | <u>U.S.</u>  | Conn.   | <u>U.S.</u>   | Added to U.S.   |  |
| 1982   | \$66,830   | \$66,458  | 56.0  | 55.5   | 152.7   | 154.0   | 1.006   |  |
| 1987   | 103,228  | 94,927  | 54.5  | 42.8   | 290.3   | 262.7   | 1.087   |  |
| 1992   | 143,074  | 122,387   | 38.6  | 28.9   | 441.0   | 367.7   | 1.169   |  |
| 1997   | 179,595  | 151,317   | 25.5  | 23.6   | 579.1   | 478.2   | 1.187   |  |
| 2002   | 219,805  | 182,512   | 22.4  | 20.6   | 731.1   | 597.4   | 1.204   |  |
| 2007   | 299,483  | 253,867   | 36.2  | 39.1   | 1,032.4   | 870.1   | 1.180   |  |
| 2008   | 313,512  | 255,682   | 4.7   | 0.7  | 1,085.5   | 877.0   | 1.226   |  |
| 2009   | 276,511  | 263,426   | (11.8)  | 3.0  | 945.6   | 906.6   | 1.050   |  |
| 2010   | 313,652  | 296,423   | 13.4  | 12.5   | 1,086.0   | 1,032.7   | 1.058   |  |
| 2011   | 315,524  | 308,491   | 0.6   | 4.1  | 1,093.1   | 1,078.8   | 1.023   |  |
| 1982<br>1987<br>1992<br>1997<br>2002<br>2007<br>2008<br>2009<br>2010 | \$66,830<br>103,228<br>143,074<br>179,595<br>219,805<br>299,483<br>313,512<br>276,511<br>313,652 | \$66,458<br>94,927<br>122,387<br>151,317<br>182,512<br>253,867<br>255,682<br>263,426<br>296,423 | 56.0<br>54.5<br>38.6<br>25.5<br>22.4<br>36.2<br>4.7<br>(11.8)<br>13.4 | 55.5<br>42.8<br>28.9<br>23.6<br>20.6<br>39.1<br>0.7<br>3.0<br>12.5 | 152.7<br>290.3<br>441.0<br>579.1<br>731.1<br>1,032.4<br>1,085.5<br>945.6<br>1,086.0 | 154.0<br>262.7<br>367.7<br>478.2<br>597.4<br>870.1<br>877.0<br>906.6<br>1,032.7 | 1.006<br>1.087<br>1.169<br>1.187<br>1.204<br>1.180<br>1.226<br>1.050<br>1.058 |  |

Note: Value Added Per Production Worker = <u>Total Value Added by Manufacture</u> Number of Production Workers

Source: U.S. Department of Commerce, "Annual Survey of Manufactures"

TABLE 60
VALUE ADDED PER PRODUCTION WORKER IN CONNECTICUT BY INDUSTRY
(In Current Dollars)

| <u>Industry</u>          | <u>2010</u> | <u>2011</u> | % Change |
|--------------------------|-------------|-------------|----------|
| Manufacturing            | \$313,652   | \$315,524   | 0.6      |
| Food                     | 365,074     | 388,182     | 6.3      |
| Paper                    | 221,096     | 310,570     | 40.5     |
| Printing                 | 167,239     | 168,321     | 0.6      |
| Chemical                 | 487,815     | 373,895     | (23.4)   |
| Plastics & Rubber        | 171,195     | 171,691     | 0.3      |
| Primary Metals           | 293,680     | 299,056     | 1.8      |
| Fabricated Metals        | 184,279     | 195,774     | 6.2      |
| Machinery                | 220,825     | 223,511     | 1.2      |
| Computer & Electronic    | 352,672     | 361,969     | 2.6      |
| Electrical Equipment     | 281,885     | 311,845     | 10.6     |
| Transportation Equipment | 552,725     | 529,469     | (4.2)    |
|                          |             |             |          |

Note: Value Added Per Production Worker = <u>Total Value Added by Manufacture</u> Number of Production Workers

Source: U.S. Department of Commerce, "Annual Survey of Manufactures"

Value added per production worker can vary greatly among manufacturing sectors. Factors which may contribute to this variance include the mix between labor and capital, the overall cost structure of an industry, the volume of production, and the prevailing markup or profit on a product. The previous table segments value added per production worker by industry in Connecticut for calendar year 2010 and 2011.

#### **Capital Expenditures**

Connecticut's manufacturers have also been making substantial investments in capital equipment. Total capital expenditures are defined as outlays for permanent additions and major alterations to manufacturing establishments and investments in new machinery and equipment used for replacement and additions to plant capacity. Organizations undertake capital projects for various reasons including to reduce costs, improve efficiencies, upgrade product quality, develop new products and to implement environmental and safety technology. According to the Annual Survey of Manufactures, for the past ten years, the level of capital expenditures within Connecticut has remained above one billion dollars. The following table details capital expenditures in Connecticut.

TABLE 61
TOTAL CAPITAL EXPENDITURES IN CONNECTICUT
(In Millions of Dollars)

| Calendar    | Connecticut          | Percent       |
|-------------|----------------------|---------------|
| <u>Year</u> | Capital Expenditures | <u>Change</u> |
| 2002        | \$1,448.50           | (18.8)        |
| 2003        | 1,242.70             | (14.2)        |
| 2004        | 1,236.20             | (0.5)         |
| 2005        | 1,201.60             | (2.8)         |
| 2006        | 1,260.50             | 4.9           |
| 2007        | 1,638.30             | 30.0          |
| 2008        | 1,166.10             | (28.8)        |
| 2009        | 1,036.70             | (11.1)        |
| 2010        | 1,106.32             | 6.7           |
| 2011        | 1.273 97             | 15.2          |

Source: U.S. Department of Commerce, "Annual Survey of Manufactures"

#### **Total Personal Income**

Total personal income, defined as current income received by persons from all sources including public and private transfer payments but excluding transfers among persons, is a reliable measure of economic performance. Total personal income captures the manufacturing sector through manufacturing wages; the nonmanufacturing sector through wages in government, wholesale/retail trade, utilities, transportation, mining, personal services, etc.; the private sector through proprietor's income, etc.; and a part of agricultural activity via farm properties' income. Personal income is approximately 85% of Gross Domestic Product; hence, the two are well correlated.

The U.S. Department of Commerce defines the various sources of personal income as the following:

**Wages and Salaries** - the monetary remuneration of employees, including the compensation of corporate officers; commissions, tips and bonuses; and receipts in kind that represent income to the recipient. Wages and salaries are measured before deductions such as social security contributions and union dues.

**Other Labor Income** - consists primarily of employer contributions for employee pension and insurance funds and employer contributions for government social insurance.

**Property Income** - income from dividends, interest and rents.

Dividends are payments in cash or other assets, excluding stock, by corporations organized for profit to non-corporate stockholders who are U.S. residents.

Interest is the monetary and imputed interest income of persons from all sources. Imputed interest represents the excess of income received by financial intermediaries from funds entrusted to them by persons, over income disbursed by these intermediaries to persons. Part of imputed interest reflects the value of financial services rendered without charge to persons by depository institutions. The remainder is property income held by life insurance companies and private non-insured pension funds on behalf of persons; one example is the additions to policyholder reserves held by life insurance companies.

Rental income is the monetary income of persons (except those primarily engaged in the real estate business) from the rental of real property (including mobile homes); the imputed net rental income of owner-occupants of nonfarm dwellings; and the royalties received by persons from patents, copyrights, and rights to natural resources.

**Proprietors' Income** - the income, including income-in-kind, of sole proprietorships and partnerships and of tax-exempt cooperatives. The imputed net rental income of owner occupants of farm dwellings with certain adjustments is included.

**Transfer Payments** - income payments to persons, generally in monetary form, for which they do not render current services. These include payments by the government and business to individuals and nonprofit institutions.

**Personal Contributions to Social Insurance** - contributions made by individuals under the various social insurance programs. Payments by employees and the self-employed (farm and nonfarm) are included as well as contributions that are sometimes made by employers on behalf of their employees (i.e., those customarily paid by the employee but, under special arrangement, paid by the employer).

The correlation between Gross Domestic Product and personal income provides another basis of comparison among individual states. A comparison of growth rates in personal income is a good indicator of a state's present and potential future performance.

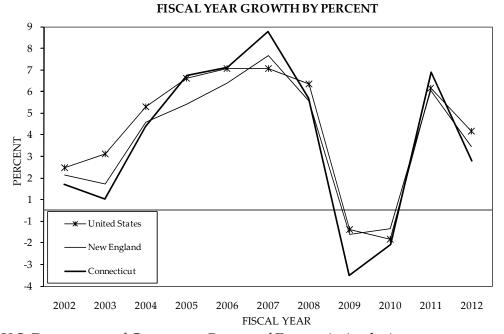
According to figures provided by the U.S. Bureau of Economic Analysis, personal income of Connecticut residents during fiscal year 2012 was \$208.8 billion, a 2.29% increase over fiscal 2011. Total personal income in Connecticut increased 39.2% from fiscal 2003 to 2012. For the United States, total personal income increased 43.1%, and in the New England region, the increase for the identical period was 38.7%.

The following table and chart shows personal income for the United States, the New England region, and Connecticut.

TABLE 62
PERSONAL INCOME
(In Millions)

| Fiscal      | United         | States   | New England    |          | Connecticut    |          |  |
|-------------|----------------|----------|----------------|----------|----------------|----------|--|
| <u>Year</u> | <u>Dollars</u> | % Growth | <u>Dollars</u> | % Growth | <u>Dollars</u> | % Growth |  |
| 2003        | 9,177,939      | 2.63     | 541,602        | 1.22     | 149,965        | 0.51     |  |
| 2004        | 9,619,019      | 4.81     | 563,683        | 4.08     | 155,767        | 3.87     |  |
| 2005        | 10,205,723     | 6.10     | 591,329        | 4.90     | 165,474        | 6.23     |  |
| 2006        | 10,874,683     | 6.55     | 626,075        | 5.88     | 176,413        | 6.61     |  |
| 2007        | 11,586,942     | 6.55     | 670,938        | 7.17     | 191,031        | 8.29     |  |
| 2008        | 12,263,871     | 5.84     | 704,855        | 5.06     | 200,944        | 5.19     |  |
| 2009        | 12,154,689     | (0.89)   | 697,038        | (1.11)   | 194,915        | (3.00)   |  |
| 2010        | 11,992,173     | (1.34)   | 691,255        | (0.83)   | 191,842        | (1.58)   |  |
| 2011        | 12,671,895     | 5.67     | 729,543        | 5.54     | 204,074        | 6.38     |  |
| 2012        | 13,138,179     | 3.68     | 751,005        | 2.94     | 208,756        | 2.29     |  |

# PERSONAL INCOME GROWTH



Source: U.S. Department of Commerce, Bureau of Economic Analysis

Connecticut's sources of personal income vary slightly from those of the United States, with wages and employee salaries accounting for approximately 50.7% of total personal income compared to 51.4% for the nation in fiscal 2012. The following table shows a comparative study of the sources of personal income for the United States and Connecticut over a ten fiscal year period. The table clearly shows a significant shift from manufacturing wages to other sources of income including property income and transfer payments.

TABLE 63 SOURCES OF PERSONAL INCOME (In Billions of Dollars)

|                                       | ]            | Fiscal Ye  | ear 2003   |            |                | Fiscal Year 2012 |             |            |  |
|---------------------------------------|--------------|------------|------------|------------|----------------|------------------|-------------|------------|--|
|                                       | <u>U.S.</u>  | <u>%</u>   | <u>CT</u>  | <u>%</u>   | <u>U.S.</u>    | <u>%</u>         | <u>CT</u>   | <u>%</u>   |  |
| Manufacturing<br>Salaries & Wages     | 672.4        | 7.3        | 12.3       | 8.2        | 719.6          | 5.5              | 13.3        | 6.4        |  |
| Nonmanufacturing<br>Salaries & Wages  | 4,368.7      | 47.6       | 71.9       | 47.9       | 6,031.7        | 45.9             | 92.6        | 44.4       |  |
| Proprietors<br>Income                 | 901.3        | 9.8        | 16.8       | 11.2       | 1,176.5        | 9.0              | 21.5        | 10.3       |  |
| Property                              |              |            |            |            |                |                  |             |            |  |
| Income                                | 1,509.3      | 16.4       | 25.2       | 16.8       | 2,135.7        | 16.3             | 40.6        | 19.4       |  |
| Other Labor<br>Income                 | 1,168.2      | 12.7       | 18.8       | 12.5       | 1,646.7        | 12.5             | 24.9        | 11.9       |  |
| Transfer Payments<br>Less Payments to |              |            |            |            |                |                  |             |            |  |
| Social Insurance                      | <u>558.0</u> | <u>6.1</u> | <u>5.1</u> | <u>3.4</u> | <u>1,428.0</u> | <u>10.9</u>      | <u>15.8</u> | <u>7.6</u> |  |
| Total                                 | 9,177.9      | 100.0      | 150.0      | 100.0      | 13,138.2       | 100.0            | 208.8       | 100.0      |  |

Note: Totals may not agree with detail due to rounding.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Connecticut's distribution of wages and salaries by industry varies more significantly from those of the United States, with the Finance, Insurance, and Real Estate industry accounting for approximately 17.9% of total wages compared to 9.0% for the nation in fiscal 2012. The following table shows a comparative study of the wages and salaries distribution for the United States and Connecticut over a ten fiscal year period. The table also clearly shows a significant shift from manufacturing and construction to education and health care.

TABLE 64
WAGES AND SALARIES DISTRIBUTION BY INDUSTRY
(as a % of Total)

|                                  | <u>Fiscal</u> | Year 2003   | <u>Fiscal</u> | Year 2012   |
|----------------------------------|---------------|-------------|---------------|-------------|
|                                  | <u>U.S. %</u> | <u>CT %</u> | <u>U.S.%</u>  | <u>CT %</u> |
| Manufacturing                    | 13.3          | 14.6        | 10.7          | 12.6        |
| Finance, Insurance & Real Estate | 8.9           | 16.9        | 9.0           | 17.9        |
| Construction & Mining            | 6.1           | 3.9         | 5.6           | 3.1         |
| Public Utility, Trade & Transp.  | 16.9          | 14.6        | 15.9          | 13.6        |
| Information                      | 3.7           | 2.8         | 3.2           | 2.6         |
| Education & Health               | 11.1          | 12.8        | 13.2          | 15.2        |
| Leisure & Hospitality            | 4.3           | 3.0         | 4.6           | 3.1         |
| Other Professional & Business    | 14.3          | 14.3        | 16.7          | 15.4        |
| Other Services                   | 3.3           | 2.7         | 3.2           | 2.6         |
| Government                       | 17.5          | 14.2        | 17.5          | 13.8        |
| Fishing, Forestry, & Farming     | <u>0.5</u>    | <u>0.2</u>  | <u>0.6</u>    | <u>0.1</u>  |
| Total                            | 100.0         | 100.0       | 100.0         | 100.0       |

Note: U.S. Total Wages & Salaries in FY 2003: \$5,041,112.0 million and \$6,751,259.0 million in FY 2012 CT Total Wages & Salaries in FY 2003: \$84,130.0 million and \$105,930.0 million in FY 2012

Source: U.S. Department of Commerce, Bureau of Economic Analysis

#### Per Capita Personal Income

One of the more important single indicators of a state's performance is the growth in per capita personal income. This is total personal income divided by the population. On a per capita basis, personal income growth in Connecticut increased 34.8% from fiscal 2003 to 2012, compared to a national increase of 32.1% and a New England region increase of 35.1%.

Per capita personal income in Connecticut, for the most recent fiscal year, was 12.6% higher than for the New England region and 38.7% higher than for the United States. Connecticut's per capita personal income continues to be at a higher level than that of the nation and New England due to the concentration of manufacturing in relatively high paying manufacturing industries, major corporate headquarters within the state, and the financial services sector.

The following table shows the growth in per capita personal income for ten fiscal years for the United States, the New England region and Connecticut. The chart provides a graphic representation of the growth rates in per capita personal income for the three entities over a ten fiscal year period.

TABLE 65 PER CAPITA PERSONAL INCOME

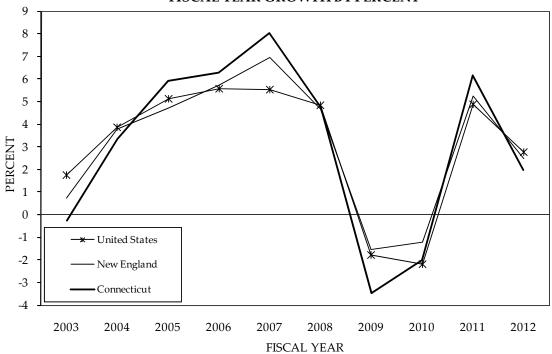
| Fiscal      | United         | <b>United States</b> |                | England  | Connecticut    |          |  |
|-------------|----------------|----------------------|----------------|----------|----------------|----------|--|
| <u>Year</u> | <u>Dollars</u> | % Growth             | <u>Dollars</u> | % Growth | <u>Dollars</u> | % Growth |  |
| 2003        | 31,739         | 1.73                 | 38,242         | 0.72     | 43,149         | (0.27)   |  |
| 2004        | 32,966         | 3.87                 | 39,696         | 3.80     | 44,602         | 3.37     |  |
| 2005        | 34,655         | 5.12                 | 41,604         | 4.81     | 47,238         | 5.91     |  |
| 2006        | 36,578         | 5.55                 | 43,984         | 5.72     | 50,205         | 6.28     |  |
| 2007        | 38,602         | 5.53                 | 47,036         | 6.94     | 54,225         | 8.01     |  |
| 2008        | 40,471         | 4.84                 | 49,235         | 4.68     | 56,788         | 4.73     |  |
| 2009        | 39,750         | (1.78)               | 48,471         | (1.55)   | 54,814         | (3.48)   |  |
| 2010        | 38,885         | (2.18)               | 47,882         | (1.22)   | 53,722         | (1.99)   |  |
| 2011        | 40,782         | 4.88                 | 50,396         | 5.25     | 57,026         | 6.15     |  |
| 2012        | 41,917         | 2.78                 | 51,653         | 2.49     | 58,148         | 1.97     |  |

Source: U.S. Department of Commerce, Bureau of Economic Analysis

All figures derived by: <u>Total Personal Income</u> Population

# PER CAPITA PERSONAL INCOME GROWTH

#### FISCAL YEAR GROWTH BY PERCENT



Source: U.S. Department of Commerce, Bureau of Economic Analysis

The following table shows per capita income for each of the fifty states with their corresponding ranking for fiscal year 2012. In 2012, Connecticut ranked number 1 in the nation based on per capita personal income. Connecticut's figure of \$58,148 for per capita personal income remained approximately 38.7% higher than the national average.

TABLE 66
PER CAPITA PERSONAL INCOME BY STATE (Fiscal 2012)

|                    | Per Capita      |               |                | Per Capita    |             |
|--------------------|-----------------|---------------|----------------|---------------|-------------|
| <u>State</u>       | <u>Income</u>   | <u>Rank</u>   | <u>State</u>   | <u>Income</u> | <u>Rank</u> |
| <b>Connecticut</b> | <b>\$58,148</b> | <u>1</u><br>2 | Wisconsin      | \$39,923      | 26          |
| Massachusetts      | 53,949          | 2             | Florida        | 39,564        | 27          |
| New Jersey         | 52,841          | 3             | Louisiana      | 38,937        | 28          |
| New York           | 51,382          | 4             | Maine          | 38,772        | 29          |
| Maryland           | 51,186          | 5             | Ohio           | 38,490        | 30          |
| North Dakota       | 49,012          | 6             | Oklahoma       | 38,353        | 31          |
| Wyoming            | 48,484          | 7             | Missouri       | 38,350        | 32          |
| Virginia           | 46,409          | 8             | Oregon         | 37,906        | 33          |
| Alaska             | 46,150          | 9             | Tennessee      | 36,981        | 34          |
| New Hampshire      | 46,059          | 10            | Michigan       | 36,751        | 35          |
| Minnesota          | 44,965          | 11            | Nevada         | 36,698        | 36          |
| Colorado           | 44,524          | 12            | Montana        | 36,640        | 37          |
| South Dakota       | 44,512          | 13            | Indiana        | 36,268        | 38          |
| Washington         | 44,431          | 14            | North Carolina | 36,244        | 39          |
| Rhode Island       | 44,213          | 15            | Georgia        | 36,198        | 40          |
| Illinois           | 44,095          | 16            | Alabama        | 35,177        | 41          |
| California         | 44,000          | 17            | Arizona        | 35,095        | 42          |
| Hawaii             | 43,429          | 18            | Kentucky       | 34,476        | 43          |
| Nebraska           | 43,011          | 19            | New Mexico     | 34,425        | 44          |
| Pennsylvania       | 42,813          | 20            | Arkansas       | 34,037        | 45          |
| Vermont            | 42,039          | 21            | West Virginia  | 33,966        | 46          |
| Iowa               | 41,728          | 22            | Utah           | 33,918        | 47          |
| Delaware           | 41,629          | 23            | South Carolina | 33,665        | 48          |
| Kansas             | 41,302          | 24            | Idaho          | 33,003        | 49          |
| Texas              | 40,561          | 25            | Mississippi    | 32,381        | 50          |
| T. C. A            | <b>44.04</b>    |               |                |               |             |

Source: U.S. Department of Commerce, Bureau of Economic Analysis

\$41,917

All figures derived by: Personal Income
Population

U.S. Average

## Per Capita Disposable Personal Income

The following table shows per capita disposable income for each of the fifty states with their corresponding ranking for fiscal year 2012. Per capita disposable income is defined as the income available to an individual for spending or saving. It is per capita personal income less personal tax and nontax payments. Personal taxes are composed of federal, state and local income taxes, as well as, personal property taxes and estate and gift taxes. Nontax payments are made up of fines and fees.

TABLE 67 PER CAPITA DISPOSABLE PERSONAL INCOME BY STATE (Fiscal 2012)

|                    | Per Capita      |               |                | Per Capita    |             |
|--------------------|-----------------|---------------|----------------|---------------|-------------|
|                    | Disposable      |               |                | Disposable    |             |
| <u>State</u>       | <u>Income</u>   | <u>Rank</u>   | <u>State</u>   | <u>Income</u> | <u>Rank</u> |
| <b>Connecticut</b> | <u>\$48,047</u> | <u>1</u><br>2 | Florida        | \$36,129      | 26          |
| New Jersey         | 46,866          | 2             | Wisconsin      | 36,054        | 27          |
| Massachusetts      | 46,623          | 3             | Louisiana      | 35,748        | 28          |
| Maryland           | 45,233          | 4             | Missouri       | 34,950        | 29          |
| Wyoming            | 43,912          | 5             | Oklahoma       | 34,565        | 30          |
| New York           | 43,152          | 6             | Nevada         | 34,560        | 31          |
| North Dakota       | 42,361          | 7             | Maine          | 34,336        | 32          |
| Alaska             | 41,541          | 8             | Ohio           | 34,259        | 33          |
| New Hampshire      | 41,517          | 9             | Tennessee      | 34,172        | 34          |
| Virginia           | 40,608          | 10            | Oregon         | 33,838        | 35          |
| Washington         | 40,589          | 11            | Montana        | 33,517        | 36          |
| Rhode Island       | 39,909          | 12            | Michigan       | 33,094        | 37          |
| Colorado           | 39,773          | 13            | Arizona        | 32,857        | 38          |
| Minnesota          | 39,653          | 14            | North Carolina | 32,631        | 39          |
| Illinois           | 39,496          | 15            | Georgia        | 32,575        | 40          |
| California         | 39,394          | 16            | Indiana        | 32,236        | 41          |
| Hawaii             | 39,192          | 17            | Alabama        | 31,972        | 42          |
| South Dakota       | 38,728          | 18            | New Mexico     | 31,786        | 43          |
| Nebraska           | 38,227          | 19            | Arkansas       | 31,215        | 44          |
| Pennsylvania       | 38,123          | 20            | West Virginia  | 30,972        | 45          |
| Vermont            | 38,012          | 21            | South Carolina | 30,865        | 46          |
| Iowa               | 37,186          | 22            | Utah           | 30,783        | 47          |
| Delaware           | 36,925          | 23            | Kentucky       | 30,704        | 48          |
| Kansas             | 36,797          | 24            | Idaho          | 30,605        | 49          |
| Texas              | 36,488          | 25            | Mississippi    | 30,019        | 50          |
| U.S. Average       | \$37,336        |               |                |               |             |

Source: U.S. Department of Commerce, Bureau of Economic Analysis

All figures derived by: <u>Disposable Personal Income</u>
Population

#### Inflation and Its Effect On Personal Income

Inflation is defined as a rise in the general price level (or average level of prices) of all goods and services, or equivalently a decline in the purchasing power of a unit of money. The general price level varies inversely with the purchasing power of a unit of money. Hence, when prices increase purchasing power declines.

To take into account the erosion of income due to increasing prices, income is deflated by a consumer price index. The Consumer Price Index (CPI) is a measure of the average change in prices over time for a fixed market basket of goods and services. The Bureau of Labor Statistics publishes CPI's for two population groups: a CPI for All Urban Consumers (CPI-U) which covers approximately 80 percent of the total population; and a CPI for Urban Wage Earners and Clerical Workers (CPI-W) which covers 32 percent of the total population and is a subset of the CPI-U population. The CPI-U includes, in addition to wage earners and clerical workers, groups such as professional, managerial and technical workers, the self employed, short-term workers, the unemployed, retirees and others not in the labor force.

The following table shows the Consumer Price Index for All Urban Consumers and its growth over a ten fiscal year period.

TABLE 68 THE U.S. CONSUMER PRICE INDEX (1982-84=100)

| <u>Fiscal Year</u> | <u>CPI</u> | <u>% Growth</u> |
|--------------------|------------|-----------------|
| 2003               | 182.1      | 2.20            |
| 2004               | 186.1      | 2.21            |
| 2005               | 191.7      | 3.00            |
| 2006               | 198.9      | 3.78            |
| 2007               | 204.1      | 2.60            |
| 2008               | 211.7      | 3.71            |
| 2009               | 214.7      | 1.41            |
| 2010               | 216.8      | 0.98            |
| 2011               | 221.1      | 1.98            |
| 2012               | 227.6      | 2.95            |
|                    |            |                 |

Source: U.S. Bureau of Labor Statistics

The CPI is a weighted index that is based on prices of food (15.0%), apparel (3.7%), housing (42%), transportation (16.7%), medical care (6.5%), education (6.4%), and the other goods that people buy for day-to-day living (9.7%). In addition, all taxes directly associated with the purchase and use of items and services are included in the index. In calculating the index, price changes for the various items in 85 urban areas across the country are averaged together with weights which represent their importance in the spending of the appropriate population group. Local data is then combined to obtain a U.S. city average. Movements of the indexes from one month to another are usually expressed as percentage changes rather than changes in index points, because index point changes are effected by the level of the index in relation to its base period while percent changes are not.

#### **Real Personal Income**

Real personal income is total personal income deflated by the Consumer Price Index, a measure of personal income that usually includes adjustments for changes in prices since the base period of 1982-84. The following table shows real personal income growth for the United States, the New England region and Connecticut. These figures, because they take into account the effects of inflation, provide a better perspective of overall gains in personal income.

TABLE 69
REAL PERSONAL INCOME
(In Millions)

| Fiscal      | <b>United States</b> |          | New I          | England  | Connecticut    |          |  |
|-------------|----------------------|----------|----------------|----------|----------------|----------|--|
| <u>Year</u> | <u>Dollars</u>       | % Growth | <u>Dollars</u> | % Growth | <u>Dollars</u> | % Growth |  |
| 2003        | 5,040,285            | 0.42     | 297,434        | (0.96)   | 82,357         | (1.66)   |  |
| 2004        | 5,168,504            | 2.54     | 302,879        | 1.83     | 83,697         | 1.63     |  |
| 2005        | 5,323,799            | 3.00     | 308,466        | 1.84     | 86,319         | 3.13     |  |
| 2006        | 5,466,266            | 2.68     | 314,703        | 2.02     | 88,676         | 2.73     |  |
| 2007        | 5,676,757            | 3.85     | 328,711        | 4.45     | 93,591         | 5.54     |  |
| 2008        | 5,793,508            | 2.06     | 332,977        | 1.30     | 94,927         | 1.43     |  |
| 2009        | 5,662,289            | (2.26)   | 324,717        | (2.48)   | 90,801         | (4.35)   |  |
| 2010        | 5,532,563            | (2.29)   | 318,909        | (1.79)   | 88,506         | (2.53)   |  |
| 2011        | 5,732,402            | 3.61     | 330,024        | 3.49     | 92,317         | 4.31     |  |
| 2012        | 5,773,205            | 0.71     | 330,008        | (0.01)   | 91,732         | (0.63)   |  |

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

All figures derived by: <u>Total Personal Income</u>

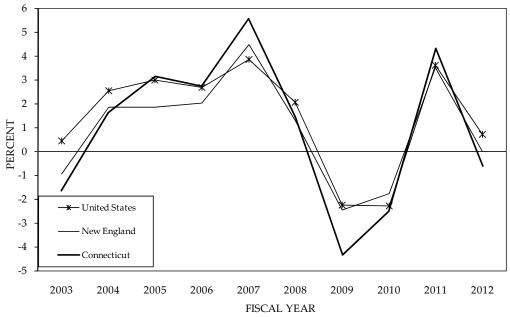
CPI

It is important to note that there are regional differences in prices. Local area CPI indexes are by-products of the national CPI program. Because each local index is a small subset of the national index, it has a smaller sample size and is therefore subject to substantially more sampling and other measurement error than the national index. Therefore, local area indexes show greater volatility than the national index in the short run, although their long-term trends are quite similar. Therefore, the National Consumer Price Index was utilized in the table above to provide the comparison among the United States, the New England region and Connecticut.

The following chart provides a graphic presentation of the growth in real personal income for the three entities over a ten fiscal year period.

# **REAL PERSONAL INCOME GROWTH**

FISCAL YEAR GROWTH BY PERCENT



Source: U.S. Department of Commerce, Bureau of Economic Analysis

## Real Per Capita Personal Income

Real per capita personal income is per capita personal income deflated by the Consumer Price Index and shows how individuals comprising a geographical entity have fared after adjusting for the effects of inflation. A comparison of the growth rates measures the relative economic performance of each entity as it adjusts personal income growth by population changes.

