Experimental PCE-by-State Statistics

Christian Awuku-Budu, Ledia Guci, Christopher Lucas, and Carol Robbins
Bureau of Economic Analysis
April 2013

Abstract

This paper presents a preliminary methodology and estimates for an experimental set of data on nominal personal consumption expenditures (PCE) for eight categories of goods, seven categories of services, and net expenditures of nonprofit institutions serving households (NPISHs) for fifty states plus the District of Columbia for the years 1997 to 2007. These experimental statistics are based primarily on data from the Quinquennial Economic Census, the Decennial Population Census, and additional survey, administrative records, and trade industry data. For years between and beyond the Economic Census, data from BEA's Wage and Salary series and from BLS' Quarterly Census of Employment and Wages (QCEW) are used for interpolation and extrapolation. To account for the state of residency of the consuming units, household data on consumer expenditures from the BLS are used to adjust particular spending categories.

JEL Classification: R1, R2

Keywords: Personal consumption expenditures, Regional household spending

Experimental PCE-by-State Statistics

Christian Awuku-Budu, Ledia Guci, Christopher Lucas, and Carol Robbins *
Analysis and Special Studies Branch, Regional Product Division, BEA
April 22, 2013

1. Introduction

Household consumption of goods and services provides a measure of the share of economic output that flows to households, rather than to businesses, government, and the rest of the world. Making up over seventy percent of gross domestic purchases, these expenditures provide a window into consumer behavior. When users of regional statistical data search for state and local data on consumer spending, their alternatives are limited. They can assume the national pattern is appropriate for the regional area and use disposable personal income as an allocator; they can use the state-level sales data provided by the Economic Census every five years; they can infer consumption from retail sales tax receipts for the states that collect these taxes; or, they can draw inferences from similar categories of regional spending from the Bureau of Labor Statistics (BLS)' Consumer Expenditure Survey. For data users interested in measures of consumption that are aligned with the Bureau of Economic Analysis (BEA) regional income data and national household spending data, none of these options is fully satisfactory.

This paper provides a first look at an experimental set of data designed to address these needs. As part of an ongoing project at BEA, we present preliminary estimates of nominal personal consumption expenditures (PCE) for eight categories of goods, seven categories of services, and net expenditures of nonprofit institutions serving households (NPISHs) for fifty states plus the District of Columbia for the years 1997 to 2007. Like BEA's national PCE statistics, our experimental statistics are based primarily on data from the Quinquennial Economic Census, the Decennial Population Census, and additional survey, administrative records, and trade industry data. For years between and beyond the Economic Census, wage data from BEA's Wage and Salary series and from BLS' Quarterly Census of Employment and Wages (QCEW) are used for interpolation and extrapolation. To account for the state of residency of the consuming units, household data on consumer expenditures from the BLS are used to adjust particular spending categories.

Our contribution to the existing consumption literature and to the community of regional statistical data users is a time series of state-level experimental statistics on spending by and on behalf of households that is consistent with the framework of the national income and product accounts (NIPAs). These statistics incorporate a standardized evaluation procedure that uses ratios to disposable personal income and population, and an adjustment procedure for out-of-state or business spending that uses household survey data. We adjust a relatively small number of state and category expenditures: eight percent of the state-categories, or 1.7 percent of total spending. Five factors explain our adjustments: sales tax differentials, retail leakage, travel and tourism, transportation hubs, and unusual patterns of state-level business spending. Our results show variations

---

* The views expressed in this paper are solely those of the authors and do not necessarily express the position of the Bureau of Economic Analysis.

in state-level per capita expenditures that are due to cross-state differences in prices, income, other demographics, preferences, and location-specific factors.

An important purpose of statistical data is to provide a measure of economic performance for a hard-to-measure concept, material well-being. The 2009 Stiglitz, Sen, Fitoussi report on measurement of economic performance and social progress argues that income and consumption are better measures of well-being than production. Lebergott (1996) argues that consumption is a better indicator of well-being than income, and develops a set of state-level estimates of personal consumption. He uses Labor Department surveys, the Census of Retail Trade, and other federal data sources to estimate BEA categories of consumption items for 1900, 1929, 1970, and Economic Census benchmark years 1977 and 1982.

Following the housing price bubble years of the early 2000s, state-level statistical data have been developed and used to provide insight into the relationship between consumption, income, and wealth. Case, Quigley, and Schiller (2005) use state-level retail sales data developed by Regional Financial Associates (now Moodys.com) as their measure of personal consumption and mutual fund holdings by state as a measure of wealth.[1] Zhou (2010) extends this work with two new data sets: state-level data on financial assets and state-level aggregate personal consumption spending. The data set on financial assets is created with anonymous geo-coded wealth data from Ixi Services, the financial services company that owns Equifax. Zhou augments the Retail Sales data from Census with tax receipt and tax rate data from 12 states and develops a time series of aggregate PCE for 1970-2005 for 45 states.

To our knowledge, the only regularly updated regional statistics for annual PCE that are consistent with the framework of the NIPAs are BEA's statistics on GDP for U.S. Territories. These statistics show aggregate measures of PCE for American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the U.S. Virgin Islands (Hamano, 2011).

In addition to their value as an indication of the economic well-being of consumers, we envision regional market research, regional input-output modeling, and state-level policy analysis as potential uses of state-level PCE. Further, regional price level data for consumption goods and services for states and metro areas are being developed by the Regional Price Parities branch; see for example, Aten, Figueroa, and Martin, 2011a. This work makes it possible to envision future development of state-level PCE that is adjusted for regional price variation.

The remainder of the paper is organized as follows. Section 2 describes the extension of the conceptual framework of the national PCE statistics to the corresponding state-level measures. Section 3 describes the source data available and the methodology used for the PCE-by-state statistics. Section 4 discusses the evaluation procedure and the residency-adjustment method for out-of-state purchases. Section 5 presents some analysis that can be done with the state-level PCE statistics. Section 6 outlines next steps and concludes. The appendix shows preliminary statistics, methodological details, and supplementary analytical tables.

---

[1] The Regional Financial Associates' dataset is based on county-level sales tax data and monthly national retail sales data to supplement the Census of Retail Trade data.

2. Conceptual Framework

In BEA's national income and product accounts, personal consumption expenditures are the goods and services purchased by or on behalf of resident households plus purchases by resident nonprofit institutions serving households (NPISHs). PCE accounts for final demand less investment, government expenditures, and net exports. It differs from most other measures of household spending in that it includes not only households' out-of-pocket spending, but also imputations to account for owner-occupied housing, wages and salaries that are paid in-kind, financial services furnished without explicit payment, and the imputed value of employer-paid insurance. It also includes the net costs incurred by NPISHs in providing services to households. PCE excludes services that the government provides to households directly, such as free public education and medical care in Veteran's hospitals. For an extended discussion, see BEA (2009).

Residency definitions are valuable to national and regional economic accounts because they allow the inflows and outflows to and from households in the form of income, saving, and consumption to be aligned. At the national level, PCE covers activities that are attributable to U.S. residents, even when that activity takes place outside of the U.S. In the NIPAs, the exclusion of nonresident income and spending allows for consistent measurement of personal saving.

By extension, state-level personal consumption expenditures are the goods and services purchased by households and by NPISHs that are resident in each of the fifty states and in the District of Columbia, including their expenditures on activities outside of the state. For state-level PCE estimates these out-of-state purchases should be assigned to the state where the consumer is resident. Assigning PCE to the state where the consumer is resident allows for geographic consistency in the reporting of income and spending.[2]

3. Data and Methodology

The current set of estimates is calculated in four broad steps. First, we create state-level nominal expenditures for 77 categories of PCE (NIPA table 2.4.5 detail level) for the years 1997-2007 and control them to the NIPA category totals. Second, we evaluate these expenditures with several analytical ratios computed with external data sources that affect spending. Third, we adjust selected state-category series for out-of-state spending. Last, we aggregate across categories to eight goods and seven services (NIPA table 2.3.5 detail level).

The data used for state-level PCE statistics can be characterized as organized either by the residence of the consumer or by the location of business that provides the consumption commodity. Table 1 provides a summary of the data sources used for each of the eight categories of goods and seven categories of services, plus the net expenditures of NPISHs.

---

[2] The operational definition of resident in the NIPAs is different from the definition used for BEA's state and county personal income statistics. In the NIPAs, residents are persons physically located in the United States who have resided, or expect to reside, in the country for 1 year or more. It also includes the purchases by U.S. government personnel stationed abroad, and by U.S. residents who are traveling or working abroad for one year or less (BEA, 2009). For state and county personal income statistics, BEA considers a resident to be a participant in a U.S. regional economy, regardless of his national allegiance or duration of residence. A residence adjustment reallocates income earned in places of work other than the recipient's place of residence. In practice, state and county personal income excludes the income earned by U.S. residents living abroad but includes the income earned by foreign nationals working in the United States (BEA, 2011).

The top row of the table shows the categories of expenditures. The second row shows the relative share of total national PCE accounted for by each category in 2007. Housing and Utilities is the largest single category followed by Health Care Services. The first column on the left of the table shows the major data sources used for the estimates. Household-based data sources are those where the data are categorized based on the state of residence of the consuming household, and thus match the residency requirements of PCE-by-state statistics. Supply-based data sources are those that are based on the geographic location of the business establishments that provide goods or services directly to consumers. Thus, for these data sources there is the potential for out-of-state purchases to affect the magnitude of the estimates. Consumer Expenditure Survey data, which is organized based on the geographic location of the consuming household, is used to adjust for large biases from these out-of-state purchases. Our approach to correcting for this bias is discussed in Section 4. The methodology used with these data sources to produce the PCE-by-state estimates is described below.

Goods

Almost all of the categories of PCE goods are estimated with a method that is a variation on the retail control methodology used at the national level. State-level receipts by industry and product lines from the Quinquennial Economic Census provide benchmark expenditure measures for 1997, 2002, and 2007 that reflect the location of sale to the consumer. [3] For many categories of goods the Census source data provides state-specific class-of-customer ratios. We use these ratios to remove business and government spending. Where the state ratio is absent, the national ratio is used. To remove the distortionary impact of online retailers, we include only the receipts from conventional retailers. [4] These steps create state-level receipt measures in the EC years that we use to allocate the NIPA national PCE category expenditures. For years in between the EC, in the absence of annual data on retail sales by state, we use Quarterly Census of Employment and Wages (QCEW) data from the industry that sells the PCE commodity to households. The use of the QCEW data implicitly assumes that changes in wages for the retail industries that sell goods reflect changes in the receipts for these industries.

Housing and Utilities

Housing and Utilities make up almost a fifth of nominal PCE; the two largest subcomponents of housing are tenant-occupied rent and owner-occupied rent. Because housing prices vary widely across regions, reliable state-level source data are crucial to good measurement of this expenditure category. For our state-level experimental PCE statistics, the subcomponents of Housing and Utilities are estimated with data based on the residency of the consuming household.

PCE for rent of tenant-occupied nonfarm housing are estimated with the product of state-level housing stocks and state-level median contract rent in years 1990, 2000, and 2005 through 2007. For 1990 and 2000 the source data comes from the Decennial Census. For 2005 through 2007 the source data comes from the

---

[3] Until 1997 Census released monthly retail sales for durable and nondurable goods for the 19 largest states. These data are available for 1986 to 1996.

[4] We discuss this issue in greater detail in Section 4.

American Community Survey (ACS). The in-between years are interpolated using state population growth. We plan further improvements in these estimates through the exploitation of ACS microdata.

PCE for owner-occupied housing is an imputation in BEA's economic accounts that shows the expenditures that homeowners would have made if they had rented their home instead of owning it. In BEA's income side data this expenditure has a related transaction in rental income for owner-occupied housing. We use state-level statistics from BEA's Regional Income Division (RID) on net rental income for owner-occupied housing. Conceptually, this is the PCE expenditure less the costs of home ownership: intermediate goods and services consumed, consumption of fixed capital, property taxes, net interest paid, net transfer payments, and subsidies. Our use of net income as an indicator for PCE assumes that the costs of home ownership are the same share of imputed gross rental income for owner-occupied housing across states. RID allocates net imputed rental income to states with state-level Decennial Census and ACS data on the value of owner-occupied housing.

State-level PCE for water, electricity, and natural gas are estimated with price and quantity data. Household water usage data comes from the US Geological Survey. Regional water price data from the National Association of Clean Water Agencies is used in the absence of state-level price data. For electricity and natural gas, household usage and price data come from the Energy Information Agency.

The data sources described above are used to create state-level expenditure indicators. As with our other estimates, the final step for each of the Housing and Utilities subcomponents is to control to the NIPA category total.

Health Care Services

For most of the Health Care Services subcomponents, we use state-level data on health spending by state of residence tabulated by the Center for Medicare and Medicaid Services (CMS) (Cuckler, et al., 2011).[5] For categories where out-of-state spending is common, such as hospital services, CMS uses Medicare claims data to assign services to the consumer's home state. This claims data contains information about both the residence of the patient and the location of medical services. Some PCE and CMS expenditure categories, such as physician services, do not match well. For these categories we use Economic Census data for 1997, 2002, and 2007 with the QCEW interpolation for the years in between. We then control to the NIPA category total.

Transportation Services, Recreation Services, Food Services and Accommodations

The data sources and methodology for PCE-by-state statistics for Transportation Services, Recreation Services, and Food Services and Accommodations are similar to those described above for PCE goods. The major difference is that product line data are not available for many of these services. However, compared with the multiple products sold by the retailers of goods, service establishments are more likely to sell a single category of products. State-level receipts for the industry that sells these services come from the Quinquennial Economic Census for 1997, 2002, and 2007. As with PCE for goods, we use class-of-customer ratios to remove the impact of business and government spending. However, these ratios are mostly at the national level rather than at the

---

[5] CMS data are also used for therapeutic appliances and for pharmaceuticals.

state level. For years in between the Economic Census, we use QCEW data from the industry that sells the PCE commodity to households. For each subcomponent, we then control to the NIPA category total.

Financial Services and Insurance

We found that the state-level breakdowns of the data sources used by the NIPAs for Financial Services and Insurance produced preliminary estimates for several states that were implausibly high on a per capita basis and a disposable income basis. Further, the residency adjustment procedure we use requires a good category match to the Consumer Expenditure data. This good match is absent for most of financial services and insurance. As a result, most of state-level PCE expenditures for Financial Services and Insurance presented in the tables accompanying this paper are estimated with the default indicator of disposable personal income. For the categories of Financial Services, alternative data sources that we tested include state-level Federal Deposit Insurance Corporation (FDIC) deposits, interest income, and income from pensions from BEA's regional income division. For Insurance we tested state-level data from the National Association of Insurance Commissioners data on insurance premiums by the location of the policy holder. Given the relative size of PCE for Financial Services and Insurance, we see this category as one that calls for further work to test other measures of wealth and income.

Other Services

The PCE category, Other Services, includes communications services, education services, professional and other services, personal care and clothing services, social and religious services, and net foreign travel. The postal service subcomponent of communications services is estimated with state-level postal service employment. For the remainder of communication services disposable personal income is used. Education services have two main data sources: National Center for Education Statistics (NCES) enrollment data and Economic Census data for the component of education not covered by NCES statistics. The state of residence for all higher education tuition is based on data showing the state of residence for college freshman. State-level PCE for professional and other services, personal care and clothing services, and social services are estimated using the Economic Census data for 1997, 2002, and 2007, and QCEW data for interpolation. PCE expenditures for religious services are estimated with state-level data from the National Center for Charitable statistics. For net foreign travel, state disposable personal income is used.

Net NPISHs

For the Net Expenditures of NPISHs, we currently use a simplification of the net expenditure calculation. We use NPISH receipts and spending by state and category as indicators to allocate the national total for each NPISH category's net expenses.

Preliminary Extrapolation Method

For most categories of goods and non-housing services, our experimental statistics for 1997 to 2007 are benchmarked with Quinquennial Economic Census data. However, these data are released with a substantial lag. The geographic series of the 2012 Economic Census is currently scheduled to be released between the fall of

2014 and the summer of 2015.[6] As a result, recent years will be estimated with more limited source data. We use more frequent state-level wage and salary data from the industries that sell each category of PCE commodities to extrapolate our estimates beyond the Economic Census years. A similar approach is used by BEA for interpolation and extrapolation of GDP-by-state statistics.

Our extrapolation method has four steps. First, we aggregate wage data by NAICS industries that sell the PCE product. For example, for Food and Beverages Purchased for Off-premises Consumption, we aggregate the wages in each state for the grocery stores, convenience stores, liquor stores, and other establishments that sell food and beverages for off-premises consumption. Second, we calculate the year-to-year percentage change of these aggregated wages by matching PCE series. Third, we apply these year-to-year percentage changes starting in 2007 to extrapolate forward to 2011. Finally, as with our other estimates, we control each state-level series to sum to the annual national PCE category value.

To evaluate the likely results, we extrapolate out from 2002 using this method, and compare the results to those that are obtained using 2007 Economic Census data for the 2007 value. Charts 1 and 2 show the extrapolation of California's Food Services and Accommodations and Food and Beverages Purchased for Off-premises Consumption from 2007 (red line with square markers) and the extrapolation from 2002 (blue line adjacent to the green line with triangle markers). For Food and Beverages Purchased for Off-premises Consumption, the extrapolated 2007 value is 1.9 percent above the benchmarked estimate. For Food Services and Accommodations, the extrapolated value is 1.1 percent below the benchmarked estimate. Although we anticipate larger extrapolation errors for small states and for diverse category aggregates, such as Recreation Services, the results in general provide reliable estimates of the Economic-Census-based value.
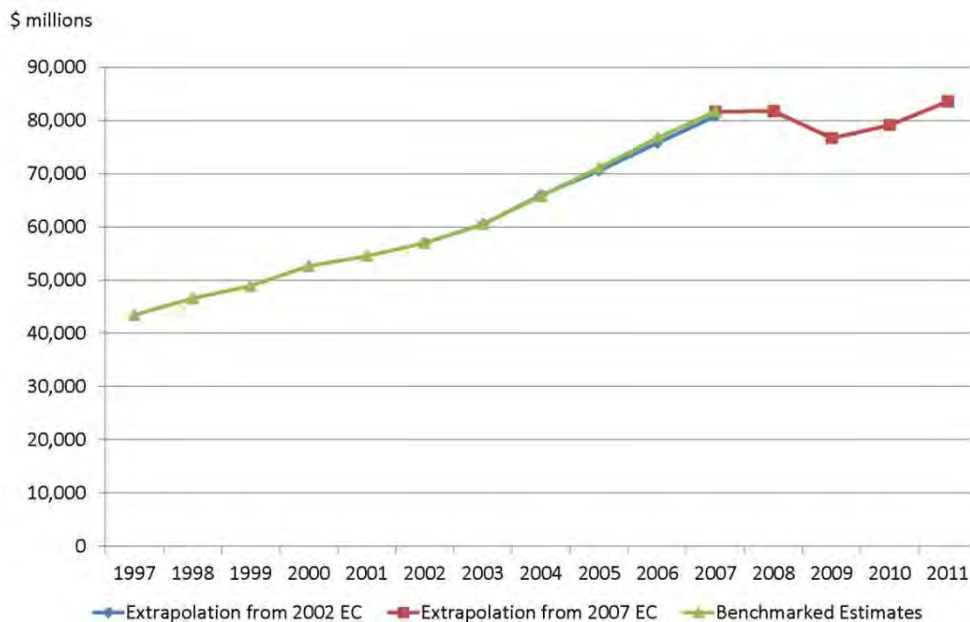

Chart 1. Revision in Level in Extrapolated Expenditures from the Incorporation of 2007 Economic Census Data, Food Services and Accommodations - California

---

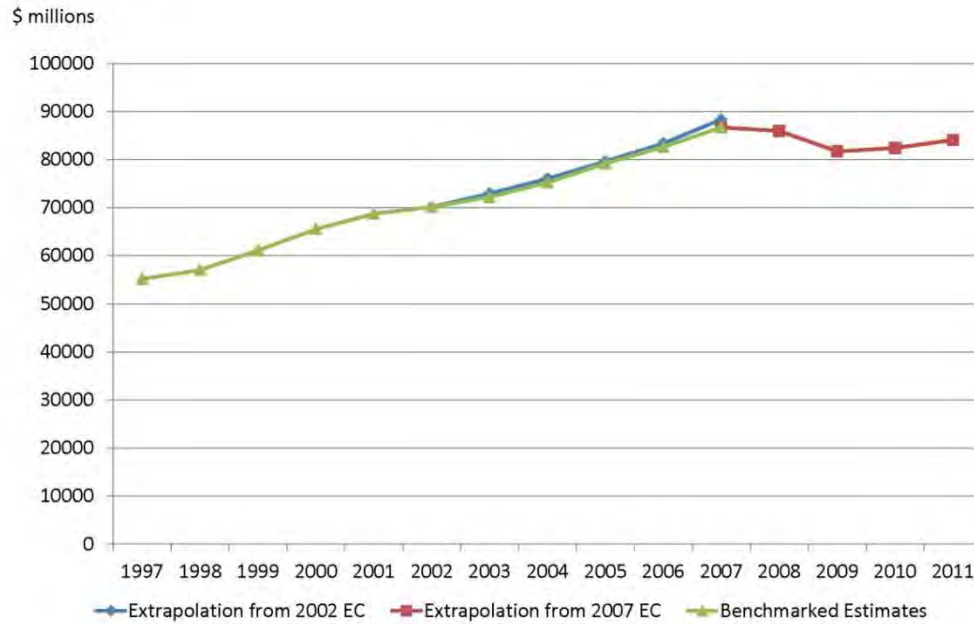[6] http://www.census.gov/econ/census/schedule.html

Chart 2. Revision in Level in Extrapolated Expenditures from the Incorporation of 2007 Economic Census Data, Food and Beverages Purchased for Off-premises Consumption - California

4. Evaluation and Residency Adjustment

The experimental PCE-by-state statistics are evaluated to ensure that the allocation of PCE reflects economic events and is sensible across states and across time. More specifically, the objective of the cross-sectional evaluation is to differentiate between warranted variation in consumption spending across states and variation in spending that is potentially biased by cross-border purchases. The objective of the time-series evaluation is to differentiate between any observed volatility in expenditures that is caused by anomalies in the source data and volatility that is attributed to economic events. Adjustments to the state expenditures are made when the evaluation process produces sufficient evidence of data-related anomalies or cross-border shopping.

Time-series Evaluation

Economic theory asserts that consumption is smooth relative to income.[7] Though state-level consumption may be more volatile than consumption at the national level because of a smaller number of consumption units, we expect the time series of the expenditure categories to be generally smooth. Depending on the type of expenditures, we also expect some state-level expenditure series, for example expenditures on Housing and Utilities, to be smoother than the expenditure series of other PCE categories, say, Recreation Services.

---

[7] Two theoretical explanations have been put forth by Friedman's Permanent Income Hypothesis and Modigliani's Life Cycle Theory. Empirical analyses have provided other explanations. For instance, Campbell and Deaton (1989) argue that consumption is smooth because it responds with a lag to changes in income.

Our time-series evaluation procedure consists of the following. First, for each state-level PCE category series, percent changes in expenditures from preceding period are computed to detect periods of sharp growth or decline. Next, any fluctuations in the time series are further investigated to determine whether they result from data-related anomalies or from actual economic events. Economic events that affect PCE are, among others, temporary tax policies, government economic stimuli, changes in consumer sentiment, and changes in prices. In this step, the source data are carefully examined and, when available, comparisons to additional data sources are carried out to assess the observed growth trends. Lastly, a decision about an adjustment is made only for the case of a data-related anomaly.

For example, the transition from the SIC to NAICS industry classification system in the early 2000s produced a time series break for a few states for some of the PCE categories, which we hand-adjusted. For more information about the time series break, see Walker and Murphy (2001). However, we did not make any adjustments to any spikes in transportation services expenditures that corresponded with spikes in gas prices. A summary of the time trends in our PCE estimates is presented in the appendix. The annual percent change in state expenditures by major PCE category is presented in Appendix Tables 7a through 7o along with the percent change in corresponding expenditures at the national level. Appendix Table 2 shows the annual percent change in our estimates of total state PCE.

Cross-sectional Evaluation

As we examine consumption expenditures across states, we expect to see regional variation in consumption spending because of regional variation in consumption determinants such as population, income, relative prices, demographics, and preferences. In addition, for PCE categories that have been estimated with Economic Census and QCEW data, we expect to see disproportionately high expenditures for states where the use of point-of-sale data inappropriately picks up out-of-state spending. The goal of cross-sectional evaluation is to distinguish between these types of variation.

Our cross-sectional evaluation procedure can be summarized in three steps: First, we compute several analytical ratios in order to identify expenditures that have been allocated disproportionately to states. Second, we select the states with the most extreme ratios and investigate them further to determine if the observed disproportional spending suggests out-of-state spending. Lastly, in the event of evidence of out-of-spending we determine whether or not a residency adjustment is necessary based on the severity of the evidence and data availability for adjustment.

For each PCE category, we compute several analytical ratios that compare our expenditures by state against independent data sources associated with state-level spending. The analytical ratios considered are:

1. Ratio of state PCE to state population
2. Ratio of state PCE to state disposable personal income (DPI)

3. Ratio of a state's relative consumption share computed with expenditures from the Consumer Expenditure-based data to the equivalent share computed using the Economic Census receipts [8]

The first two analytical ratios normalize the state expenditures with respect to income and population; thus, enable a comparison of expenditures across states. They are computed using income and population data from BEA's Regional Income statistics. The analogous ratios at the national level are used as the baseline for comparison. States with extremely high per capita PCE values and PCE to DPI ratios or substantially different ratios from the other states raise a potential red flag for measurement error. We suspect these states to be locations where shopping by nonresidents occurs.

By computing the same metric using two data sources with a different geography base – the Economic Census reflecting the location of business establishments and the Consumer Expenditure survey the location of the households – the third analytical ratio quantifies the geographical mismatch in expenditures introduced by the use of point-of-sale data. A relative share ratio close to one indicates little to no spatial mismatch in household expenditures as the expenditures reported directly by the households in the Consumer Expenditure survey and those captured by businesses' receipts coincide. A ratio less (greater) than one results from households reporting lower (higher) expenditures than the expenditures by households recorded in businesses' receipts, an indication of out-of-state spending (retail leakage).

The Consumer Expenditure survey data is a valuable external data source to compare our estimates against because it is survey based and has the desired household-based geography. However, its use for state-level PCE analysis presents many well-known challenges. First, the Consumer Expenditure survey does not produce state-level household expenditure data. The survey is designed to be representative of the U.S. population at the national level and at the level of four broad regions, but not at the state level.[9] We take advantage of a set of state-level expenditure weights developed by BEA staff using data derived from the Consumer Expenditure survey.[10] We use these expenditure weights by state to assess and, when necessary, to adjust the geographic distribution of our expenditure estimates to reflect the residence of the consumer. These expenditure weights are calculated for over 200 expenditure items that make up the Consumer Price Index (CPI) for the years 2005 through 2009. Because the sampling frame for these data is not designed for state-level estimates, the stability of the weights is an issue of concern to us and we view an average across time as providing more reliable relative expenditure share ratios. The relative share ratio that we use is computed using average 2005-2007 expenditures.

---

[8] A state's relative consumption share for a particular PCE category is computed as the ratio of the state's expenditures in the given category to the sum of states (total) expenditures in the given category.

[9] Further discussion on this matter is available from BLS at: http://www.bls.gov/cex/csxgeography.htm#region.

[10] The expenditure weights are developed using inputs from the BLS Consumer Price Index program. BEA staff use the expenditure weights to construct Regional Price Parities, which measure differences in regional price levels. A detailed description of the methodology used to create the state-level expenditure weights is provided in Aten, Figueroa, and Martin (2011b).

Second, for some categories of spending, there are substantial scope and definitional differences between PCE and the Consumer Expenditure data. [11] In particular, the Consumer Expenditure data captures only the out-of-pocket spending by households. [12] Expenditure categories of goods, in particular nondurable goods, have good category matches. Within the nondurables, food, clothing, and energy goods are categories that match especially closely (Garner, McClelland, and Passero, 2009). Services are generally characterized by weak comparability. Financial services in PCE, for example, have no counterpart in the Consumer Expenditure data. We limit the use of the consumer expenditure-based data to those spending categories with a close conceptual match to PCE.

Finally, there are concerns regarding the quality of the consumer expenditure-based data due to underreporting. Underreporting of household expenditures may occur, among other things, because of the difficulty in recalling expenditures, the reluctance to report consumption of "sin" commodities (alcohol, tobacco, gambling), and the incentive to provide false negative responses in order to reduce the interview length. [13] Because our state-level estimates are controlled to national category totals, we do not view these instances of underreporting in the Consumer Expenditure data as a source of substantial bias, as long as expenditures across states are similarly affected.

There is also evidence of underrepresentation in the Consumer Expenditure data of households at the top of the income distribution and, as a result, evidence of underreporting of income and expenditures of high-income households (Sabelhaus et al., 2012; Bee et al., 2012). Because high-income households are more likely to reside in certain states, we suspect this will bias in particular the geographic distribution of expenditures on luxury goods. However, once aggregated with other expenditures, we expect any bias they induce on the aggregated expenditures to be rather small.

To match the CPI expenditure items to PCE categories we consulted a recent concordance developed jointly by BEA and BLS researchers. [14] The joint concordance maps BLS CPI Entry Level Items (ELIs) to BEA PCE Series Codes. The state-level Consumer Expenditure data is not available at the level of detail of ELIs, so we

---

[11] PCE covers expenditures made on behalf of consumers, which include expenditures made by their employers or by nonprofit institutions serving the households. The Consumer Expenditure survey (CE) covers only expenditures made by consumers directly. PCE expenditures that are not covered by the CE include health care expenditures paid for through insurance coverage, insurance, meals, clothing and housing provided by employers, home production on farms, implicitly-priced financial services, and the output of the nonprofit institutions serving households. The CE includes the purchase of used vehicles while PCE includes only the net economic activity associated with the purchase. The CE includes "out-of-pocket" contributions to retirement plans. There are also differences in the population coverage mainly in the treatment of the institutionalized population, military personnel, U.S. citizens abroad, and foreign citizens in the U.S. Refer to Garner et al. (2006), BLS (2008), Garner, McClelland, Passero (2009), and Passero, Garner, and McCully (2012) for a recent discussion on the CE-PCE comparison.

[12] A recent reconciliation of PCE and CE expenditures by Passero, Garner, and McCully (2012) that accounts for some of the differences identifies about 80 percent of the 2010 PCE expenditures on total durable goods, 94 percent on total nondurable goods, and 48 percent on total services to be comparable with the CE.

[13] The latter is known as "conditioned underreporting". Various underreporting issues have been analyzed by Dahlhamer et al. (2003), Shields and To (2005), Safir and Goldberg (2008), etc.

[14] Prior concordances developed independently by BLS and BEA lacked mutual affirmation. The joint concordance seeks to facilitate future reconciliations of CE and PCE. See Passero, Garner, McCully (2012) for a detailed description.

constructed a concordance that maps aggregated ELIs into Item Strata to the PCE Series Codes. Working with aggregated expenditures is challenging because the aggregation structure of the item strata does not always correspond to the aggregation structure of the PCE categories. [15] The principle guiding the expenditure mapping was to get the relative state expenditure shares rather than the state expenditure levels as accurate as possible. [16]

Having computed the analytical ratios by PCE category, the next step in the evaluation procedure is to identify states with extreme ratios and determine whether the latter constitute evidence of out-of-state spending. Since the distribution of expenditures across states varies highly by PCE category, it is impractical to consider establishing uniform thresholds for the identification of extreme ratios across PCE categories. For example, flagging states based on per capita expenditures say more than 30 percent higher or lower than the per capita expenditures at the national level could yield an empty set of states for review for one PCE category, but nearly the entire set of states for another category.

We use two criteria that are consistently applied across PCE categories and ensure a generous selection of states for review for each PCE category. As a first criterion, we select the top five states with the highest ratios and the bottom five states with the lowest ratios. As a second criterion, we select the top ten states with the highest ratios in absolute value to account for the possibility of a skewed distribution. For each analytical ratio, both criteria identify 10 to 15 states with "extreme" ratios. [17] While the selection of states across the three analytical ratios largely overlaps, the group of states finalized for review for a particular PCE category is sizable.

For the selected states, the analytical ratios are examined carefully and additional information on the states' economy is collected to determine if the calculated state-level expenditures are sensible. High or low values of particular ratios are not automatically of concern. For instance, high per capita expenditures are sensible for high per capita income states. High per capita expenditures coupled with high PCE to DPI ratios can be explained by high relative prices or preferences. A low relative share ratio can be simply interpreted as evidence of underreporting of household expenditures in the Consumer Expenditure survey if the state's expenditures are, otherwise, proportional to population and income.

We consider evidence of out-of-state spending to be simultaneously given by a high per capita ratio, high PCE to DPI ratio, and a low relative share ratio. While the first two ratios indicate disproportionally high expenditures for the state, suggestive of the presence of nonresident spending, the third ratio further corroborates this evidence by showing that households report lower expenditures compared to the household expenditures generated from the businesses' receipts. Because of the experimental nature of the state-level

---

[15] For example, item stratum TC02 (Vehicle Accessories Other Than Tires) consist of two ELIs: TC021 (Vehicle Parts and Equipment Other Than Tires) and TC022 (Motor Oil, Coolant, and Fluids). In PCE, motor vehicle parts and accessories are classified as durable goods, whereas motor vehicles fuels, lubricants, and fluids are classified as nondurable goods.

[16] Any item stratum partially or vaguely related to a PCE category was not considered a match. An item stratum was considered a match to one or more PCE categories only if comparable expenditures made up the majority of the category.

[17] Given our selection criteria, extreme ratios simply refer to the largest and smallest values of the analytical ratios for a particular PCE category. These values might not be extreme in the conventional sense.

Consumer Expenditure data we are working with, we consider a low relative share ratio as evidence of a residency problem only in concurrence with notably high per capita expenditures and PCE to DPI ratios. We, thus, give more weight to the information from the analytical ratios produced with more reliable data sources.

Table 3 illustrates how the analytical ratios are used to evaluate the expenditures on Food Services and Accommodations for the year 2007 for the selected states pre- and post- adjustment for residency. The table is organized in three sections. The first section shows the per capita expenditures and the PCE to DPI ratio of the unadjusted state expenditures. The analogous ratios at the national level are presented in the first row. Each analytical ratio is followed by a column that displays its difference in percent from the corresponding national ratio. The second section presents supplementary information. The states' share of national disposable income is provided as a ballpark figure of the states' expenditure shares. The relative expenditure share ratio is presented in the 'adjustment factor' column. [18] The third section replicates the analytical ratios in the first section for the state expenditures adjusted for the residence of the household. A description of the residency-adjustment methodology and re-evaluation of adjusted estimates follows in the next section.

As an example, our evaluation criteria identified, among other states, District of Columbia as a state with extreme analytical ratios for Food Services and Accommodations expenditures. Table 3 shows that the per capita spending on Food Services and Accommodations for the District of Columbia is $6,206, about 210 percent higher than the per capita spending of $1993 at the national level. In addition, District of Columbia's PCE to DPI ratio is 0.111, about 92 percent higher than the national PCE to DPI ratio of 0.058.

Although disproportionally high expenditures are sensible for the District of Columbia as a metropolitan area characterized by high per capita income and high relative prices, it seems unlikely that its characteristics as an urban center explain the magnitude of the expenditures in its entirety. District of Columbia is also a major center for business travel and tourism; hence, a portion of the expenditures on Food Services and Accommodations represents nonresident spending. Indeed, District of Columbia's relative expenditure share ratio of 0.481 (the adjustment factor) shows that the households residing in the District report to have made less than 50 percent of those expenditures.

In a contrasting example, the per capita expenditures for Kansas are $1,638 and the PCE to DPI ratio is 0.049. These ratios are about 18 percent and 17 percent lower than the corresponding ratios at the national level, respectively. While disproportionally low expenditures can be interpreted as evidence of spending leakage, a relative share ratio of 1.007 indicates that these expenditures are more in line with spending preferences of Kansas residents.

In general, our evaluation procedure shows expected regional variation in spending for those expenditure categories that are estimated with source data that have household-based geography. For categories of expenditures that use of point-of-sale data from the Economic Census and QCEW, the evaluation procedure reveals that, for some states, there is indeed a geographical mismatch in expenditures reported based on the location of sale and those reported based on the residence of the consumer.

---

[18] The relative expenditure share ratio is labeled 'adjustment factor' because it is the factor used to make residency adjustments. See next section for a more detailed discussion of the residency- adjustment procedure.

Housing and Utilities, the largest single category of expenditures, is one of the categories estimated with data that reflects the residing location of the household. We observe that the state variation in our housing estimates appropriately follows the state variation in relative housing prices. As expected, states with high per capita expenditures on housing are Alaska, District of Columbia, Hawaii, Massachusetts, New Jersey, and New York. Rural states like Oklahoma, Kentucky, Indiana, and Nebraska have relatively low per capita expenditures. Interestingly, Texas has the lowest per capita expenditures on housing and utilities. We attribute Texas' low housing expenditures to availability of open space, inexpensive labor, and lack of restrictions on high rise urban development.