TABLE 70 REAL PER CAPITA PERSONAL INCOME

| Fiscal      | Unite          | United States |                | England  | Connecticut    |          |  |
|-------------|----------------|---------------|----------------|----------|----------------|----------|--|
| <u>Year</u> | <u>Dollars</u> | % Growth      | <u>Dollars</u> | % Growth | <u>Dollars</u> | % Growth |  |
| 2003        | 17,430         | (0.46)        | 21,002         | (1.45)   | 23,696         | (2.42)   |  |
| 2004        | 17,714         | 1.63          | 21,329         | 1.56     | 23,965         | 1.14     |  |
| 2005        | 18,078         | 2.06          | 21,703         | 1.75     | 24,642         | 2.82     |  |
| 2006        | 18,386         | 1.71          | 22,109         | 1.87     | 25,236         | 2.41     |  |
| 2007        | 18,912         | 2.86          | 23,044         | 4.23     | 26,566         | 5.27     |  |
| 2008        | 19,119         | 1.09          | 23,259         | 0.93     | 26,827         | 0.98     |  |
| 2009        | 18,518         | (3.14)        | 22,581         | (2.92)   | 25,535         | (4.81)   |  |
| 2010        | 17,940         | (3.12)        | 22,090         | (2.17)   | 24,785         | (2.94)   |  |
| 2011        | 18,449         | 2.84          | 22,798         | 3.20     | 25,797         | 4.08     |  |
| 2012        | 18,419         | (0.16)        | 22,697         | (0.44)   | 25,551         | (0.95)   |  |
|             |                |               |                |          |                |          |  |

Source: U.S. Department of Commerce, Bureau of Economic Analysis

All figures derived by: <u>Total Personal Income</u> CPI X Population

The previous table shows the growth in real per capita personal income for the United States, the New England region, and Connecticut. The chart below provides a graphic presentation of the growth in real per capita personal income for the three entities over a ten fiscal year period.

# REAL PER CAPITA INCOME GROWTH FISCAL YEAR GROWTH BY PERCENT

6
5
4
3
2
1
1
0
W=0
-1
-2
-3
-4
New England

Source: U.S. Department of Commerce, Bureau of Economic Analysis

2006

2005

Connecticut

2004

-5

-6

2003

TABLE 71 GROWTH IN REAL PER CAPITA PERSONAL INCOME (Base Year: 2011)

2007

2008

FISCAL YEAR

2009

2010

2011

2012

| Fiscal      | % Gr                 | owth        | % Cumulative Growth  |             |  |
|-------------|----------------------|-------------|----------------------|-------------|--|
| <u>Year</u> | <u>United States</u> | Connecticut | <u>United States</u> | Connecticut |  |
| 1950-1960   | 27.7%                | 28.4%       | 27.7%                | 28.4%       |  |
| 1960-1970   | 37.3%                | 40.3%       | 75.3%                | 80.2%       |  |
| 1970-1980   | 17.7%                | 12.8%       | 106.3%               | 103.3%      |  |
| 1980-1990   | 20.9%                | 37.4%       | 149.5%               | 179.3%      |  |
| 1990-2000   | 15.9%                | 16.1%       | 189.2%               | 224.2%      |  |
| 2000-2010   | 6.0%                 | 7.0%        | 206.7%               | 246.7%      |  |
| 2010-2011   | 1.3%                 | 2.6%        | 210.7%               | 255.7%      |  |

Source: U.S. Department of Commerce, Bureau of Economic Analysis

The above table highlights the cumulative growth in real per capita personal income over the past sixty-one years. Overall, Connecticut has enjoyed higher cumulative growth in real per capita personal income, exceeding the United States by 45.0 percentage points. In one decade alone, 1980 to 1990, Connecticut's growth in real personal income was 16.5 percentage points higher than the United States' growth. On the other hand, during the most recent decade, Connecticut's personal income growth has been alarmingly weak at only 7.0%, a likely result of

two economic bubbles bursting (technology and housing) and the Great Recession of the last two years of the decade. Even though job growth in the state has lagged that of the nation, Connecticut residents' income growth has out-performed that of the nation's over the long-term.

#### **Cost of Living Index**

Statistics regarding inflation and the cost of living for Connecticut are frequently requested by the public. The two indicators are not the same. An inflation index such as the CPI-U is used to measure purchasing power relative to its historical performance, while the cost of living index is used to measure purchasing power relative to one's geographical peers. In other words, the cost of living index is produced to measure the relative price level of consumer goods and services for a specific area relative to other jurisdictions at a given time.

A widely used index to measure cost of living differences among urban areas is *ACCRA Cost of Living Index*, which is produced by The Council for Community and Economic Research (C2ER). This report includes indices for approximately 320 Metropolitan Statistical Areas (MTAs), Metropolitan Statistical Divisions (MTDs), and Micropolitan Statistical Areas (MCAs) as defined by the U.S. Office of Management and Budget (OMB). In Connecticut, the C2ER survey includes the three urban areas from the following MTAs: Stamford in the Bridgeport-Stamford-Norwalk MTA, Hartford in the Hartford-West Hartford-East Hartford MTA, and New Haven in the New Haven-Milford MTA.

The following table shows the cost of living comparison for three neighboring cities: Boston in the Boston-Quincy MTD, Hartford in the Hartford-West Hartford-East Hartford MTA, and New York (Manhattan) in the New York-White Plains-Wayne NY-NJ MTD for the 2012 second quarter average.

TABLE 72 COMPARISON OF COST OF LIVING

| 2012<br>Second Quarter | Composite    | Grocery      |                |                  | Trans-           | Health      |        |
|------------------------|--------------|--------------|----------------|------------------|------------------|-------------|--------|
| MTA/MTD                | <u>Index</u> | <u>Items</u> | <u>Housing</u> | <u>Utilities</u> | <u>portation</u> | <u>Care</u> | Misc.* |
| Hartford, CT           | 124.6        | 119.2        | 142.1          | 115.1            | 115.8            | 118.6       | 118.1  |
| Boston, MA             | 140.6        | 119.5        | 171.7          | 148.3            | 104.0            | 128.7       | 133.0  |
| New York**, NY         | 233.5        | 149.8        | 459.3          | 132.8            | 120.7            | 129.1       | 152.4  |
| Index Weights          | 100%         | 13.36%       | 28.64%         | 10.46%           | 10.66%           | 4.44%       | 32.44% |

Note: \* denotes miscellaneous goods and services

Source: The Council for Community and Economic Research (C2ER), "ACCRA Cost of Living Index", August 2012 Second Quarter Data

<sup>\*\*</sup> Manhattan

The Cost of Living Composite Index is weighted by a "market basket" of approximately 60 goods and services for the typical professional and executive household. It is further broken down into six categories including grocery items, housing, utilities, transportation, health care, and miscellaneous goods and services to reflect the different categories of consumer expenditures. The index for the Hartford area, for example, in the second quarter of 2012 was 124.6 compared to the national average of 100. This index demonstrates that the overall living cost in the Hartford area was higher than the national average by 24.6% in the second quarter of 2012. Among the six categories, the cost of housing in the Hartford area was the most expensive item, a full 42.1% higher than the national average, followed by grocery items at 19.2%, healthcare at 18.6%, miscellaneous items at 18.1%, transportation at 15.8%, and utilities at 15.1% higher than the national average. The index, updated quarterly with an annual report published in January of the succeeding year, does not measure tax differentials.

In the second quarter of 2012, numerous cities had a relatively higher cost of living than the Hartford area. These include, for example, New York City (Manhattan) at 233.5; Honolulu, Hawaii at 170.8; and San Francisco, California at 163.2. Living costs in most southern states' cities are relatively low; for example, Norman, Oklahoma at 86.0; Harlingen, Texas at 81.6; and Birmingham, Alabama at 89.2. The cost of living in the Hartford area was comparable to cities such as Edison, New Jersey; Philadelphia, Pennsylvania; and Providence, Rhode Island, which registered at 125.7, 122.7, and 123.1, respectively. The cost of living index can provide useful information for relocation decisions. If someone is contemplating a job offer in a certain area, he or she may use this index as a guide to evaluate the financial merits of the move. For example, if a Hartford resident is considering a move to New York City (Manhattan) and wants to maintain his or her current lifestyle, other things being equal, his or her after-tax income level has to increase by 87.4%, (233.5-124.6)/124.6, in order to compensate for the higher cost of living. On the contrary, if a New York City resident is contemplating a move to Hartford, his or her after-tax income level can be reduced by 46.6%, (124.6-233.5)/233.5, in order to sustain the same current life style.

The cost of living for metropolitan statistical areas within Connecticut also varies. In the second quarter of 2012, the ACCRA cost of living Index for the Stamford area was at 146.7, and New Haven at 127.0 compared to 124.6 for Hartford. These three statistical areas accounted for nearly 84% of the state's total population. The following table demonstrates the relative index of the components for these three Connecticut regions.

TABLE 73
COMPARISON OF COST OF LIVING IN CONNECTICUT
Hartford, New Haven, and Stamford MTAs

| 2012 Q2<br><u>MTA</u> | Composite <u>Index</u> | Grocery<br><u>Items</u> | Housing | <u>Utilities</u> | Trans-<br>portation | Health<br><u>Care</u> | Misc. |
|-----------------------|------------------------|-------------------------|---------|------------------|---------------------|-----------------------|-------|
| Hartford              | 124.6                  | 119.2                   | 142.1   | 115.1            | 115.8               | 118.6                 | 118.1 |
| New Haven             | 127.0                  | 114.5                   | 144.1   | 113.2            | 120.9               | 121.5                 | 124.4 |
| Stamford              | 146.7                  | 114.2                   | 205.8   | 131.2            | 119.3               | 121.2                 | 125.4 |

Source: The Council for Community and Economic Research (C2ER), "ACCRA Cost of Living Index", August 2012, Second Quarter Data

#### THE MAJOR REVENUE RAISING TAXES IN THE STATE OF CONNECTICUT

In fiscal 2011, Connecticut's General Fund derived 68 percent of its revenue from the collection of taxes. To provide an analysis of the overall tax burden on the individuals of each state, the following table was prepared for fiscal 2011. The table shows overall state tax collections as a percentage of personal income. In the table, note that Connecticut ranks 18th, signifying that in 17 other states a greater percentage of an individual's income is going for state taxes than in Connecticut.

TABLE 74
STATE TAX COLLECTIONS AS A PERCENTAGE OF PERSONAL INCOME
Fiscal 2011

| <u>State</u>       | <u>Percentage</u> | Rank      | <u>State</u>   | <u>Percentage</u> | Rank |
|--------------------|-------------------|-----------|----------------|-------------------|------|
| Alaska             | 17.18%            | 1         | Rhode Island   | 6.05%             | 26   |
| North Dakota       | 12.43%            | 2         | Iowa           | 6.02%             | 27   |
| Vermont            | 10.47%            | 3         | Kansas         | 5.93%             | 28   |
| Wyoming            | 9.42%             | 4         | New Jersey     | 5.92%             | 29   |
| West Virginia      | 8.48%             | 5         | Washington     | 5.91%             | 30   |
| Hawaii             | 8.35%             | 6         | Utah           | 5.90%             | 31   |
| Delaware           | 8.22%             | 7         | Ohio           | 5.88%             | 32   |
| Minnesota          | 8.07%             | 8         | Oregon         | 5.65%             | 33   |
| Arkansas           | 7.91%             | 9         | Oklahoma       | 5.63%             | 34   |
| Maine              | 7.40%             | 10        | Nebraska       | 5.53%             | 35   |
| Mississippi        | 7.13%             | 11        | Maryland       | 5.50%             | 36   |
| California         | 7.11%             | 12        | Illinois       | 5.29%             | 37   |
| Kentucky           | 7.08%             | 13        | Alabama        | 5.26%             | 38   |
| New York           | 7.07%             | 14        | Louisiana      | 5.14%             | 39   |
| New Mexico         | 7.05%             | 15        | South Carolina | 4.98%             | 40   |
| Wisconsin          | 6.86%             | 16        | Virginia       | 4.78%             | 41   |
| Michigan           | 6.66%             | 17        | Arizona        | 4.76%             | 42   |
| <b>Connecticut</b> | <u>6.66%</u>      | <u>18</u> | Tennessee      | 4.76%             | 43   |
| Indiana            | 6.56%             | 19        | Georgia        | 4.61%             | 44   |
| North Carolina     | 6.55%             | 20        | Missouri       | 4.46%             | 45   |
| Montana            | 6.45%             | 21        | Florida        | 4.41%             | 46   |
| Massachusetts      | 6.40%             | 22        | Texas          | 4.37%             | 47   |
| Idaho              | 6.29%             | 23        | Colorado       | 4.31%             | 48   |
| Nevada             | 6.22%             | 24        | South Dakota   | 4.13%             | 49   |
| Pennsylvania       | 6.12%             | 25        | New Hampshire  | 3.95%             | 50   |
| U.S. Average       | 6.55%             |           |                |                   |      |

Source: Bureau of Economic Analysis, U.S. Census Bureau, "Annual Survey of State Government Tax Collections, 2011"

Following is a discussion of the major taxes in the State of Connecticut.

#### **Personal Income Tax**

For income years commencing on or after January 1, 1991, a personal income tax was imposed upon income of residents of the state (including resident trusts and estates), part-year residents and certain non-residents who have taxable income derived from or connected with sources within Connecticut. For tax years commencing on or after January 1, 1991, and prior to January 1, 1992, the tax was imposed at the rate of 1.5% on Connecticut taxable income. For tax years commencing on or after January 1, 1992, the separate tax on capital gains, dividends and interest was repealed, and the tax was imposed at the rate of 4.5% of Connecticut taxable income. Beginning with tax years commencing on or after January 1, 1996, a second, lower tax rate of 3% was introduced for a certain portion of taxable income. Beginning with tax years commencing January 1, 2003 the 4.5% rate was increased to 5.0%. Beginning with tax years commencing January 1, 2009, a third higher bracket of 6.5% was introduced on incomes in excess of \$500,000 for single filers and \$1,000,000 for joint filers. Beginning with tax years commencing January 1, 2011, five new tax brackets replaced all previous brackets greater than the lowest rate. The lowest bracket remains unchanged while the highest bracket imposes a 6.7% tax on incomes in excess of \$250,000 for single filers and \$500,000 for joint filers. amount of taxable income subject to the lower tax rate has been expanded as set forth in the table below. Depending on federal income tax filing status and Connecticut adjusted gross income, personal exemptions ranging from \$14,000 to \$24,000 are available to taxpayers, with such exemptions phased out at certain higher income levels. Legislation enacted in 1999 increases the exemption amount for single filers over a certain number of years from \$12,000 to \$15,000. In addition, tax credits ranging from 75% to 1% of a taxpayer's Connecticut tax liability are also available, again dependent upon federal income tax filing status and Connecticut adjusted gross income (See Table 77 for more details). Neither the personal exemption nor the tax credit is available to a trust or an estate. Also commencing in income year 1996, personal income taxpayers were eligible for up to a \$100 credit for property taxes paid on their primary residence or on their motor vehicle. This credit has been modified over the years and since income year 2011 has remained at \$300.

The Personal Income Tax generated \$8,310.8 million in fiscal year 2011-12, \$7,246.4 million in fiscal year 2010-11, and \$6,586.1 million in fiscal year 2009-10. In fiscal year 2011-12, this tax accounted for 44.8% of total revenue, while in fiscal year 2010-11 it accounted for 40.9% of total revenue.

TABLE 75
TAXABLE INCOME AMOUNTS SUBJECT TO THE LOWER RATE WITH THE REMAINDER SUBJECT TO THE HIGHER RATE

|              |          |                  | Amount At Low Rate By Filing Status |              |                   |  |  |
|--------------|----------|------------------|-------------------------------------|--------------|-------------------|--|--|
| Income Year  | Low Rate | <u>High Rate</u> | <u>Single</u>                       | <u>Joint</u> | Head of Household |  |  |
| 1996         | 3.0%     | 4.5%             | \$ 2,250                            | \$ 4,500     | \$ 3,500          |  |  |
| 1997         | 3.0%     | 4.5%             | \$ 6,250                            | \$12,500     | \$10,000          |  |  |
| 1998         | 3.0%     | 4.5%             | \$ 7,500                            | \$15,000     | \$12,000          |  |  |
| 1999 - 2002  | 3.0%     | 4.5%             | \$10,000                            | \$20,000     | \$16,000          |  |  |
| 2003 - 2008  | 3.0%     | 5.0%             | \$10,000                            | \$20,000     | \$16,000          |  |  |
| 2009-2010    | 3.0%     | 5.0%-6.5%        | \$10,000                            | \$20,000     | \$16,000          |  |  |
| 2011-Present | 3.0%     | 5.0%-6.7%        | \$10,000                            | \$20,000     | \$16,000          |  |  |

The following table compares the personal income tax collections as a percentage of personal income for the fifty states for fiscal 2011.

TABLE 76
STATE INCOME TAX COLLECTIONS AS A PERCENTAGE OF PERSONAL INCOME Fiscal 2011

| <u>State</u>       | <u>Percentage</u> | <u>Rank</u>   | <u>State</u>   | <u>Percentage</u> | <u>Rank</u> |
|--------------------|-------------------|---------------|----------------|-------------------|-------------|
| Oregon             | 3.82%             | 1             | Rhode Island   | 2.24%             | 23          |
| New York           | 3.77%             | 2             | Georgia        | 2.21%             | 24          |
| Massachusetts      | 3.36%             | 3             | Vermont        | 2.17%             | 25          |
| <b>Connecticut</b> | <u>3.21%</u>      | <u>4</u><br>5 | Hawaii         | 2.14%             | 26          |
| Minnesota          | 3.18%             | 5             | Colorado       | 2.07%             | 27          |
| California         | 3.08%             | 6             | Ohio           | 2.06%             | 28          |
| North Carolina     | 2.89%             | 7             | Indiana        | 2.02%             | 29          |
| Wisconsin          | 2.87%             | 8             | Illinois       | 2.02%             | 30          |
| Maine              | 2.86%             | 9             | Missouri       | 2.00%             | 31          |
| West Virginia      | 2.75%             | 10            | South Carolina | 1.88%             | 32          |
| Delaware           | 2.62%             | 11            | Pennsylvania   | 1.86%             | 33          |
| Virginia           | 2.62%             | 12            | Michigan       | 1.81%             | 34          |
| Utah               | 2.48%             | 13            | Oklahoma       | 1.73%             | 35          |
| Kentucky           | 2.37%             | 14            | Alabama        | 1.70%             | 36          |
| Iowa               | 2.37%             | 15            | Mississippi    | 1.54%             | 37          |
| Kansas             | 2.36%             | 16            | New Mexico     | 1.51%             | 38          |
| Arkansas           | 2.32%             | 17            | North Dakota   | 1.41%             | 39          |
| New Jersey         | 2.31%             | 18            | Louisiana      | 1.39%             | 40          |
| Nebraska           | 2.29%             | 19            | Arizona        | 1.26%             | 41          |
| Maryland           | 2.28%             | 20            | New Hampshire  | 0.14%             | 42          |
| Montana            | 2.28%             | 21            | Tennessee      | 0.08%             | 43          |
| Idaho              | 2.26%             | 22            |                |                   |             |
|                    |                   |               |                |                   |             |
| U.S. Average       | 2.22%             |               |                |                   |             |

Note: The following states do not levy an income tax: Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming.

Source: Bureau of Economic Analysis, U.S. Department of Commerce, "State Government Finances, 2011"

The following table shows Connecticut personal income tax exemptions ranging from \$14,000 to \$24,000 including the phase out as income levels rise depending on adjusted gross income for each income tax filing status.

TABLE 77
CONNECTICUT PERSONAL INCOME TAX CREDITS & EXEMPTIONS
Income Year 2013

| <u>Single</u>  |          |      | Married Filing Jointly   |           |      | Head of Household  |          |      |
|--|----------|------|--|-----------|------|--|----------|------|
| Exemption: \$14,000  |          |      | Exemption: \$24,000  |           |      | Exemption: \$19,000  |          |      |
| Phase Out: \$1K of exemption for each \$1K from \$28.0K to \$41.0K |          |      | Phase Out: \$1K of exemption for each \$1K from \$48K to \$72K |           |      | Phase Out: \$1K of exemption for each \$1K from \$38K to \$57K |          |      |
| AGI  | AGI      | % of | AGI  | AGI       | % of | AGI  | AGI      | % of |
| From   | To       | Tax  | From   | То        | Tax  | From   | То       | Tax  |
| \$14,000   | \$17,500 | 75%  | \$24,000   | \$30,000  | 75%  | \$19,000   | \$24,000 | 75%  |
| \$17,500   | \$18,000 | 70%  | \$30,000   | \$30,500  | 70%  | \$24,000   | \$24,500 | 70%  |
| \$18,000   | \$18,500 | 65%  | \$30,500   | \$31,000  | 65%  | \$24,500   | \$25,000 | 65%  |
| \$18,500   | \$19,000 | 60%  | \$31,000   | \$31,500  | 60%  | \$25,000   | \$25,500 | 60%  |
| \$19,000   | \$19,500 | 55%  | \$31,500   | \$32,000  | 55%  | \$25,500   | \$26,000 | 55%  |
| \$19,500   | \$20,000 | 50%  | \$32,000   | \$32,500  | 50%  | \$26,000   | \$26,500 | 50%  |
| \$20,000   | \$20,500 | 45%  | \$32,500   | \$33,000  | 45%  | \$26,500   | \$27,000 | 45%  |
| \$20,500   | \$21,000 | 40%  | \$33,000   | \$33,500  | 40%  | \$27,000   | \$27,500 | 40%  |
| \$21,000   | \$23,300 | 35%  | \$33,500   | \$40,000  | 35%  | \$27,500   | \$34,000 | 35%  |
| \$23,300   | \$23,800 | 30%  | \$40,000   | \$40,500  | 30%  | \$34,000   | \$34,500 | 30%  |
| \$23,800   | \$24,300 | 25%  | \$40,500   | \$41,000  | 25%  | \$34,500   | \$35,000 | 25%  |
| \$24,300   | \$24,800 | 20%  | \$41,000   | \$41,500  | 20%  | \$35,000   | \$35,500 | 20%  |
| \$24,800   | \$29,200 | 15%  | \$41,500   | \$50,000  | 15%  | \$35,500   | \$44,000 | 15%  |
| \$29,200   | \$29,700 | 14%  | \$50,000   | \$50,500  | 14%  | \$44,000   | \$44,500 | 14%  |
| \$29,700   | \$30,200 | 13%  | \$50,500   | \$51,000  | 13%  | \$44,500   | \$45,000 | 13%  |
| \$30,200   | \$30,700 | 12%  | \$51,000   | \$51,500  | 12%  | \$45,000   | \$45,500 | 12%  |
| \$30,700   | \$31,200 | 11%  | \$51,500   | \$52,000  | 11%  | \$45,500   | \$46,000 | 11%  |
| \$31,200   | \$56,000 | 10%  | \$52,000   | \$96,000  | 10%  | \$46,000   | \$74,000 | 10%  |
| \$56,000   | \$56,500 | 9%   | \$96,000   | \$96,500  | 9%   | \$74,000   | \$74,500 | 9%   |
| \$56,500   | \$57,000 | 8%   | \$96,500   | \$97,000  | 8%   | \$74,500   | \$75,000 | 8%   |
| \$57,000   | \$57,500 | 7%   | \$97,000   | \$97,500  | 7%   | \$75,000   | \$75,500 | 7%   |
| \$57,500   | \$58,000 | 6%   | \$97,500   | \$98,000  | 6%   | \$75,500   | \$76,000 | 6%   |
| \$58,000   | \$58,500 | 5%   | \$98,000   | \$98,500  | 5%   | \$76,000   | \$76,500 | 5%   |
| \$58,500   | \$59,000 | 4%   | \$98,500   | \$99,000  | 4%   | \$76,500   | \$77,000 | 4%   |
| \$59,000   | \$59,500 | 3%   | \$99,000   | \$99,500  | 3%   | \$77,000   | \$77,500 | 3%   |
| \$59,500   | \$60,000 | 2%   | \$99,500   | \$100,000 | 2%   | \$77,500   | \$78,000 | 2%   |
| \$60,000   | \$60,500 | 1%   | \$100,000  | \$100,500 | 1%   | \$78,000   | \$78,500 | 1%   |

Source: General Statutes of the State of Connecticut

The following table shows whether state and local governmental obligations are included in the definition of state income for tax purposes.

TABLE 78
STATE AND LOCAL GOVERNMENT OBLIGATIONS EXEMPTIONS
FOR DETERMINING INDIVIDUAL'S STATE INCOME

|                  |                   | Other             |                       |                   | Other             |
|------------------|-------------------|-------------------|-----------------------|-------------------|-------------------|
|                  | Own               | State's           |                       | Own               | State's           |
| <u>State</u>     | <u>Securities</u> | <u>Securities</u> | <u>State</u>          | <u>Securities</u> | <u>Securities</u> |
| Alabama          | E                 | T                 | Montana               | E                 | T                 |
| Alaska (no tax)  |                   |                   | Nebraska              | T                 | T                 |
| Arizona          | E                 | T                 | Nevada (no tax)       |                   |                   |
| Arkansas         | E                 | T                 | New Hampshire         | E                 | T                 |
| California       | E                 | T                 | New Jersey            | E                 | T                 |
| Colorado         | E                 | T                 | New Mexico            | E                 | T                 |
| Connecticut      | E                 | T                 | New York              | E                 | T                 |
| Delaware         | E                 | T                 | North Carolina        | E                 | T                 |
| Florida (no tax) |                   |                   | North Dakota          | E                 | T                 |
| Georgia          | E                 | T                 | Ohio                  | E                 | T                 |
| Hawaii           | E                 | T                 | Oklahoma              | T (1)             | T                 |
| Idaho            | E                 | T                 | Oregon                | E                 | T                 |
| Illinois         | T (1)             | T                 | Pennsylvania          | E                 | T                 |
| Indiana          | E                 | T (2)             | Rhode Island          | E                 | T                 |
| Iowa             | T (1)             | T                 | South Carolina        | E                 | T                 |
| Kansas           | E                 | T                 | South Dakota (no tax) |                   |                   |
| Kentucky         | E                 | T                 | Tennessee             | E                 | T                 |
| Louisiana        | E                 | T                 | Texas (no tax)        |                   |                   |
| Maine            | E                 | T                 | Utah                  | T (1)             | T(3)              |
| Maryland         | E                 | T                 | Vermont               | E                 | T                 |
| Massachusetts    | E                 | T                 | Virginia              | E                 | T                 |
| Michigan         | E                 | T                 | Washington (no tax)   |                   |                   |
| Minnesota        | E                 | T                 | West Virginia         | E                 | T                 |
| Mississippi      | E                 | T                 | Wisconsin             | T (1)             | T                 |
| Missouri         | E                 | T                 | Wyoming (no tax)      |                   |                   |

T = Taxable / E = Exempt

- (1) Interest earned from some qualified obligations is exempt from the tax.
- (2) Taxable for bonds acquired after 2011, bonds acquired before 2012 are exempt.
- (3) Taxable for bonds acquired after 2002 if the other state or locality imposes an income-based tax on Utah bonds.

The following table compares the personal income tax rates and bases for the fifty states and the District of Columbia.

TABLE 79
PERSONAL INCOME TAX BY STATE

|                  |             | <u>Bracket</u> | High        | n Bracket        |                     |             | Bracket   | High        | Bracket   |
|------------------|-------------|----------------|-------------|------------------|---------------------|-------------|-----------|-------------|-----------|
| _                | %           | To Net         |             | From Net         |                     | %           | To Net    |             | From Net  |
| <u>State</u>     | <u>Rate</u> | Income \$      | <u>Rate</u> | <u>Income \$</u> | <u>State</u>        | <u>Rate</u> | Income \$ | <u>Rate</u> | Income \$ |
| Alabama (3)      | 2.0         | 1,000          | 5.0         | 6,001            | Missouri (1)        | 1.5         | 1,000     | 6.0         | 9,001     |
| Arizona (1)      | 2.59        | 20,000         | 4.54        | 300,001          | Montana (1,d)       | 1.0         | 2,700     | 6.9         | 16,401    |
| Arkansas (3,d)   | 1.0         | 4,099          | 7.0         | 34,000           | Nebraska (1)        | 2.56        | 4,800     | 6.84        | 54,001    |
| California (1,d) | 1.0         | 14,910         | 9.30        | 97,885           | New Hampshire       | (b)         |           |             |           |
| Colorado (2)     | 4.63        | All            |             |                  | New Jersey (3)      | 1.4         | 20,000    | 8.97        | 500,001   |
| Connecticut (1)  | 3.0         | 20,000         | 6.7         | 500,001          | New Mexico (1)      | 1.7         | 8,000     | 4.9         | 24,001    |
| Delaware (1)     | 2.2         | 5,000          | 6.75        | 60,001           | New York (1)        | 4.0         | 16,000    | 8.82        | 2,000,001 |
| Georgia (1)      | 1.0         | 1,000          | 6.0         | 10,001           | N. Carolina (2)     | 6.0         | 21,250    | 7.75        | 100,001   |
| Hawaii (1)       | 1.4         | 4,800          | 11.0        | 400,001          | N. Dakota (2,d)     | 1.51        | 59,100    | 3.99        | 388,351   |
| Idaho (1,d)      | 1.6         | 2,759          | 7.4         | 20,700           | Ohio (1,d)          | 0.59        | 5,200     | 5.93        | 208,501   |
| Illinois (1)     | 5.0         | All            |             |                  | Oklahoma (1)        | 0.5         | 2,000     | 5.25        | 15,001    |
| Indiana (1)      | 3.4         | All            |             |                  | Oregon (2,d)        | 5.0         | 6,300     | 9.9         | 250,001   |
| Iowa (1,d)       | 0.36        | 1,469          | 8.98        | 66,105           | Pennsylvania (3)    | 3.07        | All       |             |           |
| Kansas (1)       | 3.5         | 30,000         | 6.45        | 60,001           | Rhode Island(1,c,d) | 3.75        | 57,150    | 5.99        | 129,901   |
| Kentucky (1)     | 2.0         | 3,000          | 6.0         | 75,001           | S. Carolina (2,d)   | 3.0         | 5,600     | 7.0         | 14,001    |
| Louisiana (1)    | 2.0         | 25,000         | 6.0         | 100,001          | Tennessee           | (b)         |           |             |           |
| Maine (1,d)      | 2.0         | 10,199         | 8.5         | 40,700           | Utah (1)            | 5.0         | All       |             |           |
| Maryland (1)     | 2.0         | 1,000          | 5.75        | 300,000          | Vermont (2,d)       | 3.55        | 59,050    | 8.95        | 388,351   |
| Massachusetts    | 5.3         | All            | (a)         |                  | Virginia (1)        | 2.0         | 3,000     | 5.75        | 17,001    |
| Michigan (1)     | 4.25        | All            | . ,         |                  | W. Virginia (1)     | 3.0         | 10,000    | 6.5         | 60,001    |
| Minnesota (2,d)  | 5.35        | 34,590         | 7.85        | 137,431          | Wisconsin (1,d)     | 4.6         | 14,090    | 7.75        | 310,211   |
| Mississippi (3)  | 3.0         | 5,000          | 5.0         | 10,001           | Dist. of Col. (2)   | 4.0         | 10,000    | 8.95        | 350,001   |

The following states do not levy an income tax: Alaska, Florida, Nevada, South Dakota, Texas, Washington & Wyoming.

Note: Tax rates are for married filers filing joint returns and do not include income taxes levied at the local level.

Base: (1) - Modified Federal Adjusted Gross Income

- (2) Modified Federal Taxable Income
- (3) State's Individual Definition of Taxable Income
- (a) The rate is 12% for short-term capital gains and 5.3% for interests and dividends.
- (b) Income taxes are limited to interest and dividends: 5.0% in New Hampshire and 6.0% in Tennessee.
- (c) Rhode Island taxpayers may elect to pay a flat rate of 6.0%.
- (d) Brackets are indexed for inflation annually.