Charts 3 and 4 show a direct comparison of the regional variation in rents and per capita spending on tenant-occupied nonfarm housing. Although expenditures can vary across states for reasons other than relative prices, it is apparent that the cross-state patterns in rent expenditures are largely explained by the cross-state patterns in rents. Less apparent is the reason for the markedly large magnitude of per capita expenditures on tenant-occupied nonfarm housing for the District of Columbia. Upon closer inspection, District of Columbia's high per capita expenditures reflect not only the relative high prices, but also the District's demographic characteristics as an urban center. A more appropriate comparison location for the District of Columbia would be a city rather than a state.
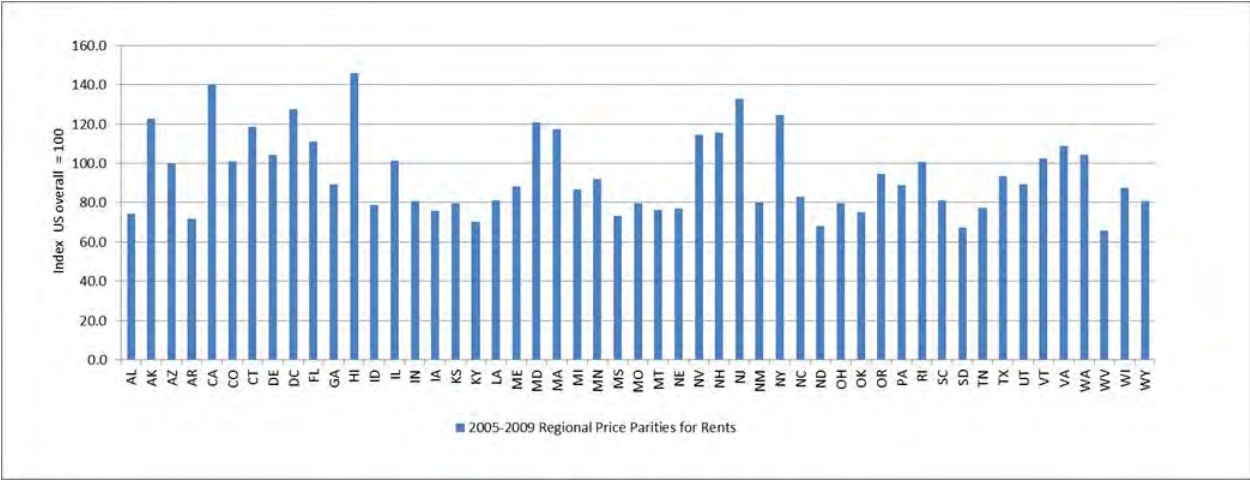

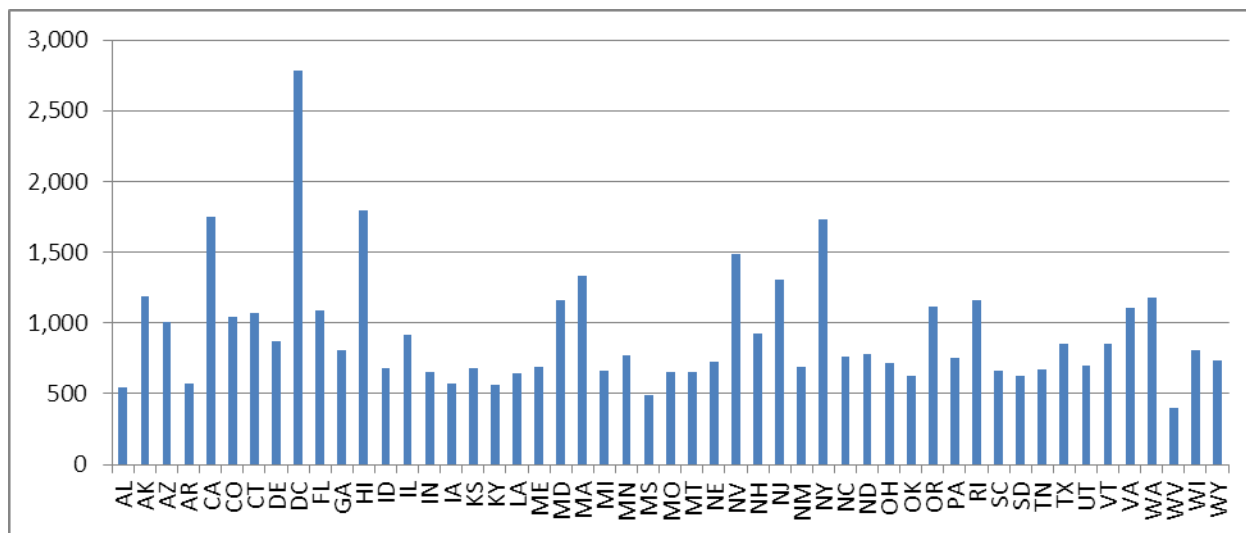**Chart 3. Regional Price Parities for Rents by State, 2005-2009 (Source: Aten, Figueroa, and Martin, 2011b)**

Chart 4. State Per Capita Expenditures for Tenant-Occupied Nonfarm Housing, 2007

Table 2 compares the state shares of national PCE from our estimates of imputed rent for owner-occupied housing to two alternative measures. As described in Section 3, the imputed rent estimates in this paper are created using data from BEA's Regional Income Statistics, which, in turn, are based on the market value that homeowners place on their homes (column 1). The data shown in the second column, Contract Rent Ratio, are estimated using the national relationship between the imputed rent for owner-occupied housing and rents in BLS price data to adjust the state-level American Community Survey (ACS) rent data for differences between eleven different types of owned and rented units. The experimental data has been prepared by BEA's Regional Price Parities Branch and are available for a 5-year average of 2006-2010. The data shown in the third column, Synthetic CPI Cost Weights, are also prepared by BEA's Regional Price Parities Branch. They are state-level aggregates of the index areas represented in Consumer Price Index, supplemented with county per-capita averages for sparsely populated counties that are not individually sampled.[19] These state-level cost weights are created for the years 2005-2009.

Although the state-level shares of national PCE based on the three different data sources are broadly consistent with each other, we see a higher ratio in column 1 for California, a large state that saw the impact of higher housing prices in the recent housing bubble, and a lower ratio in column 1 for Texas, a state where housing prices did not rise as quickly. Conceptually, our measure of owner-occupied rent should exclude asset price inflation and reflect only the rental price that the homeowner would have paid to rent her own home. This is one aspect of our housing estimates that we expect to improve with the use of micro-level data from the ACS.

---

[19] More specifically, these cost weights are at the level of the items that make up the Consumer Price Index, based on CE data. BEA RPP staff use them to create state-level cost weights in a three step procedure (described in detail in Aten, Figueroa, and Martin, 2011b): 1) Geographic area expenditure data from the CE are adjusted by BLS to be consistent with the items that make up the Consumer Price Index. These cost-weights are aggregated into 31 multi-county urban areas and 7 other metropolitan or urban areas, also called BLS index areas. There are also cost-weights for four broad rural regions of the U.S that cover many sparsely populated counties. 2) These expenditures are allocated to the counties that make up each of the index areas. Expenditures are allocated to counties proportionally to population. This results in a county-level set of cost-weights for 207 items. 3) The county-level cost weights are re-aggregated into states. The result is a set of 207 cost weight categories for 50 states plus the District of Columbia for the years 2005-2009.

For categories of expenditures that are estimated with point-of-sale data, five economic factors explain nearly all of the out-of-state spending that we observe in our estimates: sales tax differentials, travel and tourism, retail leakage, transportation hubs, and unusual patterns of state-level business spending.

Cross-border Sales Tax Effects

Variation in sales tax rates across states can lead to substantial interstate price differentials. [20] This, in turn, creates incentives for consumers residing in high tax jurisdictions to shop across the border in neighboring lower tax jurisdictions or shop online to avoid payment of sales taxes. [21] Cross-border purchases due to sale tax differentials are expected to bias our state PCE upward for the low sales tax states and downward for the high sales tax states. [22]

Maps 1 and 2 show sales tax rates and maximum local tax rates by state. Interestingly, some of the states with a low sales tax rates have high local sales tax rates, potentially mitigating some of the effects of the tax differentials at the state borders. [23] The states that have no sales taxes are Alaska, Delaware, Montana, New Hampshire, and Oregon. Also, with the exception of Alaska, these states do not have local sales taxes. While cross-border purchases can occur at any state border as long as the after-tax price differentials make it worthwhile to travel to the lower tax state, we expect the cross-border effects to be most pronounced for small states that border states with high sales tax rates. Instances that emerge from our analytical ratios are Delaware and New Hampshire. Delaware's neighbors – Pennsylvania, Maryland, and New Jersey – each have a sales tax rate of six percent or higher. Maine, Vermont, and Massachusetts that border New Hampshire, have tax rates of five percent, six percent, and 6.25 percent, respectively.

---

[20] For a theoretical discussions on this matter see Gordon (1983), Fox (1986), Mintz and Tulkens (1986), Braid (1987), Kanbur and Keen (1993), Trandel (1992, 1994), and Gordon and Neilsen (1997).

[21] Internet transactions are not subject to a state sales tax if vendors do not have legal presence (or nexus) in the state. They are, however, subject to a state use tax imposed at the same rate as the sales tax, but noncompliance with state use taxes is believed to be large.

[22] Cross-border effects are not limited to sales tax differentials. For example, Skidmore and Tosun (2005) provide evidence that cross-border effects from interstate lottery competition may impact significantly the retail activities in border counties.

[23] See, for example, Agrawal (2011).
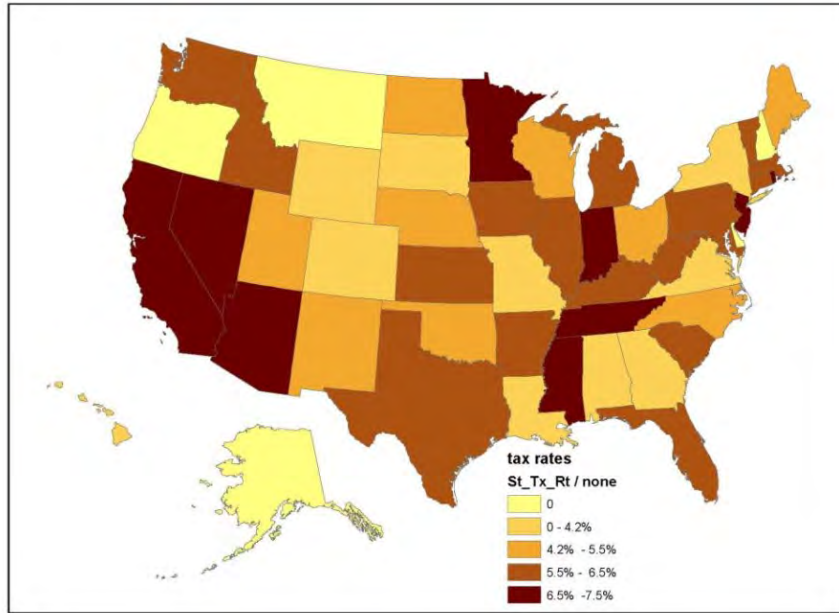
Map 1. Sales Tax Rates by State, 2013 (Source: Sales Tax Institute)
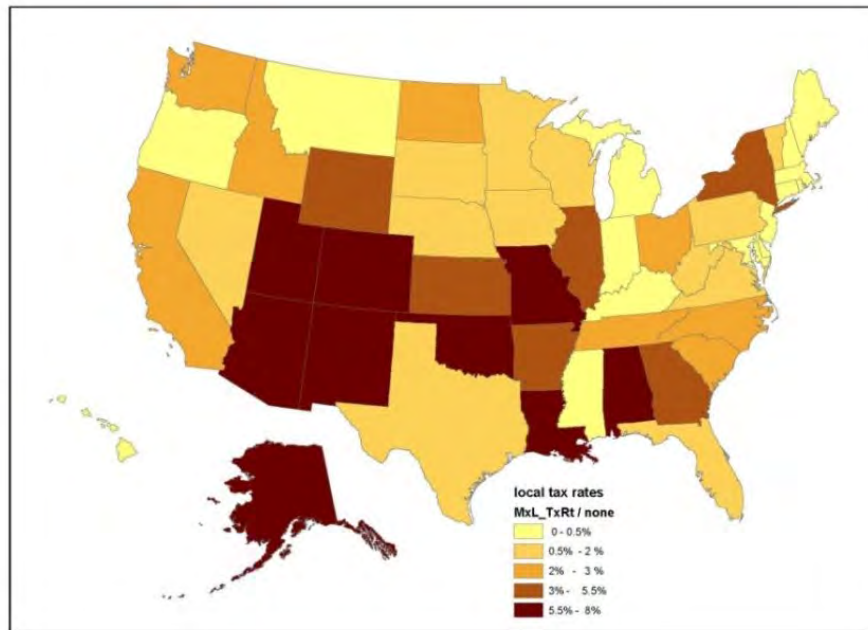
Map 2. Maximum Local Sales Tax Rates by State, 2013 (*Source:* Sales Tax Institute)

Empirical work on the impact of tax rates on sales for border communities finds strong responses to tax rate differentials, in particular, for goods that are subject to very different tax policies across states, such as tobacco and alcohol.

For example, Sterh (2005) examines the effect of a cigarette tax increase on cigarette tax avoidance in the form of smuggling, legal border crossing to low tax jurisdictions, or internet purchasing. He finds that tax avoidance accounted for close to 10 percent of cigarette sales between 1985 and 2001.[24] Beard et al. (1997) find cross-border shopping to be a significant determinant of state-level alcohol sales and demand. This finding is also corroborated by Nesbit and King-Adzima (2011) for wine and liquor sales in West Virginia.

Evidence of cross-border purchases is not limited to purchases of tobacco and alcohol. Walsh and Jones (1988) examined the effect of the elimination of the three percent sales tax on food in West Virginia in 1980-1982. They found that consumers in border counties stopped shopping across the border as the tax phased out. Tosun and Skidmore (2007) examine the effects of the opposite tax policy, the reintroduction of the food sales tax at twice the rate in 1989. They estimate that the imposition of the six percent sales tax resulted in a decrease in food sales in West Virginia border counties by four percent.

Internet sales are also highly sensitive to local taxation. Ballard and Lee (2007) find that online shopping is less likely to occur among consumers who live in counties adjacent to lower sales tax counties and interpret this finding as evidence of cross-border shopping. Goolsbee (2000) finds that people living in high sales tax locations are significantly more likely to buy online and estimates that taxing internet sales could reduce the number of online buyers by as much as 24 percent. Alm and Melnik (2005) provide similar evidence but report smaller effects; taxing internet sales would reduce online purchases by six percent.

Internet sales are expected to introduce bias to our state expenditures due to the location of online retailers, who may ship from one or a small number of states to consumers throughout the U.S. We make a preliminary adjustment for online sales of goods by excluding the EC receipts of nonstore retailers from the state-level measures. The resulting distribution of receipts implicitly assumes that the online sales are geographically distributed in the same pattern as the store-based sales. This preliminary treatment of online sales is satisfactory for the time period covered by our estimates in which e-commerce made up a very small share of retail sales. Currently, e-commerce makes up about five percent of retail sales to consumers, but its share is continually increasing. [25] In addition, over time we find that more services are provided online. Thus, the topic of online sales for services is an area ripe for future work.

We observe evidence of cross-border shopping due to sales tax differentials in several categories of goods, such as Furnishings and Durable Household Equipment, Recreation Goods and Vehicles, and Other Nondurable Goods. Chart 5 shows expenditures as a ratio of state disposable personal income for Furnishings and Durable Household Equipment for Delaware and its neighbors, Pennsylvania, New Jersey, and Maryland. The chart is normalized relative to the national measure and each vertical bar is one year. It is evident that

---

[24] Baltagi and Levin (1986) and Saba et al. (1997) provide evidence of cross-border shopping for cigarette purchases. In addition, Saba et al. (1997) find that border crossing effects substantially increase the response of sales to price. Baltagi and Goel (1987) find higher price elasticities for areas where smuggling and border-crossing is believed to occur.

[25] U.S. Census Bureau, 2012.

Delaware as no-sales tax state has disproportionately high expenditures relative to its neighbors as its expenditure shares are way above the national average, whereas its neighbor's expenditure shares are below the national average.
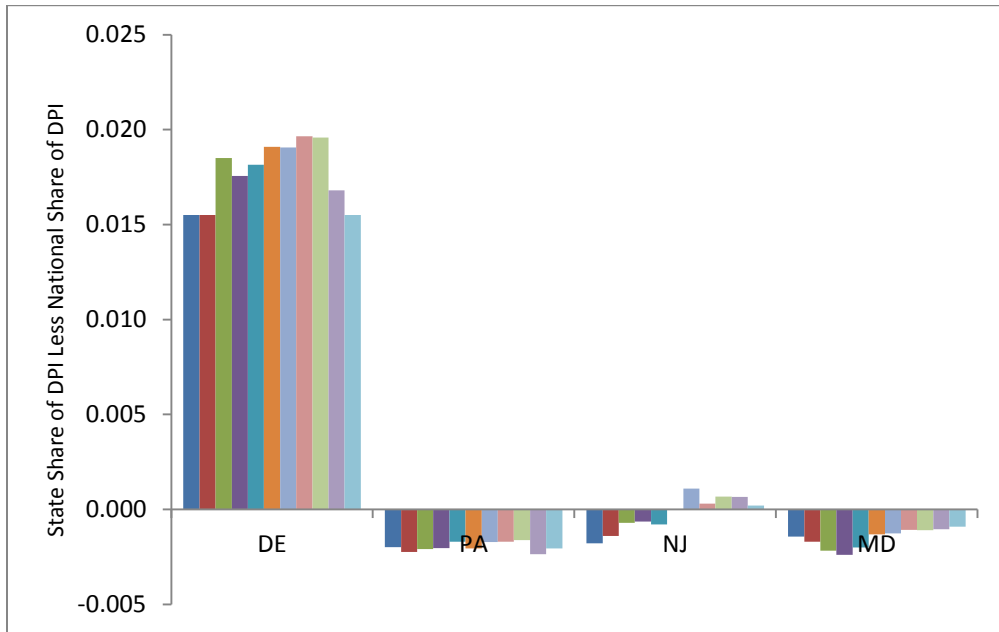

Chart 5. Relative Expenditures on Furnishings and Durable Household Equipment, 1997-2007

Travel and Tourism

Tourism by U.S. resident households makes up just over 60 percent of domestic travel and tourism (Zemanek, 2012). [26] When these U.S. residents make these expenditures outside of the consumer's state of residence, Economic Census and QCEW data can produce biased state PCE estimates.

Travel and tourism can be driven by urban amenities, by natural resources related outdoor activities, and by tourism specialty parks and clusters, (Leatherman and Marcouiller, 1997). A common approach to identifying states that disproportionately provide tourism-related services is to use employment data for industries associated with tourism—lodging, restaurants, amusement and recreations (Johnson and Thomas, 1990). Leatherman and Marcouiller (1997) add miscellaneous retail as a sector that is sensitive to traveler expenditures. Wilkerson (2003) takes a similar approach but omits restaurants because, he argues, for many locations a large share of restaurant output is consumed by local residents.

BEA's travel and tourism satellite accounts identify the following as tourism commodities: Traveler Accommodation, Food and beverage services, Transportation, Recreation and entertainment services, and Nondurable PCE commodities other than gasoline. We use BEA's GDP-by-state statistics to show the top ten

---

[26] BEA's travel and tourism satellite accounts identify the following as tourism commodities: Traveler accommodations, Food and beverage services, Transportation, Recreation and entertainment services, and Nondurable PCE commodities other than gasoline

states in per capita value added for the Arts and Entertainment sector and the Food Services and Accommodations sector (Table a). Nevada and the District of Columbia are the top two states in both categories. New York and Hawaii come in third place in Arts and Entertainment and Food Services and Accommodations, respectively.

Table a. Top Ten States for Tourism-related Per Capita Value Added, 2007

| State	Arts and Entertainment	State	Food Services and Accommodations
United States	46	United States	137
Nevada	130	Nevada	776
District of Columbia	97	District of Columbia	525
New York	75	Hawaii	438
Florida	68	Wyoming	208
California	66	Vermont	189
Colorado	65	Florida	174
Wyoming	60	Alaska	170
Missouri	55	Colorado	168
Hawaii	54	Massachusetts	153
Louisiana	54	California	146

Retail Sector Leakage

Retail sector leakage refers to a situation where the retail sales in a geographic area account for less than the effective demand of consumers in the area. From the perspective of the consumer, making retail purchases outside of one's local area is known as "out-shopping." State-level expenditures developed with Economic Census retail sales data and QCEW data show evidence of retail sector leakage for the District of Columbia, Rhode Island, West Virginia, and Wyoming.

In regional science literature, the location of retail *demand* can be explained by population density, per capita income, relative prices, preferences, interest rates, and transportation costs for consumers (Gale, 1996). The location of retail *supply,* he notes, is a function of the number of retail outlets and sales per outlet, which in turn are influenced by transportation costs for the supplier and economies of scale or scope. These explanations have roots in central place theory, which holds that the local provision of goods and services depends on a minimum level of demand. This implies that small populations can sustain markets for frequently purchased goods, but for more infrequent purchases and more specialized goods, a larger population area is required for profitability. Over time, retail trade will concentrate where there are economies of scale and consumers are mobile with low transportation costs (Harris and Shonkwiler, 1994). As retail trade develops, stores selling complementary products will co-locate when their consumers gain economies of scope in their shopping trips (Mulligan, 1984).

These factors lead to two kinds of retail sector leakage observable in our data. The first kind is out-shopping for most categories of goods for residents of the District of Columbia. The District of Columbia has the economic and demographic characteristics of a city rather than of a state, with high rents in the central city that displace retail trade to nearby locations with lower rents, free parking, and transportation access for larger goods.

The second kind of retail sector leakage that we observe is for the sparsely populated states and rural states with higher transportation costs. For Wyoming, least populated state per square mile in the continental U.S., many purchases for other durable goods and clothing and footwear appear to be made out of state. Although West Virginia is not particularly sparsely populated on average, the mountainous geography and relatively underdeveloped highway system increases travel costs for consumers within the state. Much of the state's population is located around the outer edges of the state (Map 3), integrating these residents with economic centers in the bordering states of Pennsylvania, Ohio, Kentucky, Virginia, and Maryland.
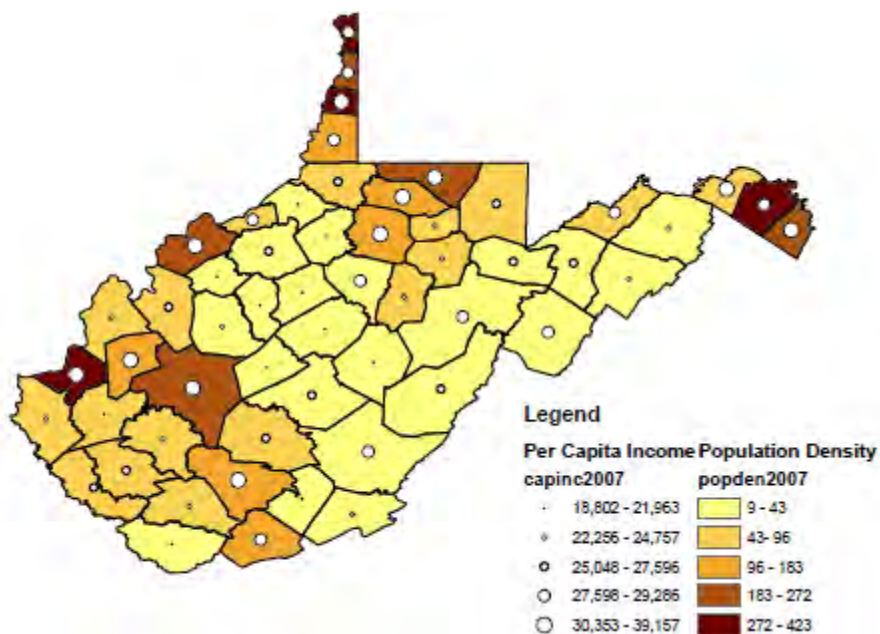
Map 3. West Virginia per Capita Income and Population Density, 2007

Transportation Hubs

For Transportation Services expenditures we observe high expenditures for states that correspond to transportation hubs. Out of 742.6 million enplanements at 508 U.S. towered airports in 2008, 68.8% of these enplanements (511.1 million) took place in the 29 large hub airports. These 29 airports are located in only 21 states. As a result air travelers frequently need to travel to out-of-state airports (FAA, 2010).

Business Spending

For Gasoline and Other Energy Goods, we observe high expenditures for three states in the Plains region, Nebraska, North Dakota, and South Dakota, and one state in the Rocky Mountain Region, Wyoming. The class-of-customer ratio that is used to allocate retail sales for gasoline between business, government, and households is at the national level and so does not account for state-level variations in retail sales of gasoline to business. For these states, we attribute these high expenditures to business spending for two reasons.

First, these four states are among the states with the highest rates of self-employment, which we associate with higher business spending for gasoline. Table b. below shows the top ten states in terms of the share of the population that is self-employed, and thus more likely to use their vehicles for business purposes.

The second factor is most significant in Wyoming and is related to the use of gasoline by state, as explained in state-level data from the Energy Information Agency. The Energy Information Agency provides data on state level expenditure shares of motor gasoline by state for the commercial, industrial, and transportation sectors (U.S. EIA, 2011). While the national average for commercial use is 2.7 percent, in Wyoming, commercial use is 7.6 percent. We interpret commercial use as a partial component of retail sales that should be outside the scope of PCE.

Table b. Top Ten States for Self-Employment to Population Ratio, 2010

State	Self-employment to Population Ratio
United States	4.8%
Montana	8.1%
Vermont	7.9%
South Dakota	7.8%
Colorado	7.0%
North Dakota	6.8%
Idaho	6.8%
Oregon	6.8%
Maine	6.8%
Wyoming	6.2%
Nebraska	6.2%

Source: Self-employment data from Small Business Administration and Current Population Survey*

Having identified the economic factors that explain the extreme analytical ratios for the different categories of expenditures, the final step of our evaluation procedure is to identify states that need a residency adjustment. We approach this task conservatively and consider a state as a candidate for a residency adjustment only if the following three conditions are met. First, the bias in the expenditures is large enough to distort the state's spending. Second, there is an economic justification for adjustment such as the presence of travel and

tourism, differences in sales taxes across neighboring states, etc. Lastly, there are data available to make the adjustment.

Residency Adjustment

Various economic factors that explain the evidence of interstate purchases that we see in our estimates make a case for different residency adjustment schemes. For example, if adjusting for cross-border purchases due to sales tax differentials, it is sensible to allocate a state's excess expenditures only to the bordering states, whereas for a tourism-related adjustment, it is sensible to allocate a portion of the excess expenditures to all states. Different residency adjustment schemes, however, are impractical, especially since a PCE category may need a residency adjustment for multiple reasons.

We adjust the expenditures based on net interstate consumer flows. A state will have disproportionally high expenditures based on point-of-sale data if the inflows of nonresident consumers that make purchases in the state are larger than the outflows of resident consumers that make purchases out of state. Larger states likely generate larger consumer flows. In addition, similar net consumer flows are expected to have larger distortionary impacts in expenditures of smaller states compared to the larger states. For the former, we make a level adjustment to the state's expenditures and reallocate residual expenditures proportionally to the remaining states. This is more in line with a tourism-related adjustment, which involves consumer flows from virtually all states.

Our residency adjustment uses the relative expenditure share ratio as an adjustment factor for the expenditure shares of the states identified during the evaluation process as having a pronounced residency problem. Recall that this adjustment factor shows the proportion of the household expenditures reported by businesses that is corroborated by the households; hence when below (above) one, it shows that business receipts overestimate (underestimate) the household expenditures.

The residency adjustment procedure consists of the following. First, we multiply the states' expenditure shares for a particular PCE category for each year by the corresponding state's adjustment factor to increase or reduce them as necessary. Note that the adjustment factor is based on average expenditures; hence, it is not year-specific. [27] Next, using the adjusted expenditure shares we estimate new expenditures for the problematic states. Lastly, we rescale the expenditures to the NIPA category total by reallocating the residual expenditures proportionally across the remaining states.

Going back to the Table 3 with the analytical ratios for Food Services and Accommodations expenditures, the states presented in bold are the states that are chosen by the evaluation procedure for a residency adjustment (Alaska, District of Columbia, Hawaii, and Nevada). The per capita and PCE to DPI ratios show that the post-adjustment expenditures of these states are more in line with expectations. For example, the residency-adjusted per capita expenditures for the District of Columbia are $2,982. These expenditures are still 50 percent higher than the national per capita expenditures, but down from the initial difference of 210 percent.

---

[27] This implies that any changes in consumer behavior over time are captured equally well by both PCE and CE.

Chart 6 shows, the impact of the residency adjustment on the expenditures of all states for Food Services and Accommodations. The states with the largest expenditure adjustments are the states whose expenditures have been directly adjusted. These are also states with relatively small expenditures, thus, the expenditures of the remaining states have only been slightly adjusted as part of the rescaling of expenditures to the NIPA category total.
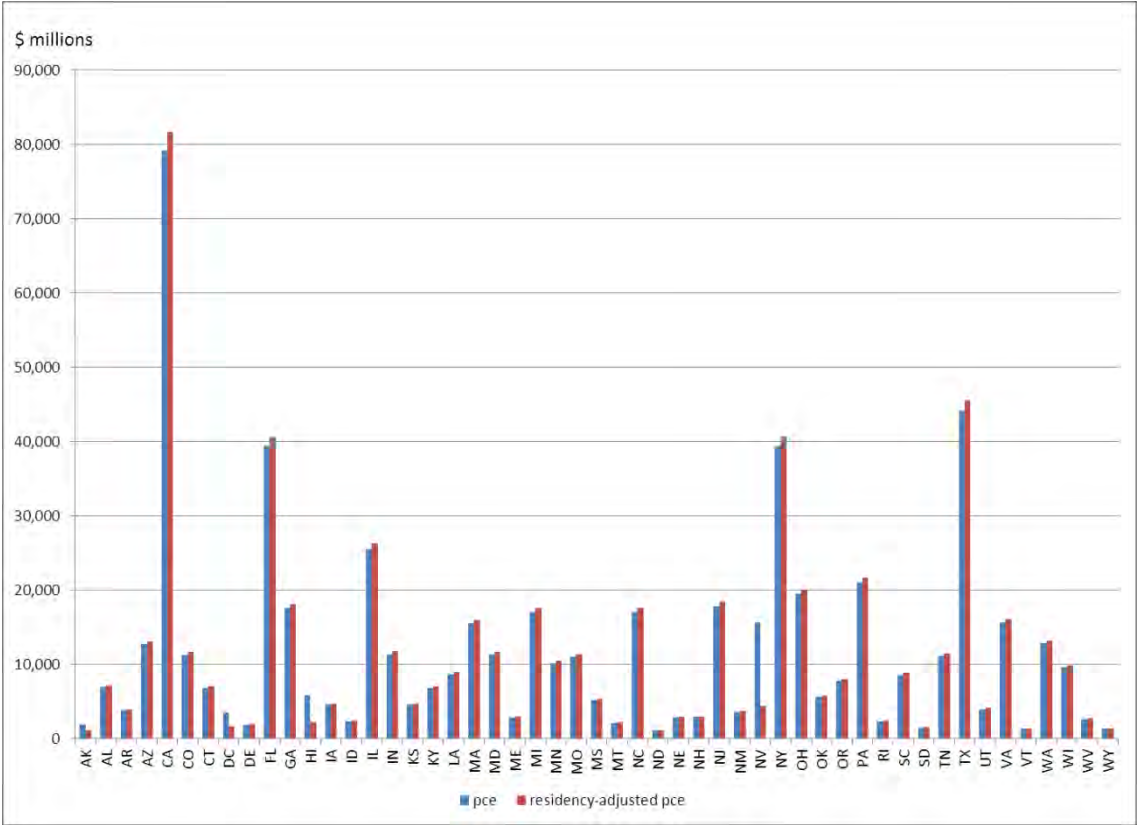

Chart 6. Unadjusted and Residency-adjusted Food Services and Accommodations Expenditures, 2007

Table 4 provides a summary of the states that were adjusted for residency by major PCE category. Color coded is the reason for adjustment. Pluses and minuses indicate the direction of the adjustment. The majority of the adjustments for the goods categories are done for Delaware, Montana, and New Hampshire because of the absence of sales tax and for tourism states like Florida, Hawaii, Nevada, and New York. Gasoline and Other Energy Goods are adjusted mainly for business spending (Nebraska, North Dakota, South Dakota, and Wyoming).

Residency adjustments for services are more diverse. Transportation Services are adjusted for the location of transportation hubs and tourist destinations, hence the adjustments for Alaska, District of Columbia, Hawaii, Illinois, Nevada, Utah, and West Virginia. Recreation Services and Food Services and Accommodations are adjusted for travel and tourism-related interstate purchases. In the Other Services category, we have made a

residency adjustment to the District of Columbia, Massachusetts, and New York based on the location of provision of professional services.

Finally, the two largest categories of expenditures, Housing and Utilities and Health Care, are not adjusted for residency because the source data used for these estimates is based on the residence of the household. Financial Services and Insurance expenditures are also not adjusted because these expenditures are currently allocated to states with state disposable personal income.

Charts 7 and 8 show the impact of the residency adjustment on the state total PCE . State total PCE and state DPI are presented on a log scale so that all the data points lie within a reasonable range on the axis. Points closer to the origin have lower levels of PCE and DPI; those farthest away have the highest levels of both PCE and DPI. As expected, we see a close correspondence between PCE and DPI with Wyoming at the lowest levels of PCE and DPI and California, Texas, New York, and Florida at the highest levels. States that appear above the 45-degree line have a ratio of PCE to DPI greater than one and those below the 45 degree line have a ratio of PCE to DPI of less than one.

Before the residency adjustment, Delaware, District of Columbia, Hawaii, and Nevada are among the largest positive outliers (Chart 7). After the residency adjustment the expenditures of these states are more proportional to the state DPI as evidencedj by the location of the points closer to the 45-degree line (Chart 8). The expenditures of the rest of the states have been minimally affected by the residency adjustment. A summary of PCE to DPI ratios for total PCE and expenditures by major PCE category for 2007 is presented in Appendix Table 5.
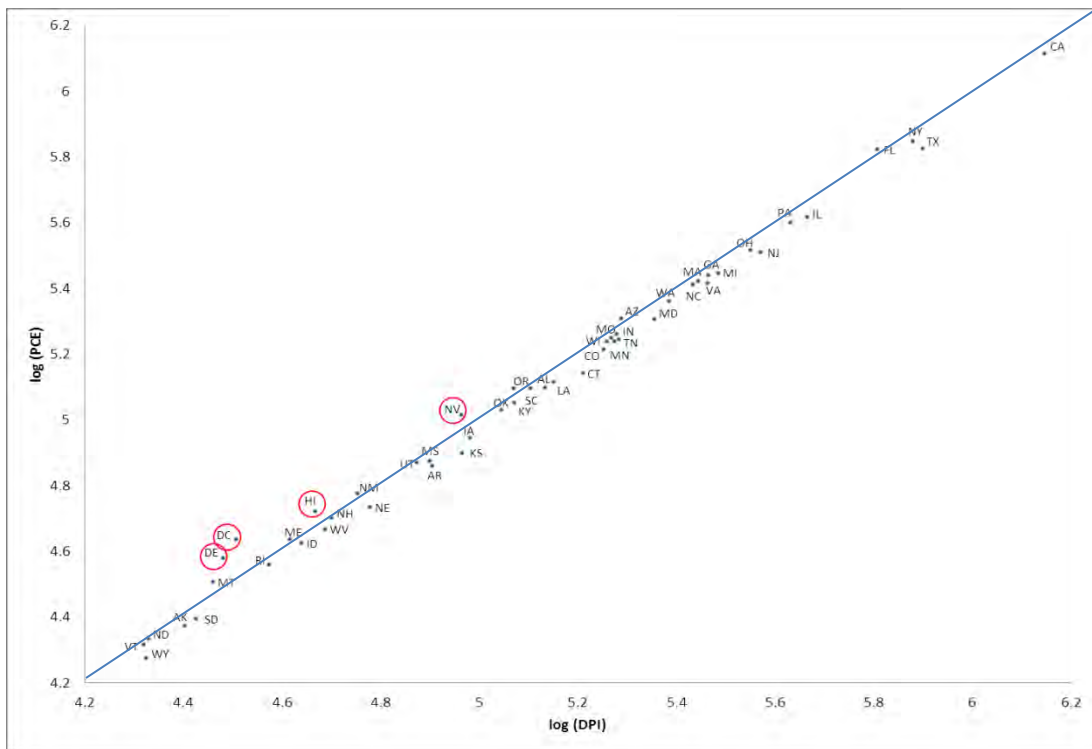

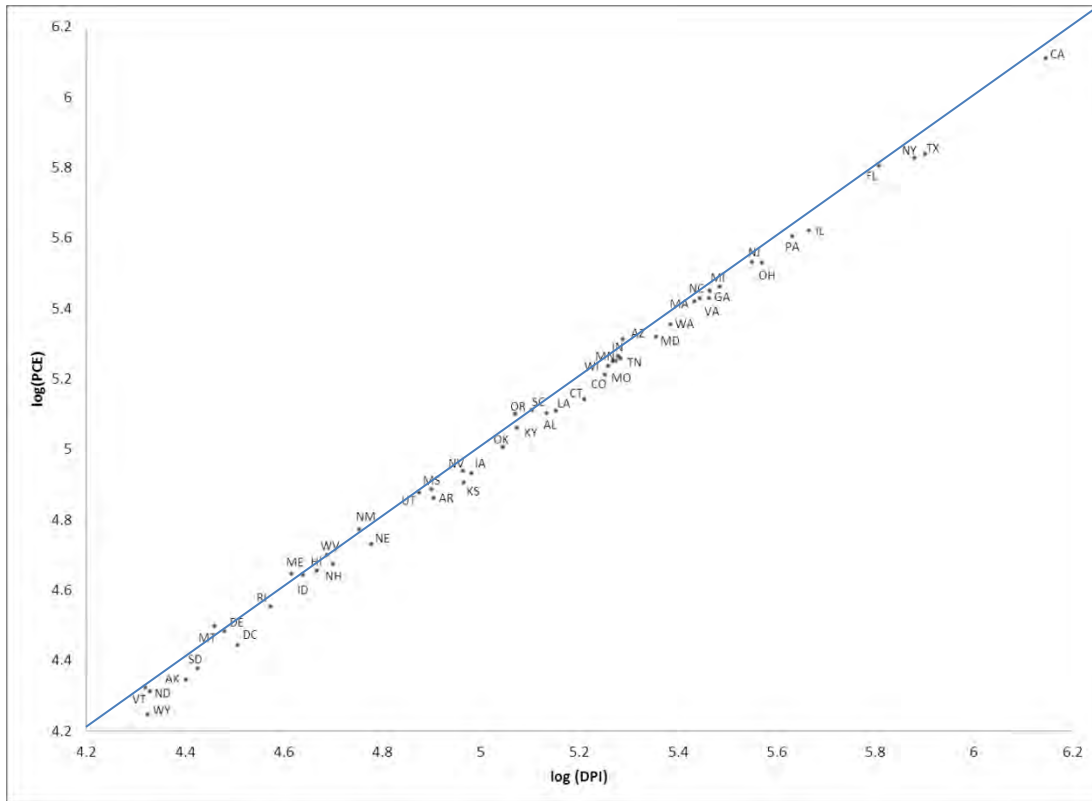**Chart 7. Unadjusted State PCE and Disposable Personal Income, 2007**

Chart 8. Residency-adjusted State PCE and Disposable Personal Income, 2007

A major advantage of our evaluation and residency-adjustment methodology is that it results in a small number of adjustments applied to states with the most egregious cases of out-of-state spending. Furthermore, the adjustment factor, a constant ratio of the expenditure shares from the Consumer Expenditure data and Economic Census data, ensures that the time series trends in the unadjusted estimates are preserved. In other words, there is only a level adjustment in the expenditures of the problematic states, not an adjustment on the growth trends. In addition, good matching between the spending categories in the Consumer Expenditure data and PCE is not available for all categories.