# Sales and Use Tax

The sales tax is imposed, subject to certain limitations, on the gross receipts from certain transactions within the state of persons engaged in business in the state including: 1) retail sales of tangible personal property; 2) the sale of certain services; 3) the leasing or rental of tangible personal property; 4) the producing, fabricating, processing, printing, or imprinting of tangible personal property to special order or with material furnished by the consumer; 5) the furnishing, preparing or serving of food, meals or drinks; and 6) the occupancy of hotels or lodging house rooms for a period not exceeding thirty consecutive calendar days.

The use tax is imposed on the consideration paid for certain services, purchases or rentals of tangible personal property used within the state and not subject to the sales tax.

Both the sales and use taxes are levied at a rate of 6.35%. Various exemptions from the tax are provided, based on the nature, use, or price of the property or services involved or the identity of the purchaser. Certain items are taxed at reduced rates. Hotel rooms are taxed at 15%.

The sales and use tax is an important source of revenue for the State of Connecticut. In fiscal 2012, sales and use taxes accounted for 20.6% of total revenue, compared to 18.9% in fiscal 2011 and 18.1% in fiscal 2010.

When analyzing sales taxes, a simple comparison of rates is not an effective way to measure the tax burden imposed. An analysis of the tax base must be included to provide a more meaningful comparison.

In an attempt to provide a more relevant comparison of the sales tax burden, two studies are presented. The first study shows sales tax collections as a percentage of personal income. The larger the percentage of personal income going to sales tax collections, the heavier the burden of that tax. The table on the following page shows sales tax collections as a percentage of personal income and the corresponding ranking of the states. Note that Connecticut's tax burden is less than 33 other states. The comparison is based on fiscal year 2011 data. From fiscal 1991 to fiscal 2011, Connecticut's sales tax collections as a percentage of personal income dropped from 3.15% with a rank of ninth to 1.61% with a rank of 34th, and compared to the national average of 2.06%. This change was primarily due to the reduction in Connecticut's sales tax rate from 8% to 6.35% and an expansion of the exemptions on certain services and goods.

The second study provides an analysis of major sales tax exemptions by state. Connecticut excludes from its sales tax such major items as food products for human consumption, drugs and medicines used by humans, machinery, professional services, residential utilities and motor fuels. Table 80 shows the comparison for major sales tax exemptions.

TABLE 80
SALES TAX COLLECTIONS AS A PERCENTAGE OF PERSONAL INCOME Fiscal 2011

|               | Tax Rate   |          |             |                    | Tax Rate    |             |             |
|---------------|------------|----------|-------------|--------------------|-------------|-------------|-------------|
| <u>State</u>  | <u>(%)</u> | <u>%</u> | <u>Rank</u> | <u>State</u>       | <u>(%)</u>  | <u>%</u>    | <u>Rank</u> |
| Hawaii        | 4.0*       | 4.29     | 1           | Iowa               | 6.0*        | 1.86        | 24          |
| Washington    | 6.5*       | 3.59     | 2           | Nebraska           | 5.5*        | 1.84        | 25          |
| Wyoming       | 4.0*       | 3.30     | 3           | Wisconsin          | 5.0         | 1.84        | 26          |
| Mississippi   | 7.0        | 3.11     | 4           | Rhode Island       | 7.0         | 1.82        | 27          |
| Nevada        | 6.85*      | 2.88     | 5           | Ohio               | 5.5*        | 1.81        | 28          |
| Arkansas      | 6.0*       | 2.80     | 6           | South Carolina     | 6.0*        | 1.81        | 29          |
| Indiana       | 7.0        | 2.76     | 7           | North Carolina     | 4.75*       | 1.81        | 30          |
| Tennessee     | 7.0*       | 2.71     | 8           | New Jersey         | 7.0         | 1.77        | 31          |
| Michigan      | 6.0        | 2.68     | 9           | Pennsylvania       | 6.0*        | 1.69        | 32          |
| New Mexico    | 5.125      | 2.66     | 10          | Louisiana          | 4.0         | 1.63        | 33          |
| Florida       | 6.0*       | 2.62     | 11          | <b>Connecticut</b> | <u>6.35</u> | <u>1.61</u> | <u>34</u>   |
| North Dakota  | 5.0*       | 2.52     | 12          | Oklahoma           | 4.5*        | 1.58        | 35          |
| South Dakota  | 4.0*       | 2.42     | 13          | Georgia            | 4.0         | 1.46        | 36          |
| Idaho         | 6.0        | 2.29     | 14          | Massachusetts      | 6.25        | 1.43        | 37          |
| Texas         | 6.25*      | 2.21     | 15          | Maryland           | 6.0         | 1.34        | 38          |
| Kansas        | 6.3*       | 2.16     | 16          | Illinois           | 6.25*       | 1.33        | 39          |
| Maine         | 5.0        | 2.03     | 17          | Alabama            | 4.0*        | 1.33        | 40          |
| Kentucky      | 6.0        | 2.01     | 18          | Missouri           | 4.225*      | 1.31        | 41          |
| West Virginia | 6.0        | 2.00     | 19          | Vermont            | 6.0         | 1.27        | 42          |
| Utah          | 4.7*       | 1.99     | 20          | New York           | 4.0*        | 1.20        | 43          |
| Minnesota     | 6.875*     | 1.98     | 21          | Colorado           | 2.9*        | 0.99        | 44          |
| Arizona       | 6.6*       | 1.96     | 22          | Virginia           | 4.0*        | 0.95        | 45          |
| California    | 7.25       | 1.89     | 23          |                    |             |             |             |
|               |            |          |             |                    |             |             |             |

U.S. Average 2.06

#### Notes:

- \* Local tax rates are additional
- Tax rates are as of October 26, 2012
- Alaska, Delaware, Montana, New Hampshire, and Oregon do not levy a sales tax.
- The state of Delaware imposes a merchants' and manufacturers' license tax and a use tax on leases.

Source: Bureau of Economic Analysis, Commerce Clearing House, Inc., U.S. Department of Commerce, "State Government Finances, 2011"

TABLE 81
MAJOR SALES TAX EXEMPTIONS BY STATE

| <u>State</u>   | <u>Food</u>    | Prescription Drugs | Motor Fuels   | <u>Clothes</u> | <u>Cigarettes</u> |
|----------------|----------------|--------------------|---------------|----------------|-------------------|
| Alabama        | T              | E                  | E             | T              | T                 |
| Arizona        | E              | E                  | E             | T              | T                 |
| Arkansas       | T(1)           | E                  | E             | T              | T                 |
| California     | E              | E                  | T             | T              | T                 |
| Colorado       | E              | E                  | E             | T              | T                 |
| Connecticut    | E              | E                  | E             | T              | T                 |
| Florida        | E              | E                  | E (7)         | T              | T                 |
| Georgia        | E              | E                  | T (1)         | T              | T                 |
| Hawaii         | T              | E                  | Ť             | T              | T                 |
| Idaho          | T              | E                  | E             | T              | T                 |
| Illinois       | T (1)          | T (1)              | T(6)          | T              | T                 |
| Indiana        | È              | Ě                  | T             | T              | T                 |
| Iowa           | E              | E                  | Ē             | T              | T                 |
| Kansas         | T (5)          | E                  | E             | T              | T                 |
| Kentucky       | E              | E                  | E             | T              | T                 |
| Louisiana      | E              | E                  | E             | Ť              | T                 |
| Maine          | E              | E                  | E             | T              | T                 |
|                | E              | E                  | E             | T              | T                 |
| Maryland       |                | E<br>E             | E<br>E        |                | T                 |
| Massachusetts  | E              |                    |               | E (2)          |                   |
| Michigan       | E              | E                  | T             | T              | T                 |
| Minnesota      | E              | E                  | E             | E              | T                 |
| Mississippi    | T              | E                  | E             | T              | T                 |
| Missouri       | T (1)          | E                  | E             | T              | T                 |
| Nebraska       | E              | E                  | E             | T              | T                 |
| Nevada         | E              | E                  | E             | T              | T                 |
| New Jersey     | E              | E                  | E             | E              | T                 |
| New Mexico     | E              | E                  | E             | T              | T                 |
| New York       | E              | E                  | T             | E (3)          | T                 |
| North Carolina | E              | E                  | E             | T              | T                 |
| North Dakota   | E              | E                  | E             | T              | T                 |
| Ohio           | E              | E                  | E             | T              | T                 |
| Oklahoma       | T              | E                  | E             | T              | T                 |
| Pennsylvania   | E              | E                  | E             | E              | T                 |
| Rhode Island   | E              | E                  | E             | <u>E (4)</u>   | T                 |
| South Carolina | E              | E                  | E             | T              | T                 |
| South Dakota   | T              | E                  | E             | T              | T                 |
| Tennessee      | T (1)          | E                  | E             | T              | T                 |
| Texas          | E              | E                  | E             | T              | T                 |
| Utah           | T              | Ë                  | E             | Ť              | T                 |
| Vermont        | E              | E                  | E             | E              | T                 |
| Virginia       | T (1)          | E                  | E             | T              | T                 |
| Washington     | 1 (1)<br>E     | E                  | E             | T              | T                 |
| West Virginia  |                | E<br>E             | T T           | T              | T                 |
| Wisconsin      | T (1)<br>E     | E<br>E             | E             | T              | T                 |
|                |                |                    |               |                |                   |
| Wyoming        | <u>E</u><br>14 | <u>E</u><br>1      | <u>E</u><br>8 | <u>T</u><br>38 | <u>T</u><br>45    |
| Total Taxable  | 14             | 1                  | 8             | 38             | 45                |

Note: These states do not levy a sales tax: Alaska, Delaware, Montana, New Hampshire & Oregon.

T = Taxable under the sales tax, E = Exempt from the sales tax

<sup>(1)</sup> Taxed at a reduced rate. (2) Up to a sales price of \$175 per item. (3) Up to a sales price of \$110 per item.

<sup>(4)</sup> Up to a sales price of \$250 per item. (5) Refund available for disabled, elderly and low-income households. (6) Sales of majority blended ethanol fuel are exempt. (7) Locomotives and other vessels involved in interstate or foreign commerce are excluded from exemption.

# **Corporation Business Tax**

The Corporation Business Tax is imposed on any corporation, joint stock company or association or fiduciary of any of the foregoing which carries on or has the right to carry on business within the state or owns or leases property or maintains an office within the state. The Corporation Business Tax consists of three components, and the taxpayer's liability is the greatest amount computed under any of the three components. The first is a tax measured by the net income of a taxpayer (the "Income-Base Tax"). Net income means federal gross income (with limited variations) less certain deductions, most of which correspond to the deductions allowed under the Internal Revenue Code of 1986, as amended from time to time. In fiscal 2011-12, the Corporation Business Tax accounted for 3.9% of total revenue, while in fiscal 2010-11 they were 4.5%.

If a taxpayer is taxable solely within the state, the Income-Base Tax is measured by, and based upon, its entire net income. If a taxpayer is taxable in another state in which it conducts business, the base against which the Income-Base Tax is measured is the portion of the taxpayer's entire net income assigned to the state, pursuant to a statutory formula designed to identify the proportion of the taxpayer's trade or business conducted within the state. Currently, the Income-Base Tax is levied at the rate of 7.5%. Public Act 09-3 of the June Special Session imposes a 10% surcharge for income years 2009, 2010, and 2011. Public Act 11-6 Sec. 76 & 79 impose a 20% surcharge for income years beginning in 2012 and 2013. The surcharge does not apply to companies with less than \$100 million in annual gross revenue or whose tax liability does not exceed the minimum tax of \$250. The surcharge is calculated prior to the application of any credits.

The second part of the Corporation Business Tax is an additional tax on capital (the "Additional Tax"). The additional tax base is determined either as a specific maximum dollar amount or at a flat rate on a defined base, usually related in whole or part to its capital stock and balance sheet surplus, profit and deficit. If a taxpayer is also taxable in another state in which it conducts business, the defined base is apportioned most often to the value of certain assets having tax status within the state. The third component of the Corporation Business Tax is the Minimum Tax, which is \$250. Corporations must compute their tax under all three bases and then pay the tax under the highest computation.

Numerous tax credits are also available to corporations including, but not limited to, research and development credits of 1% to 6%, credits for property taxes paid on electronic and data processing equipment, and a 5% credit for investments in fixed and human capital.

The table on the following page provides a comparison of the assessed rates for the corporation business tax for the fifty states and the District of Columbia.

TABLE 82 CORPORATION TAX BY STATE

|                 | Low         | <u> Bracket</u> | High Bracket |           | Low              | <u>Bracket</u> | High      | <u>Bracket</u> |           |
|-----------------|-------------|-----------------|--------------|-----------|------------------|----------------|-----------|----------------|-----------|
|                 | %           | To Net          | % I          | From Net  |                  | %              | To Net    | %              | From Net  |
| <u>State</u>    | <u>Rate</u> | Income \$       | Rate 1       | Income \$ | <u>State</u>     | <u>Rate</u>    | Income \$ | Rate           | Income \$ |
| Alabama         | 6.5         | All             |              |           | Missouri         | 6.25           | All       |                |           |
| Alaska          | 1.0         | 10,000          | 9.4          | 90,000    | Montana          | 6.75           | All       |                |           |
| Arizona         | 6.97        | All             |              |           | Nebraska         | 5.58           | 100,000   | 7.81           | 100,000   |
| Arkansas        | 1.0         | 3,000           | 6.5          | 100,000   | New Hampshire    | 8.5            | All       |                |           |
| California (1)  | 8.84        | All             |              |           | New Jersey       | 6.5            | 50,000    | 9.0            | 100,000   |
| Colorado        | 4.63        | All             |              |           | New Mexico       | 4.8            | 500,000   | 7.6            | 1.0M      |
| Connecticut (2) | 7.5         | All             |              |           | New York         | 7.1            | All       |                |           |
| Delaware        | 8.7         | All             |              |           | N. Carolina      | 6.9            | All       |                |           |
| Florida (3)     | 5.5         | All             |              |           | N. Dakota        | 1.68           | 25,000    | 5.15           | 50,000    |
| Georgia         | 6.0         | All             |              |           | Ohio (7)         |                | All       |                |           |
| Hawaii          | 4.4         | 25,000          | 6.4          | 100,000   | Oklahoma         | 6.0            | All       |                |           |
| Idaho           | 7.4         | All             |              |           | Oregon           | 6.6            | 250,000   | 7.9            | 250,000   |
| Illinois (4)    | 7.0         | All             |              |           | Pennsylvania     | 9.99           | All       |                |           |
| Indiana         | 8.5         | All             |              |           | Rhode Island     | 9.0            | All       |                |           |
| Iowa            | 6.0         | 25,000          | 12.0         | 250,000   | S. Carolina      | 5.0            | All       |                |           |
| Kansas (5)      | 4.0         | All             |              |           | Tennessee        | 6.5            | All       |                |           |
| Kentucky        | 4.0         | 50,000          | 6.0          | 100,000   | Utah             | 5.0            | All       |                |           |
| Louisiana       | 4.0         | 25,000          | 8.0          | 200,000   | Texas (7)        |                |           |                |           |
| Maine           | 3.5         | 25,000          | 8.93         | 250,000   | Vermont          | 6.0            | 10,000    | 8.5            | 25,000    |
| Maryland        | 8.25        | All             |              |           | Virginia         | 6.0            | All       |                |           |
| Massachusetts   | 8.0         | All             |              |           | West Virginia    | 7.75           | All       |                |           |
| Michigan (6)    | 6.0         | All             |              |           | Wisconsin        | 7.9            | All       |                |           |
| Minnesota       | 9.8         | All             |              |           | District of Col. | 9.98           | All       |                |           |
| Mississippi     | 3.0         | 5,000           | 5.0          | 10,000    |                  |                |           |                |           |

Note: The table does not include corporate income taxes levied at the local level. These states do not levy a corporate income tax: Nevada, South Dakota, Washington & Wyoming. The following states require a minimum tax: AZ \$50; CA \$800; CT \$250; ID \$20; MA \$456; MT \$50; NJ \$500; NY \$25; OR \$150; RI \$500; UT \$100; VT \$250; District of Columbia \$250

- (1) Tax rate on financial S-corporations is 3.5%, and the tax rate all other S-corporations is 1.5%. Banks and financial corporations (except financial S-corporations) are subject 10.84%. An alternative minimum tax imposed is 6.65%.
- (2) A 20% surcharge is imposed for tax Years 2012 and 2013 on companies with more than \$100 million in annual gross revenue.
- (3) An alternative minimum tax imposed 3.3%, an exemption of \$5,000 is allowed. A \$25,000 exemption is allowed after 2011 tax year.
- (4) Additional personal property replacement tax is imposed at the rate of 2.5% of net income for corporations other than S-corporations. 1.5% for S-corporations.
- (5) A surtax of 3.0% is imposed on income over \$50,000.
- (6) Taxpayers with certificated credits may elect to pay the MBT at 4.95% subject to a surcharge of 21.99% of tax liability before application of credits. For all other taxpayers, the MBT was repealed Jan. 1, 2012.
- (7) OH: The Commercial Activity Tax-based on gross receipts was instituted in 2005 at 0.26%, TX: a franchise tax of 1.0% is imposed on entities with more than \$1,000,000 of total revenues. Source: Commerce Clearing House, Inc.

#### **Motor Fuels Tax**

The state imposes a tax, subject to certain limitations, (1) on gasoline and certain other liquids which are prepared, advertised, offered for sale, sold for use as, or commonly and commercially used as, a fuel in internal combustion engines ("gasoline" or "gasohol") and (2) on all combustible gases and liquids which are suitable and used for generation of power to propel motor vehicles ("special fuels"). The distributors liable for these taxes are those entities which distribute fuel within the state, import fuel into the state for distribution within the state, or produce or refine fuels within the state.

The Gasoline Tax is imposed on each gallon of gasoline or gasohol sold (other than to another distributor) or used within the state by a distributor. The tax on special fuels (the "Special Fuel Tax") is assessed on each gallon of special fuels used within the State in a motor vehicle licensed, or required to be licensed, to operate upon the public highways of the state.

The Special Fuels Tax is paid by vehicle users, and is generally collected by retail dealers of special fuels (primarily diesel fuel). Various exemptions from both taxes are provided, among which are sales to, or use by the United States, the state or its municipalities.

The Motor Carrier Road Tax is imposed upon gallons of fuel (again, primarily diesel fuel) used by business entities ("motor carriers") which operate any of the following vehicles in the state: (1) passenger vehicles seating more than nine persons; (2) road tractors or tractor trucks; or (3) trucks having a registered gross weight in excess of eighteen thousand pounds. Such motor carriers pay the tax on the gallons of fuel which they use while operating such vehicles in the state. The number of gallons subject to the tax is determined by multiplying the total number of gallons of fuel used by the motor carrier during each year by a fraction, the numerator of which is the total number of miles traveled by the motor carrier's vehicles within the state during the year, and the denominator of which is the total number of miles traveled by the motor carrier's vehicles both within and outside the state during the year.

The Gasoline Tax is 25 cents per gallon. Effective July 1, 2012, the Special Fuels and Motor Carrier Taxes were increased from 46.2 cents per gallon to 51.2 cents per gallon. The 1983 session of the General Assembly enacted a Special Transportation Fund for highway construction and maintenance and 1 cent per gallon of the motor fuels tax, or a total of \$14.2 million, was dedicated to this fund. Beginning July 1, 1984, the Special Transportation Fund was expanded to include all collections from the motor fuels tax.

The table on the following page shows the comparative rates for Motor Fuel Taxes for the 50 states.

TABLE 83 MOTOR FUEL TAXES BY STATE

|                 |            | Sales  |       |                    |            | Sales  |       |
|-----------------|------------|--------|-------|--------------------|------------|--------|-------|
|                 | Excise     | Tax    | Total |                    | Excise     | Tax    | Total |
| <u>State</u>    | <u>Tax</u> | Rate % | Tax*  | <u>State</u>       | <u>Tax</u> | Rate % | Tax*  |
| Alabama         | 16.0¢      | -      | 16.0¢ | Montana            | 27.0¢      | -      | 27.0¢ |
| Alaska          | 8.0        | -      | 8.0   | Nebraska           | 26.2       | -      | 26.2  |
| Arizona         | 18.0       | -      | 18.0  | Nevada             | 24.0       | -      | 24.0  |
| Arkansas        | 21.5       | -      | 21.5  | New Hampshire      | 18.0       | -      | 18.0  |
| California      | 36.0       | 7.25   | 57.8  | New Jersey         | 10.5       | -      | 10.5  |
| Colorado        | 22.0       | -      | 22.0  | New Mexico         | 17.0       | -      | 17.0  |
| Connecticut (a) | 25.0       | -      | 25.0  | New York           | 8.0        | 4.0    | 20.0  |
| Delaware        | 23.0       | -      | 23.0  | North Carolina (e) | 37.5       | -      | 37.5  |
| Florida         | 16.6       | -      | 16.6  | North Dakota       | 23.0       | -      | 23.0  |
| Georgia (b)     | 7.5        | -      | 16.6  | Ohio               | 28.0       | -      | 28.0  |
| Hawaii (c)      | 17.0       | 4.0    | 41.7  | Oklahoma           | 16.0       | -      | 16.0  |
| Idaho           | 25.0       | -      | 25.0  | Oregon             | 30.0       | -      | 30.0  |
| Illinois        | 19.0       | 6.3    | 37.9  | Pennsylvania (f)   | 31.2       | -      | 31.2  |
| Indiana         | 18.0       | 7.0    | 39.0  | Rhode Island       | 32.0       | -      | 32.0  |
| Iowa            | 21.0       | -      | 21.0  | South Carolina     | 16.0       | -      | 16.0  |
| Kansas          | 24.0       | -      | 24.0  | South Dakota       | 22.0       | -      | 22.0  |
| Kentucky (d)    | 28.5       | -      | 28.5  | Tennessee          | 20.0       | -      | 20.0  |
| Louisiana       | 20.0       | -      | 20.0  | Texas              | 20.0       | -      | 20.0  |
| Maine           | 30.0       | -      | 30.0  | Utah               | 24.5       | -      | 24.5  |
| Maryland        | 23.5       | -      | 23.5  | Vermont            | 19.0       | -      | 19.0  |
| Massachusetts   | 21.0       | -      | 21.0  | Virginia           | 17.5       | -      | 17.5  |
| Michigan        | 19.0       | 6.0    | 37.0  | Washington         | 37.5       | -      | 37.5  |
| Minnesota       | 28.5       | -      | 28.5  | West Virginia (g)  | 20.5       | -      | 33.4  |
| Mississippi     | 18.0       | -      | 18.0  | Wisconsin          | 30.9       | -      | 30.9  |
| Missouri        | 17.0       | -      | 17.0  | Wyoming            | 14.0       | -      | 14.0  |

- \* The total column in the above table is the sum of the per gallon state tax and sales taxes or additional taxes where applicable. The price used to estimate the effect of the sales tax, which excludes state taxes, was \$3.00 per gallon.
- (a) Plus a petroleum gross receipts tax of 7.5%
- (b) Includes a pre-paid sales tax converted to a cents per gallon rate of 9.1¢
- (c) County taxes between 8.8¢ and 16.5¢ per gallon are levied in addition to the state tax of 17¢ per gallon. An average of 12.7¢ was used in calculating the total tax.
- (d) Rate is variable, adjusted quarterly.
- (e) Includes an additional tax based on the average wholesale price of motor fuel.
- (f) Rate includes oil company franchise tax (19.2¢), which is collected at the same time as liquid fuels tax (12¢).
- (g) Specified the total tax inclusive of the sales tax.

# **Other Sources**

The following tables show the most recent comparative rates or exemptions for some of the other taxes and fees collected by the states.

TABLE 84 CIGARETTE TAXES BY STATE

| <u>State</u>  | <u>Rate</u> | <u>State</u>   | <u>Rate</u> |
|---------------|-------------|----------------|-------------|
| Alabama       | \$0.43      | Montana        | \$1.70      |
| Alaska        | \$2.00      | Nebraska       | \$0.64      |
| Arizona       | \$2.00      | Nevada         | \$0.80      |
| Arkansas      | \$1.15      | New Hampshire  | \$1.68      |
| California    | \$0.87      | New Jersey     | \$2.70      |
| Colorado      | \$0.84      | New Mexico     | \$1.66      |
| Connecticut   | \$3.40      | New York       | \$4.35      |
| Delaware      | \$1.60      | North Carolina | \$0.45      |
| Florida (1)   | \$0.34      | North Dakota   | \$0.44      |
| Georgia       | \$0.37      | Ohio           | \$1.25      |
| Hawaii        | \$3.20      | Oklahoma       | \$1.03      |
| Idaho         | \$0.57      | Oregon         | \$1.18      |
| Illinois      | \$1.98      | Pennsylvania   | \$1.60      |
| Indiana       | \$1.00      | Rhode Island   | \$3.50      |
| Iowa          | \$1.36      | South Carolina | \$0.57      |
| Kansas        | \$0.79      | South Dakota   | \$1.53      |
| Kentucky      | \$0.60      | Tennessee      | \$0.62      |
| Louisiana     | \$0.36      | Texas          | \$1.41      |
| Maine         | \$2.00      | Utah           | \$1.70      |
| Maryland      | \$2.00      | Vermont        | \$2.62      |
| Massachusetts | \$2.51      | Virginia       | \$0.30      |
| Michigan      | \$2.00      | Washington     | \$3.03      |
| Minnesota (2) | \$1.23      | West Virginia  | \$0.55      |
| Mississippi   | \$0.68      | Wisconsin      | \$2.52      |
| Missouri      | \$0.17      | Wyoming        | \$0.60      |

Note: The tax is based on a pack of 20 cigarettes.

- (1) Plus a \$1 surcharge per pack of 20 cigarettes.
- (2) Includes a health impact fee of \$0.75 per pack of 20 cigarettes.

TABLE 85
INSURANCE COMPANIES TAX BY STATE

|                   | Domestic   | Foreign     |                     | Domestic    | Foreign     |
|-------------------|------------|-------------|---------------------|-------------|-------------|
|                   | Tax        | Tax         |                     | Tax         | Tax         |
| <u>State</u>      | Rate % (1) | Rate % (1)  | <u>State</u>        | Rate % (1)  | Rate % (1)  |
| Alabama           | 0.50-3.60  | 0.50-3.60   | Montana             | 0.75-2.75   | 0.75-2.75   |
| Alaska            | 0.75-6.00  | 0.75-6.00   | Nebraska (4)        | 0.375-5.00  | 0.50-5.00   |
| Arizona (3)       | 2.00-3.00  | 2.00-3.00   | Nevada              | 2.00-3.50   | 2.00-3.50   |
| Arkansas          | 0.75-3.00  | 0.75-3.00   | New Hampshire (7)   | 1.25-4.00   | 3.00        |
| California        | 0.50-5.00  | 0.50-5.00   | New Jersey          | 1.05-5.00   | 1.05-5.00   |
| Colorado (2)      | 0.50-2.25  | 0.50-2.25   | New Mexico          | 3.003-4.003 | 3.003-4.003 |
| Connecticut       | 1.75-4.00  | 1.75-4.00   | New York (7)        | 1.00-7.10   | 1.00-7.10   |
| Delaware (3)      | 1.75-5.00  | 1.75-5.00   | North Carolina      | 1.00-2.50   | 1.00-2.50   |
| Florida (4)       | 0.75-5.00  | 0.75-5.00   | North Dakota (7)    | 1.75-2.00   | 1.75-2.00   |
| Georgia (2,4)     | 0.50-4.00  | 0.50 - 4.00 | Ohio (4,7)          | 1.00-5.00   | 1.00-5.00   |
| Hawaii            | 0.88-4.27  | 0.88-4.27   | Oklahoma (4)        | 2.25-6.00   | 2.25-6.00   |
| Idaho             | 1.50       | 1.50        | Oregon              | (8)         | (8)         |
| Illinois (4)      | 0.50       | 0.50        | Pennsylvania        | 1.25-5.00   | 1.25-5.00   |
| Indiana (4)       | 1.30       | 1.30        | Rhode Island        | 2.00        | 2.00        |
| Iowa              | 1.00-2.00  | 1.00-2.00   | South Carolina      | 0.75-1.25   | 0.75-1.25   |
| Kansas (4)        | 2.00-6.00  | 2.00-6.00   | South Dakota (4)    | 0.25-2.50   | 0.25-2.50   |
| Kentucky (4,5)    | 2.00       | 2.00        | Tennessee (2,4,7)   | 1.00-5.50   | 1.00-5.50   |
| Louisiana (4)     | (6)        | (6)         | Texas               | 1.35-1.75   | 1.35-1.75   |
| Maine (9)         | 1.00-2.55  | 1.00-2.55   | Utah                | 0.45-4.25   | 0.45 - 4.25 |
| Maryland          | 2.00-3.00  | 2.00-3.00   | Vermont             | 2.00        | 2.00        |
| Massachusetts (3) | 2.00       | 2.00        | Virginia            | 0.75-2.50   | 0.75-2.50   |
| Michigan          | 1.25-2.00  | 1.25-2.00   | Washington          | 0.95-2.00   | 0.95-2.00   |
| Minnesota (4)     | 1.00-2.00  | 1.00-2.00   | W. Virginia (1,4,7) | 0.50-2.00   | 0.50-2.00   |
| Mississippi (4)   | 3.00       | 3.00        | Wisconsin           | 0.50-3.50   | 0.50-2.375  |
| Missouri (1)      | 1.00-2.00  | 1.00-2.00   | Wyoming             | 0.75-1.00   | 0.75-1.00   |

Note: The tax is based on the net premiums of authorized insurers, excludes surplus line rates.

- (1) Depending upon the type of insurance issued or the type of organization formed.
- (2) Rate is reduced depending upon the percentage of premiums or assets invested in the State or the State's securities.
- (3) Plus a surtax of 0.4312% on vehicles in Arizona, 0.25% in Delaware, and 14% of the tax imposed in Massachusetts.
- (4) Plus a fire marshal's tax not to exceed 1%; 0.3125% in Oklahoma; 0.5% in Indiana and South Dakota; 0.55% in West Virginia; 0.65% in Minnesota; 0.75% in Kentucky, Nebraska, Ohio, Tennessee and Kansas; 1.25% in Louisiana; 1.4% in Maine.
- (5) Plus a surcharge or \$1.50 per \$100 of premiums on Kentucky risks other than health & life.
- (6) Life and health related premiums of \$7,000 or less, \$140; over \$7,000, \$140 plus \$225 per \$10,000; other premiums of \$6,000 or less, \$185; over \$6,000, \$185 plus \$300 per \$10,000.
- (7) With minimum tax of \$200 in New Hampshire, North Dakota, & West Virginia, \$150 in Tennessee and \$250 in New York and Ohio.
- (8) After 2001, foreign and alien insurers are no longer subject to gross premium tax, but are subject to the corporate excise tax.

TABLE 86 ALCOHOLIC BEVERAGE TAXES BY STATE (Dollars Per Gallon)

|                 |                | Wines          | Wines  |             |                    |                | Wines          | Wines  |             |
|-----------------|----------------|----------------|--------|-------------|--------------------|----------------|----------------|--------|-------------|
|                 | Distilled      | 14%            | 14%    |             |                    | Distilled      | 14%            | 14%    |             |
| <u>State</u>    | <u>Spirits</u> | <u>or Less</u> | to 21% | <u>Beer</u> | <u>State</u>       | <u>Spirits</u> | <u>or Less</u> | to 21% | <u>Beer</u> |
| Alabama (1,2)   | 58%            | 1.7            | 58%    | .53         | Montana (1,2)      | 16%            | 1.02           | 1.02   | .14         |
| Alaska          | 12.80          | 2.50           | 2.50   | 1.07        | Nebraska           | 3.75           | .95            | .95    | .31         |
| Arizona         | 3.00           | .84            | .84    | .16         | Nevada             | 3.60           | .70            | 1.30   | .16         |
| Arkansas        | 2.50           | .75            | .75    | .20         | New Hampshire (1)  | .30            | .30            | .30    | .30         |
| California      | 3.30           | .20            | .20    | .20         | New Jersey         | 5.50           | .88            | .88    | .12         |
| Colorado        | 2.28           | .28            | .28    | .08         | New Mexico         | 6.06           | 1.70           | 5.68   | .41         |
| Connecticut     | 5.40           | .72            | .72    | .24         | New York           | 6.44           | .30            | .30    | .14         |
| Delaware        | 3.75           | .97            | .97    | .16         | N. Carolina (1,2)  | 30%            | 1.00           | 1.11   | .62         |
| Florida         | 6.50           | 2.25           | 3.00   | .48         | N. Dakota          | 2.50           | .50            | .60    | .08         |
| Georgia         | 1.89           | .42            | 1.02   | .32         | Ohio (1)           | 1.20           | .30            | .98    | .18         |
| Hawaii          | 5.98           | 1.38           | 1.38   | .93         | Oklahoma           | 5.57           | .72            | 2.08   | .40         |
| Idaho (1,2)     | 2%             | .45            | .45    | .15         | Oregon (1)         | N/A            | .67            | .77    | .08         |
| Illinois        | 8.55           | 1.39           | 1.39   | .23         | Pennsylvania (1,2) | 18%            | 18%            | 18%    | .08         |
| Indiana         | 2.68           | .47            | .47    | .12         | Rhode Island       | 3.75           | .60            | .75    | .10         |
| Iowa (1)        | 1.75           | 1.75           | 1.75   | .19         | S. Carolina (3)    | 2.72           | 1.08           | 1.08   | .77         |
| Kansas          | 2.50           | .30            | .75    | .18         | S. Dakota          | 3.93           | .93            | 1.45   | .28         |
| Kentucky        | 1.92           | .50            | .50    | .08         | Tennessee (4)      | 4.40           | 1.21           | 1.21   | .14         |
| Louisiana       | 2.50           | .11            | .23    | .32         | Texas              | 2.40           | .20            | .41    | .19         |
| Maine (1)       | 1.25           | .25            | .25    | .30         | Utah (1,2)         | -              | -              | -      | .41         |
| Maryland        | 1.50           | .40            | .40    | .09         | Vermont (1,2)      | 25%            | .55            | 25%    | .27         |
| Massachusetts   | 4.05           | .55            | .55    | .11         | Virginia (1,2,5)   | 20%            | 1.52           | 1.52   | .26         |
| Michigan (1,2)  | 14%            | .51            | .76    | .20         | Washington (1)     | 14.28          | .87            | 1.71   | .76         |
| Minnesota       | 5.03           | .30            | .95    | .15         | W. Virginia (2,6)  | 5%             | 1.00           | 1.00   | .18         |
| Mississippi (1) | 2.50           | .35            | .35    | .43         | Wisconsin (7)      | 3.25           | .25            | .45    | .07         |
| Missouri        | 2.00           | .30            | .30    | .06         | Wyoming (1)        | .95            | 12%            | 12%    | .02         |

- (1) Monopoly state, receives most or all of revenue through markup. Tax rates shown are in addition to any price markup.
- (2) Percentage of the retail price.
- (3) Additional surtaxes of 9% on alcoholic beverages and 18¢ for wine are applied.
- (4) Tennessee levies a 17% surcharge on the wholesale price of malt beverages.
- (5) Additional tax of 4% of retail imposed on all wine.
- (6) A 5% tax is imposed on sales of liquor outside municipalities.
- (7) An administration fee of 11¢ per gallon is imposed on intoxicating liquors.

Source: Commerce Clearing House, Inc.

The tables on the next two pages list individual General Fund Revenue sources and Special Transportation Fund sources as a percentage of total collections for a five fiscal year period.

TABLE 87 GENERAL FUND REVENUES

|  | GENEN  | AL FUND KI   | EVENUES   |  |   |
|--|--|--|---|--|---|
| TAXES (\$K)  | FY 2008  | FY 2009  | FY 2010   | FY 2011  | FY 2012   |
| Personal Income  | \$7,512,688  | \$6,385,856  | \$6,586,099   | \$7,246,431  | \$8,310,820   |
| Sales and Use  | 3,582,317  | 3,318,752  | 3,203,988   | 3,353,230  | 3,830,117   |
| Corporation  | 733,942  | 615,921  | 667,132   | 794,473  | 716,522   |
| Public Service Corporation   | 237,113  | 268,495  | 267,945   | 269,806  | 250,397   |
| Insurance Companies  | 227,221  | 202,217  | 226,550   | 220,626  | 237,609   |
| Inheritance & Estate   | 170,618<br>335,197   | 238,337<br>317,775   | 177,601<br>387,435  | 237,573<br>404,111   | 191,699<br>421,005  |
| Cigarettes<br>Oil Companies  | 205,483  | 104,413  | 123,018   | 169,163  | 146,067   |
| Electric Generation  | 200,400  | 104,413  | -   | -  | 69,532  |
| Real Estate Conveyance   | 158,544  | 90,802   | 100,267   | 94,822   | 107,531   |
| Alcoholic Beverages  | 47,077   | 47,064   | 48,196  | 48,923   | 60,595  |
| Admissions, Dues, Cabaret  | 37,277   | 36,040   | 34,379  | 34,456   | 34,398  |
| Miscellaneous  | 139,980  | 143,305  | 141,892   | 140,506  | 536,810   |
| Total - Taxes  | 13,387,458   | 11,768,977   | 11,964,502  | 13,014,119   | 14,913,103  |
| Less Refunds of Taxes  | (852,184)  | (1,052,286)  | (1,061,433)   | (956,054)  | (1,105,171)   |
| Less Refunds of R&D Credit   | (11,362)   | (8,428)  | (8,937)   | (8,599)  | (3,563)   |
| Total - Taxes Less Refunds   | 12,523,911   | 10,708,263   | 10,894,132  | 12,049,467   | 13,804,369  |
| OTHER REVENUE<br>Transfer-Special Revenue  | 287,604  | 287,195  | 289,314   | 293,108  | 313,757   |
| Indian Gaming Payments   | 411,410  | 377,805  | 384,248   | 359,582  | 344,645   |
| Licenses, Permits & Fees   | 171.739  | 162,474  | 257,569   | 250,442  | 283,414   |
| Sales of Commodities & Services  | 30,066   | 32,558   | 33,678  | 35,506   | 35,007  |
| Investment Income  | 63,943   | 18,806   | 4,062   | 29   | 964   |
| Rents, Fines & Escheats  | 59,922   | 64,018   | 252,792   | 157,771  | 123,424   |
| Miscellaneous  | 140,089  | 163,023  | 142,910   | 178,728  | 191,965   |
| Less Refunds of Payments   | (501)  | (662)  | (1,189)   | (1,875)  | (85,377)  |
| Total - Other Revenue  | 1,164,272  | 1,105,217  | 1,363,384   | 1,273,291  | 1,207,780   |
| OTHER SOURCES  | 2.701.702  | 2 (10 400  | 4.066.014   | 4.005.150  | 0.607.160   |
| Federal Grants   | 2,701,603  | 3,619,490  | 4,066,314   | 4,235,178  | 3,607,163   |
| Transfer from Tobacco Fund<br>Transfer From/(To) Other Funds   | 115,300<br>(102,300)   | 115,800<br>152,031   | 102,898<br>1,261,800  | 95,304<br>54,215   | 96,100<br>(153,799)   |
|  |  |  |   |  |   |
| Total - Other Sources  | 2 714 603  | 3 887 321  | 5 /31 012   | 1 381 697  | 3 5/14 /16/1  |
| Total - Other Sources GRAND TOTAL  | 2,714,603<br>\$16,402,786  | 3,887,321<br>\$15,700,801  | <u>5,431,012</u><br>\$17.688.529  | 4,384,697<br>\$17,707,454  | 3,549,464<br>\$18,561,633   |
| GRAND TOTAL  | \$16,402,786   | \$15,700,801   | \$17,688,529  | \$17,707,454   | \$18,561,633  |
| GRAND TOTAL <u>TAXES</u>   | \$16,402,786<br><u>% of Total</u>  | \$15,700,801<br><u>% of Total</u>  | \$17,688,529<br><u>% of Total</u>   | \$17,707,454<br><u>% of Total</u>  | \$18,561,633<br><u>% of Total</u>   |
| GRAND TOTAL  TAXES Personal Income   | \$16,402,786<br><u>% of Total</u><br>45.80%  | \$15,700,801<br><u>% of Total</u><br>40.67%  | \$17,688,529<br><u>% of Total</u><br>37.23%   | \$17,707,454<br><u>% of Total</u><br>40.92%  | \$18,561,633<br><u>% of Total</u><br>44.77%   |
| GRAND TOTAL <u>TAXES</u>   | \$16,402,786<br><u>% of Total</u>  | \$15,700,801<br><u>% of Total</u>  | \$17,688,529<br><u>% of Total</u>   | \$17,707,454<br><u>% of Total</u>  | \$18,561,633<br><u>% of Total</u>   |
| GRAND TOTAL  TAXES Personal Income Sales and Use   | \$16,402,786<br><u>% of Total</u><br>45.80%<br>21.84   | \$15,700,801<br><u>% of Total</u><br>40.67%<br>21.14   | \$17,688,529<br><u>% of Total</u><br>37.23%<br>18.11  | \$17,707,454<br><u>% of Total</u><br>40.92%<br>18.94   | \$18,561,633<br><u>% of Total</u><br>44.77%<br>20.63  |
| GRAND TOTAL  TAXES Personal Income Sales and Use Corporation   | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47   | \$15,700,801<br><u>% of Total</u><br>40.67%<br>21.14<br>3.92   | \$17,688,529<br><u>% of Total</u><br>37.23%<br>18.11<br>3.77  | \$17,707,454<br><u>% of Total</u><br>40.92%<br>18.94<br>4.49   | \$18,561,633<br><u>% of Total</u><br>44.77%<br>20.63<br>3.86  |
| GRAND TOTAL  TAXES Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate   | \$16,402,786 <u>% of Total</u> 45.80%  21.84  4.47  1.45  1.39  1.04   | \$15,700,801  ** of Total  40.67%  21.14  3.92  1.71  1.29  1.52   | \$17,688,529<br><u>% of Total</u><br>37.23%<br>18.11<br>3.77<br>1.51<br>1.28<br>0.96  | \$17,707,454 <u>% of Total</u> 40.92%  18.94  4.49  1.52  1.25  1.34   | \$18,561,633<br><u>% of Total</u><br>44.77%<br>20.63<br>3.86<br>1.35<br>1.28<br>1.03  |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes   | \$16,402,786<br><u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04  | \$15,700,801<br><u>% of Total</u><br>40.67%<br>21.14<br>3.92<br>1.71<br>1.29<br>1.52<br>2.02   | \$17,688,529<br><u>% of Total</u><br>37.23%<br>18.11<br>3.77<br>1.51<br>1.28<br>0.96<br>2.19  | \$17,707,454<br><u>% of Total</u><br>40.92%<br>18.94<br>4.49<br>1.52<br>1.25<br>1.34<br>2.28   | \$18,561,633<br><u>% of Total</u><br>44.77%<br>20.63<br>3.86<br>1.35<br>1.28<br>1.03<br>2.27  |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies   | \$16,402,786 <u>% of Total</u> 45.80%  21.84  4.47  1.45  1.39  1.04   | \$15,700,801 <u>% of Total</u> 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66  | \$17,688,529<br><u>% of Total</u><br>37.23%<br>18.11<br>3.77<br>1.51<br>1.28<br>0.96  | \$17,707,454 <u>% of Total</u> 40.92%  18.94  4.49  1.52  1.25  1.34   | \$18,561,633<br><u>% of Total</u><br>44.77%<br>20.63<br>3.86<br>1.35<br>1.28<br>1.03<br>2.27<br>0.79  |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation   | \$16,402,786 <u>% of Total</u> 45.80%  21.84  4.47  1.45  1.39  1.04  2.04  1.25   | \$15,700,801 <u>% of Total</u> 40.67% 21.14 3.92 1.71 1.29 2.02 0.66   | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  | \$17,707,454<br><u>% of Total</u><br>40.92%<br>18.94<br>4.49<br>1.52<br>1.25<br>1.34<br>2.28<br>0.96   | \$18,561,633<br><u>% of Total</u><br>44.77%<br>20.63<br>3.86<br>1.35<br>1.28<br>1.03<br>2.27<br>0.79<br>0.37  |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance  | \$16,402,786 <u>% of Total</u> 45.80%  21.84  4.47  1.45  1.39  1.04  2.04  1.25  - 0.97   | \$15,700,801  **y of Total* 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58  | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  -  0.57   | \$17,707,454 <u>% of Total</u> 40.92%  18.94  4.49  1.52  1.25  1.34  2.28  0.96  -  0.54  | \$18,561,633<br><u>% of Total</u><br>44.77%<br>20.63<br>3.86<br>1.35<br>1.28<br>1.03<br>2.27<br>0.79<br>0.37<br>0.58  |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages  | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29  | \$15,700,801  **y of Total* 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30   | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  -  0.57  0.27   | \$17,707,454 <u>% of Total</u> 40.92%  18.94  4.49  1.52  1.25  1.34  2.28  0.96  - 0.54  0.28   | \$18,561,633<br><u>% of Total</u><br>44.77%<br>20.63<br>3.86<br>1.35<br>1.28<br>1.03<br>2.27<br>0.79<br>0.37<br>0.58<br>0.33  |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance  | \$16,402,786 <u>% of Total</u> 45.80%  21.84  4.47  1.45  1.39  1.04  2.04  1.25  - 0.97   | \$15,700,801  **y of Total* 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58  | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  -  0.57   | \$17,707,454 <u>% of Total</u> 40.92%  18.94  4.49  1.52  1.25  1.34  2.28  0.96  -  0.54  | \$18,561,633<br><u>% of Total</u><br>44.77%<br>20.63<br>3.86<br>1.35<br>1.28<br>1.03<br>2.27<br>0.79<br>0.37<br>0.58  |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret  | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23   | \$15,700,801  **y of Total* 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23  | \$17,688,529  *** of Total  37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  -  0.57  0.27  0.19  | \$17,707,454 <u>% of Total</u> 40.92%  18.94  4.49  1.52  1.25  1.34  2.28  0.96  -  0.54  0.28  0.19  | \$18,561,633  ** of Total 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19  |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes  | \$16,402,786 <u>% of Total</u> 45.80%  21.84  4.47  1.45  1.39  1.04  2.04  1.25  - 0.97  0.29  0.23  0.85  81.62  | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91 74.95  | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  -  0.57  0.27  0.19  0.80  67.64  | \$17,707,454 <u>% of Total</u> 40.92%  18.94  4.49  1.52  1.25  1.34  2.28  0.96  -  0.54  0.28  0.19  0.79  73.50   | \$18,561,633  ** of Total 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34   |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous  | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85  | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91  | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  -  0.57  0.27  0.19  0.80   | \$17,707,454 <u>% of Total</u> 40.92%  18.94  4.49  1.52  1.25  1.34  2.28  0.96  -  0.54  0.28  0.19  0.79  | \$18,561,633  **sof Total** 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89   |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes  | \$16,402,786 <u>% of Total</u> 45.80%  21.84  4.47  1.45  1.39  1.04  2.04  1.25  - 0.97  0.29  0.23  0.85  81.62  (5.20)  | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91 74.95 (6.70)   | \$17,688,529  % of Total  37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  -  0.57  0.27  0.19  0.80  67.64  (6.00)   | \$17,707,454 <u>% of Total</u> 40.92%  18.94  4.49  1.52  1.25  1.34  2.28  0.96  - 0.54  0.28  0.19  0.79  73.50  (5.40)  | \$18,561,633  ** of Total 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89  80.34 (5.95)   |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds  | \$16,402,786 <u>% of Total</u> 45.80%  21.84  4.47  1.45  1.39  1.04  2.04  1.25  - 0.97  0.29  0.23  0.85  81.62  (5.20)  (0.07)  | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91 74.95 (6.70) (0.05)  | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  -  0.57  0.27  0.19  0.80  67.64  (6.00) (0.05)   | \$17,707,454 <u>% of Total</u> 40.92%  18.94  4.49  1.52  1.25  1.34  2.28  0.96  - 0.54  0.28  0.19  0.79  73.50  (5.40) (0.05)   | \$18,561,633  **y of Total** 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02)  |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments  | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85 81.62 (5.20) (0.07) 76.35 1.75 2.51  | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91 74.95 (6.70) (0.05) 68.20  1.83 2.40   | \$17,688,529  % of Total  37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  -  0.57  0.27  0.19  0.80  67.64  (6.00)  (0.05)  61.59  1.64  2.17  | \$17,707,454  % of Total 40.92% 18.94 4.49 1.52 1.25 1.34 2.28 0.96 - 0.54 0.28 0.19 0.79 73.50 (5.40) (0.05) 68.05  1.66 2.03   | \$18,561,633  **sof Total** 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37 1.69 1.86   |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments Licenses, Permits & Fees   | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85 81.62 (5.20) (0.07) 76.35 1.75 2.51 1.05   | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91  74.95 (6.70) (0.05) 68.20  1.83 2.40 1.03   | \$17,688,529  % of Total  37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  -  0.57  0.27  0.19  0.80  67.64  (6.00) (0.05)  61.59  1.64  2.17  1.46   | \$17,707,454  % of Total 40.92% 18.94 4.49 1.52 1.25 1.34 2.28 0.96 - 0.54 0.28 0.19 0.79 73.50 (5.40) (0.05) 68.05  1.66 2.03 1.41  | \$18,561,633  *** of Total 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37  1.69 1.86 1.53  |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments Licenses, Permits & Fees Sales of Commodities & Services   | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85 81.62 (5.20) (0.07) 76.35  1.75 2.51 1.05 0.18   | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91 74.95 (6.70) (0.05) 68.20  1.83 2.40 1.03 0.21                                       | \$17,688,529  % of Total  37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  - 0.57  0.27  0.19  0.80  67.64  (6.00) (0.05)  61.59  1.64  2.17  1.46  0.19  | \$17,707,454  % of Total 40.92% 18.94 4.49 1.52 1.25 1.34 2.28 0.96 - 0.54 0.28 0.19 0.79 73.50 (5.40) (0.05) 68.05  1.66 2.03   | \$18,561,633  ** of Total 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37  1.69 1.86 1.53 0.19  |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments Licenses, Permits & Fees Sales of Commodities & Services Investment Income   | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85 81.62 (5.20) (0.07) 76.35  1.75 2.51 1.05 0.18 0.39                                    | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91 74.95 (6.70) (0.05) 68.20  1.83 2.40 1.03 0.21 0.12                                  | \$17,688,529  % of Total  37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  - 0.57  0.27  0.19  0.80  67.64  (6.00)  (0.05)  61.59  1.64  2.17  1.46  0.19  0.02   | \$17,707,454 <u>% of Total</u> 40.92%  18.94  4.49  1.52  1.25  1.34  2.28  0.96  - 0.54  0.28  0.19  0.79  73.50  (5.40)  (0.05)  68.05  1.66  2.03  1.41  0.20                 | \$18,561,633  ** of Total 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37  1.69 1.86 1.53 0.19 0.01   |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments Licenses, Permits & Fees Sales of Commodities & Services Investment Income Rents, Fines & Escheats   | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85 81.62 (5.20) (0.07) 76.35  1.75 2.51 1.05 0.18 0.39 0.37                               | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91  74.95 (6.70) (0.05) 68.20  1.83 2.40 1.03 0.21 0.12 0.41                            | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  - 0.57  0.27  0.19  0.80  67.64  (6.00)  (0.05)  61.59  1.64  2.17  1.46  0.19  0.02  1.43  | \$17,707,454  % of Total 40.92% 18.94 4.49 1.52 1.25 1.34 2.28 0.96 - 0.54 0.28 0.19 0.79 73.50 (5.40) (0.05) 68.05  1.66 2.03 1.41 0.20 - 0.89                                  | \$18,561,633  **y of Total** 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37  1.69 1.86 1.53 0.19 0.01 0.67                                 |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments Licenses, Permits & Fees Sales of Commodities & Services Investment Income Rents, Fines & Escheats Miscellaneous   | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85 81.62 (5.20) (0.07) 76.35  1.75 2.51 1.05 0.18 0.39                                    | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91 74.95 (6.70) (0.05) 68.20  1.83 2.40 1.03 0.21 0.12                                  | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  - 0.57  0.27  0.19  0.80  67.64  (6.00) (0.05)  61.59  1.64  2.17  1.46  0.19  0.02  1.43  0.81                                   | \$17,707,454  % of Total  40.92% 18.94 4.49 1.52 1.25 1.34 2.28 0.96 - 0.54 0.28 0.19 0.79 73.50 (5.40) (0.05) 68.05  1.66 2.03 1.41 0.20 - 0.89 1.01                            | \$18,561,633  **y of Total** 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37  1.69 1.86 1.53 0.19 0.01 0.67 1.01                            |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments Licenses, Permits & Fees Sales of Commodities & Services Investment Income Rents, Fines & Escheats Miscellaneous Less Refunds of Payments  | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85  81.62 (5.20) (0.07) 76.35  1.75 2.51 1.05 0.18 0.39 0.37 0.85                         | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91  74.95 (6.70) (0.05) 68.20  1.83 2.40 1.03 0.21 0.12 0.41 1.04 -                     | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  - 0.57  0.27  0.19  0.80  67.64  (6.00) (0.05)  61.59  1.64  2.17  1.46  0.19  0.02  1.43  0.81 (0.01)                            | \$17,707,454  % of Total 40.92% 18.94 4.49 1.52 1.25 1.34 2.28 0.96 - 0.54 0.28 0.19 0.79 73.50 (5.40) (0.05) 68.05  1.66 2.03 1.41 0.20 - 0.89 1.01 (0.01)                      | \$18,561,633  ** of Total  44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37  1.69 1.86 1.53 0.19 0.01 0.67 1.01 (0.01)                       |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments Licenses, Permits & Fees Sales of Commodities & Services Investment Income Rents, Fines & Escheats Miscellaneous   | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85 81.62 (5.20) (0.07) 76.35  1.75 2.51 1.05 0.18 0.39 0.37                               | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91  74.95 (6.70) (0.05) 68.20  1.83 2.40 1.03 0.21 0.12 0.41                            | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  - 0.57  0.27  0.19  0.80  67.64  (6.00) (0.05)  61.59  1.64  2.17  1.46  0.19  0.02  1.43  0.81                                   | \$17,707,454  % of Total  40.92% 18.94 4.49 1.52 1.25 1.34 2.28 0.96 - 0.54 0.28 0.19 0.79 73.50 (5.40) (0.05) 68.05  1.66 2.03 1.41 0.20 - 0.89 1.01                            | \$18,561,633  **y of Total** 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37  1.69 1.86 1.53 0.19 0.01 0.67 1.01                            |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments Licenses, Permits & Fees Sales of Commodities & Services Investment Income Rents, Fines & Escheats Miscellaneous Less Refunds of Payments Total - Other Revenue  | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85 81.62 (5.20) (0.07) 76.35  1.75 2.51 1.05 0.18 0.39 0.37 0.85 - 7.10 16.47             | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91  74.95 (6.70) (0.05) 68.20  1.83 2.40 1.03 0.21 0.12 0.41 1.04 - 7.04 23.05          | \$17,688,529  % of Total  37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  - 0.57  0.27  0.19  0.80  67.64  (6.00) (0.05)  61.59  1.64  2.17  1.46  0.19  0.02  1.43  0.81 (0.01)  7.71  22.99                    | \$17,707,454  % of Total 40.92% 18.94 4.49 1.52 1.25 1.34 2.28 0.96 - 0.54 0.28 0.19 0.79 73.50 (5.40) (0.05) 68.05  1.66 2.03 1.41 0.20 - 0.89 1.01 (0.01) 7.19                 | \$18,561,633  ** of Total 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37  1.69 1.86 1.53 0.19 0.01 0.67 1.01 (0.01) 6.51                   |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments Licenses, Permits & Fees Sales of Commodities & Services Investment Income Rents, Fines & Escheats Miscellaneous Less Refunds of Payments Total - Other Revenue OTHER SOURCES Federal Grants Transfer from Tobacco Fund                                | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85 81.62 (5.20) (0.07) 76.35  1.75 2.51 1.05 0.18 0.39 0.37 0.85 - 7.10 16.47 0.70        | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91  74.95 (6.70) (0.05) 68.20  1.83 2.40 1.03 0.21 0.12 0.41 1.04 - 7.04 23.05 0.74     | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  - 0.57  0.27  0.19  0.80  67.64  (6.00) (0.05)  61.59  1.64  2.17  1.46  0.19  0.02  1.43  0.81  (0.01)  7.71  22.99  0.58        | \$17,707,454  % of Total 40.92% 18.94 4.49 1.52 1.25 1.34 2.28 0.96 - 0.54 0.28 0.19 0.79 73.50 (5.40) (0.05) 68.05  1.66 2.03 1.41 0.20 - 0.89 1.01 (0.01) 7.19 23.92 0.54      | \$18,561,633  ** of Total 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37  1.69 1.86 1.53 0.19 0.01 0.67 1.01 (0.01) 6.51 19.43 0.52        |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments Licenses, Permits & Fees Sales of Commodities & Services Investment Income Rents, Fines & Escheats Miscellaneous Less Refunds of Payments Total - Other Revenue OTHER SOURCES Federal Grants Transfer from Tobacco Fund Transfer From/(To) Other Funds | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85 81.62 (5.20) (0.07) 76.35  1.75 2.51 1.05 0.18 0.39 0.37 0.85 - 7.10 16.47 0.70 (0.62) | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91 74.95 (6.70) (0.05) 68.20  1.83 2.40 1.03 0.21 0.12 0.41 1.04 - 7.04 23.05 0.74 0.97 | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  - 0.57  0.27  0.19  0.80  67.64  (6.00)  (0.05)  61.59  1.64  2.17  1.46  0.19  0.02  1.43  0.81  (0.01)  7.71  22.99  0.58  7.13 | \$17,707,454  % of Total 40.92% 18.94 4.49 1.52 1.25 1.34 2.28 0.96 - 0.54 0.28 0.19 0.79 73.50 (5.40) (0.05) 68.05  1.66 2.03 1.41 0.20 - 0.89 1.01 (0.01) 7.19 23.92 0.54 0.31 | \$18,561,633  ** of Total 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37  1.69 1.86 1.53 0.19 0.01 0.67 1.01 (0.01) 6.51 19.43 0.52 (0.82) |
| GRAND TOTAL  TAXES  Personal Income Sales and Use Corporation Public Service Corporation Insurance Companies Inheritance & Estate Cigarettes Oil Companies Electric Generation Real Estate Conveyance Alcoholic Beverages Admissions, Dues, Cabaret Miscellaneous Total - Taxes Less Refunds of Taxes Less Refunds of R&D Credit Total - Taxes Less Refunds OTHER REVENUE Transfer-Special Revenue Indian Gaming Payments Licenses, Permits & Fees Sales of Commodities & Services Investment Income Rents, Fines & Escheats Miscellaneous Less Refunds of Payments Total - Other Revenue OTHER SOURCES Federal Grants Transfer from Tobacco Fund                                | \$16,402,786 <u>% of Total</u> 45.80% 21.84 4.47 1.45 1.39 1.04 2.04 1.25 - 0.97 0.29 0.23 0.85 81.62 (5.20) (0.07) 76.35  1.75 2.51 1.05 0.18 0.39 0.37 0.85 - 7.10 16.47 0.70        | \$15,700,801  **y of Total** 40.67% 21.14 3.92 1.71 1.29 1.52 2.02 0.66 - 0.58 0.30 0.23 0.91  74.95 (6.70) (0.05) 68.20  1.83 2.40 1.03 0.21 0.12 0.41 1.04 - 7.04 23.05 0.74     | \$17,688,529 <u>% of Total</u> 37.23%  18.11  3.77  1.51  1.28  0.96  2.19  0.70  - 0.57  0.27  0.19  0.80  67.64  (6.00) (0.05)  61.59  1.64  2.17  1.46  0.19  0.02  1.43  0.81  (0.01)  7.71  22.99  0.58        | \$17,707,454  % of Total 40.92% 18.94 4.49 1.52 1.25 1.34 2.28 0.96 - 0.54 0.28 0.19 0.79 73.50 (5.40) (0.05) 68.05  1.66 2.03 1.41 0.20 - 0.89 1.01 (0.01) 7.19 23.92 0.54      | \$18,561,633  ** of Total 44.77% 20.63 3.86 1.35 1.28 1.03 2.27 0.79 0.37 0.58 0.33 0.19 2.89 80.34 (5.95) (0.02) 74.37  1.69 1.86 1.53 0.19 0.01 0.67 1.01 (0.01) 6.51 19.43 0.52        |

TABLE 88
SPECIAL TRANSPORTATION FUND REVENUES

| TAXES (\$K) Motor Fuels Oil Companies DMV Sales Less Refunds of Taxes Total - Taxes Less Refunds  | FY 2008<br>\$495,123<br>127,800<br>64,863<br>(6,999)<br>680,787                          | FY 2009<br>\$495,025<br>141,900<br>57,134<br>(6,085)<br>687,974                          | <b>FY 2010</b><br>\$503,635<br>141,900<br>67,784<br>(7,315)<br>706,004                      | <b>FY 2011</b><br>\$438,526<br>165,300<br>71,943<br>(6,769)<br>713,999                       | <b>FY 2012</b><br>\$492,795<br>226,900<br>76,618<br>(7,006)<br>789,306                       |
|---|--|--|---|--|--|
| OTHER REVENUE Motor Vehicle Receipts Licenses, Permits & Fees Interest Income Federal Grants Transfer from Other Funds Transfer to Other Funds Transfer to TSB Less Refunds of Payments Total – Other Revenue | 225,524<br>153,762<br>36,555<br>-<br>16,700<br>(9,500)<br>(20,800)<br>(2,719)<br>399,517 | 220,780<br>142,431<br>15,583<br>-<br>9,400<br>(15,992)<br>(15,300)<br>(2,772)<br>344,730 | 220,703<br>135,004<br>6,681<br>3,002<br>71,200<br>(6,500)<br>(15,300)<br>(2,906)<br>411,884 | 220,144<br>135,453<br>5,506<br>9,360<br>107,550<br>(6,500)<br>(15,300)<br>(3,005)<br>453,208 | 235,446<br>135,974<br>2,208<br>12,915<br>81,550<br>(6,500)<br>(15,000)<br>(2,979)<br>443,614 |
| GRAND TOTAL   | \$1,080,304  | \$1,042,104  | \$1,117,888   | \$1,167,208  | \$1,232,921  |
|   |  |  |   |  |  |
| <u>TAXES</u>  | % of Total   | % of Total   | % of Total  | % of Total   | % of Total   |
| TAXES  Motor Fuels Oil Companies DMV Sales Less Refunds of Taxes Total - Taxes Less Refunds   | % of Total 45.83% 11.83 6.00 (0.65) 63.02  | % of Total<br>47.93%<br>13.74<br>5.53<br>(0.59)<br>66.62                                 | % of Total 45.05% 12.69 6.06 (0.65) 63.15   | % of Total 37.57% 14.16 6.16 (0.58) 61.17  | % of Total 39.97% 18.40 6.21 (0.57) 64.02  |
| Motor Fuels Oil Companies DMV Sales Less Refunds of Taxes   | 45.83%<br>11.83<br>6.00<br>(0.65)  | 47.93%<br>13.74<br>5.53<br>(0.59)  | 45.05%<br>12.69<br>6.06<br>(0.65)   | 37.57%<br>14.16<br>6.16<br>(0.58)  | 39.97%<br>18.40<br>6.21<br>(0.57)  |

#### ECONOMIC ASSUMPTIONS OF THE GOVERNOR'S BUDGET

#### **Economic Outlook**

Though the U.S. and Connecticut economies have continued to slowly recover from the Great Recession, both face a great deal of uncertainty in the near future with significant risks to the ongoing recovery. A range of intangible factors affect the economic outlook with impacts that are difficult to quantify. Some of the factors influencing the economy include: U.S. household debt, fiscal uncertainty in the U.S., monetary policy by the U.S. Federal Reserve, foreign economic conditions and the development of shale energy.