5. Results

We show highlights from results in Appendix Tables 1 through 7. We show summary statistics across categories for our time series, and show category detail for states for the last year of our estimates, 2007. Appendix Table 1 shows our estimated total PCE in millions of dollars for each state for the years 1997-2007. Appendix Table 2 shows our estimated annual percent change in total PCE for each state for 1997 to 2007. Appendix Table 3 shows the level for each state for 2007 for each expenditure category of the eight categories of goods and seven categories of services plus net nonprofits.

Appendix Table 4 shows state PCE by major type of product as a share of state total PCE in 2007 net of nonprofit expenditures. These excluded net expenditures of nonprofits are assigned to the state where the nonprofit institution is resident. The District of Columbia, New York, Massachusetts, Pennsylvania, and Rhode

Island have relatively large presence of nonprofits. These expenditures are excluded in order to better compare across states the expenditures made by and on behalf of consumers in each category.

Appendix Table 5 shows state total personal consumption expenditures net of nonprofits as a share of state disposable personal income for 2007. This table is a useful analytical supplement to Appendix Table 4 because the different denominator (DPI instead of total PCE) allows our estimates of PCE as a share of DPI to be compared to the U.S. average of 0.91 in 2007. For California we estimate that PCE accounted for 0.93 of DPI in 2007, while for Arizona, Maine, Montana, New Mexico, Oregon, and West Virginia this ratio is above one. While dissaving is one interpretation of a PCE to DPI ratio above one, we also see it as a possible indication of an incomplete residency adjustment.

Appendix Table 6 shows, for the major PCE categories, the average contribution to the annual percent growth in total per capita personal consumption expenditures, excluding nonprofits across the 1997 to 2007 period. Appendix Table 7, shows for each category the annual percent change of the residency- adjusted estimates for each state.

Because our estimates are in nominal dollars they represent both quantity effects and price effects. However, certain patterns emerge. For example large and sparsely populated states show higher per capita spending on motor vehicles, recreational goods and gasoline, and higher income states show higher per capita spending in food away from home. A discussion of these patterns by PCE category follows.

Motor Vehicles and Parts. In 2007, the state expenditure share accounted for by Motor Vehicles and Parts ranged from a low of three percent in the Eastern and Mid-Atlantic states of New York, New Jersey, the District of Columbia, Massachusetts, and Rhode Island to six percent (Appendix Table 4). The largest shares of spending on motor vehicles and parts are in the Plains, Rocky Mountains, and Southwest, with Wyoming, Texas, the Dakotas, and Idaho having state expenditure shares of six percent.

Furnishings and Durable Household Equipment. State expenditure shares for Furnishings and Durable Household Equipment range between two and four percent of state PCE (Appendix Table 4).

Recreational Goods and Vehicles. State expenditure shares for Recreational Goods and Vehicles vary widely, from a low share of two percent in Delaware to a high of five percent in Utah and Oregon and six percent in Alaska (Appendix Table 4). In addition to recreational vehicles, such as motorcycles, boats, and snowmobiles, this category includes guns, supplies, and ammunition, and video, audio, and photographic equipment.

Other Durable Goods. The Other Durable Goods category contains disparate items: jewelry and watches, therapeutic appliances and equipment, educational books, luggage, and telephone and facsimile equipment. Expenditure shares for this category range from one percent in Alaska to about two percent for most other states (Appendix Table 4). In general we see higher per capita expenditures in the category for higher income states such as Connecticut, Massachusetts, and the District of Columbia. Although not shown in Appendix Table 4, our analysis of the underlying data showed per capita expenditures for telephone and facsimile equipment at more than double the national per capita average in the Plains states of North and South Dakota, and in Montana.

Food and Beverages Purchased for Off-premises Consumption. We estimate state-level expenditure shares for Food and Beverages Purchased for Off-premises Consumption range at a low of five percent in the District of Columbia in 2007 (Appendix Table 4) where many restaurants provide an alternative to off-premises food and beverages. The northern New England states of Vermont, New Hampshire and Maine all have expenditure shares of eight or nine percent and Hawaii has an expenditure share of nine percent for off-premises food and beverages.

Clothing and Footwear. For Clothing and Footwear, the average budget share based on national data for 2007 is four percent (Appendix Table 4). The variation in budget shares across states is low and ranges between three and four percent.

Gasoline and Other Energy Goods. While Gasoline and Other Energy Goods make up four percent of U.S. PCE in 2007, this category accounts for about six percent of PCE in 2007 for Arkansas, Iowa, and Montana (Appendix Table 4). The smallest budget share is for Hawaii at two percent. Map 3 shows per capita expenditures by quintile in 2007. In addition to Arkansas, Iowa, and Montana, per capita expenditures are also high in the northern New England states, in New Mexico, Indiana, and South Carolina.
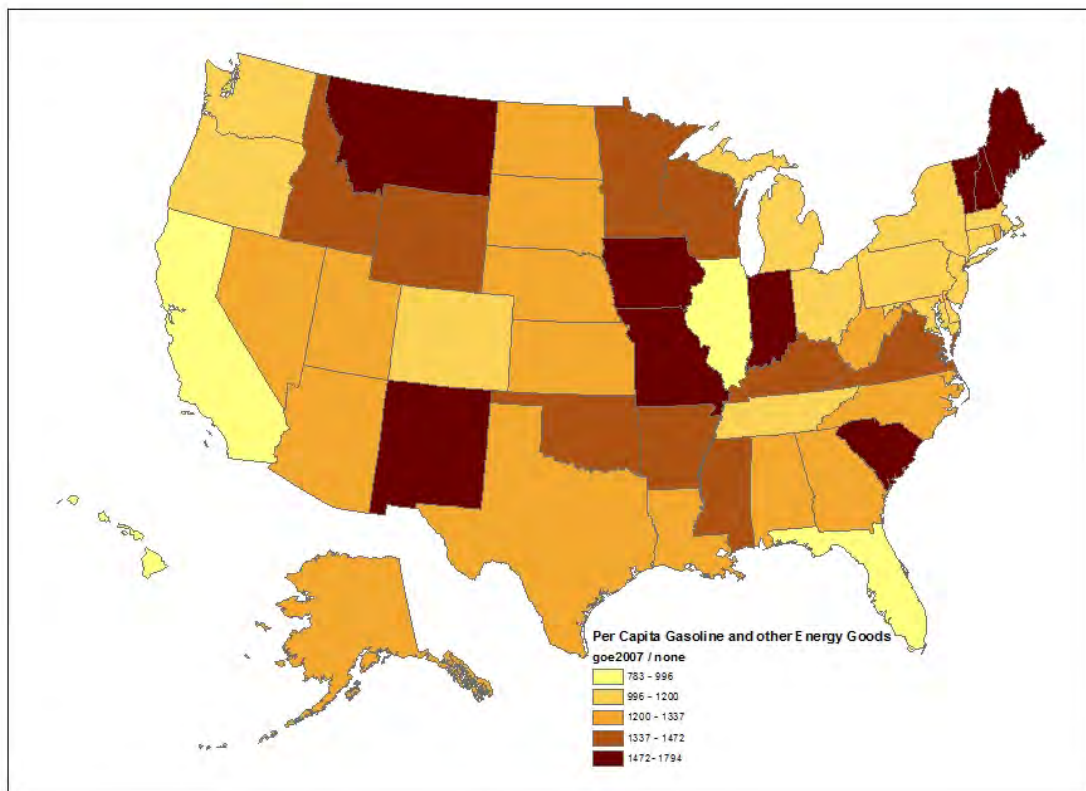

Map 3: Per Capita PCE for Gasoline and Other Energy Goods, 2007

Other Nondurable Goods. The Other Nondurable Goods category is comprised of pharmaceutical products, household supplies, recreational items, personal care products, tobacco, magazines and newspapers, and the net expenditures U.S. residents abroad. These categories account for eight percent of national PCE in

2007. We estimate that the states with the highest shares of these expenditures are Florida, Michigan, Kentucky, and Utah at ten percent or above (Appendix Table 4).

Housing and Utilities. Housing and Utilities make up the largest single category of expenditures, 18 percent at the national level in 2007. As noted in Section 4, the price of housing varies substantially across geography, leading to large differences in budget shares. We estimate the highest budget shares in 2007, 20 percent or above in Arizona, California, Hawaii, Maryland, Nevada, Oregon, and Washington State (Appendix Table 4). Lowest budget shares are 14 percent in Texas, North Dakota, and Nebraska.

Map 4 shows per capita PCE for Housing and Utilities in 2007. Hawaii, California, and the District of Columbia (not quite visible on our map) are in the highest quintile.


Per Capita Housing and Utilities
hut2007 / none
3,896 - 4,448
4,448 - 5,218
5,218 - 6,154
6,154 - 7,637
7,637 - 8,965
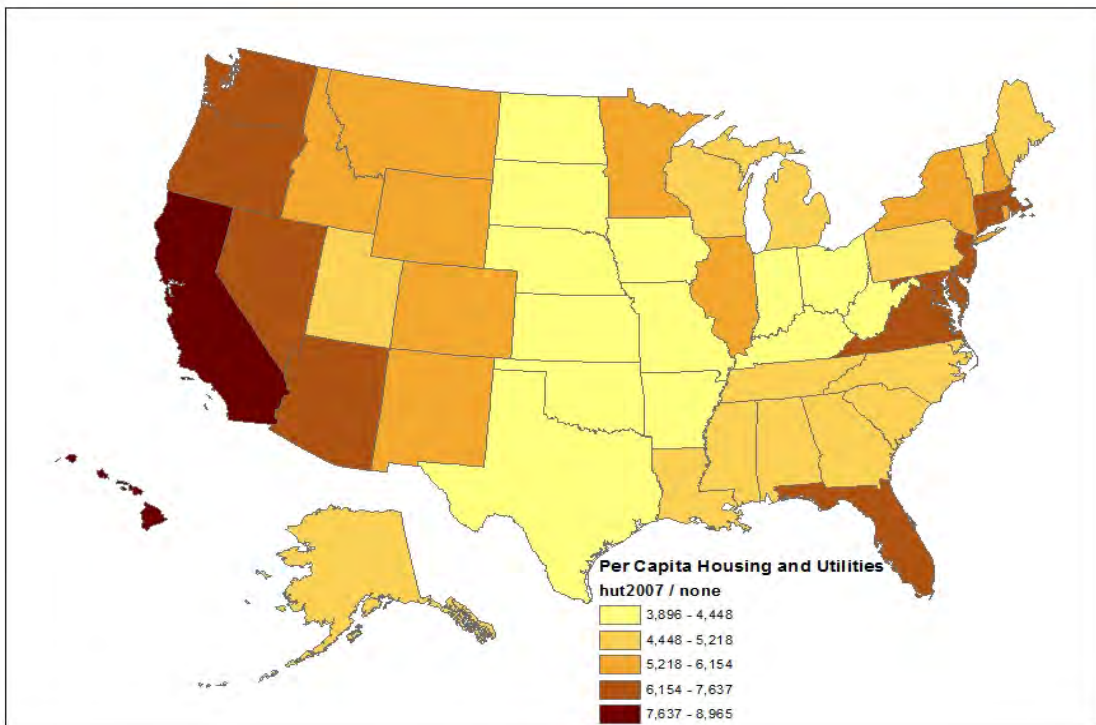
Map 4: Per Capita PCE for Housing and Utilities, 2007

Health Care. The Health Care services category includes physician services, dental services, home health care, medical laboratories, specialty services, and expenditures for hospital and nursing home services. Other health-related spending is located in the other durable goods category (medical equipment) and in other nondurable goods (pharmaceuticals) discussed in the paragraphs above. Health Care services accounted for the largest budget shares in Alaska (19%), the District of Columbia, Indiana, Massachusetts, Nebraska, Ohio, Pennsylvania, Wisconsin, and West Virginia (18% each).

Map 5 shows quintiles of per capita spending on health care. Per capita health care services expenditures in the District of Columbia (hard to see on the map) are 68 percent above the national average, perhaps not surprising, given that the demographics of the District are more similar to that of other large urban

areas, rather than other states or the national as a whole. Per capita health care services expenditures are in the highest quintile in the District of Columbia, the northeast, Alaska, and the upper Midwest states of Wisconsin and Minnesota. These per capita expenditures are in the lowest quintile in the south and southwest, excluding Florida and California. The average annual contribution of Health Care services expenditures to the growth rate of per capita state PCE over the period 1997-2007 was largest in Alaska, where the contribution was 1.24 percentage points of the 4.62 average annual percent growth, or over one quarter of the growth rate (Appendix Table 6). In contrast, we estimate that Health Care services expenditures accounted for just 0.66 percentage point of the 4.18 percent average annual percent growth in Texas PCE, or about one sixth of the growth rate.
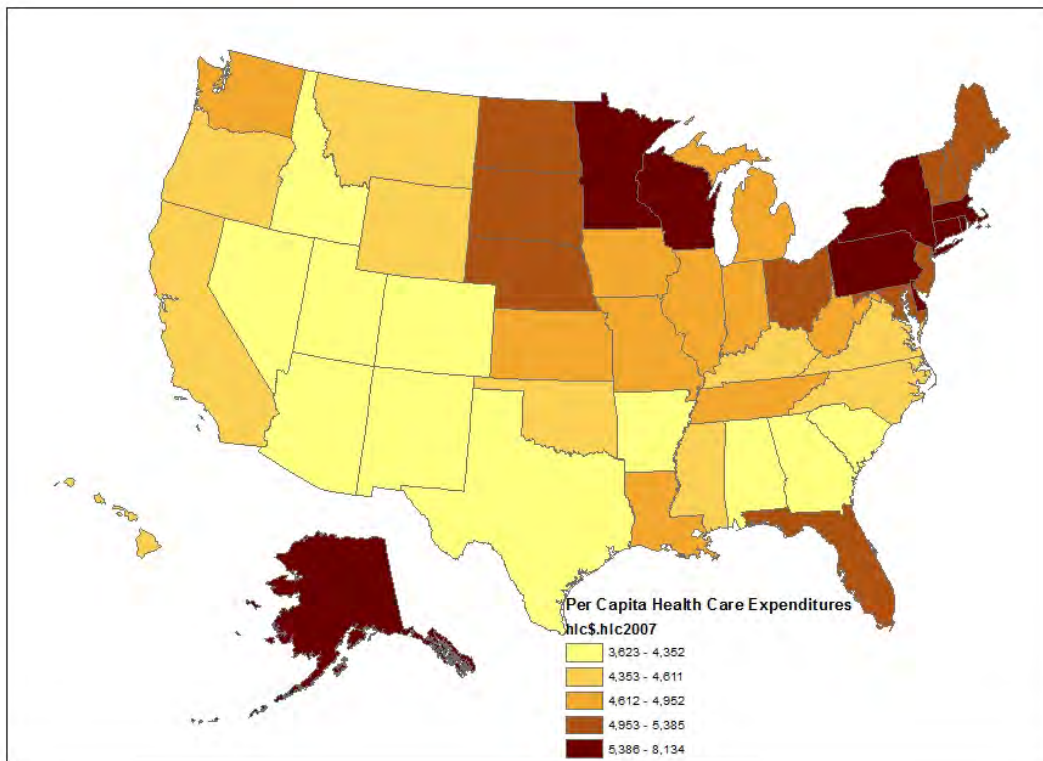

Map 5: Per Capita PCE for Health Care Expenditures, 2007

Transportation Services. Transportation Services are comprised of vehicle leasing expenditures, parking fees and tolls, and expenditures for public transportation, including rail transport, road transport, mass transit, and air and water transportation. As a share of state PCE in 2007 excluding nonprofits, these expenditures are lowest in West Virginia (2%) and highest in Colorado, Georgia, Illinois, Minnesota, Missouri, Oklahoma, and Texas (4% each) (Appendix Table 4).