Consumers in the U.S. continue to bear historically high levels of household debt. Household debt peaked at a record high 133.7% of personal income in 2006, and has slowly decreased to 113.2% in 2012. As households gradually continue to pay off their debt, they have less money to spend, resulting in a decrease in current consumption. Decreased consumption creates a drag on the economic expansion, as current consumption accounts for approximately 70% of economic activity in the U.S.

Fiscal uncertainty in the U.S., brought about by political brinksmanship, has also proven to be a hindrance to U.S. economic recovery. The last minute deal reached by our elected officials to avoid the fiscal cliff was primarily a temporary fix. Though it averted raising income taxes on 99% of tax payers and prolonged extended unemployment insurance benefits, it also allowed the employee's social security tax break to expire, costing the average tax payer \$1,000 in disposable income. More significantly, however, the deal reached in January 2013 did little to address the issues underlying the crisis. A large federal deficit remains and outstanding U.S. debt is rapidly approaching the debt ceiling.

Congress has not passed a federal budget, has delayed the debt ceiling debate, and has postponed addressing the budgetary process known as sequestration until March 2013. The sequestration process would cut approximately \$110 billion annually from federal budget spending and, if it does occur, is projected to hinder an already tepid economic expansion. The uncertainty created by the inability of the federal government to address outstanding fiscal issues has been a drag on economic growth. Many businesses continue to cite postponing investment and hiring decisions amidst such economic uncertainty.

The U.S. Federal Reserve has been engaging in unprecedented levels of "quantitative easing," or buying assets to inject additional currency into circulation. Such a large and prolonged fiscal stimulus has never been undertaken and, though the Federal Reserve believes itself to be acting in the best interest of stimulating the U.S. economy, the decision was not unanimous among its members. There are acknowledged long run costs and inflationary risks associated with quantitative easing, but the benefits are believed to outweigh the costs. Unfortunately, the immediate or long run impacts of quantitative easing are unknown.

Additional complications arise as economic conditions worldwide continue to face headwinds. The European economy has entered its second recession since 2009. This has led to a decrease in demand for U.S. imports in Europe, hurting the U.S. as well as Connecticut's economy. Europe also faces the potential break up of the European Union as several nations still struggle

with potential default on national debt and other nations contemplate a voluntary withdrawal from the union. This further weighs on the European economy and enhances the uncertainty associated with the region.

Economic growth in China, the world's second largest economy, also slowed in the second half of 2012. A combined seven consecutive quarters of decelerating growth in China reflect a combination of weak demand from abroad, slowing investment at home, and insufficient spending by Chinese consumers. A deceleration of the Chinese economy precipitates a decline of foreign imports of commodities, construction and building machinery, and machined goods with the potential to slow U.S. economic growth as well. This downturn in the Chinese economy is occurring amidst a once-in-a-decade change in the nation's leadership, adding additional uncertainty to how it will react.

Following its collapse in 2008, the U.S. housing market has begun to show initial signs of a recovery. After several years of dragging the economic recovery down, the housing market has the potential to augment the economic recovery. This bodes well for future economic performance as the housing market is typically a leading economic indicator. The growth in the housing market drives growth in many other sectors of the economy including construction, home heating and cooling, and manufacturers of appliances and furnishings. Significant growth in the housing market could help the economic recovery accelerate.

A potential boon to the U.S. economy comes from shale energy. The advent of hydraulic fracturing and horizontal drilling has made the extraction of oil and natural gas from shale formations across the country economically feasible. This has greatly increased the proven energy resources of the U.S. and North America and is projected to increase energy production in the U.S. 44% over the next 30 years. The International Energy Agency forecasts that the U.S. will become the world's largest energy producer by 2020 and by 2030 will be a net energy exporter. As energy is the foundation underlying modern economic activity, the increased availability of energy and a reduction in its cost should provide the U.S. with a competitive advantage in the future.

#### **Economic Assumptions of the Governor's Budget**

The U.S. economy has continued its slow recovery through much of FY 2013. This growth is projected to increase slightly in FY 2014 before accelerating significantly in FY 2015. In FY 2014, U.S. real GDP is projected to grow near the long-run average growth at 2.9%, before growth accelerates to 4.3% in FY 2015. Inflation is expected to remain relatively stable between 2.4% and 2.5% annually from FY 2014 to FY 2015. The U.S. unemployment rate is projected to continue falling 0.3 percentage points in FY 2014 and 1.0 percentage points in FY 2015. Housing starts are expected to continue to accelerate in FY 2014, increasing 64.2% before growth slows to 28.4% in FY 2015. Likewise, new vehicle sales growth is projected to accelerate in FY 2014 to 10.4% and reach levels previously attained prior to the financial crisis.

Connecticut's economy is expected to follow a similar pattern to that of the U.S., with slow growth in FY 2014 followed by accelerated growth in FY 2015. Connecticut's personal income is projected to grow 4.5% in FY and 7.0% in FY 2015. After little growth in FY 2013, Connecticut's nonagricultural employment is expected to increase 0.9%, adding 14,000 jobs in FY 2014. In FY 2015 this growth is expected to accelerate to a growth rate of 2.3%, adding 38,000 jobs.

Connecticut's unemployment rate is projected to decline significantly in the next two years, faster than that of the U.S., at 1.2 percentage points in FY 2014 and 1.4 percentage points in FY 2015. Connecticut's housing starts are expected to slow to a 7.9% growth rate in FY 2014 before increasing to a 17.2% growth rate in FY 2015.

TABLE 89
U.S. and CONNECTICUT ECONOMIC INDICATORS

|             | U.S. GDP     |               | U.S. R            | eal GDP       | Consumer Price   |               |  |
|-------------|--------------|---------------|-------------------|---------------|------------------|---------------|--|
|             | (Bil         | lions)        | (Bil              | lions)        | I                | ndex          |  |
| Fiscal Year | <u>Value</u> | Growth        | <u>Value</u>      | <u>Growth</u> | <u>Value</u>     | <u>Growth</u> |  |
| 2008        | 14,267       | 4.2%          | 13,293            | 1.8%          | 211.7            | 3.7%          |  |
| 2009        | 14,071       | <i>-</i> 1.4% | 12,871            | -3.2%         | 214.7            | 1.4%          |  |
| 2010        | 14,192       | 0.9%          | 12,897            | 0.2%          | 216.8            | 1.0%          |  |
| 2011        | 14,783       | 4.2%          | 13,183            | 2.2%          | 221.1            | 2.0%          |  |
| 2012        | 15,387       | 4.1%          | 13,451            | 2.0%          | 227.6            | 2.9%          |  |
| 2013        | 15,995       | 4.0%          | 13,734            | 2.1%          | 231.8            | 1.9%          |  |
| 2014        | 16,798       | 5.0%          | 14,134            | 2.9%          | 237.4            | 2.4%          |  |
| 2015        | 17,871       | 6.4%          | 14,742            | 4.3%          | 243.4            | 2.5%          |  |
|             |              |               |                   |               |                  |               |  |
|             | U.           |               | U.S. Housing      |               | U.S. New Vehicle |               |  |
|             | Unemploy     | ment Rate     | Starts (Millions) |               | Sales (Millions) |               |  |
| Fiscal Year | <u>Value</u> | <u>Growth</u> | <u>Value</u>      | <u>Growth</u> | <u>Value</u>     | <u>Growth</u> |  |
| 2008        | 5.0          | 0.4           | 1.13              | -26.8%        | 15.34            | -6.1%         |  |
| 2009        | 7.6          | 2.7           | 0.65              | -42.9%        | 10.60            | -30.9%        |  |
| 2010        | 9.8          | 2.1           | 0.59              | -8.1%         | 11.17            | 5.4%          |  |
| 2011        | 9.3          | -0.5          | 0.57              | <b>-</b> 4.1% | 12.23            | 9.5%          |  |
| 2012        | 8.5          | -0.7          | 0.69              | 20.4%         | 13.58            | 11.1%         |  |
| 2013        | 7.8          | -0.7          | 0.93              | 36.1%         | 14.79            | 8.9%          |  |
| 2014        | 7.5          | -0.3          | 1.53              | 64.2%         | 16.33            | 10.4%         |  |
| 2015        | 6.5          | <b>-</b> 1.0  | 1.97              | 28.4%         | 16.91            | 3.6%          |  |
|             |              |               |                   |               |                  |               |  |

|             |              |            |              |          | (            | CT           |                |               |
|-------------|--------------|------------|--------------|----------|--------------|--------------|----------------|---------------|
|             | CT P         | ersonal    | CT Em        | ployment | Unemj        | oloyment     |                | CT            |
|             | Income       | (Millions) | (Thousands)  |          | F            | Rate         | Housing Starts |               |
| Fiscal Year | <u>Value</u> | Growth     | <u>Value</u> | Growth   | <u>Value</u> | Growth       | <u>Value</u>   | <u>Growth</u> |
| 2008        | 200,944      | 5.2%       | 1,706.0      | 1.0%     | 4.9          | 0.5          | 6,295          | -26.0%        |
| 2009        | 194,915      | -3.0%      | 1,665.1      | -2.4%    | 6.9          | 2.0          | 3,647          | -42.1%        |
| 2010        | 191,842      | -1.6%      | 1,605.9      | -3.6%    | 8.9          | 2.0          | 3,643          | -0.1%         |
| 2011        | 204,074      | 6.4%       | 1,618.6      | 0.8%     | 9.2          | 0.3          | 3,422          | -6.1%         |
| 2012        | 208,756      | 2.3%       | 1,627.6      | 0.6%     | 8.2          | <b>-</b> 1.0 | 3,776          | 10.3%         |
| 2013        | 212,124      | 1.6%       | 1,627.5      | 0.0%     | 8.5          | 0.3          | 5,248          | 39.0%         |
| 2014        | 221,714      | 4.5%       | 1,641.5      | 0.9%     | 7.4          | -1.2         | 5,662          | 7.9%          |
| 2015        | 237,166      | 7.0%       | 1,679.5      | 2.3%     | 6.0          | <b>-</b> 1.4 | 6,636          | 17.2%         |

# **Sensitivity Analysis**

Connecticut's tax revenues are closely tied to the health of Connecticut's economy. Economic projections, therefore, play an important role in developing Connecticut's revenue projections. Unfortunately, unpredictability and random economic shocks sometimes cause reality to deviate from even the most carefully constructed projections. This section is a preliminary attempt to calculate how sensitive Connecticut's revenue projections are to unexpected macroeconomic fluctuations. An econometric analysis is used on a range of macroeconomic variables to determine their impact on Connecticut's total General Fund revenues. Though a large number of factors were considered, U.S. gross domestic product, Connecticut personal income, Connecticut total non-farm employment, the Connecticut unemployment rate, the price of oil (Western Texas Intermediate), and the interest rate (ten year U.S. Treasury note) were the most relevant factors. The table below indicates how each of these factors impacts Connecticut's General Fund, specifically the difference between the actual growth rate and projected growth rate of each variable. It is important to note that while these variables often move together, in this exhibit each is considered in isolation.

|                                  | Change in Economic           | Change in General Fund |
|----------------------------------|------------------------------|------------------------|
| Economic Indicator               | <b>Indicator Growth Rate</b> | Revenue Growth Rate    |
| <b>US Gross Domestic Product</b> | 100 basis points             | 81 basis points        |
| CT Personal Income               | 100 basis points             | 77 basis points        |
| CT Employment                    | 100 basis points             | 11 basis points        |
| <b>Interest Rate</b>             | 100 basis points             | -2 basis points        |
| Oil Price                        | 100 basis points             | 1 basis points         |
| Stock Market                     | 100 basis points             | 2 basis points         |

Please note that this is a preliminary analysis and is subject to change.

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# **REVENUE FORECAST**

The following Table shows the actual General Fund Revenue collections for fiscal 2012, and estimated revenue collections for fiscal 2013 and projected revenue collections for fiscal 2014 and fiscal 2015 by major sources.

TABLE 90 STATE OF CONNECTICUT - GENERAL FUND REVENUES (In Millions)

|                                 |                |                |    | Projected  |                  |    |           |
|---------------------------------|----------------|----------------|----|------------|------------------|----|-----------|
|                                 |                |                |    | Revenue    | Proposed         |    | Net       |
|                                 | Actual         | Estimated      |    | At Current | Revenue          |    | Projected |
|                                 | Revenue        | Revenue        |    | Rates      | Changes          |    | Revenue   |
| Taxes                           | FY 2012        | FY 2013        |    | FY 2014    | FY 2014          |    | FY 2014   |
| Personal Income Tax             | \$<br>8,310.8  | \$<br>8,554.3  | \$ | 8,940.5    | \$<br>8.5        | \$ | 8,949.0   |
| Sales & Use Tax                 | 3,830.1        | 3,886.2        |    | 4,028.1    | 78.0             |    | 4,106.1   |
| Corporation Tax                 | 716.5          | 716.2          |    | 668.6      | 51.9             |    | 720.5     |
| Public Service Tax              | 250.4          | 278.7          |    | 279.3      | -                |    | 279.3     |
| Inheritance & Estate Tax        | 191.7          | 196.2          |    | 172.9      | -                |    | 172.9     |
| Insurance Companies Tax         | 237.6          | 247.8          |    | 223.4      | 19.0             |    | 242.4     |
| Cigarette Tax                   | 421.0          | 410.1          |    | 398.2      | -                |    | 398.2     |
| Real Estate Conveyance Tax      | 107.5          | 100.3          |    | 104.3      | 39.5             |    | 143.8     |
| Oil Companies Tax               | 146.1          | 167.8          |    | 199.6      | (158.0)          |    | 41.6      |
| Electric Generation Tax         | 69.5           | 70.6           |    | -          | 76.0             |    | 76.0      |
| Alcoholic Beverages             | 60.6           | 59.3           |    | 59.8       | 1.5              |    | 61.3      |
| Admissions and Dues             | 34.4           | 39.6           |    | 40.0       | -                |    | 40.0      |
| Health Provider Tax             | 516.9          | 520.0          |    | 522.6      | -                |    | 522.6     |
| Miscellaneous                   | 19.9           | 20.1           | _  | 20.5       | -                |    | 20.5      |
| Total Taxes                     | \$<br>14,913.1 | \$<br>15,267.2 | \$ | 15,657.8   | \$<br>116.4      | 5  | 15,774.2  |
| Less Refunds of Taxes           | (999.4)        | (1,040.6)      |    | (1,055.0)  | -                |    | (1,055.0) |
| Less Earned Income Tax Credit   | (105.8)        | (115.5)        |    | (125.6)    | 21.1             |    | (104.5)   |
| Less R&D Credit Exchange        | (3.6)          | <br>(4.9)      |    | (5.9)      | <br>-            |    | (5.9)     |
| TOTAL - Taxes Less Refunds      | \$<br>13,804.4 | \$<br>14,106.2 | \$ | 14,471.3   | \$<br>137.5      | 5  | 14,608.8  |
| Other Revenues                  |                |                |    |            |                  |    |           |
| Transfers Special Revenue       | \$<br>313.8    | \$<br>315.1    | \$ | 310.6      | \$<br>- \$       | 5  | 310.6     |
| Indian Gaming Payments          | 344.6          | 300.1          |    | 298.6      | -                |    | 298.6     |
| License, Permits, Fees          | 283.4          | 262.8          |    | 296.0      | 0.6              |    | 296.6     |
| Sales of Commodities & Services | 35.0           | 35.8           |    | 37.2       | -                |    | 37.2      |
| Rents, Fines & Escheats         | 123.4          | 109.2          |    | 114.1      | -                |    | 114.1     |
| Investment Income               | 1.0            | 1.0            |    | 1.9        | -                |    | 1.9       |
| Miscellaneous                   | 192.0          | 167.9          |    | 166.5      | -                |    | 166.5     |
| Less Refunds of Payments        | (85.4)         | <br>(61.5)     |    | (61.5)     | <br>-            |    | (61.5)    |
| TOTAL - Other Revenues          | \$<br>1,207.8  | \$<br>1,130.4  | \$ | 1,163.4    | \$<br>0.6        | 5  | 1,164.0   |
| Other Sources                   |                |                |    |            |                  |    |           |
| Federal Grants                  | \$<br>3,607.2  | \$<br>3,752.9  | \$ | 4,237.4    | \$<br>(165.9) \$ | 5  | 4,071.5   |
| Transfer From Tobacco           | 96.1           | 93.1           |    | 91.0       | 14.0             |    | 105.0     |
| Transfers From/(To) Other       | (153.8)        | <br>(103.1)    |    | (307.8)    | 475.8            |    | 168.0     |
| TOTAL - Other Sources           | \$<br>3,549.5  | \$<br>3,742.9  | \$ | 4,020.6    | <br>323.9        |    | 4,344.5   |
| TOTAL - General Fund            | \$<br>18,561.6 | \$<br>18,979.5 | \$ | 19,655.3   | \$<br>462.0      | \$ | 20,117.3  |

# **Explanation of Changes**

# **Personal Income Tax**

Implement tax amnesty program in FY 2014.

#### Sales Tax

Projected

Revenue

At Current

Rates

FY 2015

9,471.5

4,196.3

677.4

284.4

179.8

227.7

387.1

109.8

193.7

60.2

40.4

20.8

525.2

16,374.3

15,128.8

\$

\$

(1,106.8)

(132.0)

311.8

297.1

272.4

38.3

116.0

168.3

(61.5)

\$

\$

1,144.6

4.718.0

90.0

(307.8)

4,500.2

20,773.6

2.2

(6.7)

Proposed

Revenue

Changes

FY 2015

17.5

74.0

(5.0)

19.0

41.0

76.0

1.5

71.7

21.0

11.0

103.7

0.7

0.7

(280.8)

14.0

285.4

18.6

123.0

(152.3)

\$

Net

Projected

Revenue

FY 2015

9,471.5

4,213.8

751.4

279.4

179.8

246.7

387.1

150.8

41.4

76.0

61.7

40.4

525.2

20.8

16,446.0

15,232.5

\$

(1,085.8)

(121.0)

311.8

297.1

273.1

38.3

116.0

168.3

(61.5)

1,145.3

4.437.2

4,518.8

\$ 20,896.6

104.0

(22.4)

2.2

(6.7)

Phase-in clothing exemption at \$25 in FY 2015 and \$50 in FY 2016. Eliminate transfer to the municipal revenue sharing account. Eliminate minimum bottle pricing. Implement tax amnesty program.

# **Corporation Tax**

Maintain 20% surcharge for IY 2014 and IY 2015. Implement tax amnesty program.

#### **Public Service Tax**

Incentivize natural gas conversions.

#### **Insurance Companies Tax**

Maintain 3-tier credit cap levels for IY 2013 and IY 2014.

#### Real Estate Conveyance Tax

Eliminate transfer to the municipal revenue sharing account.

# Oil Companies Tax

Deposit all gasoline-related revenue into the Transportation Fund.

# **Electric Generation Tax**

Maintain current tax for FY 2014 and FY 2015.

#### **Alcoholic Beverages Tax**

Eliminate minimum bottle pricing.

#### **Refunds of Taxes**

Impact of Governor's municipal motor vehicle property tax proposal.

#### **Earned Income Tax Credit**

Reduce the Earned Income Tax Credit to 25% for IY 2013 and 27.5% for IY 2014.

#### License, Permits, and Fees

Various minor fee changes.

#### **Federal Grants**

Impact of recommended expenditure changes.

#### **Transfers-Other Funds**

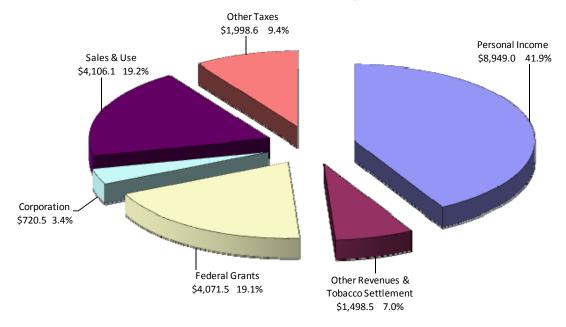
Reduce the Mashantucket Pequot and Mohegan grant. Reflects changes in transfers to/from the Transportation Fund. Transfer from the CRRA landfill reserve account. Transfer from the public, education, and governmental programming account. Proceeds from auction of standard offer electric customers.

#### **Transfers-Tobacco Settlement**

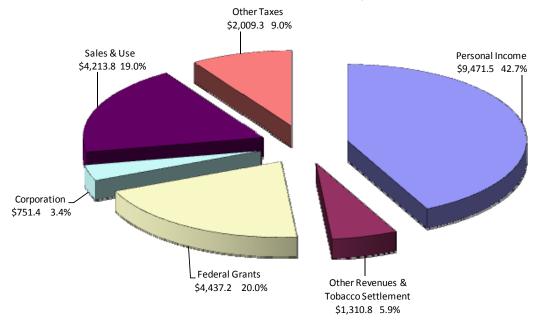
Eliminate transfers to the Stem Cell account and the Biomedical Trust Fund.

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# GENERAL FUND FISCAL YEAR 2014 - TOTAL \$20,117.3 MILLION\*



# GENERAL FUND FISCAL YEAR 2015 - TOTAL \$20,896.6 MILLION\*



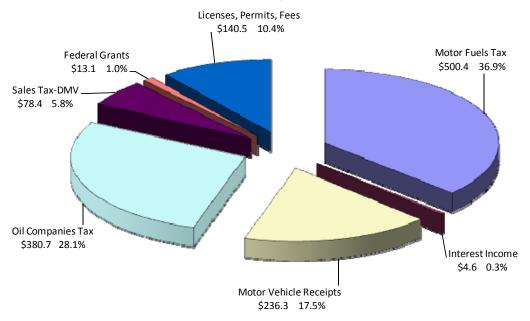
\* Refunds of Taxes are estimated at \$1,055.0M for FY 2014 and \$1,085.8M for FY 2015, Earned Income Tax Credit are estimated at \$104.5M for FY 2014 and \$121.0M for FY 2015, R&D Credit Exchange are estimated at \$5.9M for FY 2014 and \$6.7M for FY 2015, Refunds of Payments are estimated at \$61.5M for FY 2014 and FY 2015. Transfers to Other Funds are \$22.4M for FY 2015.

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TABLE 91 STATE OF CONNECTICUT SPECIAL TRANSPORTATION FUND REVENUES (In Millions)

|                                 | Projected |         |    |           |               |    |          |           |
|---------------------------------|-----------|---------|----|-----------|---------------|----|----------|-----------|
|                                 |           |         |    |           | Revenue       | ]  | Proposed | Net       |
|                                 |           | Actual  | E  | Estimated | Current       |    | Revenue  | Projected |
|                                 | R         | levenue |    | Revenue   | Rates         |    | Changes  | Revenue   |
| Taxes                           | I         | FY 2012 |    | FY 2013   | FY 2014       |    | FY 2014  | FY 2014   |
| Motor Fuels Tax                 | \$        | 492.8   | \$ | 495.8     | \$<br>500.4   | \$ | -        | 500.4     |
| Oil Companies Tax               |           | 226.9   |    | 199.4     | 222.7         |    | 158.0    | 380.7     |
| Sales Tax DMV                   |           | 76.6    |    | 77.2      | 78.4          |    | -        | 78.4      |
| Less Refunds of Taxes           |           | (7.0)   |    | (7.2)     | (7.3)         |    | -        | (7.3)     |
| TOTAL - Taxes Less Refunds      | \$        | 789.3   | \$ | 765.2     | \$<br>794.2   | \$ | 158.0    | 952.2     |
| Other Sources                   |           |         |    |           |               |    |          |           |
| Motor Vehicle Receipts          | \$        | 235.4   | \$ | 235.8     | \$<br>236.3   | \$ | -        | 236.3     |
| Licenses, Permits & Fees        |           | 136.0   |    | 140.0     | 140.4         |    | 0.1      | 140.5     |
| Interest Income                 |           | 2.2     |    | 3.1       | 4.6           |    | -        | 4.6       |
| Federal Grants                  |           | 12.9    |    | 13.1      | 13.1          |    | -        | 13.1      |
| Transfers From (To) Other Funds |           | 75.1    |    | 88.7      | 166.3         |    | (232.8)  | (66.5)    |
| Transfer To TSB                 |           | (15.0)  |    | (15.0)    | (15.0)        |    | -        | (15.0)    |
| Less Refunds of Payments        | _         | (3.0)   | _  | (3.2)     | <br>(3.3)     | _  | -        | (3.3)     |
| TOTAL - Other Sources           | \$        | 443.6   | \$ | 462.5     | \$<br>542.4   | \$ | (232.7)  | 309.7     |
| TOTAL - S.T.F.                  | \$        | 1,232.9 | \$ | 1,227.7   | \$<br>1,336.6 | \$ | (74.7)   | 1,261.9   |

# FISCAL YEAR 2014 - TOTAL \$1,261.9 MILLION\*



\* Refunds of Taxes are estimated at \$7.3M, Transfer to the Emissions Fund is estimated at \$6.5M, Refunds of Payments are estimated at \$3.3M, Transfer to Transportation Strategy Board is estimated at \$15.0M, and Transfer to General Fund is estimated at \$60M.

| Projected     |               |               |
|---------------|---------------|---------------|
| Revenue       | Proposed      | Net           |
| Current       | Revenue       | Projected     |
| Rates         | Changes       | Revenue       |
| FY 2015       | FY 2015       | FY 2015       |
| \$<br>499.5   | \$<br>-       | \$<br>499.5   |
| 226.8         | 152.3         | 379.1         |
| 79.9          | -             | 79.9          |
| (7.4)         | -             | (7.4)         |
| \$<br>798.8   | \$<br>152.3   | \$<br>951.1   |
|               |               |               |
| \$<br>236.9   | \$<br>-       | \$<br>236.9   |
| 141.1         | 0.1           | 141.2         |
| 5.0           | -             | 5.0           |
| 13.1          | -             | 13.1          |
| 166.3         | (152.3)       | 14.0          |
| (15.0)        | -             | (15.0)        |
| (3.3)         | -             | (3.3)         |
| \$<br>544.1   | \$<br>(152.2) | \$<br>391.9   |
|               |               |               |
| \$<br>1,342.9 | \$<br>0.1     | \$<br>1,343.0 |

# **Explanation of Changes**

# Oil Companies Tax

Deposit all gasoline-related revenue into the Transportation Fund.

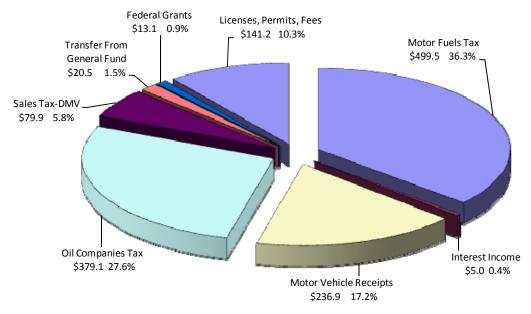
# License, Permits, Fees

Increase outdoor advertising fees.

# Transfers From/(To) Other Funds

Revise transfer from the General Fund. Increase transfer to the General Fund.

# FISCAL YEAR 2015 - TOTAL \$1,343.0 MILLION\*



\* Refunds of Taxes are estimated at \$7.4M, Transfer to the Emissions Fund is estimated at \$6.5M, Refunds of Payments are estimated at \$3.3M and Transfer to Transportation Strategy Board is estimated at \$15.0M in fiscal 2015.

#### IMPACT OF THE GOVERNOR'S BUDGET ON THE STATE'S ECONOMY

The traditional purpose of a governmental budget is threefold: it outlines necessary and desirable public services; it estimates how much these services will cost; and it defines the resources that are required to provide these services. The budget is a fundamental policy document of every level of government. As proposed, enacted and implemented, it represents a consensus regarding what government realistically can and ought to do.

The economic implications of governmental budgets are significant. Government expenditures and investment, including federal, state and local governments, are an important dimension of the national economy, accounting for 20.1% of the Gross Domestic Product. The spending and tax policies of government profoundly influence the performance of the economy. Because the Governor's budget accounts for 9.0% of the Gross State Product, it is inevitable that state government's expenditure and revenue actions influence the state's economy.

# **Expenditure Actions**

# Jobs, the Economy, and Education

Various studies indicate that there is a strong positive correlation between the levels of educational attainment and economic well-being. In recent decades we have witnessed increasing economic disparity between the haves and have-nots in regard to educational attainment. Today's global economy has only reinforced this dynamic as we, as a nation, compete against the best and the brightest from around the world. Technological innovation has permitted businesses access to talent anywhere on the globe which is brought into direct competition with the skills of our state's citizens. With these factors in mind, one of the Governor's top priorities has been to position our state for the highly skilled jobs of tomorrow. His first step toward that goal has been his bioscience initiative launched early in his administration. In this budget proposal, the Governor goes even further to the lay the groundwork to assure that our citizens have the skills they need when they enter the workforce, particularly in the areas of math, science and engineering.

#### Higher Education

With that in mind, the Governor is launching his STEM (Science, Technology, Engineering, and Math) initiative. By investing \$1.54 billion in capital expenditures and \$147 million in operating expenses from FY 2015 through FY 2024, this plan, called *Next Generation Connecticut* will revolutionize the important expansion of STEM activities at UConn, drive innovation, and enhance job creation and economic growth. UConn will be an increasingly vital STEM institution, fueling Connecticut's economy with new technologies, highly skilled graduates, businesses, patents and licenses, and high-wage STEM jobs. For the next biennium, this investment begins with an additional \$17.4 million in operating funds FY 2015 and \$105 million in capital authorizations in FY 2015.

#### Bioscience Connecticut

As construction transforms the UConn Health Center and in fulfillment of the previously approved Bioscience Initiative, funding of \$11.9 million in FY 2014 and \$16.8 million in FY 2015 is recommended for 19 and 18 clinical scientist faculty and researchers respectively.

In addition, the Governor is proposing the new Bioscience Innovation Act. This act, in concert with the Bioscience Initiative, will support the state's growing bioscience sector, strengthen our capacity to create competitive investment tools, attract additional federal and private dollars, and re-energize Connecticut's existing bioscience industry. It will be administered by Connecticut Innovations (CI), the state's quasi-public economic development entity. The act calls for a \$200 million investment over ten years. Funding ramps up over the ten year horizon and expected to fill gaps in the marketplace and not duplicate current public funding. Investments will be subject to a rigorous vetting process with the creation of an advisory board at CI to provide oversight and strategic guidance.

# Elementary and Secondary Education

Elementary and secondary education also continue to be significant priorities of the Governor, with recommended net increases in the State Department of Education (SDE) budget of more than \$47.0 million in FY 2014 and \$153.9 million in FY 2015.

Included in this significant level of new investment is:

- \$50.7 million to the Education Cost Sharing (ECS) grant for FY 2014, growing to \$101.5 million in FY 2015;
- \$12 million in each year of the biennium for assistance with the execution of Common Core State Standards, and development and evaluation of educators and administrators;
- Increased enrollment in existing state charter schools (\$6.5 million in FY 2014 and \$15.4 million in FY 2015);
- Four new state charter schools (\$1.8 million in FY 2014 and \$8.4 million in FY 2015);
- Increased enrollment in Open Choice (\$13 million in FY 2014 and \$18.5 million in FY 2015);
- Increased enrollment in Magnet Schools (\$28 million in FY 2014 and \$43.9 million in FY 2015); and
- Increased funding for the Commissioner's Network of schools needing improvement (\$3.3 million in FY 2014 and \$10.8 million in FY 2015).

#### Early Childhood Service Consolidation

Based on the plan for a coordinated system of early care and education and child development pursuant to PA 11-181, early childhood programs from various separate agencies will be reallocated to a new Office of Early Childhood. This will assure that there is a more coordinated approach to services provided for this youngest and most vulnerable population. This coordinated approach will ensure that there is a single, unified vision for serving young children and their families more efficiently and effectively.

#### **Health and Human Services**

In the area of health and human services, the budget funds significant growth. Over \$330 million is added over the biennium to fund anticipated increases in utilization and caseload and the annualization of caseload growth for various programs in the Departments of Social Services, Developmental Services and Mental Health and Addiction Services. This figure does not include the Medicaid expansion noted below.

# *Impact of the Affordable Care Act*

The budget includes several changes related to the implementation of the Affordable Care Act (ACA). ACA requires states to increase Medicaid reimbursement for primary care services provided by primary care doctors to higher Medicare levels for calendar years 2013 and 2014. The budget includes over \$150 million in the biennium (\$104 million in FY 2014, which includes funding for FY 2013 obligations, and \$47 million in FY 2015). These costs will be fully reimbursed by the federal government.

The Affordable Care Act allowed states the option of covering childless adults up to 133% of the federal poverty level (FPL) under a Medicaid state plan amendment beginning April 1, 2010. In June 2010, Connecticut gained approval from the federal government to expand Medicaid coverage to an estimated 45,000 low-income adults who had been enrolled in a more limited benefit package under the State-Administered General Assistance program. As of December 2012, there were 86,870 individuals enrolled in the Medicaid Low-Income Adults program (HUSKY D). Effective January 1, 2014, states can opt to provide Medicaid coverage to all childless adults up to 133% FPL. The costs of the expansion will be 100% reimbursed by the federal government through 2016, after which it will be phased down to 90% in 2020. The extension of Medicaid benefits to individuals with income between 55% FPL and 133% FPL is projected to result in increased costs of \$52 million in FY 2014, \$301 million in FY 2015 and \$398 million in FY 2016. These costs will also be fully reimbursed by the federal government.

ACA also creates a state-based Health Insurance Exchange which will allow individuals and small businesses to purchase health insurance coverage. Through the Exchange, the federal government will make available to lower income households significant subsidies that will lower the costs associated with obtaining and maintaining comprehensive health insurance coverage beginning January 1, 2014. These subsidies will include advanced premium tax credits that will reduce the monthly cost of health insurance premiums to a fixed share of household income as well as additional cost sharing reductions that will lower the out-of-pocket, point-of-service costs for obtaining medical care and/or prescription drugs.

Another provision under the Affordable Care Act will allow the state to receive up to \$72.8 million in additional Medicaid reimbursement through FY 2016 under the Balancing Incentive Program. To support the expansion of community-based services thereby reducing spending on more costly institutional care in Connecticut, the state will receive an enhanced match rate of an additional 2% on top of the current 50% match rate on non-institutional long-term services and supports funded under Medicaid.

Finally, the budget includes \$10 million in each year of the biennium to support the development of a Health Home initiative to better coordinate behavioral and physical health care for individuals with serious and persistent mental illness. This new funding combined

with in-kind support of state-operated and privately provided services, will result in \$50 million in additional revenue over the biennium due to a 90% federal match available under the Affordable Care Act.

The expansion of health care coverage under Medicaid to individuals up to 133% of the federal poverty level, the availability of insurance coverage through the Health Insurance Exchange, and the federal tax credits that reduce premium costs, as well as reduced cost sharing for lowincome individuals, will remove previous barriers for individuals to access affordable health care. In recognition of this expanded coverage, the budget includes several changes to state programs beginning in calendar year 2014. The Charter Oak Health Plan, for example, was established to assist those who would not otherwise have access to affordable health insurance. With the changes being implemented under the Affordable Care Act, coverage under the program will be eliminated effective January 1, 2014. Similarly, coverage for ConnPACE clients and certain adults under HUSKY A (with family income over 133% FPL) will be transitioned to the Exchange beginning January 1, 2014. In addition, due to the outreach that will be available under the Exchange, funding for the HUSKY Outreach account is eliminated effective January 1, 2014. It is expected that the number of insured individuals accessing services in community health centers and school-based health centers will increase with implementation of ACA. Therefore, the budget adjusts the state's contribution to these centers in recognition of anticipated increased third party payments by over \$1.6 million through the biennium and reduces an annualized \$42.1 million by FY 15 in accounts funding behavioral health services to reflect fewer uncompensated individuals and services as a result of coverage anticipated to be available under the Affordable Care Act.

The budget provides funding to support the annualization of the 1% cost of living adjustment for private providers of health and human services that was effective January 1, 2013.

#### Agency Restructuring

The budget makes adjustments for two agencies created during FY 2013 to address two priority areas: aging and housing. The budget implements the new Department on Aging (SDA) by transferring relevant programs from the Department of Social Services and establishing a collaborative administrative partnership between SDA and the Department of Rehabilitation Services to provide administrative support. The Governor's budget transfers resources from the Departments of Social Services, Economic and Community Development and Mental Health and Addiction Services to consolidate housing programs in the new Department of Housing.

The budget also continues the Governor's commitment to meeting the housing needs of Connecticut's residents through a capital investment of \$20 million in FY 2014 for another 100 units of supportive housing development and \$100 million in the biennium for the Housing Trust Fund and the Flexible Housing Program. Operating funds to support the supportive housing development are provided effective January 2015.

#### Autism

Public Act 11-6 required a study of issues related to the needs of persons with autism spectrum disorder (ASD). In 2012, several agencies and organizations came together to compile and analyze data about services currently provided to such individuals by the state of Connecticut. The workgroup developed several recommendations for addressing these gaps. The Governor

is proposing \$1.0 million in FY 2014 and \$1.25 million in FY 2015 to begin addressing some of these recommendations.

# Empowering Connecticut's Veterans

Consistent with the Governor's efforts to improve service delivery for Connecticut's veterans, the Governor's budget proposes empowering veterans to oversee and control funds set aside for them. The Soldiers, Sailors and Marines' Fund, established in 1919, provides veterans and their families with temporary assistance for rental or mortgage interest payments, utility and medical bills, prescription costs, and funeral expenses. Since 1937, the investment and custody of the fund, currently valued at \$58.9 million, has been the responsibility of the State of Connecticut. Additionally, the state appropriates an operating budget of approximately \$3 million for the agency that administers these funds, including support for salaries, benefits and award payments to veterans. The Governor proposes the transfer of fund management, investment responsibility and associated operational costs to the American Legion, the legal administrator of the fund and the nation's largest wartime veterans' service organization.

# **Efficiencies**

The budget assumes several significant efficiencies: a centralized contracting pilot, mandatory online license renewal, and an enhancement of the effort to curtail Medicaid fraud.

In an effort to streamline administrative services, the Governor's budget creates a pilot program to centralize the contracting function for certain agencies. Under this pilot, the Department of Mental Health and Addiction Services will provide contracting functions for the Departments of Rehabilitation, Aging, Housing and the Office of Early Childhood. The unified contracting system will allow the state to better utilize limited resources and maximize efficiencies.

The budget assumes physicians, dentists and nurses will begin license renewal on-line commencing October 1, 2013. This will benefit the state's health workforce planning efforts, as data will be broadly collected for the first time. Approximately two-thirds of these practitioners (65,200 of a total 96,700) do not currently renew on-line. A modest \$5 fee surcharge associated with on-line renewal is being proposed to offset revenues lost with credit card processing charges the state incurs for such transactions.

In an effort to reduce and curtail Medicaid fraud the Governor will utilize experienced consultants to bring predictive analytics to bear in order to allow the state to better identify patterns of waste, fraud and abuse in government programs and to provide the tools necessary for conducting additional Medicaid investigations and recovering state dollars that were expended due to fraudulent claims.

#### **General Government**

Governor Malloy, in continuing his efforts to restructure state government, has proposed to consolidate the Department of Construction Services (DCS) with the Department of Administrative Services (DAS). This further realignment of agencies will allow for the identification of additional efficiencies and state agency process improvements.

The school construction grant program and building and fire safety inspections and training responsibilities will be transferred from DCS to DAS. In addition, DAS will become responsible for facilities design and construction of all projects excluding those for the Regional Vocational Technical High Schools, Connecticut State Universities and Community Technical Colleges. The State Department of Education will assume responsibility for the management of construction projects at the Regional Vocational Technical High Schools while the Board of Regents will be responsible for projects at the Connecticut State Universities and Community Technical Colleges. This realignment will allow those entities which have robust construction projects to self-manage while DAS will manage those projects for agencies that do not have the necessary construction management staff.

Additionally, statewide human resources functions are recommended for transfer from the Department of Administrative Services to the Office of Policy and Management (OPM). The development and administration of state employee examinations, auditing, training, and personnel policy as well as the functions of the Office of Labor Relations will be grouped into a Division of Employee Relations. The grievance and re-employment unit transferred to OPM will work collaboratively with the labor relations staff to ensure consistency when applying contract and personnel policy.

Governor Malloy is recommending the creation of the Commission on Citizen Advocacy. This commission is formed through the consolidation of the:

- Asian Pacific American Affairs Commission;
- African American Affairs Commission;
- Commission on Children;
- Latino and Puerto Rican Affairs Commission; and
- Permanent Commission on the Status of Women.

With this reorganization, the state will achieve more than \$440,000 in savings annually. Also, due to the establishment of the Department of Aging, the Governor is recommending eliminating the Commission on Aging.

In continuing his efforts to improve Connecticut's transportation infrastructure, the Governor is continuing to support the construction of CTfastrak. CTfastrak combines the fast, traffic-free advantages of a train with the frequent, direct and flexible benefit of a bus. With express and feeder routes that will use a new dedicated roadway to avoid traffic congestion on local streets and on I-84, the 9.4 mile CTfastrak will benefit a large geographic area and provide a one-seat, no transfer ride to regional employment, shopping, cultural, educational and healthcare destinations. The Governor provides \$3.5 million in new operating funds for this transportation initiative. CTfastrak is anticipated to initiate service on January 1, 2015. The new funding will provide resources for the service hours and maintenance costs associated with the new stations along the busway path.

# **Capital Proposals**

Governor Malloy is proposing a capital budget focused on funding projects and programs that create and retain jobs in the state. The proposal emphasizes investments in state and municipal infrastructure, the environment, housing, economic development and higher education investments to retain Connecticut's best minds.

Total proposed new general obligation (GO) bond authorizations are \$1.5 billion in FY 2014 and \$1.608 billion in FY 2015. These proposed bond authorizations are in addition to those that were previously authorized by the General Assembly and become effective during the biennium, which includes \$95 million each year for the CSUS 2020 program, \$59.7 million in FY 2014 and \$19.7 million in FY 2015 for the Bioscience Collaboration Program and \$83 million over the biennium for various other programs authorized in prior legislation.

The Governor is also proposing a \$1.5 billion expansion of the UConn 2000 program which will extend the program through FY 2024 and focus on capital improvements to accommodate a 30% increase in undergraduate enrollment with an emphasis on state-of-the-art facilities to increase the number of students and graduates in the Science, Technology, Engineering and Math (STEM) disciplines. This will add \$6.4 million to the \$198 million previously authorized for UConn 2000 in FY 2014 and add \$107 million to the \$208.5 million previously authorized for FY 2015.

Other notable proposed GO bond authorizations include:

- In 2011 the Governor proposed the largest infusion of funds in the 25 year history of the Clean Water Fund. That commitment continues in this proposed budget. Over the biennium, the program will receive \$285 million for grants and \$712.4 million for revenue bonds to provide subsidized low interest loans to fund these critical infrastructure projects that benefit the environment and create jobs;
- \$511.3 million in FY 2014 and \$474.2 million in FY 2015 to meet the commitments of the school construction program;
- \$79.3 million over the biennium for Community College System building projects;
- \$75 million over the biennium for information technology investments to enhance state agency efficiency and effectiveness;
- \$64.5 million to upgrade and replace aging equipment for state police radio communication systems;
- \$220 million over the biennium for housing related initiatives in the areas of affordable housing, the state's public housing portfolio, and under the state's successful supportive housing program;
- \$100 million in each year of the biennium for the Department of Economic and Community Development to continue to provide low interest loans to attract and retain businesses and jobs in the state;
- \$100 million over the biennium to continue the popular and successful Small Business Express Loan Program;
- \$100 million over the biennium for the Urban Act Program;
- \$20 million in each year of the biennium to finance loans for redevelopment of brownfields;
- \$20 million over the biennium to fund the first two years of a ten year \$200 million commitment for a Bioscience Innovation Fund.

Proposed Special Tax Obligation bond authorizations for transportation projects total \$706.5 million in FY 2014 and \$588.8 million in FY 2015.

#### **Revenue Proposals**

For the FY 2011-2013 biennium Governor Malloy proposed, and the General Assembly passed, major changes to both the state's revenue and spending policies in order to restore structural balance to the state's budget. The Governor's changes closed a \$3.2 billion current services gap in FY 2012, one of the largest shortfalls in our country. The Governor's revenue objectives were three-fold: first, any changes must maintain the state's economic competitiveness; second, the state must maximize federal reimbursement wherever possible; and third, in order not to inhibit job growth, tax increases on the business sector should be minimized.

As the state moves into the FY 2013-2015 biennium, Governor Malloy wants to maintain the substantial progress made in securing a long-term sustainable budget despite the fact that overall economic growth remains at an unacceptably low level. As a result of the less than robust economic recovery, growth in state revenue remains low, and thus the continuation of current revenue sources are needed to maintain budget balance. Therefore the Governor is seeking to extend three tax provisions that are currently scheduled to expire. These tax provisions include the 20% corporation tax surcharge, the tax on electric generators, and a reduction in the amount of tax credits that insurance companies can access. Importantly, this budget contains no new taxes.

In an effort to reduce the state's high energy costs, the Governor is proposing two new programs that are designed to reduce long-term costs for hundreds of thousands of ratepayers. First, Governor Malloy is proposing to authorize a first-in-the-nation program to convert over 800,000 electric ratepayers to an electric rate below their current standard offer. This conversion could save the average ratepayer approximately \$65 annually while generating much needed resources to the General Fund by auctioning the right to provide the lower standard offer pricing. Second, in recognition of the current favorable pricing for natural gas and its ample supply, the Governor is proposing a \$500 incentive payment to customers who currently are near, but unconnected to main lines to convert to natural gas supplies. Converting to natural gas not only saves customers real dollars on their energy costs, but also has the positive overall environmental impact of being less polluting and balance of trade benefits as it represents a mostly domestic energy resource.

Lastly, Governor Malloy is proposing significant tax relief for residents in the second year of the biennium, including re-implementation of a clothing and footwear exemption under the sales tax. Beginning in FY 2015, articles of clothing and footwear up to \$25 in value will be exempt. The threshold will be expanded to \$50 beginning in FY 2016. In addition, the Governor is proposing an exemption of up to \$20,000 of assessed value of motor vehicles from the municipal property tax. Unlike in previous property tax proposals, Governor Malloy is not proposing to reduce or eliminate the state property tax credit.

#### Conclusion

Governor Malloy remains committed to a fiscally responsible state government which will address the areas that require attention and reform. With these proposals, Governor Malloy has attempted to build upon the fiscal stability established during the last biennium while expanding economic growth and opportunity for our citizens.

# APPENDIX

# **Connecticut Resident Population Census Counts**

|                         | Popula<br><u>2000</u> | ition<br>Rank | Popul<br>2010    | lation<br><u>Rank</u> | 2000-2010<br><u>Change</u> | %<br><u>Chg.</u> | 2011<br>DPH* Est |
|-------------------------|-----------------------|---------------|------------------|-----------------------|----------------------------|------------------|------------------|
| Total                   | 3,405,565             |               | 3,577,845        |                       | 172,280                    | 5.1              | 3,580,709        |
| Andover                 | 3,036                 | 147           | 3,305            | 147                   | 269                        | 8.9              | 3,298            |
| Ansonia                 | 18,554                | 57            | 19,283           | 60                    | 729                        | 3.9              | 19,219           |
| Ashford                 | 4,098                 | 135           | 4,319            | 136                   | 221                        | 5.4              | 4,307            |
| Avon                    | 15,832                | 68            | 18,145           | 65                    | 2,313                      | 14.6             | 18,113           |
| Barkhamsted             | 3,494                 | 143           | 3,807            | 141                   | 313                        | 9.0              | 3,776            |
| Beacon Falls            | 5,246                 | 125           | 6,062            | 123                   | 816                        | 15.6             | 6,038            |
| Berlin                  | 18,215                | 59            | 19,901           | 54                    | 1,686                      | 9.3              | 19,881           |
| Bethany                 | 5,040                 | 126           | 5,578            | 126                   | 538                        | 10.7             | 5,554            |
| Bethel                  | 18,067                | 61            | 18,600           | 62                    | 533                        | 3.0              | 18,771           |
| Bethlehem               | 3,422                 | 144           | 3,616            | 143                   | 194                        | 5.7              | 3,586            |
| Bloomfield              | 19,587                | 52            | 20,525           | 52                    | 938                        | 4.8              | 20,502           |
| Bolton                  | 5,017                 | 127           | 4,977            | 131                   | -40                        | -0.8             | 4,974            |
| Bozrah                  | 2,357                 | 153           | 2,631            | 152                   | 274                        | 11.6             | 2,622            |
| Branford                | 28,683                | 32            | 28,000           | 37                    | -683                       | -2.4             | 27,980           |
| Bridgeport              | 139,529               | 1             | 144,355          | 1                     | 4,826                      | 3.5              | 145,638          |
| Bridgewater             | 1,824                 | 160           | 1,725            | 163                   | -99                        | -5.4             | 1,716            |
| Bristol                 | 60,062                | 11            | 60,510           | 13                    | 448                        | 0.7              | 60,525           |
| Brookfield              | 15,664                | 69            | 16,470           | 71                    | 806                        | 5.1              | 16,617           |
| Brooklyn                | 7,173                 | 113           | 8,228            | 110                   | 1,055                      | 14.7             | 8,192            |
| Burlington              | 8,190                 | 108           | 9,329            | 104                   | 1,139                      | 13.9             | 9,309            |
| Canaan                  | 1,081                 | 168           | 1,238            | 168                   | 157                        | 14.5             | 1,227            |
| Canterbury              | 4,692                 | 130           | 5,144            | 130                   | 452                        | 9.6              | 5,119            |
| Canton                  | 8,840                 | 101           | 10,337           | 95                    | 1,497                      | 16.9             | 10,300           |
| Chaplin                 | 2,250                 | 156           | 2,311            | 156                   | 61                         | 2.7              | 2,298            |
| Cheshire                | 28,543                | 33            | 29,260           | 33                    | 717                        | 2.5              | 29,216           |
| Chester                 | 3,743                 | 141           | 3,991            | 139                   | 248                        | 6.6              | 4,003            |
| Clinton                 | 13,094                | 81            | 13,254           | 82                    | 160                        | 1.2              | 13,290           |
| Colchester<br>Colebrook | 14,551                | 74            | 16,092           | 72                    | 1,541                      | 10.6             | 16,034           |
| Columbia                | 1,471                 | 165           | 1,486            | 165                   | 15<br>524                  | 1.0              | 1,476            |
| Cornwall                | 4,971<br>1,424        | 129           | 5,495<br>1,419   | 127<br>167            | 524<br>15                  | 10.5             | 5,477            |
|                         | 1,434                 | 166           |                  | 167                   | <i>-</i> 15                | -1.0             | 1,412            |
| Coventry<br>Cromwell    | 11,504                | 87<br>82      | 12,453           | 87<br>79              | 949<br>1 167               | 8.2<br>9.1       | 12,418           |
| Danbury                 | 12,871<br>74,848      | 83<br>7       | 14,038<br>81,056 | 79                    | 1,167                      | 8.3              | 14,037<br>81,671 |
| Darien                  | 19,607                | 51            | 20,750           | 51                    | 6,208<br>1,143             | 5.8              |                  |
| Deep River              | 4,610                 | 133           | 4,625            | 133                   | 1,143                      | 0.3              | 20,942<br>4,639  |
| Derby                   | 12,391                | 84            | 12,909           | 84                    | 518                        | 4.2              | 12,882           |
| Durham                  | 6,627                 | 116           | 7,406            | 116                   | 779                        | 11.8             | 7,403            |
| East Granby             | 4,745                 | 132           | 5,155            | 129                   | 410                        | 8.6              | 5,152            |
| East Haddam             | 8,333                 | 105           | 9,141            | 106                   | 808                        | 9.7              | 9,146            |
| East Hampton            | 13,352                | 78            | 12,999           | 83                    | -353                       | -2.6             | 12,989           |
| East Hartford           | 49,575                | 78<br>19      | 51,318           | 19                    | 1,743                      | 3.5              | 51,293           |
| East Haven              | 28,189                | 35            | 29,267           | 32                    | 1,078                      | 3.8              | 29,209           |
| Lastiaven               | 20,107                | 90            | 47,401           | 52                    | 1,070                      | 5.0              | 47,407           |

# **Connecticut Resident Population Census Counts**

|              |             | Population<br>2000 Rank |                | ation       | 2000-2010     | 2011         |          |
|--------------|-------------|-------------------------|----------------|-------------|---------------|--------------|----------|
|              | <u>2000</u> | <u>Kank</u>             | <u>2010</u>    | <u>Rank</u> | <u>Change</u> | Chg.         | DPH* Est |
| East Lyme    | 18,118      | 60                      | 19,184         | 61          | 1,066         | 5.9          | 19,124   |
| East Windsor | 9,818       | 94                      | 11,201         | 94          | 1,383         | 14.1         | 11,170   |
| Eastford     | 1,618       | 163                     | 1 <i>,</i> 751 | 161         | 133           | 8.2          | 1,744    |
| Easton       | 7,272       | 111                     | 7,484          | 115         | 212           | 2.9          | 7,564    |
| Ellington    | 12,921      | 82                      | 15,679         | 74          | 2,758         | 21.3         | 15,582   |
| Enfield      | 45,212      | 20                      | 44,635         | 22          | -577          | <b>-</b> 1.3 | 44,686   |
| Essex        | 6,505       | 117                     | 6,684          | 120         | 179           | 2.8          | 6,698    |
| Fairfield    | 57,340      | 13                      | 59,413         | 14          | 2,073         | 3.6          | 59,961   |
| Farmington   | 23,641      | 45                      | 25,368         | 44          | 1,727         | 7.3          | 25,361   |
| Franklin     | 1,835       | 159                     | 1,922          | 159         | 87            | 4.7          | 1,917    |
| Glastonbury  | 31,876      | 29                      | 34,467         | 29          | 2,591         | 8.1          | 34,454   |
| Goshen       | 2,697       | 151                     | 2,982          | 148         | 285           | 10.6         | 2,957    |
| Granby       | 10,347      | 93                      | 11,292         | 92          | 945           | 9.1          | 11,291   |
| Greenwich    | 61,101      | 9                       | 61,119         | 10          | 18            | 0.0          | 61,782   |
| Griswold     | 10,807      | 89                      | 11,977         | 90          | 1,170         | 10.8         | 11,925   |
| Groton       | 39,907      | 23                      | 40,125         | 25          | 218           | 0.5          | 40,038   |
| Guilford     | 21,398      | 49                      | 22,411         | 50          | 1,013         | 4.7          | 22,340   |
| Haddam       | 7,157       | 114                     | 8,376          | 109         | 1,219         | 17.0         | 8,364    |
| Hamden       | 56,913      | 14                      | 61,054         | 11          | 4,141         | 7.3          | 60,868   |
| Hampton      | 1,758       | 161                     | 1,864          | 160         | 106           | 6.0          | 1,858    |
| Hartford     | 124,121     | 2                       | 124,744        | 3           | 623           | 0.5          | 124,867  |
| Hartland     | 2,012       | 158                     | 2,114          | 158         | 102           | 5.1          | 2,116    |
| Harwinton    | 5,283       | 124                     | 5,651          | 125         | 368           | 7.0          | 5,608    |
| Hebron       | 8,610       | 104                     | 9,704          | 99          | 1,094         | 12.7         | 9,673    |
| Kent         | 2,858       | 150                     | 2,979          | 149         | 121           | 4.2          | 2,961    |
| Killingly    | 16,472      | 67                      | 17,411         | 68          | 939           | 5.7          | 17,330   |
| Killingworth | 6,018       | 121                     | 6,531          | 121         | 513           | 8.5          | 6,540    |
| Lebanon      | 6,907       | 115                     | 7,316          | 117         | 409           | 5.9          | 7,292    |
| Ledyard      | 14,687      | 72                      | 15,055         | 77          | 368           | 2.5          | 15,019   |
| Lisbon       | 4,069       | 136                     | 4,345          | 135         | 276           | 6.8          | 4,330    |
| Litchfield   | 8,316       | 106                     | 8,462          | 108         | 146           | 1.8          | 8,417    |
| Lyme         | 2,016       | 157                     | 2,409          | 154         | 393           | 19.5         | 2,401    |
| Madison      | 17,858      | 64                      | 18,266         | 64          | 408           | 2.3          | 18,239   |
| Manchester   | 54,740      | 15                      | 58,354         | 15          | 3,614         | 6.6          | 58,287   |
| Mansfield    | 20,720      | 50                      | 26,685         | 41          | 5,965         | 28.8         | 26,524   |
| Marlborough  | 5,709       | 123                     | 6,406          | 122         | 697           | 12.2         | 6,410    |
| Meriden      | 58,244      | 12                      | 60,936         | 12          | 2,692         | 4.6          | 60,770   |
| Middlebury   | 6,451       | 118                     | 7,606          | 113         | 1,155         | 17.9         | 7,563    |
| Middlefield  | 4,203       | 134                     | 4,430          | 134         | 227           | 5.4          | 4,436    |
| Middletown   | 43,167      | 21                      | 47,697         | 20          | 4,530         | 10.5         | 47,749   |
| Milford      | 52,305      | 17                      | 52,759         | 17          | 454           | 0.9          | 52,675   |
| Monroe       | 19,247      | 54                      | 19,466         | 59          | 219           | 1.1          | 19,675   |
| Montville    | 18,546      | 58                      | 19,594         | 57          | 1,048         | 5.7          | 19,533   |
| Morris       | 2,301       | 155                     | 2,390          | 155         | 89            | 3.9          | 2,373    |

# **Connecticut Resident Population Census Counts**

|                  | Popul       | lation      | Popul       | ation       | 2000-2010     | %    | 2011             |
|------------------|-------------|-------------|-------------|-------------|---------------|------|------------------|
|                  | <u>2000</u> | <u>Rank</u> | <u>2010</u> | <u>Rank</u> | <u>Change</u> | Chg. | <u>DPH* Est.</u> |
| Naugatuck        | 30,989      | 30          | 31,880      | 30          | 891           | 2.9  | 31,810           |
| New Britain      | 71,538      | 8           | 73,253      | 8           | 1,715         | 2.4  | 73,261           |
| New Canaan       | 19,395      | 53          | 19,732      | 56          | 337           | 1.7  | 19,938           |
| New Fairfield    | 13,953      | <i>7</i> 5  | 13,871      | 81          | -82           | -0.6 | 14,020           |
| New Hartford     | 6,088       | 120         | 6,994       | 118         | 906           | 14.9 | 6,929            |
| New Haven        | 123,626     | 3           | 129,946     | 2           | 6,320         | 5.1  | 129,585          |
| New London       | 25,671      | 41          | 27,643      | 38          | 1,972         | 7.7  | 27,569           |
| New Milford      | 27,121      | 37          | 28,145      | 36          | 1,024         | 3.8  | 27,972           |
| Newington        | 29,306      | 31          | 30,599      | 31          | 1,293         | 4.4  | 30,586           |
| Newtown          | 25,031      | 42          | 27,605      | 39          | 2,574         | 10.3 | 27,829           |
| Norfolk          | 1,660       | 162         | 1,711       | 164         | 51            | 3.1  | 1,698            |
| North Branford   | 13,906      | 76          | 14,399      | 78          | 493           | 3.5  | 14,383           |
| North Canaan     | 3,350       | 145         | 3,320       | 146         | -30           | -0.9 | 3,295            |
| North Haven      | 23,035      | 39          | 24,106      | 47          | 1,071         | 4.6  | 24,054           |
| North Stonington | 4,991       | 128         | 5,298       | 128         | 307           | 6.2  | 5,287            |
| Norwalk          | 82,951      | 6           | 85,653      | 6           | 2,702         | 3.3  | 86,460           |
| Norwich          | 36,117      | 26          | 40,605      | 24          | 4,488         | 12.4 | 40,408           |
| Old Lyme         | 7,406       | 110         | 7,605       | 114         | 199           | 2.7  | 7,587            |
| Old Saybrook     | 10,367      | 92          | 10,224      | 96          | -143          | -1.4 | 10,265           |
| Orange           | 13,233      | 79          | 13,968      | 80          | 735           | 5.6  | 13,933           |
| Oxford           | 9,821       | 96          | 12,749      | 85          | 2,928         | 29.8 | 12,662           |
| Plainfield       | 14,619      | 73          | 15,428      | 75          | 809           | 5.5  | 15,369           |
| Plainville       | 17,328      | 66          | 17,724      | 67          | 396           | 2.3  | 17,730           |
| Plymouth         | 11,634      | 86          | 12,246      | 88          | 612           | 5.3  | 12,169           |
| Pomfret          | 3,798       | 140         | 4,265       | 137         | 467           | 12.3 | 4,236            |
| Portland         | 8,732       | 102         | 9,522       | 101         | 790           | 9.0  | 9,530            |
| Preston          | 4,688       | 131         | 4,725       | 132         | 37            | 0.8  | 4,716            |
| Prospect         | 8,707       | 103         | 9,415       | 103         | 708           | 8.1  | 9,390            |
| Putnam           | 9,002       | 98          | 9,602       | 100         | 600           | 6.7  | 9,562            |
| Redding          | 8,270       | 107         | 9,174       | 105         | 904           | 10.9 | 9,250            |
| Ridgefield       | 23,643      | 44          | 24,652      | 46          | 1,009         | 4.3  | 24,885           |
| Rocky Hill       | 17,966      | 62          | 19,754      | 55          | 1,788         | 10.0 | 19,723           |
| Roxbury          | 2,136       | 154         | 2,265       | 157         | 129           | 6.0  | 2,249            |
| Salem            | 3,858       | 138         | 4,153       | 138         | 295           | 7.6  | 4,142            |
| Salisbury        | 3,977       | 137         | 3,735       | 142         | -242          | -6.1 | 3,720            |
| Scotland         | 1,556       | 164         | 1,732       | 162         | 176           | 11.3 | 1,722            |
| Seymour          | 15,454      | 70          | 16,556      | 70          | 1,102         | 7.1  | 16,514           |
| Sharon           | 2,968       | 149         | 2,774       | 151         | -194          | -6.5 | 2,766            |
| Shelton          | 38,101      | 25          | 39,580      | 26          | 1,479         | 3.9  | 39,954           |
| Sherman          | 3,827       | 139         | 3,574       | 145         | <b>-25</b> 3  | -6.6 | 3,618            |
| Simsbury         | 23,234      | 47          | 23,507      | 48          | 273           | 1.2  | 23,528           |
| Somers           | 10,417      | 91          | 11,469      | 91          | 1,052         | 10.1 | 11,433           |
| South Windsor    | 24,412      | 43          | 25,751      | 43          | 1,339         | 5.5  | 25,729           |
| Southbury        | 18,567      | 56          | 19,943      | 53          | 1,376         | 7.4  | 19,873           |