Recreation Services. Recreation Services include membership clubs, admissions to parks, campgrounds, theaters, sports events, museums, libraries, audio-visual, photographic, and information processing equipment services, gambling expenditures, veterinary services, package tours and maintenance and repair of recreational vehicles and sports equipment. As such, our estimates of this category are an aggregate of very disparate items. As a result, this category had several direct adjustments for out-of-state spending (Table 4). As a share of state total personal consumption expenditures excluding nonprofits, we estimated North

Dakota with the largest share in 2007, six percent, compared to a U.S average of four percent (Appendix Table 4). Our underlying estimates (not shown in these Tables) indicate that the category of audio-visual, photographic, and information processing equipment services accounted for a large share of this North Dakota expenditure.
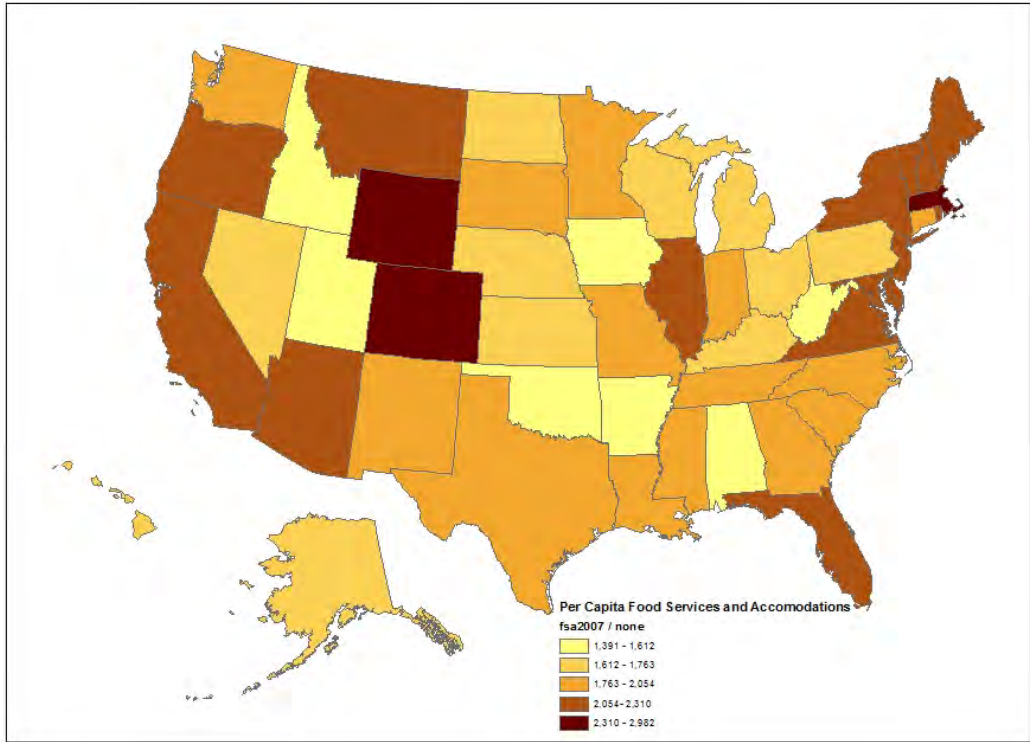
Map 6: Per Capita PCE for Food Services and Accommodations, 2007

Food Services and Accommodations. Like recreational services, the Food Services and Accommodations category showed evidence of out-of-state spending that we adjusted for with Consumer Expenditure data. After the adjustments described in Section 4 for Alaska, the District of Columbia, Hawaii, and Nevada, our estimates show that the state budget shares for 2007 range between five and eight percent of total PCE excluding nonprofits, with six percent as the U.S. average. The highest share is for Wyoming at eight percent (Appendix Table 4). In per capita terms, the highest expenditures are in the District of Columbia at 50 percent above the U.S. average of $1,993 (Table 3). The lowest per capita expenditures on Food Services and Accommodations are in West Virginia, 25 percent below the U.S. average, and in Arkansas, at 30 percent below the U.S. average. The states with low per capita spending are shown in Map 6, where Idaho, Utah, Iowa, Oklahoma and Alabama fill out the remainder of the lowest spending quintile states for Food Service and Accommodations.

Financial Services and Insurance. As we describe our estimates for state PCE for Financial Services and Insurance, the reader is reminded that the state-level data sources we experimented with for this category showed large biases that could not be adjusted with the Consumer Expenditure data. As a result, as a

preliminary measure, this category is estimated simply with disposable personal income. Thus, Appendix Table 5 simply shows the same U.S. ratio for each state, and higher expenditures are driven by higher incomes.

Other Services. The Other Services category is comprised of many different services—telephone and cell phone services, education services, including higher education, legal services, accounting and other business services that households may consume, labor and professional organization dues, funeral and burial services, personal care and clothing services, social services, including childcare, religious services, household maintenance, and net foreign travel. Appendix Table 4 shows that the U.S. share of PCE on this category in 2007 is nine percent. States with budget shares substantially below that are Arizona, Idaho, Mississippi, Montana, New Mexico, Nevada, and West Virginia (7% each). States with shares substantially larger than the U.S. average shares are Connecticut, District of Columbia, Illinois, and Massachusetts (11% each).

6. Summary

Personal consumption expenditures by state provide a window on the geographic distribution of household spending that will be useful to a wide range of data users, from marketing professionals to regional science academics to state-level policy analysts. They are a first step toward the goal of price-adjusted PCE-by-state statistics, which can provide a direct measure of economic well-being that accounts for the impact of income, wealth, and relative prices.

 Our experimental PCE-by-state statistics improve on alternative state measures of household consumption spending in three dimensions. First, we provide expenditures by category instead of solely an aggregate measure. Second, we provide a series of tables that allow us and our data users to evaluate our statistics with disposable income and population. Third, we use household expenditure data, sparingly so far, to overcome one of the limitations of state-level retail trade statistics from the Economic Census: the biases due to out-of-state spending.

Our preliminary results for 1997-2007 show the regional variations in spending by category that are driven by geography, income, and demographics. We see high per capita spending on cars and gasoline in sparsely populated rural states, and high expenditures on housing in many coastal states. We can also see not only which states have high per capita spending on health care, but states where this spending is an increasing share of total state PCE growth.

An important next step is to complete the extrapolation of the experimental statistics through 2011, to begin to show the impact of the Great Recession on PCE at the state level. Although for recent years estimates will lack the benchmark provided for many categories from the Quinquennial Economic Census, we expect that data users will find substantial value in preliminary indicators of the changes in PCE by state and category.

For Housing and Utilities, the largest single category in our estimates, we plan to exploit available microdata from the American Community Survey for tenant-occupied rent. Additionally, as we have discussed, our estimates of owner-occupied rent suggest an impact from asset inflation in housing values in recent years. A high priority for our next steps is to work toward developing estimates of owner-occupied rent that exclude this effect.

Although PCE statistics are categorized geographically based on the state of residence of the consumer, one possible extension of our work is to show estimates of expenditures for goods and many services based on the location of the business that sells the products in each category. We anticipate that these supplemental statistics may be useful for evaluating the location of consumer spending by state, including out-of-state spending.

A substantive issue for our future work is to evaluate how much our estimates can be improved by a more aggressive approach to residency adjustment. The work presented here took a minimalist approach to adjustment. We made an adjustment only when three things were true: 1) the state spending, income, and per capita measures were substantially different from the national value, 2) we had an economic reason to make an adjustment, and 3) we had a good match in the consumer expenditure-based data. The resulting set of adjustments, shown in Table 4 can be viewed as adjusting only the most egregious cases of out-of-state spending. Future versions of these statistics could be improved with a more comprehensive approach to particular categories—recreational equipment, food services and accommodations, and other services.

A final issue involves the level of detail for presentation of our statistics. We created the estimates for 77 categories of goods and services, and aggregated the results to 8 categories of goods and 7 categories of services. Greater detail involves relying on potentially thinner underlying source data and also additional resources committed to category and time series review. Still, there are areas where greater detail may be very valuable to our data users. The Other Services category, for example, is sufficiently diverse to confound any economic interpretation of spending patterns. For these services, and for categories of health care where the underlying source data are of sufficient quality, we hope to experiment with expanded detail in future updates of this work.

References

Alm, James and Mikhail I. Melnik. 2005. "Sales Taxes and the Decision to Purchase Online." *Public Finance Review* 33 (2): 184-212.

Agrawal, David R. 2011. "The Tax Gradient: Do Local Sales Taxes Reduce Tax Differentials at State Borders?" Working Paper (November 11, 2011), Available at SSRN: http://ssrn.com/abstract=1909035 or http://dx.doi.org/10.2139/ssrn.1909035

Aten, Bettina H., Eric B. Figueroa, and Troy M. Martin. 2011a. "Notes on Estimating the Multi-Year Regional Price Parities by 16 Expenditure Categories: 2005-2009," (WP2011-03) April, 2011.

Aten, Bettina H., Eric B. Figueroa, and Troy M. Martin. 2011b. "Research Spotlight Regional Price Parities by Expenditure Class, 2005–2009." Survey of Current Business (May): 73-87.

Ballard, Charles L. and Jaimin Lee. 2007. "Internet Purchases, Cross-Border Shopping, and Sales Taxes." *National Tax Journal* 60(4): 711-725.

Baltagi, Badi H. and Rajeev K. Goel. 1987. "Quasi-experimental price elasticities of cigarette demand and the bootlegging effect." *American Journal of Agricultural Economics* 69 (4): 750-754.

Baltagi, Badi H. and Dan Levin. 1986. "Estimating dynamic demand for cigarettes using panel data: the effects of bootlegging, taxation, and advertising reconsidered." Review of Economics and Statistics 48: 148-155.

Beard, T. Randolph, Paul A. Gant and Richard P. Saba. 1997. "Border-Crossing Sales, Tax Avoidance, and State Tax Policies: An Application to Alcohol." *Southern Economic Journal* 64: 293-306.

Bee, Adam, Bruce D. Meyer, and James X. Sullivan. 2012. "The Validity of Consumption Data: Are the Consumer Expenditure Interview and Diary Surveys Informative?" National Bureau of Economic Research, Working Paper 18308. http://www.nber.org/papers/w18308

Braid, Ralph. 1987. "The Spatial Incidence of Retail Sales Taxes." *Quarterly Journal of Economics*, 102 (1987): 881-891.

Bureau of Economic Analysis. 2009. "Concepts and Methods of the U.S. National Income and Product Accounts," October 2009.

Bureau of Economic Analysis. 2011."State Personal Income and Employment Methodology, September 2011.

Bureau of Labor Statistics. 2008. "Consumer Expenditure Survey Compared with Personal Consumption Expenditures." *Consumer Expenditure Survey*, 2004-2005, Report 1008, October 2008: 7-13.

Campbell, John, and Angus Deaton. 1989. "Why is consumption so smooth?" *Review of Economic Studies* 56 (3): 357-373.

Case, Quigley, and Schiller. 2005. "Comparing Wealth Effects: The Stock Market versus the Housing Market." *Advances in Macroeconomics*, Volume 5, Issue 1, Article 1, 2005.

Cuckler, Gigi, Anne Martin, Lekha Whittle, Stephen Heffler, Andrea Sisko, and Joseph Lassman. 2011. "Health Spending by State of Residence, 1991–2009," *Medicare & Medicaid Research Review*, Volume 1, Number 4, 2011.

Dahlhamer, James, John Dixon, Pat Doyle, Judy Eargle, Deborah Griffin, and Pamela McGovern. 2003. "Quality at the Item Level: Terms, Methods, and Guidelines for Cross-Survey Comparisons." Unpublished manuscript, available from BLS, Washington, DC.
www.fcsm.gov/committees/ihsng/fcsmfinal010504.pdf

Deaton, Angus. 2005. "Franco Modigliani and the Life Cycle Theory of Consumption." Conference Paper, Princeton University, March 2005.

Dunn, Abe, Adam Hale Shapiro, and Eli Liebman. 2011. "Geographic Variation in Commercial Medical-Care Expenditures: A Framework for Decomposing Price and Utilization," (WP2011-07) July, 2011.

Federal Aviation Administration. 2010. "Terminal Area Forecast Summary, Fiscal Years 2009 – 2030," release date March 10, 2010.

Fox, William. 1986. "Tax Structure and the Location of Economic Activity Along State Borders." *National Tax Journal* 39: 387-401.

Friedman, Milton. 1957. *A Theory of the Consumption Function*. Princeton University Press.

Gale, H. Frederick, Jr. 1996. "Retail Sales Pull Factors in U.S. Counties." *Review of Regional Studies* 26(2): 177-195.

Garner, Thesia I., George Janini, William Passero, Laura Paszkiewicz, and Mark Vendemia. 2006. "The CE and PCE: a comparison." *Monthly Labor Review* 129, no. 9 (September): 20-46.

Garner, Thesia I., Robert McClelland, and William Passero. 2009. "Strengths and Weaknesses of the Consumer Expenditure Survey from a BLS Perspective." National Bureau of Economic Research, Summer Institute, Conference on Research on Income and Wealth, July 2009.

Goolsbee, Austan. 2000. "In a World Without Borders: The Impact of Taxes on Internet Commerce." *Quarterly Journal of Economics* 115: 561-576.

Gordon, Roger. 1983. "An Optimal Taxation Approach to Fiscal Federalism." *Quarterly Journal of Economics*, 98 (4), 567-586.

Gordon, Roger and Soren Nielsen. 1997. "Tax Evasion in an Open Economy: Value-Added vs. Income Taxation." *Journal of Public Economics*, 66: 173-197.

Harris, T.R., and J.S. Shonkwiler. 1994. "Application of Maximum Likelihood to a Bivariate Two-Limit Tobit Model for Estimation of Rural Retail Sales Potential. " *The Review of Regional Studies* 24(2): 143-160.

Hamano, Aya. 2011. "GDP for American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the U.S. Virgin Islands New Statistics for 2008–2009 and Revised Statistics for 2002–2007." *Survey of Current Business*, September 2011, pp. 41 – 49.

Kanbur, Ravi and Michael Keen. 1993. "Jeux Sans Frontieres: Tax Competition and Tax Coordination when Countries Differ in Size." *American Economic Review*, 83(4): 877-892.

Leatherman, John and Dave Marcouiller. 1996. "Estimating Tourism's Share of Local Income from Secondary Data Sources." *Review of Regional Studies* 26(3): 317-339.

Johnson, Peter, and Barry Thomas. 1990. "Employment in Tourism: A Review." *Industrial Relations Journal* 21 (1): 36-48.

Lebergott, Stanley, Consumer *Expenditures: New Measures and Old Motives,* Princeton University Press, 1996.

Mintz, Jack, and Henry Tulkens. 1986. "Commodity Tax Competition Between Member States of a Federation: Equilibrium and Efficiency." Journal of Public Economics, 29 (1986): 133-172.

Mulligan, Gordon F. 1984. "Agglomeration and Central Place Theory: A Review of the Literature." *International Regional Science Review* 9: 1-42.

Nesbit, Todd M. and Kerry A. King-Adzima. 2011. "The Revenue Impacts of Cross-Border Sales and Tourism: Wine and Liquor Taxation in West Virginia and Its Neighbors." *Applied Economics Research Bulletin*, published electronically at http://berkeleymath.com/Documents/Wine.pdf.

Passero, William, Thesia I. Garner, and Clinton McCully. 2012. "Understanding the Relationship: CE Survey and PCE." In *Improving the Measurement of Consumer Expenditures*, Christopher Carroll, Thomas Crossley, and John Sabelhaus, editors. Forthcoming from University of Chicago Press.

Saba, Richard P., T. Randolph Beard, Robert B. Ekelund Jr., and Rand W. Ressler. 1995. "The Demand for Cigarette Smuggling." *Economic Inquiry* 33: 189-202.

Sabelhaus, John, David Johnson, Stephen Ash, David Swanson, Thesia Garner, John Greenlees, and Steve Henderson. 2012. "Is the Consumer Expenditure Survey Representative by Income?" In *Improving the Measurement of Consumer Expenditures*, Christopher Carroll, Thomas Crossley, and John Sabelhaus, editors. Forthcoming from University of Chicago Press.

Safir, Adam and Karen Goldberg. 2008. "Mode Effects in a Survey of Consumer Expenditures." *Proceedings of the American Statistical Association Section on Survey Research Methods*, pp. 4436-4343. http://www.amstat.org/sections/srms/proceedings/

Shields, Jennifer and Nhien To. 2005. "Learning to Say No: Conditioned Underreporting in an Expenditure Survey." *Proceedings of the American Statistical Association Section on Survey Research Methods*, pp. 3963-3968. http://www.amstat.org/sections/srms/proceedings/

Skidmore, Mark and Mehmet S. Tosun. 2008. "Do New Lottery Games Stimulate Economic Activity? Evidence from Border Counties in West Virginia." *Journal of Regional Analysis and Policy* 38 (1): 45-55.

Stehr, Mark. 2005. "Cigarette tax avoidance and evasion." *Journal of Health Economics* 24 (2005): 277-297.

 Stiglitz, Joseph E., Amartya Sen, and Jean-Paul Fitoussi. 2009. "Report by the Commission on the Measurement of Economic Performance and Social Progress www.stiglitz-sen-fitoussi.fr

Tosun, Mehmet S. and Mark Skidmore. 2007. "Cross-Border Shopping and the Sales Tax: A Reexamination of Food Purchases in West Virginia." *The B.E. Journal of Economic Analysis and Policy* 7(1) (Topics), Article 63.

Trandel, Gregory. 1992. "Evading the Use of Tax on Cross-Border Sales: Pricing and Welfare Effects." *Journal of Public Economics*, 35: 333-354.

Trandel, Gregory. 1994. "Interstate Commodity Tax Differentials and the Distribution of Residents." *Journal of Public Economics*, 53 (3): 435-457.

Walker, James A. and John B. Murphy. 2001. "Implementing the North American Industry Classification System at BLS." *Monthly Labor Review*, December 2001, pages 15 – 21.

Walsh, Michael and Jonathan Jones. 1988. "More Evidence on the 'Border Tax' Effect: The Case of West Virginia, 1979-1984." National Tax Journal, 41(2): 261-265.

Wilkerson, Chad.2003. "Travel and Tourism: An Overlooked Industry in the U.S. and Tenth District." Economic Review, Federal Reserve Bank of Kansas City, Third Quarter, 2003.

U.S. Census Bureau. 2012."U.S. Census Bureau E-Stats," May 10, 2012 www.census.gov/estats

U.S. Energy Information Agency. 2011. "State Profile and Energy Estimates: Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2011." http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=WY

Zemanek, Steven L. 2012. "U.S. Travel and Tourism Satellite Accounts for 2003-2011," *Survey of Current Business*, June 2012, pp 19-27.

Zhou, Xia. 2010. "Essays on U.S. State-level Financial Wealth Data and Consumption Data," Doctoral Dissertation, Johns Hopkins University, October 2010.

Table 1. Summary of Data Sources Used to Prepare Estimates of State-level Personal Consumption Expenditures (PCE)

Data Source	Goods								Services							
	Motor Vehicles and Parts	Furnishings and Durable Household Equipment	Recreation Goods and Vehicles	Other Durable Goods	Off-premises Food and Beverages	Clothing and Footwear	Gasoline and Other Energy Goods	Other Nondurable Goods	Housing and Utilities	Health Care	Transportation Services	Recreation Services	Food Services and Accommodations	Financial Services and Insurance	Other Services	Net NPISH
Share of total NIPA PCE, 2007	4.1%	2.8%	3.6%	1.7%	7.3%	3.4%	3.7%	7.8%	18.0%	14.9%	3.1%	3.8%	6.1%	8.1%	8.9%	2.6%
Household-based geography																
American Community Survey									×							
Bea Regional Income: disposable personal income																
BEA Regional Income: imputed rental income									×							
Center for Medicare and Medicaid Services										×						
Current Population Survey								×	×							
Decennial Census of Housing									×							
National Center for Education Statistics															×	
USDA Economic Research Service								×								
US Geological Survey									×							
Supply-based geography																
Economic Census	×	×	×	×	×	×	×	×		×	×	×	×	×	×	
Quarterly Census of Employment and Wages	×	×	×	×	×	×	×	×		×	×	×	×	×	×	
Consumer Expenditure Survey*	×	×	×	×	×	×	×	×			×	×	×		×	
National Center for Charitable Statistics																×

* The CE is used to adjust 63 state-level expenditure series out of a total of 816 state-level series or 1.7 percent of total expenditures.

Table 2. State Shares of National PCE Using Three Different Data Sources for Imputed Rental of Owner-occupied Nonfarm Housing

	1	2	3
	Regional Income Home Value	Contract Rent Ratio	Synthetic CPI Cost Weights
State	2006-2009 Average	2006-2010 Average	2006-2009 Average
Alabama	1.2%	1.3%	1.2%
Alaska	0.2%	0.3%	0.2%
Arizona	2.4%	2.0%	2.1%
Arkansas	0.6%	0.7%	0.7%
California	17.5%	13.0%	14.2%
Colorado	1.6%	1.8%	1.8%
Connecticut	1.6%	2.1%	1.6%
Delaware	0.4%	0.3%	0.3%
District of Columbia	0.3%	0.2%	0.3%
Florida	7.0%	6.9%	6.2%
Georgia	2.6%	2.8%	2.9%
Hawaii	0.6%	0.5%	0.5%
Idaho	0.5%	0.4%	0.4%
Illinois	3.9%	4.2%	4.2%
Indiana	1.4%	1.8%	1.7%
Iowa	0.7%	0.8%	0.8%
Kansas	0.6%	0.8%	0.7%
Kentucky	0.9%	1.0%	1.1%
Louisiana	1.6%	1.2%	1.1%
Maine	0.4%	0.5%	0.5%
Maryland	2.7%	2.5%	2.6%
Massachusetts	2.6%	3.1%	2.9%
Michigan	2.5%	3.2%	3.3%
Minnesota	1.7%	1.9%	1.9%
Mississippi	0.9%	0.7%	0.6%
Missouri	1.4%	1.7%	1.8%
Montana	0.3%	0.3%	0.3%
Nebraska	0.4%	0.5%	0.4%
Nevada	1.0%	0.9%	0.8%
New Hampshire	0.5%	1.0%	0.5%
New Jersey	4.0%	4.0%	4.3%
New Mexico	0.7%	0.6%	0.6%
New York	5.6%	6.0%	6.9%
North Carolina	2.6%	2.6%	2.2%
North Dakota	0.1%	0.1%	0.2%
Ohio	2.7%	3.2%	3.3%
Oklahoma	0.7%	0.9%	0.9%
Oregon	1.5%	1.2%	1.4%
Pennsylvania	3.6%	3.9%	4.3%
Rhode Island	0.4%	0.4%	0.3%
South Carolina	1.2%	1.3%	1.1%
South Dakota	0.2%	0.2%	0.2%
Tennessee	1.6%	1.7%	1.5%
Texas	3.9%	6.9%	6.5%
Utah	0.8%	0.8%	0.8%
Vermont	0.2%	0.2%	0.2%
Virginia	3.1%	3.1%	2.8%
Washington	2.9%	2.4%	2.8%
West Virginia	0.4%	0.4%	0.5%
Wisconsin	1.6%	1.6%	1.6%
Wyoming	0.2%	0.2%	0.2%

Table 3. Analytical Ratios for Unadjusted and Residency-adjusted Food Services and Accommodations (FSA) Expenditures, 2007

State	Unadjusted Estimates				State Share of U.S. Disposable Income	Adjustment Factor [3]	Adjusted Estimates			
	Per Capita	Difference from U.S. Value [1]	Per Dollar of Disposable Income	Difference from U.S. Value [2]			Per Capita	Difference from U.S. Value	Per Dollar of Disposable Income	Difference from U.S. Value
United States	$1,993.48	0.00%	0.058	0.00%	1.000	---	$1,993.48	0.00%	0.058	0.00%
Alabama	$1,497.79	-24.87%	0.051	-10.99%	0.013	0.975	$1,543.46	-22.57%	0.053	-8.27%
Alaska	**$2,819.75**	**41.45%**	**0.076**	**31.38%**	**0.002**	**0.607**	**$1,712.83**	**-14.08%**	**0.046**	**-20.20%**
Arizona	$2,064.47	3.56%	0.065	13.42%	0.019	0.899	$2,127.43	6.72%	0.067	16.88%
Arkansas	$1,349.41	-32.31%	0.048	-17.16%	0.008	1.052	$1,390.56	-30.24%	0.049	-14.63%
California	$2,186.10	9.66%	0.059	1.72%	0.134	0.977	$2,252.76	13.01%	0.060	4.82%
Colorado	$2,352.29	18.00%	0.063	9.55%	0.017	0.961	$2,424.02	21.60%	0.065	12.89%
Connecticut	$1,943.28	-2.52%	0.042	-26.80%	0.016	1.391	$2,002.54	0.45%	0.044	-24.56%
Delaware	$2,201.17	10.42%	0.063	10.03%	0.003	0.780	$2,268.30	13.79%	0.065	13.38%
District of Columbia	**$6,205.68**	**211.30%**	**0.111**	**92.11%**	**0.003**	**0.481**	**$2,982.08**	**49.59%**	**0.053**	**-7.68%**
Florida	$2,145.78	7.64%	0.061	6.38%	0.061	0.753	$2,211.22	10.92%	0.063	9.63%
Georgia	$1,877.10	-5.84%	0.060	4.19%	0.028	0.827	$1,934.34	-2.97%	0.062	7.37%
Hawaii	**$4,433.87**	**122.42%**	**0.125**	**116.95%**	**0.004**	**0.389**	**$1,724.15**	**-13.51%**	**0.049**	**-15.64%**
Idaho	$1,563.84	-21.55%	0.054	-6.50%	0.004	0.937	$1,611.53	-19.16%	0.056	-3.65%
Illinois	$2,013.16	0.99%	0.055	-4.57%	0.044	1.002	$2,074.56	4.07%	0.057	-1.66%
Indiana	$1,787.91	-10.31%	0.060	3.89%	0.018	1.048	$1,842.43	-7.58%	0.062	7.06%
Iowa	$1,519.97	-23.75%	0.048	-17.55%	0.009	1.125	$1,566.33	-21.43%	0.049	-15.03%
Kansas	$1,637.81	-17.84%	0.049	-14.58%	0.009	1.007	$1,687.75	-15.34%	0.051	-11.97%
Kentucky	$1,606.59	-19.41%	0.058	0.29%	0.011	0.945	$1,655.58	-16.95%	0.060	3.35%
Louisiana	$1,993.47	0.00%	0.061	6.51%	0.014	0.672	$2,054.26	3.05%	0.063	9.76%
Maine	$2,190.74	9.90%	0.070	22.03%	0.004	1.363	$2,257.54	13.25%	0.073	25.75%
Maryland	$2,011.01	0.88%	0.050	-13.13%	0.022	1.142	$2,072.34	3.96%	0.052	-10.48%
Massachusetts	$2,416.42	21.22%	0.057	-0.79%	0.026	1.054	$2,490.11	24.91%	0.059	2.24%
Michigan	$1,707.38	-14.35%	0.056	-3.23%	0.029	1.396	$1,759.45	-11.74%	0.058	-0.28%
Minnesota	$1,965.21	-1.42%	0.054	-5.79%	0.018	1.473	$2,025.14	1.59%	0.056	-2.92%
Mississippi	$1,787.57	-10.33%	0.066	14.12%	0.008	0.723	$1,842.08	-7.59%	0.068	17.60%
Missouri	$1,877.16	-5.84%	0.059	3.17%	0.018	1.017	$1,934.40	-2.96%	0.061	6.32%
Montana	$2,215.53	11.14%	0.074	28.50%	0.003	0.625	$2,283.09	14.53%	0.076	32.42%
Nebraska	$1,616.15	-18.93%	0.048	-16.94%	0.006	1.080	$1,665.44	-16.46%	0.049	-14.40%
Nevada	**$6,036.96**	**202.84%**	**0.171**	**195.96%**	**0.009**	**0.279**	**$1,685.41**	**-15.45%**	**0.048**	**-17.37%**
New Hampshire	$2,242.07	12.47%	0.059	1.53%	0.005	1.118	$2,310.45	15.90%	0.060	4.63%
New Jersey	$2,059.18	3.30%	0.048	-16.74%	0.036	1.543	$2,121.98	6.45%	0.049	-14.20%
New Mexico	$1,841.50	-7.62%	0.065	12.12%	0.005	0.846	$1,897.66	-4.81%	0.067	15.54%
New York	$2,062.67	3.47%	0.052	-9.84%	0.073	1.202	$2,125.58	6.63%	0.054	-7.09%
North Carolina	$1,868.65	-6.26%	0.061	5.96%	0.027	0.767	$1,925.64	-3.40%	0.063	9.19%
North Dakota	$1,686.87	-15.38%	0.052	-10.50%	0.002	1.057	$1,738.32	-12.80%	0.053	-7.77%
Ohio	$1,694.73	-14.99%	0.055	-5.04%	0.034	1.112	$1,746.41	-12.39%	0.056	-2.14%
Oklahoma	$1,545.34	-22.48%	0.051	-12.37%	0.011	0.957	$1,592.46	-20.12%	0.052	-9.70%
Oregon	$2,088.12	4.75%	0.066	14.70%	0.011	1.110	$2,151.80	7.94%	0.068	18.20%
Pennsylvania	$1,674.85	-15.98%	0.049	-14.73%	0.041	1.360	$1,725.92	-13.42%	0.051	-12.13%
Rhode Island	$2,205.72	10.65%	0.062	7.66%	0.004	0.882	$2,272.98	14.02%	0.064	10.94%
South Carolina	$1,936.22	-2.87%	0.068	17.33%	0.012	0.732	$1,995.26	0.09%	0.070	20.91%
South Dakota	$1,926.54	-3.36%	0.057	-0.99%	0.003	0.869	$1,985.29	-0.41%	0.059	2.03%
Tennessee	$1,807.05	-9.35%	0.058	0.52%	0.018	0.790	$1,862.15	-6.59%	0.060	3.58%
Texas	$1,853.23	-7.04%	0.055	-3.79%	0.076	0.974	$1,909.75	-4.20%	0.057	-0.86%
Utah	$1,539.95	-22.75%	0.053	-7.44%	0.007	1.113	$1,586.91	-20.39%	0.055	-4.62%
Vermont	$2,165.87	8.65%	0.065	12.13%	0.002	1.308	$2,231.92	11.96%	0.067	15.55%
Virginia	$2,017.27	1.19%	0.054	-6.86%	0.028	0.993	$2,078.79	4.28%	0.055	-4.01%
Washington	$1,985.15	-0.42%	0.053	-8.51%	0.023	1.171	$2,045.68	2.62%	0.054	-5.72%
West Virginia	$1,445.15	-27.51%	0.054	-5.92%	0.005	1.055	$1,489.22	-25.30%	0.056	-3.06%
Wisconsin	$1,710.48	-14.20%	0.053	-8.48%	0.017	1.045	$1,762.64	-11.58%	0.054	-5.68%
Wyoming	$2,497.77	25.30%	0.063	9.49%	0.002	0.558	$2,573.95	29.12%	0.065	12.83%

[1] The difference of state per capita expenditures from the corresponding U.S. value is computed as: [(State PCE/State Pop)/(US PCE/US Pop)]-1.

[2] Similarly, for expenditures per dollar of disposable income this difference is computed as: [(State PCE/State DPI)/(US PCE/US DPI)]-1.

[3] The adjustment factor is defined as the ratio of the average CE expenditure state share to the average PCE expenditure state share for the 2005-2007 period.

Note: States in bold have been directly adjusted to account for spending by non-residents.

Table 4. Summary and Direction of Residency Adjustments [1]

State	Motor Vehicles and Parts	Furnishings and Durable Household Equipment	Recreation Goods and Vehicles	Other Durable Goods	Off-premises Food and Beverages	Clothing and Footwear	Gasoline and Other Energy Goods	Other Nondurable Goods	Housing and Utilities	Health Care	Transportation Services	Recreation Services	Food Services and Accommodations	Financial Services and Insurance	Other Services *
Alabama												+			
Alaska					-						-		-		
Arizona															
Arkansas												+			
California												-			
Colorado															
Connecticut															
Delaware		-	-			-		-							
District of Columbia	+	+	+			+	+				+	-	-		-
Florida					-	-						-			
Georgia															
Hawaii					-	-					-	-	-		
Idaho															
Illinois											-				
Indiana															
Iowa															
Kansas												+			
Kentucky															
Louisiana															
Maine															
Maryland															
Massachusetts															-
Michigan															
Minnesota															
Mississippi												+			
Missouri															
Montana		-	-												
Nebraska							-								
Nevada					-	-					-		-		
New Hampshire	-	-	-		-		-								
New Jersey												+			
New Mexico												-			
New York					-	-	+					-			-
North Carolina															
North Dakota							-								
Ohio															
Oklahoma												+			
Oregon															
Pennsylvania															
Rhode Island						+									
South Carolina															
South Dakota							-								
Tennessee															
Texas															
Utah											-				
Vermont															
Virginia															
Washington															
West Virginia	+	+	+			+					+				
Wisconsin															
Wyoming					+	+	-								

*Other services are adjusted at the detail level, DC and MA were adjusted in the Education Services category, DC and NY were adjusted in the Professional Services category, DC was adjusted in Social Services and Religious Activities, and in Household Maintenance Services.

[1] The direction of the adjustments is given by the plus and minus signs. A plus (minus) sign indicates an upward (downward) adjustment to the original expenditures.

Legend:

Retail leakage	Travel and tourism	Transportation hubs
Sales tax differentials	Business spending	

Appendix Table 1. State Total Personal Consumption Expenditures, 1997-2007

[Millions of dollars]

State	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	5,570,626	5,918,488	6,342,784	6,830,371	7,148,807	7,439,191	7,804,120	8,270,574	8,803,526	9,300,999	9,772,270
Alabama	75,534	79,349	84,349	89,056	93,658	98,503	102,525	108,771	115,397	121,621	126,669
Alaska	12,687	13,366	14,368	15,314	16,336	17,538	18,585	19,556	20,355	21,108	22,171
Arizona	94,843	102,208	111,185	120,716	127,164	134,480	143,186	156,267	175,722	194,794	205,122
Arkansas	42,100	44,412	47,586	51,330	53,904	56,132	59,037	61,424	65,565	69,057	72,671
California	703,672	750,211	808,257	877,308	917,455	961,093	1,012,272	1,082,578	1,163,866	1,232,014	1,289,015
Colorado	93,287	100,005	109,593	120,275	127,238	131,166	135,248	140,660	147,257	154,864	163,221
Connecticut	83,628	88,353	94,042	98,790	104,462	109,357	114,083	120,411	126,435	132,688	138,566
Delaware	16,556	17,698	19,225	20,671	21,989	22,750	24,174	25,861	27,475	29,046	30,444
District of Columbia	16,422	16,604	17,361	19,109	19,916	21,291	21,848	23,817	24,772	26,725	27,773
Florida	326,559	347,991	368,825	399,474	422,634	443,892	470,998	513,264	569,212	617,927	639,206
Georgia	154,418	165,168	178,453	193,917	203,839	211,189	222,070	234,136	250,586	266,301	282,610
Hawaii	26,298	26,976	28,406	30,282	31,325	32,124	33,920	36,807	40,168	42,814	45,208
Idaho	21,404	22,794	24,684	26,926	28,309	29,846	31,733	33,718	37,637	41,529	43,832
Illinois	255,394	268,966	284,294	307,359	319,170	327,035	338,568	354,731	375,305	394,149	418,290
Indiana	114,068	120,698	129,253	138,189	143,935	148,956	154,550	162,400	169,347	175,972	183,474
Iowa	53,368	56,440	60,495	64,218	66,184	67,783	70,508	74,549	78,102	82,018	85,624
Kansas	49,663	53,071	56,344	59,417	62,003	64,135	66,926	69,904	72,833	76,700	80,439
Kentucky	69,558	73,723	79,002	85,172	88,062	91,835	95,783	101,143	106,065	110,602	115,114
Louisiana	77,057	81,211	85,151	89,928	92,968	96,373	102,972	108,451	112,931	118,578	128,688
Maine	24,901	26,588	28,719	30,473	32,578	34,541	36,422	38,687	40,434	42,466	44,441
Maryland	114,606	121,392	130,954	141,591	150,469	157,515	166,367	177,878	190,028	200,016	208,316
Massachusetts	153,034	162,842	174,395	187,947	199,948	206,914	218,733	230,873	242,466	251,655	262,611
Michigan	202,813	211,692	225,312	238,004	246,496	252,957	259,735	269,136	275,961	282,170	289,584
Minnesota	103,616	110,070	119,732	131,489	138,490	143,210	150,075	158,139	164,132	170,758	178,672
Mississippi	42,628	45,586	49,057	52,204	54,825	57,124	60,233	63,318	67,604	72,174	76,865
Missouri	107,915	114,464	121,670	129,521	136,499	142,238	148,695	154,879	162,136	169,229	177,449
Montana	16,034	16,895	18,101	19,496	20,786	22,078	23,318	24,886	27,050	29,346	31,485
Nebraska	31,334	33,212	35,709	38,285	40,709	41,910	44,271	46,477	48,969	51,252	53,757
Nevada	36,879	39,928	44,214	48,038	51,681	54,340	58,880	67,018	75,227	81,722	86,643
New Hampshire	26,743	28,465	30,859	33,359	35,385	37,700	40,492	42,366	44,385	45,789	47,051
New Jersey	200,160	211,799	224,145	240,299	252,490	265,910	279,322	293,935	307,245	323,165	337,778
New Mexico	31,732	33,388	35,498	37,424	39,863	42,204	44,739	47,888	51,870	55,080	59,186
New York	391,989	413,946	442,865	474,894	494,821	515,819	543,664	576,189	610,412	638,325	672,029
North Carolina	148,138	157,996	171,359	186,364	194,491	200,691	208,846	222,524	236,983	251,021	268,979
North Dakota	12,094	12,718	13,348	14,184	14,989	15,885	16,753	17,461	18,338	19,358	20,558
Ohio	223,641	236,839	251,928	270,872	280,190	288,479	299,165	308,316	319,987	327,563	339,345
Oklahoma	56,911	60,137	63,934	68,447	72,074	73,786	77,693	81,810	87,850	94,558	101,381
Oregon	68,109	72,569	78,810	83,746	87,309	91,441	94,822	100,955	108,524	117,460	125,720
Pennsylvania	245,384	258,776	275,495	293,625	307,051	319,166	334,372	350,033	367,981	382,755	402,433
Rhode Island	20,647	21,713	23,246	25,456	26,910	28,768	31,170	32,482	33,927	34,707	35,699
South Carolina	70,914	75,712	82,003	87,942	91,958	95,822	100,048	106,691	113,589	120,798	129,503
South Dakota	13,710	14,422	15,520	16,476	17,326	18,227	19,466	20,401	21,407	22,570	23,797
Tennessee	106,997	113,145	121,100	129,584	134,505	138,777	144,775	153,176	162,371	171,644	181,126
Texas	378,419	407,689	439,469	478,534	494,574	510,428	532,554	563,851	606,460	649,933	689,465
Utah	38,107	40,728	43,690	47,114	49,620	51,947	53,529	57,219	62,189	69,033	75,424
Vermont	11,741	12,394	13,352	14,410	15,461	16,451	17,392	18,514	19,348	20,146	20,983
Virginia	142,425	151,527	163,882	177,770	187,546	197,674	210,166	226,791	244,758	258,473	268,046
Washington	120,242	132,459	141,977	152,774	157,861	163,169	171,465	182,082	194,339	209,151	225,582
West Virginia	31,274	32,691	34,570	36,918	39,225	40,291	41,626	43,944	45,787	47,810	50,099
Wisconsin	101,729	107,647	116,364	124,512	130,308	135,352	142,361	149,875	157,665	165,906	172,513
Wyoming	9,243	9,812	10,632	11,166	11,816	12,897	13,987	14,329	15,074	16,462	17,615