## **Connecticut Resident Population Census Counts**

|               | Popul<br><u>2000</u> | ation<br><u>Rank</u> | Popula<br><u>2010</u> | ation<br><u>Rank</u> | 2000-2010<br><u>Change</u> | %<br><u>Chg.</u> | 2011<br><u>DPH* Est.</u> |
|---------------|----------------------|----------------------|-----------------------|----------------------|----------------------------|------------------|--------------------------|
| Southington   | 39,728               | 24                   | 43,130                | 23                   | 3,402                      | 8.6              | 43,103                   |
| Sprague       | 2,971                | 148                  | 2,979                 | 150                  | 8                          | 0.3              | 2,978                    |
| Stafford      | 11,307               | 88                   | 12,097                | 89                   | 790                        | 7.0              | 12,072                   |
| Stamford      | 117,083              | 4                    | 122,867               | 4                    | 5,784                      | 4.9              | 123,868                  |
| Sterling      | 3,099                | 146                  | 3,848                 | 140                  | 749                        | 24.2             | 3,820                    |
| Stonington    | 17,906               | 63                   | 18,559                | 63                   | 653                        | 3.6              | 18,506                   |
| Stratford     | 49,976               | 18                   | 51,437                | 18                   | 1,461                      | 2.9              | 51,901                   |
| Suffield      | 13,552               | 77                   | 15,789                | 73                   | 2,237                      | 16.5             | 15,747                   |
| Thomaston     | 7,503                | 109                  | 7,892                 | 112                  | 389                        | 5.2              | 7,838                    |
| Thompson      | 8,878                | 100                  | 9,474                 | 102                  | 596                        | 6.7              | 9,435                    |
| Tolland       | 13,146               | 80                   | 15,086                | 76                   | 1,940                      | 14.8             | 15,031                   |
| Torrington    | 35,202               | 27                   | 36,438                | 27                   | 1,236                      | 3.5              | 36,167                   |
| Trumbull      | 34,243               | 28                   | 36,062                | 28                   | 1,819                      | 5.3              | 36,376                   |
| Union         | 693                  | 169                  | 855                   | 169                  | 162                        | 23.4             | 853                      |
| Vernon        | 28,063               | 36                   | 29,205                | 34                   | 1,142                      | 4.1              | 29,139                   |
| Voluntown     | 2,528                | 152                  | 2,608                 | 153                  | 80                         | 3.2              | 2,597                    |
| Wallingford   | 43,026               | 22                   | 45,182                | 21                   | 2,156                      | 5.0              | 45,062                   |
| Warren        | 1,254                | 167                  | 1,469                 | 166                  | 215                        | 17.1             | 1,453                    |
| Washington    | 3,596                | 142                  | 3,586                 | 144                  | -10                        | -0.3             | 3,557                    |
| Waterbury     | 107,271              | 5                    | 110,429               | 5                    | 3,158                      | 2.9              | 110,189                  |
| Waterford     | 19,152               | 55                   | 19,540                | 58                   | 388                        | 2.0              | 19,477                   |
| Watertown     | 21,661               | 48                   | 22,526                | 49                   | 865                        | 4.0              | 22,377                   |
| West Hartford | 61,046               | 10                   | 63,362                | 9                    | 2,316                      | 3.8              | 63,317                   |
| West Haven    | 52,360               | 16                   | 55,662                | 16                   | 3,302                      | 6.3              | 55,477                   |
| Westbrook     | 6,292                | 119                  | 6,949                 | 119                  | 657                        | 10.4             | 6,954                    |
| Weston        | 10,037               | 95                   | 10,179                | 97                   | 142                        | 1.4              | 10,281                   |
| Westport      | 25,749               | 40                   | 26,393                | 42                   | 644                        | 2.5              | 26,656                   |
| Wethersfield  | 26,271               | 38                   | 26,695                | 40                   | 424                        | 1.6              | 26,690                   |
| Willington    | 5,959                | 122                  | 6,035                 | 124                  | 76                         | 1.3              | 6,033                    |
| Wilton        | 17,633               | 65                   | 18,053                | 66                   | 420                        | 2.4              | 18,242                   |
| Winchester    | 10,664               | 90                   | 11,254                | 93                   | 590                        | 5.5              | 11,175                   |
| Windham       | 22,857               | 46                   | 25,321                | 45                   | 2,464                      | 10.8             | 25,214                   |
| Windsor       | 28,237               | 34                   | 29,060                | 35                   | 823                        | 2.9              | 29,067                   |
| Windsor Locks | 12,043               | 85                   | 12,502                | 86                   | 459                        | 3.8              | 12,507                   |
| Wolcott       | 15,215               | 71                   | 16,692                | 69                   | 1,477                      | 9.7              | 16,652                   |
| Woodbridge    | 8,983                | 99                   | 8,989                 | 107                  | 6                          | 0.1              | 8,976                    |
| Woodbury      | 9,198                | 97                   | 9,995                 | 98                   | 797                        | 8.7              | 9,915                    |
| Woodstock     | 7,221                | 112                  | 7,986                 | 111                  | 765                        | 10.6             | 7,945                    |

<sup>\*</sup> DPH stands for the Connecticut Department of Public Health

Source: U.S. Bureau of the Census, April 1, 2000 & 2010 Department of Public Health, "Est. Population in Conneticut as of July 1, 2011"

TABLE 1 U.S. ECONOMIC VARIABLES

| Gross Domestic            | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u>   | 2009     | <u>2010</u>   | <u>2011</u> | <u>2012</u> |
|---------------------------|-------------|-------------|-------------|-------------|-------------|---------------|----------|---------------|-------------|-------------|
| Product (\$B)             | 10.8/11.0   | 11,505.7    | 12,230.5    | 13 030 5    | 13 688 1    | 14 267 2      | 14 071 4 | 14,192.4      | 14,782.6    | 15 387 0    |
| Percent Change            | 3.8%        | 6.1%        | 6.3%        | 6.5%        | 5.0%        | 4.2%          | -1.4%    | 0.9%          | 4.2%        | 4.1%        |
| refeelit change           | 3.070       | 0.170       | 0.570       | 0.570       | 2.070       | 1.270         | 1.170    | 0.570         | 1.270       | 1.170       |
| Real GDP                  | 11,638.4    | 12,070.8    | 12,439.9    | 12,812.8    | 13,054.6    | 13,293.3      | 12,870.6 | 12,896.8      | 13,183.3    | 13,450.7    |
| Percent Change            | 1.9%        | 3.7%        | 3.1%        | 3.0%        | 1.9%        | 1.8%          | -3.2%    | 0.2%          | 2.2%        | 2.0%        |
| •                         |             |             |             |             |             |               |          |               |             |             |
| GDP Deflator (2000=100)   | 93.2        | 95.3        | 98.3        | 101.7       | 104.8       | 107.3         | 109.3    | 110.0         | 112.1       | 114.4       |
| Percent Change            | 1.9%        | 2.3%        | 3.1%        | 3.4%        | 3.1%        | 2.4%          | 1.9%     | 0.7%          | 1.9%        | 2.0%        |
|                           |             |             |             |             |             |               |          |               |             |             |
| Housing Starts (K)        | 1,729.2     | 1,945.3     | 2,016.3     | 2,036.0     | 1,546.2     | 1,132.4       | 646.3    | 594.0         | 569.5       | 685.7       |
| Percent Change            | 5.1%        | 12.5%       | 3.7%        | 1.0%        | -24.1%      | -26.8%        | -42.9%   | -8.1%         | -4.1%       | 20.4%       |
|                           |             |             |             |             |             |               |          |               |             |             |
| Unemployment Rate         | 5.9%        | 5.8%        | 5.3%        | 4.8%        | 4.5%        | 5.0%          | 7.6%     | 9.7%          | 9.3%        | 8.6%        |
|                           | 4 4         | 4 - 0 -     | 15.01       | 4 - 5 -     | 4 - 00      | 1.7.0.1       | 10.50    | 44.45         | 10.00       | 10.70       |
| New Vehicle Sales (M)     | 16.64       | 16.81       | 17.04       | 16.76       | 16.33       | 15.34         | 10.60    | 11.17         | 12.23       | 13.58       |
| Percent Change            | -1.9%       | 1.0%        | 1.3%        | -1.7%       | -2.6%       | -6.1%         | -30.9%   | 5.4%          | 9.5%        | 11.1%       |
| Consumer Price Index      |             |             |             |             |             |               |          |               |             |             |
|                           | 182.1       | 186.1       | 191.7       | 198.9       | 204.1       | 211.7         | 214.7    | 216.0         | 221.1       | 227.6       |
| ('82-'84=100)             |             | 2.2%        | 3.0%        | 3.8%        |             | 211.7<br>3.7% |          | 216.8<br>1.0% | 2.0%        | 2.9%        |
| Percent Change            | 2.2%        | 2.2%        | 3.0%        | 3.8%        | 2.6%        | 3.1%          | 1.4%     | 1.0%          | 2.0%        | 2.9%        |
| Industrial Production     |             |             |             |             |             |               |          |               |             |             |
| Index ('02=100)           | 90.0        | 91.2        | 94.3        | 96.4        | 98.8        | 100.0         | 89.4     | 87.2          | 92.1        | 95.9        |
| Percent Change            | 2.0%        | 1.3%        | 3.4%        | 2.3%        | 2.4%        | 1.2%          | -10.6%   | -2.4%         | 5.6%        | 4.1%        |
| r creent change           | 2.070       | 1.570       | 3.170       | 2.370       | 2.170       | 1.270         | 10.070   | 2.170         | 3.070       | 1.170       |
| Personal Income (\$B)     | 9,177.9     | 9,619.0     | 10,205.7    | 10,874.7    | 11,586.9    | 12,263.9      | 12,154.7 | 11,992.2      | 12,671.9    | 13,138.2    |
| Percent Change            | 2.6%        | 4.8%        | 6.1%        | 6.6%        | 6.5%        | 5.8%          | -0.8%    | -1.3%         | 5.7%        | 3.8%        |
| C                         |             |             |             |             |             |               |          |               |             |             |
| Real Personal             |             |             |             |             |             |               |          |               |             |             |
| Income (\$B in 82-84=100) | 5,040.3     | 5,168.5     | 5,323.8     | 5,466.3     | 5,676.8     | 5,793.5       | 5,662.3  | 5,532.6       | 5,732.4     | 5,773.2     |
| Percent Change            | 0.4%        | 2.5%        | 3.0%        | 2.7%        | 3.9%        | 2.1%          | -2.3%    | -2.3%         | 3.6%        | 0.7%        |
|                           |             |             |             |             |             |               |          |               |             |             |
| Disposable Personal       |             |             |             |             |             |               |          |               |             |             |
| Income (\$B)              | 8,147.4     | 8,631.6     | 9,083.8     |             |             |               |          | 10,863.6      | 11,371.1    | 11,702.3    |
| Percent Change            | 3.9%        | 5.9%        | 5.2%        | 5.7%        | 6.0%        | 6.1%          | 0.7%     | -0.1%         | 4.7%        | 2.9%        |
|                           |             |             |             |             |             |               |          |               |             |             |
| Disposable Personal       | _           |             |             |             |             |               |          |               |             |             |
| Income (\$B in 1996\$)    | 8,689.3     | 9,012.9     | 9,229.3     | 9,455.3     |             | 10,052.4      | 9,986.1  |               | 10,126.1    |             |
| Percent Change            | 1.9%        | 3.7%        | 2.4%        | 2.4%        | 3.5%        | 2.7%          | -0.7%    | -1.3%         | 2.7%        | 0.6%        |

TABLE 2 U.S. PERSONAL INCOME (BILLIONS OF DOLLARS)

|                                 | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Personal Income                 | 9,177.9     | 9,619.0     | 10,205.7    | 10,874.7    | 11,586.9    | 12,263.9    | 12,154.7    | 11,992.2    | 12,671.9    | 13,138.2    |
| Percent Change                  | 2.6%        | 4.8%        | 6.1%        | 6.6%        | 6.5%        | 5.8%        | -0.9%       | -1.3%       | 5.7%        | 3.7%        |
| Wagas & Calarias                | 5,041.1     | 5,259.5     | 5,562.5     | 5,884.2     | 6,245.3     | 6,521.1     | 6,394.7     | 6,295.4     | 6,540.3     | 6,751.3     |
| Wages & Salaries Percent Change | 1.8%        | 4.3%        | 5.8%        | 5.8%        | 6.1%        | 4.4%        | -1.9%       | -1.6%       | 3.9%        | 3.2%        |
|                                 |             |             |             |             |             |             |             |             |             |             |
| Manufacturing Income            | 672.4       | 679.2       | 705.4       | 726.1       | 746.0       | 751.6       | 700.1       | 658.7       | 695.7       | 719.6       |
| Percent Change                  | -2.5%       | 1.0%        | 3.8%        | 2.9%        | 2.7%        | 0.7%        | -6.9%       | -5.9%       | 5.6%        | 3.4%        |
| Nonmanufacturing Inc.           | 4,368.7     | 4,580.3     | 4,857.1     | 5,158.1     | 5,499.3     | 5,769.5     | 5,694.6     | 5,636.6     | 5,844.6     | 6,031.7     |
| Percent Change                  | 2.5%        | 4.8%        | 6.0%        | 6.2%        | 6.6%        | 4.9%        | -1.3%       | -1.0%       | 3.7%        | 3.2%        |
|                                 |             |             |             |             |             |             |             |             |             |             |
| Other Labor Income              | 1,168.2     | 1,250.3     | 1,312.4     | 1,377.1     | 1,414.1     | 1,470.7     | 1,520.4     | 1,528.1     | 1,588.4     | 1,646.7     |
| Percent Change                  | 10.3%       | 7.0%        | 5.0%        | 4.9%        | 2.7%        | 4.0%        | 3.4%        | 0.5%        | 3.9%        | 3.7%        |
| Proprietor's Income             | 901.3       | 986.4       | 1,051.0     | 1,109.6     | 1,116.2     | 1,102.3     | 1,019.3     | 1,037.1     | 1,139.8     | 1,176.5     |
| Percent Change                  | 2.8%        | 9.4%        | 6.5%        | 5.6%        | 0.6%        | -1.2%       | -7.5%       | 1.7%        | 9.9%        | 3.2%        |
|                                 |             |             |             |             |             |             |             |             |             |             |
| Farm Income                     | 28.3        | 46.2        | 45.7        | 35.6        | 32.7        | 49.2        | 40.9        | 43.1        | 50.2        | 53.6        |
| Percent Change                  | 30.1%       | 63.2%       | -1.2%       | -22.1%      | -8.0%       | 50.3%       | -16.9%      | 5.5%        | 16.5%       | 6.8%        |
| Nonfarm Income                  | 873.0       | 940.2       | 1,005.4     | 1,074.1     | 1,083.5     | 1,053.2     | 978.5       | 994.0       | 1,089.6     | 1,122.9     |
| Percent Change                  | 2.1%        | 7.7%        | 6.9%        | 6.8%        | 0.9%        | -2.8%       | -7.1%       | 1.6%        | 9.6%        | 3.1%        |
| D 11                            | 207.0       | 201.0       | 101.1       | 162.0       | 122.4       | 100.0       | 267.7       | 225.0       | 2545        | 125.5       |
| Rental Income                   | 207.0       | 201.0       | 191.1       | 163.8       | 133.4       | 180.0       | 267.7       | 325.0       | 374.7       | 435.5       |
| Percent Change                  | -11.4%      | -2.9%       | -4.9%       | -14.3%      | -18.5%      | 34.9%       | 48.7%       | 21.4%       | 15.3%       | 16.2%       |
| Personal Dividend Inc.          | 403.7       | 475.1       | 561.1       | 621.0       | 758.0       | 811.3       | 665.8       | 518.7       | 636.4       | 702.6       |
| Percent Change                  | 5.7%        | 17.7%       | 18.1%       | 10.7%       | 22.1%       | 7.0%        | -17.9%      | -22.1%      | 22.7%       | 10.4%       |
| Personal Interest Income        | 898.6       | 867.2       | 908.3       | 1,061.4     | 1,192.0     | 1,345.3     | 1,259.9     | 1,036.2     | 1,012.8     | 997.6       |
| Percent Change                  | -5.0%       | -3.5%       | 4.7%        | 1,001.4     | 12.3%       | 1,343.3     | -6.3%       | -17.8%      | -2.3%       | -1.5%       |
| i cicciit Change                | -3.070      | -3.370      | 4.770       | 10.070      | 12.570      | 12.970      | -0.570      | -17.070     | -2.570      | -1.570      |
| Transfer Payments               | 1,310.6     | 1,379.7     | 1,461.6     | 1,553.4     | 1,663.3     | 1,802.2     | 1,996.7     | 2,219.7     | 2,314.1     | 2,336.9     |
| Percent Change                  | 5.7%        | 5.3%        | 5.9%        | 6.3%        | 7.1%        | 8.3%        | 10.8%       | 11.2%       | 4.3%        | 1.0%        |

TABLE 3
U.S. PERSONAL INCOME AND ITS DISPOSITION
(BILLIONS OF DOLLARS)

|                          | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> |
|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Less:                    |             |             |             |             |             |             |             |             |             |             |
| Contributions to         |             |             |             |             |             |             |             |             |             |             |
| Social Insurance         | 762.1       | 802.0       | 850.5       | 899.2       | 940.6       | 976.7       | 976.0       | 969.8       | 952.3       | 932.6       |
| Percent Change           | 2.9%        | 5.2%        | 6.1%        | 5.7%        | 4.6%        | 3.8%        | -0.1%       | -0.6%       | -1.8%       | -2.1%       |
| T 1                      |             |             |             |             |             |             |             |             |             |             |
| Equals:                  | 0.177.0     | 0.610.0     | 10.205.7    | 10.074.7    | 11.506.0    | 10.062.0    | 10 15 4 7   | 11.002.2    | 10 (71 0    | 12 120 2    |
| Personal Income          | 9,177.9     | ,           | 10,205.7    |             | 11,586.9    |             |             |             |             |             |
| Percent Change           | 2.6%        | 4.8%        | 6.1%        | 6.6%        | 6.5%        | 5.8%        | -0.9%       | -1.3%       | 5.7%        | 3.7%        |
| Less:                    |             |             |             |             |             |             |             |             |             |             |
| Personal Taxes           | 1,031.9     | 999.4       | 1,128.0     | 1,284.9     | 1,421.7     | 1,475.8     | 1,294.0     | 1.146.8     | 1,304.6     | 1,434.7     |
| Percent Change           | -7.3%       | -3.1%       | 12.9%       | 13.9%       | 10.7%       | 3.8%        | -12.3%      | -11.4%      | 13.8%       | 10.0%       |
|                          |             |             |             |             |             |             |             |             |             |             |
| Equals:                  |             |             |             |             |             |             |             |             |             |             |
| Disposable Personal Inc. | 8,147.4     | 8,631.6     | 9,083.8     | 9,602.4     | 10,177.0    | 10,795.0    | 10,871.1    | 10,863.6    | 11,371.1    | 11,702.3    |
| Percent Change           | 3.9%        | 5.9%        | 5.2%        | 5.7%        | 6.0%        | 6.1%        | 0.7%        | -0.1%       | 4.7%        | 2.9%        |
|                          |             |             |             |             |             |             |             |             |             |             |
| Less:                    |             |             |             |             |             |             |             |             |             |             |
| Personal Outlays         | 7,888.5     | 8,324.0     | 8,845.6     | 9,408.4     | 9,917.3     | 10,387.0    | 10,262.1    | 10,377.5    | 10,807.0    | 11,270.3    |
| Percent Change           | 4.2%        | 5.5%        | 6.3%        | 6.4%        | 5.4%        | 4.7%        | -1.2%       | 1.1%        | 4.1%        | 4.3%        |
|                          |             |             |             |             |             |             |             |             |             |             |
| Equals:                  |             |             |             |             |             |             |             |             |             |             |
| Personal Savings         | 258.9       | 307.6       | 238.2       | 194.0       | 259.6       | 407.9       | 609.1       | 486.0       | 564.0       | 431.9       |
| Percent Change           | -4.5%       | 18.8%       | -22.6%      | -18.5%      | 33.8%       | 57.1%       | 49.3%       | -20.2%      | 16.0%       | -23.4%      |
|                          |             |             |             |             |             |             |             |             |             |             |
| Personal Savings Rate    | 3.2%        | 3.6%        | 2.7%        | 2.0%        | 2.5%        | 3.7%        | 5.6%        | 4.4%        | 5.0%        | 3.7%        |

TABLE 4
U.S. EMPLOYMENT AND THE LABOR FORCE
(MILLIONS OF JOBS)

|   | <u>2003</u>   | <u>2004</u>   | <u>2005</u>  | <u>2006</u>  | <u>2007</u>  | <u>2008</u>  | <u>2009</u>   | <u>2010</u>   | <u>2011</u>  | <u>2012</u>  |
|---|---------------|---------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|
| Establishment Employ. Percent Change                        | 130.1         | 130.5         | 132.5        | 135.0        | 137.0        | 137.7        | 133.9         | 129.7         | 130.5        | 132.3        |
|   | -0.6%         | 0.3%          | 1.5%         | 1.9%         | 1.5%         | 0.6%         | -2.8%         | -3.2%         | 0.7%         | 1.4%         |
| Manufacturing Percent Change                                | 14.9          | 14.3          | 14.3         | 14.2         | 14.0         | 13.7         | 12.7          | 11.5          | 11.6         | 11.9         |
|   | -5.5%         | -3.7%         | -0.3%        | -0.6%        | -1.2%        | -2.3%        | -7.7%         | -8.9%         | 0.9%         | 1.9%         |
| Nonmanufacturing Percent Change                             | 115.2         | 116.1         | 118.2        | 120.8        | 122.9        | 124.0        | 121.2         | 118.1         | 118.9        | 120.4        |
|   | 0.1%          | 0.8%          | 1.8%         | 2.2%         | 1.8%         | 0.9%         | -2.2%         | -2.6%         | 0.6%         | 1.3%         |
| Construction & Mining Percent Change                        | 7.3           | 7.4           | 7.7          | 8.2          | 8.4          | 8.2          | 7.4           | 6.3           | 6.2          | 6.4          |
|   | -1.3%         | 2.0%          | 4.4%         | 6.2%         | 2.2%         | -2.3%        | -10.3%        | -14.0%        | -1.6%        | 1.9%         |
| Information Percent Change                                  | 3.3           | 3.1           | 3.1          | 3.1          | 3.0          | 3.0          | 2.9           | 2.7           | 2.7          | 2.6          |
|   | -6.5%         | -4.0%         | -2.2%        | -0.9%        | -0.7%        | -0.3%        | -4.1%         | -5.4%         | -2.1%        | -1.7%        |
| Public Utility, Trade<br>& Transportation<br>Percent Change | 25.4<br>-1.2% | 25.4<br>-0.1% | 25.7<br>1.5% | 26.1<br>1.6% | 26.5<br>1.2% | 26.6<br>0.6% | 25.6<br>-3.9% | 24.6<br>-3.7% | 24.8<br>0.8% | 25.2<br>1.5% |
| Finance, Insurance<br>& Real Estate<br>Percent Change       | 7.9<br>1.1%   | 8.0<br>1.2%   | 8.1<br>0.9%  | 8.3<br>2.2%  | 8.3<br>1.0%  | 8.2<br>-1.3% | 8.0<br>-3.3%  | 7.7<br>-3.6%  | 7.7<br>-0.2% | 7.7<br>0.5%  |
| Services  | 49.8          | 50.7          | 51.8         | 53.3         | 54.6         | 55.6         | 54.8          | 54.2          | 55.2         | 56.6         |
| Percent Change  | 0.8%          | 1.7%          | 2.4%         | 2.7%         | 2.5%         | 1.8%         | -1.3%         | -1.2%         | 1.9%         | 2.4%         |
| Professional & Business                                     | 15.9          | 16.2          | 16.6         | 17.3         | 17.8         | 18.0         | 17.1          | 16.5          | 17.0         | 17.6         |
| Percent Change  | -1.3%         | 1.4%          | 3.0%         | 3.9%         | 3.0%         | 1.0%         | -4.7%         | -3.6%         | 3.1%         | 3.6%         |
| Education & Health Percent Change                           | 16.4          | 16.8          | 17.1         | 17.6         | 18.1         | 18.6         | 19.0          | 19.4          | 19.7         | 20.1         |
|   | 3.0%          | 2.0%          | 2.3%         | 2.7%         | 2.6%         | 2.9%         | 2.4%          | 1.7%          | 1.7%         | 2.1%         |
| Leisure & Hospitality                                       | 12.1          | 12.3          | 12.7         | 12.9         | 13.3         | 13.5         | 13.2          | 13.0          | 13.2         | 13.5         |
| Percent Change  | 0.6%          | 2.1%          | 2.6%         | 2.3%         | 2.6%         | 1.6%         | -1.9%         | -1.9%         | 1.4%         | 2.3%         |
| Other Services  | 5.4           | 5.4           | 5.4          | 5.4          | 5.5          | 5.5          | 5.4           | 5.3           | 5.3          | 5.4          |
| Percent Change  | 1.2%          | 0.3%          | -0.2%        | 0.3%         | 1.0%         | 0.9%         | -1.3%         | -2.0%         | 0.0%         | 0.4%         |
| Government Percent Change                                   | 21.6          | 21.6          | 21.7         | 21.9         | 22.1         | 22.4         | 22.6          | 22.6          | 22.3         | 22.0         |
|   | 1.1%          | -0.1%         | 0.6%         | 0.8%         | 1.0%         | 1.2%         | 1.0%          | 0.0%          | -1.4%        | -1.2%        |
| Civilian Labor Force  | 145.7         | 146.8         | 148.2        | 150.4        | 152.4        | 153.7        | 154.6         | 153.9         | 153.6        | 154.3        |
| Percent Change  | 1.0%          | 0.7%          | 1.0%         | 1.4%         | 1.4%         | 0.8%         | 0.6%          | -0.4%         | -0.2%        | 0.4%         |
| Unemployment Rate   | 5.9%          | 5.8%          | 5.3%         | 4.8%         | 4.5%         | 5.0%         | 7.6%          | 9.7%          | 9.3%         | 8.5%         |

TABLE 5
CONSUMER PRICE INDEXES
(1982-1984 = 100)

|                   | 2003  | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> |
|-------------------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| All Items – Urban |       |             |             |             |             |             |             |             |             |             |
| Consumers         | 182.1 | 186.1       | 191.7       | 198.9       | 204.1       | 211.7       | 214.7       | 216.8       | 221.1       | 227.6       |
| Percent Change    | 2.2%  | 2.2%        | 3.0%        | 3.8%        | 2.6%        | 3.7%        | 1.4%        | 1.0%        | 2.0%        | 2.9%        |
| Food & Beverages  | 178.1 | 183.6       | 189.1       | 193.4       | 198.9       | 208.1       | 218.2       | 218.6       | 223.1       | 231.5       |
| Percent Change    | 1.4%  | 3.1%        | 3.0%        | 2.3%        | 2.9%        | 4.6%        | 4.8%        | 0.2%        | 2.0%        | 3.8%        |
| reicent Change    | 1.4%  | 3.1%        | 3.0%        | 2.3%        | 2.9%        | 4.0%        | 4.6%        | 0.2%        | 2.0%        | 3.6%        |
| Housing           | 182.6 | 186.9       | 192.4       | 199.6       | 206.5       | 212.8       | 217.6       | 216.5       | 217.2       | 221.0       |
| Percent Change    | 2.5%  | 2.3%        | 3.0%        | 3.7%        | 3.5%        | 3.1%        | 2.2%        | -0.5%       | 0.3%        | 1.7%        |
| C                 |       |             |             |             |             |             |             |             |             |             |
| Energy            | 130.3 | 142.0       | 159.7       | 194.2       | 198.6       | 226.6       | 208.4       | 206.4       | 227.7       | 246.0       |
| Percent Change    | 7.7%  | 8.9%        | 12.5%       | 21.6%       | 2.3%        | 14.1%       | -8.1%       | -0.9%       | 10.3%       | 8.0%        |
|                   |       |             |             |             |             |             |             |             |             |             |
| Commodities       | 150.7 | 152.4       | 156.9       | 163.1       | 165.0       | 172.0       | 170.9       | 173.1       | 178.7       | 186.3       |
| Percent Change    | 0.7%  | 1.1%        | 3.0%        | 3.9%        | 1.2%        | 4.2%        | -0.6%       | 1.3%        | 3.2%        | 4.3%        |
|                   |       |             |             |             |             |             |             |             |             |             |
| Apparel           | 122.1 | 120.7       | 120.2       | 119.2       | 119.6       | 118.6       | 119.4       | 120.0       | 119.7       | 124.8       |
| Percent Change    | -2.5% | -1.2%       | -0.4%       | -0.8%       | 0.4%        | -0.8%       | 0.6%        | 0.5%        | -0.3%       | 4.3%        |
|                   |       |             |             |             |             |             |             |             |             |             |
| Transportation    | 156.2 | 159.3       | 167.0       | 179.8       | 181.2       | 192.7       | 182.6       | 189.0       | 202.8       | 215.5       |
| Percent Change    | 2.8%  | 2.0%        | 4.9%        | 7.7%        | 0.7%        | 6.4%        | -5.2%       | 3.5%        | 7.3%        | 6.2%        |
|                   |       |             |             |             |             |             |             |             |             |             |
| Services          | 213.2 | 219.5       | 226.2       | 234.6       | 242.9       | 251.0       | 258.1       | 260.1       | 263.2       | 268.6       |
| Percent Change    | 3.3%  | 3.0%        | 3.0%        | 3.7%        | 3.6%        | 3.3%        | 2.8%        | 0.8%        | 1.2%        | 2.0%        |
|                   |       |             |             |             |             |             |             |             |             |             |
| Medical Care      | 291.6 | 303.5       | 316.7       | 329.7       | 343.0       | 358.7       | 369.4       | 382.2       | 394.0       | 407.3       |
| Percent Change    | 4.5%  | 4.1%        | 4.3%        | 4.1%        | 4.0%        | 4.6%        | 3.0%        | 3.5%        | 3.1%        | 3.4%        |
|                   |       |             |             |             |             |             |             |             |             |             |
| Other Goods       |       |             |             |             |             |             |             |             |             |             |
| & Services        | 296.6 | 301.4       | 308.9       | 317.6       | 327.5       | 338.9       | 355.3       | 376.9       | 384.6       | 390.7       |
| Percent Change    | 2.8%  | 1.6%        | 2.5%        | 2.8%        | 3.1%        | 3.5%        | 4.8%        | 6.1%        | 2.0%        | 1.6%        |
|                   |       |             |             |             |             |             |             |             |             |             |

#### MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 6
PERSONAL INCOME
(BILLIONS OF DOLLARS)

|                       | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Personal Income       | 149.96      | 155.77      | 165.47      | 176.41      | 191.03      | 200.94      | 194.91      | 191.84      | 204.07      | 208.76      |
| Percent Change        | 0.5%        | 3.9%        | 6.2%        | 6.6%        | 8.3%        | 5.2%        | -3.0%       | -1.6%       | 6.4%        | 2.3%        |
| Disposable            |             |             |             |             |             |             |             |             |             |             |
| Personal Income       | 127.51      | 133.46      | 139.89      | 147.64      | 158.42      | 167.22      | 166.38      | 164.39      | 170.10      | 172.50      |
| Percent Change        | 2.9%        | 4.7%        | 4.8%        | 5.5%        | 7.3%        | 5.6%        | -0.5%       | -1.2%       | 3.5%        | 1.4%        |
| Total Wages           | 84.13       | 87.37       | 92.43       | 97.01       | 102.70      | 106.78      | 102.39      | 100.51      | 104.91      | 105.93      |
| Percent Change        | -0.2%       | 3.9%        | 5.8%        | 5.0%        | 5.9%        | 4.0%        | -4.1%       | -1.8%       | 4.4%        | 1.0%        |
| Manufacturing Wages   | 12.26       | 12.47       | 12.90       | 13.14       | 13.61       | 14.01       | 13.09       | 12.33       | 13.21       | 13.32       |
| Percent Change        | -4.1%       | 1.7%        | 3.5%        | 1.8%        | 3.6%        | 3.0%        | -6.6%       | -5.8%       | 7.1%        | 0.9%        |
| Nonmanufacturing      |             |             |             |             |             |             |             |             |             |             |
| Wages                 | 71.87       | 74.91       | 79.53       | 83.88       | 89.09       | 92.77       | 89.30       | 88.18       | 91.71       | 92.61       |
| Percent Change        | 0.5%        | 4.2%        | 6.2%        | 5.5%        | 6.2%        | 4.1%        | -3.7%       | -1.3%       | 4.0%        | 1.0%        |
| Other Labor Income    | 18.81       | 19.64       | 20.89       | 21.74       | 22.37       | 23.94       | 23.84       | 23.46       | 24.40       | 24.89       |
| Percent Change        | 9.2%        | 4.4%        | 6.3%        | 4.1%        | 2.9%        | 7.0%        | -0.4%       | -1.6%       | 4.0%        | 2.0%        |
| Proprietor's Income   | 16.79       | 17.50       | 18.52       | 19.71       | 20.07       | 18.76       | 17.51       | 19.12       | 21.04       | 21.51       |
| Percent Change        | 1.4%        | 4.3%        | 5.8%        | 6.4%        | 1.8%        | -6.5%       | -6.7%       | 9.2%        | 10.1%       | 2.2%        |
| Property Income       | 25.15       | 25.95       | 27.94       | 32.02       | 39.02       | 43.61       | 40.14       | 35.14       | 38.95       | 40.60       |
| Percent Change        | -4.5%       | 3.2%        | 7.6%        | 14.6%       | 21.8%       | 11.8%       | -7.9%       | -12.5%      | 10.8%       | 4.2%        |
| Transfer Payments     |             |             |             |             |             |             |             |             |             |             |
| Less Social Insurance | 5.09        | 5.30        | 5.70        | 5.93        | 6.87        | 7.85        | 11.03       | 13.61       | 14.77       | 15.83       |
| Percent Change        | 6.0%        | 4.1%        | 7.6%        | 4.0%        | 15.9%       | 14.3%       | 40.5%       | 23.3%       | 8.5%        | 7.2%        |
| Transfer Payments     | 17.13       | 17.72       | 18.76       | 19.46       | 20.90       | 22.48       | 25.52       | 27.95       | 28.81       | 29.28       |
| Percent Change        | 4.4%        | 3.5%        | 5.9%        | 3.8%        | 7.4%        | 7.5%        | 13.6%       | 9.5%        | 3.1%        | 1.7%        |
| Social Insurance      | 12.03       | 12.42       | 13.06       | 13.53       | 14.03       | 14.62       | 14.49       | 14.34       | 14.04       | 13.45       |
| Percent Change        | 3.7%        | 3.2%        | 5.1%        | 3.6%        | 3.7%        | 4.2%        | -0.9%       | -1.0%       | -2.1%       | -4.1%       |

#### MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 7
DEFLATED PERSONAL INCOME
(BILLIONS OF DOLLARS)

|                       | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Personal Income       | 164.03      | 167.21      | 173.61      | 179.45      | 187.85      | 191.65      | 181.61      | 175.29      | 185.21      | 186.26      |
| Percent Change        | -1.3%       | 1.9%        | 3.8%        | 3.4%        | 4.7%        | 2.0%        | -5.2%       | -3.5%       | 5.7%        | 0.6%        |
| Disposable            |             |             |             |             |             |             |             |             |             |             |
| Personal Income       | 139.46      | 143.27      | 146.77      | 150.17      | 155.79      | 159.49      | 155.02      | 150.20      | 154.37      | 153.90      |
| Percent Change        | 1.1%        | 2.7%        | 2.4%        | 2.3%        | 3.7%        | 2.4%        | -2.8%       | -3.1%       | 2.8%        | -0.3%       |
| refeelit Change       | 1.170       | 2.770       | 2.470       | 2.370       | 3.770       | 2.470       | 2.070       | 3.170       | 2.070       | 0.570       |
| Total Wages           | 92.02       | 93.79       | 96.98       | 98.68       | 100.99      | 101.85      | 95.40       | 91.84       | 95.21       | 94.51       |
| Percent Change        | -2.0%       | 1.9%        | 3.4%        | 1.8%        | 2.3%        | 0.8%        | -6.3%       | -3.7%       | 3.7%        | -0.7%       |
| M. C XX               | 12.41       | 12.20       | 12.52       | 12.26       | 12.20       | 12.26       | 12.10       | 11.07       | 11.00       | 11.00       |
| Manufacturing Wages   | 13.41       | 13.38       | 13.53       | 13.36       | 13.38       | 13.36       | 12.19       | 11.27       | 11.98       | 11.88       |
| Percent Change        | -0.1%       | -0.1%       | -0.1%       | -1.3%       | 0.1%        | -0.1%       | -8.7%       | -7.6%       | 6.4%        | -0.8%       |
| Nonmanufacturing      | 78.61       | 80.41       | 83.45       | 85.32       | 87.61       | 88.48       | 83.20       | 80.57       | 83.23       | 82.63       |
| Wages                 | -1.3%       | 2.3%        | 3.8%        | 2.2%        | 2.7%        | 1.0%        | -6.0%       | -3.2%       | 3.3%        | -0.7%       |
| Percent Change        |             |             |             |             |             |             |             |             |             |             |
| Ç                     |             |             |             |             |             |             |             |             |             |             |
| Other Labor Income    | 20.58       | 21.09       | 21.91       | 22.11       | 22.00       | 22.83       | 22.21       | 21.43       | 22.15       | 22.21       |
| Percent Change        | 7.3%        | 2.5%        | 3.9%        | 0.9%        | -0.5%       | 3.8%        | -2.7%       | -3.5%       | 3.3%        | 0.3%        |
|                       | 10.01       | 40.50       | 10.10       | 20.05       | 10.50       | 4.500       | 1           | 15.15       | 10.10       | 10.20       |
| Proprietor's Income   | 18.36       | 18.79       | 19.43       | 20.05       | 19.73       | 17.89       | 16.32       | 17.47       | 19.10       | 19.20       |
| Percent Change        | -0.4%       | 2.3%        | 3.4%        | 3.2%        | -1.6%       | -9.3%       | -8.8%       | 7.1%        | 9.3%        | 0.5%        |
| Property Income       | 27.51       | 27.86       | 29.31       | 32.57       | 38.37       | 41.59       | 37.40       | 32.11       | 35.35       | 36.22       |
| Percent Change        | -6.2%       | 1.3%        | 5.2%        | 11.1%       | 17.8%       | 8.4%        | -10.1%      | -14.1%      | 10.1%       | 2.5%        |
| C                     |             |             |             |             |             |             |             |             |             |             |
| Transfer Payments     |             |             |             |             |             |             |             |             |             |             |
| Less Social Insurance | 5.57        | 5.69        | 5.98        | 6.03        | 6.76        | 7.49        | 10.28       | 12.44       | 13.40       | 14.12       |
| Percent Change        | 4.1%        | 2.2%        | 5.1%        | 0.8%        | 12.1%       | 10.8%       | 37.2%       | 21.0%       | 7.8%        | 5.4%        |
| Transfer Payments     | 18.73       | 19.02       | 19.68       | 19.80       | 20.56       | 21.44       | 23.78       | 25.54       | 26.14       | 26.13       |
| Percent Change        | 2.5%        | 1.5%        | 3.5%        | 0.6%        | 3.8%        | 4.3%        | 10.9%       | 7.4%        | 2.4%        | -0.1%       |
| 1 credit Change       | 2.5 /0      | 1.5/0       | 3.5 /0      | 0.070       | 5.070       | 7.5/0       | 10.7/0      | 7.70        | 2.7/0       | -0.1/0      |
| Social Insurance      | 13.16       | 13.33       | 13.70       | 13.77       | 13.80       | 13.95       | 13.50       | 13.10       | 12.74       | 12.00       |
| Percent Change        | 1.9%        | 1.3%        | 2.8%        | 0.5%        | 0.2%        | 1.1%        | -3.2%       | -2.9%       | -2.8%       | -5.8%       |

Note: All categories are deflated by GDP Price Index (2000 = 100).

#### MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 8
MANUFACTURING EMPLOYMENT
(THOUSANDS -Seasonally Adjusted)

|  | <u>2003</u>    | <u>2004</u>    | <u>2005</u>    | <u>2006</u>    | <u>2007</u>    | <u>2008</u>    | <u>2009</u>    | <u>2010</u>    | <u>2011</u>    | <u>2012</u>    |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Manufacturing                          | 204.88         | 197.56         | 196.68         | 194.11         | 192.40         | 189.23         | 180.43         | 166.22         | 166.30         | 166.03         |
| Percent Change                         | -6.2%          | -3.6%          | -0.4%          | -1.3%          | -0.9%          | -1.7%          | -4.6%          | -7.9%          | 0.1%           | -0.2%          |
| Electronic & Electrical                | 27.71          | 25.94          | 25.75          | 25.06          | 25.04          | 25.25          | 24.60          | 22.85          | 23.24          | 23.25          |
| Percent Change                         | -11.5%         | -6.4%          | -0.7%          | -2.7%          | -0.1%          | 0.8%           | -2.6%          | -7.1%          | 1.7%           | 0.0%           |
| Metals Manufacturing                   | 41.86          | 40.70          | 41.27          | 41.03          | 40.79          | 40.38          | 37.98          | 33.69          | 34.04          | 35.15          |
| Percent Change                         | -6.5%          | -2.8%          | 1.4%           | -0.6%          | -0.6%          | -1.0%          | -5.9%          | -11.3%         | 1.0%           | 3.3%           |
| Industrial Machinery                   | 19.51          | 18.65          | 18.35          | 17.99          | 18.15          | 18.00          | 17.03          | 15.35          | 14.88          | 14.69          |
| Percent Change                         | -8.1%          | -4.4%          | -1.7%          | -1.9%          | 0.9%           | -0.8%          | -5.4%          | -9.9%          | -3.0%          | -1.3%          |
| Transmontation Family                  | 44.10          | 12.06          | 42.21          | 12.60          | 12.51          | 42.02          | 42.04          | 42.42          | 42.12          | 41.06          |
| Transportation Equip. Percent Change   | 44.18<br>-4.7% | 43.06<br>-2.5% | 43.31<br>0.6%  | 43.60<br>0.7%  | 43.51<br>-0.2% | 43.93<br>1.0%  | 43.94<br>0.0%  | 42.42<br>-3.5% | 42.13<br>-0.7% | 41.96<br>-0.4% |
| · ·                                    |                |                |                |                |                |                |                |                |                |                |
| Chemical, Plast. & Rub. Percent Change | 26.50<br>-4.9% | 25.49<br>-3.8% | 25.19<br>-1.2% | 24.56<br>-2.5% | 23.58<br>-4.0% | 22.12<br>-6.2% | 20.30<br>-8.2% | 18.54<br>-8.7% | 18.58<br>0.2%  | 18.38<br>-1.1% |
| · ·                                    | 4.270          | 3.070          | 1.270          | 2.370          | 4.070          | 0.270          | 0.270          | 0.770          | 0.270          | 1.170          |
| Printing, Publ. & Textile              | 19.91          | 19.26          | 18.53          | 17.63          | 17.28          | 16.65          | 14.89          | 12.79          | 12.57          | 12.27          |
| Percent Change                         | -8.7%          | -3.3%          | -3.8%          | -4.9%          | -2.0%          | -3.6%          | -10.6%         | -14.1%         | -1.7%          | -2.4%          |
| Food, Bev. & Tobacco                   | 8.74           | 8.40           | 8.40           | 8.56           | 8.48           | 8.01           | 7.76           | 7.98           | 8.05           | 7.77           |
| Percent Change                         | 2.2%           | -4.0%          | 0.0%           | 1.9%           | -0.9%          | -5.5%          | -3.2%          | 2.9%           | 0.9%           | -3.6%          |
| Miscellaneous                          | 16.48          | 16.07          | 15.88          | 15.68          | 15.57          | 14.88          | 13.93          | 12.59          | 12.80          | 12.56          |
| Percent Change                         | 0.1%           | -2.5%          | -1.1%          | -1.3%          | -0.7%          | -4.4%          | -6.4%          | -9.6%          | 1.7%           | -1.9%          |

#### MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 9
NONMANUFACTURING EMPLOYMENT
(THOUSANDS -Seasonally Adjusted)

|                                      | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Nonmanufacturing Percent Change      | 1,447.6     | 1,446.1     | 1,460.3     | 1,476.6     | 1,497.3     | 1,516.8     | 1,484.7     | 1,439.7     | 1,452.3     | 1,461.6     |
|                                      | -0.7%       | -0.1%       | 1.0%        | 1.1%        | 1.4%        | 1.3%        | -2.1%       | -3.0%       | 0.9%        | 0.6%        |
| Construction & Mining Percent Change | 62.42       | 64.44       | 67.23       | 67.16       | 68.52       | 69.05       | 60.42       | 51.75       | 51.34       | 51.24       |
|                                      | -5.2%       | 3.2%        | 4.3%        | -0.1%       | 2.0%        | 0.8%        | -12.5%      | -14.3%      | -0.8%       | -0.2%       |
| Information Percent Change           | 40.02       | 39.20       | 38.68       | 37.84       | 38.06       | 38.50       | 36.36       | 32.43       | 31.60       | 31.68       |
|                                      | -6.2%       | -2.1%       | -1.3%       | -2.2%       | 0.6%        | 1.2%        | -5.6%       | -10.8%      | -2.6%       | 0.3%        |
| Utilities                            | 8.91        | 8.71        | 8.66        | 8.31        | 8.14        | 8.34        | 8.69        | 8.13        | 7.85        | 7.79        |
| Percent Change                       | -1.8%       | -2.3%       | -0.5%       | -4.1%       | -2.0%       | 2.4%        | 4.2%        | -6.5%       | -3.3%       | -0.8%       |
| Transportation Percent Change        | 39.83       | 40.44       | 42.82       | 43.98       | 44.08       | 44.12       | 42.97       | 40.82       | 41.70       | 43.28       |
|                                      | -1.2%       | 1.5%        | 5.9%        | 2.7%        | 0.2%        | 0.1%        | -2.6%       | -5.0%       | 2.2%        | 3.8%        |
| Wholesale Trade                      | 65.77       | 65.60       | 65.91       | 67.17       | 67.69       | 69.13       | 67.37       | 63.17       | 63.03       | 64.55       |
| Percent Change                       | -1.2%       | -0.3%       | 0.5%        | 1.9%        | 0.8%        | 2.1%        | -2.6%       | -6.2%       | -0.2%       | 2.4%        |
| Retail Trade                         | 192.46      | 191.19      | 192.72      | 191.41      | 191.08      | 190.91      | 182.46      | 177.29      | 179.60      | 180.60      |
| Percent Change                       | -1.4%       | -0.7%       | 0.8%        | -0.7%       | -0.2%       | -0.1%       | -4.4%       | -2.8%       | 1.3%        | 0.6%        |
| Finance & Insurance                  | 122.54      | 121.15      | 120.75      | 122.31      | 123.81      | 123.25      | 121.03      | 116.58      | 116.75      | 114.69      |
| Percent Change                       | 0.3%        | -1.1%       | -0.3%       | 1.3%        | 1.2%        | -0.5%       | -1.8%       | -3.7%       | 0.2%        | -1.8%       |
| Real Estate                          | 20.29       | 20.23       | 20.49       | 21.02       | 21.16       | 20.83       | 19.87       | 18.92       | 18.85       | 18.43       |
| Percent Change                       | -1.7%       | -0.3%       | 1.3%        | 2.6%        | 0.7%        | -1.5%       | -4.6%       | -4.8%       | -0.4%       | -2.3%       |
| Professional & Business              | 199.07      | 196.43      | 197.83      | 202.52      | 205.44      | 207.52      | 196.83      | 187.48      | 192.97      | 195.67      |
| Percent Change                       | -3.4%       | -1.3%       | 0.7%        | 2.4%        | 1.4%        | 1.0%        | -5.2%       | -4.8%       | 2.9%        | 1.4%        |
| Education & Health                   | 262.14      | 266.23      | 271.03      | 276.08      | 283.82      | 292.17      | 299.92      | 304.23      | 310.90      | 319.03      |
| Percent Change                       | 2.2%        | 1.6%        | 1.8%        | 1.9%        | 2.8%        | 2.9%        | 2.7%        | 1.4%        | 2.2%        | 2.6%        |
| Leisure & Hospitality                | 123.56      | 126.66      | 128.67      | 130.80      | 134.00      | 137.39      | 135.25      | 132.75      | 135.36      | 137.86      |
| Percent Change                       | 2.0%        | 2.5%        | 1.6%        | 1.7%        | 2.4%        | 2.5%        | -1.6%       | -1.8%       | 2.0%        | 1.8%        |
| Other Services Percent Change        | 62.38       | 62.27       | 62.65       | 63.08       | 64.27       | 63.85       | 62.09       | 60.58       | 60.64       | 60.25       |
|                                      | -0.8%       | -0.2%       | 0.6%        | 0.7%        | 1.9%        | -0.6%       | -2.8%       | -2.4%       | 0.1%        | -0.6%       |
| Federal Government                   | 21.15       | 20.39       | 19.96       | 19.77       | 19.62       | 19.59       | 19.49       | 19.77       | 18.40       | 17.74       |
| Percent Change                       | -1.1%       | -3.6%       | -2.1%       | -1.0%       | -0.7%       | -0.2%       | -0.5%       | 1.4%        | -6.9%       | -3.6%       |
| State & Local Gov't. Percent Change  | 227.02      | 223.19      | 222.89      | 225.18      | 227.61      | 232.11      | 231.95      | 225.84      | 223.31      | 218.73      |
|                                      | 0.1%        | -1.7%       | -0.1%       | 1.0%        | 1.1%        | 2.0%        | -0.1%       | -2.6%       | -1.1%       | -2.0%       |

#### MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

TABLE 10
LABOR FORCE & OTHER ECONOMIC INDICATORS
(THOUSANDS -Seasonally Adjusted)

|                               | <u>2003</u>     | <u>2004</u>     | <u>2005</u>     | <u>2006</u>     | <u>2007</u>     | <u>2008</u>     | <u>2009</u>     | <u>2010</u>     | <u>2011</u>     | <u>2012</u>      |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Labor Force<br>Percent Change | 1,788.8<br>1.9% | 1,791.3<br>0.1% | 1,795.3<br>0.2% | 1,815.7<br>1.1% | 1,838.2<br>1.2% | 1,857.5<br>1.1% | 1,886.9<br>1.6% | 1,906.2<br>1.0% | 1,919.3<br>0.7% | 1,916.1<br>-0.2% |
| Nonagricultural               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| Employment                    | 1,652.4         | 1,643.7         | 1,656.9         | 1,670.7         | 1,689.7         | 1,706.0         | 1,665.1         | 1,605.9         | 1,618.6         | 1,627.6          |
| Percent Change                | -1.4%           | -0.5%           | 0.8%            | 0.8%            | 1.1%            | 1.0%            | -2.4%           | -3.6%           | 0.8%            | 0.6%             |
| Residential                   |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| Employment                    | 1,696.3         | 1,697.5         | 1,708.2         | 1,731.6         | 1,756.6         | 1,765.5         | 1,756.2         | 1,735.8         | 1,742.4         | 1,759.2          |
| Percent Change                | 0.3%            | 0.1%            | 0.6%            | 1.4%            | 1.4%            | 0.5%            | -0.5%           | -1.2%           | 0.4%            | 1.0%             |
| Unemployed                    | 92.5            | 93.8            | 87.1            | 84.1            | 81.6            | 92.0            | 130.7           | 170.4           | 176.8           | 156.9            |
| Percent Change                | 44.9%           | 1.5%            | -7.2%           | -3.4%           | -3.0%           | 12.8%           | 42.1%           | 30.3%           | 3.8%            | -11.3%           |
| Unemployment Rate             | 5.2%            | 5.2%            | 4.9%            | 4.6%            | 4.5%            | 4.9%            | 6.9%            | 8.9%            | 9.2%            | 8.2%             |
| Households                    | 1,329.7         | 1,336.7         | 1,340.3         | 1,345.1         | 1,349.3         | 1,355.9         | 1,363.7         | 1,370.6         | 1,377.2         | 1,381.0          |
| Percent Change                | 0.8%            | 0.5%            | 0.3%            | 0.4%            | 0.3%            | 0.5%            | 0.6%            | 0.5%            | 0.5%            | 0.3%             |
| Housing Starts                | 8,547.8         | 9,800.6         | 11,597.4        | 11,127.5        | 8,508.3         | 6,294.7         | 3,647.0         | 3,642.7         | 3,422.1         | 3,786.0          |
| Percent Change                | -7.2%           | 14.7%           | 18.3%           | -4.1%           | -23.5%          | -26.0%          | -42.1%          | -0.1%           | -6.1%           | 10.6%            |
| Single Family                 | 7,326.5         | 7,880.1         | 9,634.0         | 9,186.3         | 6,891.1         | 4,606.5         | 2,419.3         | 2,717.2         | 2,434.1         | 2,442.6          |
| Percent Change                | -11.4%          | 7.6%            | 22.3%           | -4.6%           | -25.0%          | -33.2%          | -47.5%          | 12.3%           | -10.4%          | 0.3%             |
| r oreem change                | 11.170          | 7.070           | 22.570          | 1.070           | 23.070          | 33.270          | 17.570          | 12.570          | 10.170          | 0.570            |
| Multi Family                  | 1,221.4         | 1,920.5         | 1,963.4         | 1,941.2         | 1,617.2         | 1,688.3         | 1,227.7         | 925.5           | 988.0           | 1,343.4          |
| Percent Change                | 29.0%           | 57.2%           | 2.2%            | -1.1%           | -16.7%          | 4.4%            | -27.3%          | -24.6%          | 6.8%            | 36.0%            |
| New Car Registrations         | 227.4           | 254.8           | 228.1           | 230.5           | 212.8           | 212.4           | 155.5           | 148.6           | 183.5           | 175.1            |
| Percent Change                | -1.9%           | 12.0%           | -10.5%          | 1.1%            | -7.7%           | -0.2%           | -26.8%          | -4.4%           | 23.5%           | -4.6%            |

Note: Connecticut housing starts are already in thousands.

#### MAJOR CONNECTICUT ECONOMIC INDICATORS - FISCAL YEAR BASIS

#### TABLE 11 ANALYTICS

|  | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Wages/Total Income                                       | 56.10%      | 56.09%      | 55.86%      | 54.99%      | 53.76%      | 53.14%      | 52.53%      | 52.39%      | 51.41%      | 50.74%      |
| Other Labor Income /Total Income                         | 12.55%      | 12.61%      | 12.62%      | 12.32%      | 11.71%      | 11.91%      | 12.23%      | 12.23%      | 11.96%      | 11.92%      |
| Social Insurance<br>/Total Income                        | 8.03%       | 7.97%       | 7.89%       | 7.67%       | 7.34%       | 7.28%       | 7.43%       | 7.48%       | 6.88%       | 6.44%       |
| Transfer Payments /Total Income                          | 11.42%      | 11.38%      | 11.34%      | 11.03%      | 10.94%      | 11.19%      | 13.09%      | 14.57%      | 14.12%      | 14.03%      |
| Proprietor's Income<br>/Total Income                     | 11.19%      | 11.24%      | 11.19%      | 11.17%      | 10.50%      | 9.34%       | 8.98%       | 9.97%       | 10.31%      | 10.31%      |
| Property Income /Total Income                            | 16.77%      | 16.66%      | 16.88%      | 18.15%      | 20.42%      | 21.70%      | 20.60%      | 18.32%      | 19.08%      | 19.45%      |
| Average Wages (Thousands in 2000 \$)                     | 57.39       | 57.82       | 57.79       | 57.83       | 57.85       | 57.43       | 56.86       | 58.73       | 57.10       | 56.00       |
| Average Mfg. Wages (Thousands in 2000 \$)                | 64.23       | 66.20       | 66.71       | 66.55       | 67.45       | 68.99       | 66.35       | 67.42       | 70.82       | 70.13       |
| Average Nonmfg. Wages (Thousands in 2000 \$)             | 56.37       | 56.63       | 56.56       | 56.67       | 56.61       | 56.01       | 55.70       | 57.69       | 55.55       | 54.42       |
| Manufacturing Share<br>of Non-Agricultural<br>Employment | 13.02%      | 12.46%      | 12.09%      | 11.77%      | 11.36%      | 10.92%      | 10.96%      | 10.69%      | 10.15%      | 10.04%      |
| Residential Employment<br>/Total Nonagricultural         | 1.078       | 1.071       | 1.050       | 1.050       | 1.037       | 1.019       | 1.066       | 1.116       | 1.063       | 1.064       |

#### MAJOR CONNECTICUT REGIONAL ECONOMIC INDICATORS - CALENDAR YEAR BASIS

TABLE 12
PERSONAL INCOME (MILLIONS-Seasonally Adjusted Annual Rate)

#### **BRIDGEPORT-STAMFORD-NORWALK**

|                 | <u>2002</u> | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Personal Income | 53,528.3    | 53,393.0    | 58,071.5    | 61,061.5    | 68,195.6    | 71,916.9    | 72,328.9    | 63,899.9    | 69,665.7    | 72,707.1    |
| Percent Change  | -2.3%       | -0.3%       | 8.8%        | 5.1%        | 11.7%       | 5.5%        | 0.6%        | -11.7%      | 9.0%        | 4.4%        |
| Total Wages     | 26,958.8    | 27,647.2    | 29,406.4    | 31,139.9    | 33,315.1    | 36,135.9    | 35,813.6    | 32,835.7    | 34,033.5    | 35,579.9    |
| Percent Change  | -4.7%       | 2.6%        | 6.4%        | 5.9%        | 7.0%        | 8.5%        | -0.9%       | -8.3%       | 3.6%        | 4.5%        |

#### HARTFORD-WEST HARTFORD-EAST HARTFORD

|                 | <u>2002</u> | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Personal Income | 45,398.7    | 46,577.7    | 49,044.5    | 51,420.7    | 55,444.5    | 59,890.6    | 61,898.0    | 59,410.1    | 61,292.5    | 64,398.1    |
| Percent Change  | 0.8%        | 2.6%        | 5.3%        | 4.8%        | 7.8%        | 8.0%        | 3.4%        | -4.0%       | 3.2%        | 5.1%        |
| Total Wages     | 28,152.0    | 28,524.6    | 30,294.5    | 31,733.1    | 33,190.6    | 35,425.2    | 35,799.0    | 34,517.8    | 34,947.2    | 36,422.5    |
| Percent Change  | -0.1%       | 1.3%        | 6.2%        | 4.7%        | 4.6%        | 6.7%        | 1.1%        | -3.6%       | 1.2%        | 4.2%        |

#### **NEW LONDON-NORWICH, CT-RI**

|                 | <u>2002</u> | <u>2003</u> | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> |  |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| Personal Income | 9,518.5     | 9,882.5     | 10,349.0    | 10,640.2    | 11,315.7    | 12,220.7    | 12,742.9    | 12,220.7    | 12,519.7    | 12,978.2    |  |
| Percent Change  | 3.8%        | 3.8%        | 4.7%        | 2.8%        | 6.3%        | 8.0%        | 4.3%        | -4.1%       | 2.4%        | 3.7%        |  |
| Total Wages     | 5,465.6     | 5,629.2     | 5,863.3     | 6,057.7     | 6,300.5     | 6,621.9     | 6,866.8     | 6,722.4     | 6,676.5     | 6,768.0     |  |
| Percent Change  | 3.6%        | 3.0%        | 4.2%        | 3.3%        | 4.0%        | 5.1%        | 3.7%        | -2.1%       | -0.7%       | 1.4%        |  |