Appendix Table 2. Percent Change from Preceding Period of State Total Personal Consumption Expenditures, 1997-2007

State	Average 1997-2007	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	**5.79%**	**6.24%**	**7.17%**	**7.69%**	**4.66%**	**4.06%**	**4.91%**	**5.98%**	**6.44%**	**5.65%**	**5.07%**
Alabama	5.31%	5.05%	6.30%	5.58%	5.17%	5.17%	4.08%	6.09%	6.09%	5.39%	4.15%
Alaska	5.75%	5.35%	7.50%	6.58%	6.67%	7.35%	5.97%	5.22%	4.09%	3.70%	5.04%
Arizona	8.04%	7.76%	8.78%	8.57%	5.34%	5.75%	6.47%	9.14%	12.45%	10.85%	5.30%
Arkansas	5.62%	5.49%	7.15%	7.87%	5.01%	4.13%	5.17%	4.04%	6.74%	5.33%	5.23%
California	6.25%	6.61%	7.74%	8.54%	4.58%	4.76%	5.33%	6.95%	7.51%	5.86%	4.63%
Colorado	5.78%	7.20%	9.59%	9.75%	5.79%	3.09%	3.11%	4.00%	4.69%	5.17%	5.40%
Connecticut	5.18%	5.65%	6.44%	5.05%	5.74%	4.69%	4.32%	5.55%	5.00%	4.95%	4.43%
Delaware	6.29%	6.90%	8.63%	7.52%	6.38%	3.46%	6.26%	6.98%	6.24%	5.72%	4.81%
District of Columbia	5.43%	1.11%	4.56%	10.07%	4.22%	6.90%	2.61%	9.01%	4.01%	7.88%	3.92%
Florida	6.97%	6.56%	5.99%	8.31%	5.80%	5.03%	6.11%	8.97%	10.90%	8.56%	3.44%
Georgia	6.24%	6.96%	8.04%	8.67%	5.12%	3.61%	5.15%	5.43%	7.03%	6.27%	6.12%
Hawaii	5.59%	2.58%	5.30%	6.61%	3.44%	2.55%	5.59%	8.51%	9.13%	6.59%	5.59%
Idaho	7.45%	6.49%	8.29%	9.08%	5.14%	5.43%	6.32%	6.26%	11.62%	10.34%	5.55%
Illinois	5.07%	5.31%	5.70%	8.11%	3.84%	2.46%	3.53%	4.77%	5.80%	5.02%	6.12%
Indiana	4.87%	5.81%	7.09%	6.91%	4.16%	3.49%	3.76%	5.08%	4.28%	3.91%	4.26%
Iowa	4.85%	5.76%	7.19%	6.15%	3.06%	2.42%	4.02%	5.73%	4.77%	5.01%	4.40%
Kansas	4.94%	6.86%	6.17%	5.45%	4.35%	3.44%	4.35%	4.45%	4.19%	5.31%	4.88%
Kentucky	5.18%	5.99%	7.16%	7.81%	3.39%	4.28%	4.30%	5.60%	4.87%	4.28%	4.08%
Louisiana	5.27%	5.39%	4.85%	5.61%	3.38%	3.66%	6.85%	5.32%	4.13%	5.00%	8.53%
Maine	5.97%	6.77%	8.02%	6.11%	6.91%	6.02%	5.44%	6.22%	4.52%	5.02%	4.65%
Maryland	6.16%	5.92%	7.88%	8.12%	6.27%	4.68%	5.62%	6.92%	6.83%	5.26%	4.15%
Massachusetts	5.56%	6.41%	7.10%	7.77%	6.39%	3.48%	5.71%	5.55%	5.02%	3.79%	4.35%
Michigan	3.63%	4.38%	6.43%	5.63%	3.57%	2.62%	2.68%	3.62%	2.54%	2.25%	2.63%
Minnesota	5.62%	6.23%	8.78%	9.82%	5.32%	3.41%	4.79%	5.37%	3.79%	4.04%	4.63%
Mississippi	6.08%	6.94%	7.61%	6.41%	5.02%	4.19%	5.44%	5.12%	6.77%	6.76%	6.50%
Missouri	5.10%	6.07%	6.30%	6.45%	5.39%	4.20%	4.54%	4.16%	4.69%	4.37%	4.86%
Montana	6.99%	5.37%	7.14%	7.71%	6.61%	6.22%	5.62%	6.72%	8.70%	8.49%	7.29%
Nebraska	5.55%	5.99%	7.52%	7.21%	6.33%	2.95%	5.63%	4.98%	5.36%	4.66%	4.89%
Nevada	8.95%	8.27%	10.73%	8.65%	7.58%	5.15%	8.35%	13.82%	12.25%	8.63%	6.02%
New Hampshire	5.83%	6.44%	8.41%	8.10%	6.07%	6.54%	7.41%	4.63%	4.76%	3.16%	2.75%
New Jersey	5.37%	5.81%	5.83%	7.21%	5.07%	5.32%	5.04%	5.23%	4.53%	5.18%	4.52%
New Mexico	6.44%	5.22%	6.32%	5.43%	6.52%	5.87%	6.01%	7.04%	8.31%	6.19%	7.45%
New York	5.54%	5.60%	6.99%	7.23%	4.20%	4.24%	5.40%	5.98%	5.94%	4.57%	5.28%
North Carolina	6.16%	6.65%	8.46%	8.76%	4.36%	3.19%	4.06%	6.55%	6.50%	5.92%	7.15%
North Dakota	5.45%	5.16%	4.95%	6.26%	5.67%	5.98%	5.46%	4.23%	5.02%	5.56%	6.20%
Ohio	4.27%	5.90%	6.37%	7.52%	3.44%	2.96%	3.70%	3.06%	3.79%	2.37%	3.60%
Oklahoma	5.95%	5.67%	6.31%	7.06%	5.30%	2.38%	5.29%	5.30%	7.38%	7.64%	7.22%
Oregon	6.33%	6.55%	8.60%	6.26%	4.26%	4.73%	3.70%	6.47%	7.50%	8.23%	7.03%
Pennsylvania	5.07%	5.46%	6.46%	6.58%	4.57%	3.95%	4.76%	4.68%	5.13%	4.01%	5.14%
Rhode Island	5.65%	5.16%	7.06%	9.51%	5.71%	6.90%	8.35%	4.21%	4.45%	2.30%	2.86%
South Carolina	6.22%	6.77%	8.31%	7.24%	4.57%	4.20%	4.41%	6.64%	6.47%	6.35%	7.21%
South Dakota	5.67%	5.19%	7.61%	6.16%	5.16%	5.20%	6.80%	4.80%	4.93%	5.43%	5.44%
Tennessee	5.41%	5.75%	7.03%	7.01%	3.80%	3.18%	4.32%	5.80%	6.00%	5.71%	5.52%
Texas	6.20%	7.73%	7.80%	8.89%	3.35%	3.21%	4.33%	5.88%	7.56%	7.17%	6.08%
Utah	7.09%	6.88%	7.27%	7.84%	5.32%	4.69%	3.05%	6.89%	8.69%	11.01%	9.26%
Vermont	5.99%	5.56%	7.73%	7.92%	7.30%	6.40%	5.72%	6.45%	4.51%	4.12%	4.15%
Virginia	6.54%	6.39%	8.15%	8.47%	5.50%	5.40%	6.32%	7.91%	7.92%	5.60%	3.70%
Washington	6.51%	10.16%	7.19%	7.60%	3.33%	3.36%	5.08%	6.19%	6.73%	7.62%	7.86%
West Virginia	4.83%	4.53%	5.75%	6.79%	6.25%	2.72%	3.32%	5.57%	4.19%	4.42%	4.79%
Wisconsin	5.43%	5.82%	8.10%	7.00%	4.66%	3.87%	5.18%	5.28%	5.20%	5.23%	3.98%
Wyoming	6.68%	6.16%	8.35%	5.03%	5.82%	9.15%	8.45%	2.45%	5.19%	9.21%	7.00%

Appendix Table 3. State Personal Consumption Expenditures by Major Type of Product, 2007 - Continues

[Millions of dollars]

	Line	AK	AL	AR	AZ	CA	CO	CT	DC	DE	FL	GA	HI	IA	ID	IL	IN	KS	KY
Personal consumption expenditures...........	1	**22,171**	**126,669**	**72,671**	**205,122**	**1,289,015**	**163,221**	**138,566**	**27,773**	**30,444**	**639,206**	**282,610**	**45,208**	**85,624**	**43,832**	**418,290**	**183,474**	**80,439**	**115,114**
Goods...........	2	**7,763**	**47,827**	**27,522**	**75,131**	**396,177**	**57,512**	**43,988**	**6,614**	**9,805**	**233,435**	**103,351**	**15,221**	**31,944**	**17,289**	**135,756**	**68,151**	**29,266**	**43,926**
Durable goods...........	3	3,076	16,812	9,669	26,905	149,040	20,595	16,123	2,540	3,438	82,514	35,940	5,495	10,667	6,444	48,129	22,139	10,100	13,533
Motor vehicles and parts...........	4	872	6,708	4,005	9,534	44,236	6,743	4,868	850	1,467	27,302	13,594	1,637	4,093	2,511	16,157	7,943	3,701	4,903
Furnishings and durable household equipment...........	5	682	3,645	1,953	6,181	33,535	5,006	3,936	617	664	19,699	8,342	1,317	2,312	1,441	10,960	4,915	2,410	3,068
Recreational goods and vehicles...........	6	1,215	4,123	2,409	7,577	47,181	6,373	4,581	681	678	26,951	9,282	1,818	2,953	1,872	13,552	6,427	2,635	3,631
Other durable goods...........	7	307	2,336	1,303	3,614	24,089	2,474	2,739	391	629	8,563	4,721	722	1,309	620	7,460	2,854	1,353	1,929
Nondurable goods...........	8	4,687	31,015	17,853	48,227	247,137	36,916	27,865	4,074	6,367	150,922	67,412	9,726	21,277	10,845	87,627	46,011	19,166	30,393
Food and beverages purchased for off-premises consumption...........	9	1,409	10,173	5,751	15,126	86,679	12,185	9,541	1,231	2,595	46,086	21,163	3,783	6,644	3,636	29,070	14,167	7,061	10,000
Clothing and footwear...........	10	661	4,549	2,350	6,662	46,343	5,567	4,895	938	980	17,055	10,378	1,026	2,649	1,216	15,312	5,920	2,558	3,623
Gasoline and other energy goods...........	11	868	5,908	4,077	7,746	35,225	5,434	3,877	676	997	18,291	12,102	1,030	5,234	2,179	12,452	9,824	3,439	5,986
Other nondurable goods...........	12	1,749	10,386	5,675	18,692	78,889	13,729	9,552	1,229	1,795	69,490	23,769	3,887	6,749	3,815	30,793	16,100	6,107	10,784
Services...........	13	**14,408**	**78,841**	**45,149**	**129,991**	**892,838**	**105,709**	**94,578**	**21,159**	**20,639**	**405,771**	**179,258**	**29,988**	**53,680**	**26,543**	**282,534**	**115,323**	**51,173**	**71,188**
Household consumption expenditures (for services)...........	14	13,945	76,825	43,950	127,063	863,314	102,606	89,266	18,653	19,846	393,381	173,985	28,850	51,713	25,958	269,279	110,034	49,254	68,949
Housing and utilities...........	15	3,411	22,121	12,209	42,213	301,752	27,527	25,819	5,150	6,064	126,827	48,417	10,585	13,343	8,707	68,372	26,305	11,834	17,365
Health care...........	16	4,043	20,198	11,792	26,162	165,621	20,908	20,376	4,672	5,019	90,977	38,232	5,867	13,934	5,810	62,872	31,209	13,470	19,534
Transportation services...........	17	629	3,010	1,653	6,880	41,634	6,422	4,133	824	776	17,779	10,572	1,386	2,328	1,186	15,014	5,282	2,346	3,522
Recreation services...........	18	807	4,373	2,517	9,055	48,296	7,439	5,469	1,002	799	19,633	12,912	1,362	2,847	1,488	16,928	5,850	3,137	3,666
Food services and accommodations...........	19	1,165	7,212	3,961	13,121	81,663	11,645	7,064	1,713	1,977	40,615	18,086	2,268	4,698	2,426	26,338	11,754	4,698	7,047
Financial services and insurance...........	20	1,922	10,348	6,107	14,774	102,533	13,575	12,323	2,442	2,295	48,758	22,169	3,539	7,276	3,313	35,248	14,449	7,024	8,974
Other services...........	21	1,969	9,563	5,711	14,857	121,815	15,090	14,081	2,850	2,915	48,792	23,597	3,842	7,288	3,028	44,506	15,185	6,744	8,842
Final consumption expenditures of non-profit institutions serving the households (NPISH)...........	22	463	2,016	1,199	2,928	29,524	3,103	5,312	2,506	793	12,390	5,273	1,138	1,967	586	13,255	5,289	1,919	2,238
Gross output of nonprofit institutions...........	23	2,827	9,845	6,105	14,716	105,776	14,370	17,798	11,635	3,091	46,825	22,963	4,206	8,402	2,793	48,960	20,278	7,688	11,606
Less: Receipts from sales of goods and services by nonprofit institutions...........	24	2,364	7,829	4,906	11,788	76,252	11,267	12,486	9,129	2,297	34,435	17,691	3,068	6,436	2,207	35,705	14,989	5,769	9,368

Appendix Table 3. State Personal Consumption Expenditures by Major Type of Product, 2007 - Continues

[Millions of dollars]

Personal consumption	Line	LA	MA	MD	ME	MI	MN	MO	MS	MT	NC	ND	NE	NH	NJ	NM	NV	NY
expenditures............	1	128,688	262,611	208,316	44,441	289,584	178,672	177,449	76,865	31,485	268,979	20,558	53,757	47,051	337,778	59,186	86,643	672,029
Goods........................	2	47,189	79,793	65,970	16,865	104,533	58,861	62,306	28,344	11,787	98,499	7,839	19,571	16,834	109,477	21,767	31,976	206,447
Durable goods............	3	17,954	27,596	25,169	5,539	30,946	20,885	21,670	8,971	4,000	34,689	3,102	7,006	5,459	38,976	7,232	11,733	68,335
Motor vehicles and parts........	4	6,809	8,195	8,262	1,838	8,018	6,357	8,037	3,464	1,577	12,932	1,104	2,805	1,833	11,450	2,845	3,853	17,480
Furnishings and durable household equipment........	5	4,125	6,656	5,728	1,265	7,228	4,805	4,572	2,046	693	8,440	642	1,517	1,156	9,806	1,572	2,571	17,019
Recreational goods and vehicles..........................	6	4,732	8,023	7,622	1,724	10,581	7,141	6,079	2,289	1,124	9,040	907	1,791	1,505	10,737	1,816	3,539	23,265
Other durable goods..........	7	2,289	4,722	3,557	712	5,118	2,583	2,983	1,174	606	4,277	449	893	965	6,983	999	1,770	10,571
Nondurable goods..............	8	29,235	52,197	40,801	11,327	73,587	37,976	40,636	19,373	7,788	63,809	4,736	12,566	11,374	70,502	14,535	20,243	138,112
Food and beverages purchased for off-premises consumption..............	9	9,959	17,981	13,773	4,001	21,713	11,866	12,731	6,164	2,633	20,740	1,505	4,072	3,807	23,884	4,474	6,690	40,731
Clothing and footwear..........	10	4,541	8,925	7,062	1,409	9,286	5,725	5,451	2,580	868	9,336	714	1,649	1,840	13,358	1,644	2,668	26,644
Gasoline and other energy goods....................	11	5,848	7,067	6,019	2,299	11,865	7,667	9,220	4,148	1,731	11,353	871	2,334	2,021	9,181	3,144	3,176	22,935
Other nondurable goods.........	12	8,887	18,224	13,948	3,617	30,723	12,717	13,235	6,480	2,556	22,380	1,647	4,510	3,707	24,079	5,272	7,708	47,802
Services.....................	13	81,499	182,818	142,346	27,575	185,051	119,811	115,143	48,521	19,698	170,480	12,720	34,186	30,217	228,300	37,419	54,667	465,583
Household consumption expenditures (for services).....	14	79,365	171,792	135,506	26,130	177,522	114,081	109,939	47,348	19,061	163,898	12,214	32,661	28,695	219,343	36,120	54,019	435,223
Housing and utilities.........	15	21,209	44,108	42,810	6,810	46,167	28,754	25,770	13,787	5,839	46,929	2,740	7,477	7,707	65,395	11,498	18,937	116,126
Health care.................	16	20,735	44,148	29,734	7,066	47,419	28,373	28,809	13,178	4,433	40,619	3,397	9,144	6,606	45,841	8,564	10,782	109,052
Transportation services.......	17	3,584	8,091	7,745	1,058	9,126	7,432	6,286	1,471	963	7,126	580	1,536	1,512	11,825	1,463	2,454	20,803
Recreation services...........	18	4,358	10,655	7,254	1,268	9,415	7,089	8,427	2,327	1,336	9,974	1,121	2,272	1,937	15,857	2,276	4,117	24,048
Food services and accommodations.................	19	8,989	16,015	11,716	2,996	17,597	10,545	11,389	5,394	2,203	17,558	1,135	2,970	3,033	18,414	3,776	4,384	40,667
Financial services and insurance........................	20	10,777	20,615	17,223	3,135	23,223	14,296	14,098	6,037	2,189	21,163	1,619	4,567	3,814	28,246	4,302	6,983	57,605
Other services.................	21	9,714	28,160	19,024	3,796	24,575	17,592	15,160	5,155	2,098	20,529	1,622	4,695	4,086	33,765	4,241	6,362	66,922
Final consumption expenditures of non-profit institutions serving the households (NPISH)......	22	2,134	11,026	6,840	1,445	7,529	5,730	5,203	1,172	637	6,582	506	1,525	1,522	8,957	1,299	648	30,360
Gross output of nonprofit institutions...................	23	10,269	39,619	23,812	6,591	32,366	23,215	20,976	6,392	3,096	26,726	2,464	6,070	5,814	32,325	4,486	3,553	105,027
Less: Receipts from sales of goods and services by nonprofit institutions............	24	8,135	28,593	16,972	5,146	24,837	17,485	15,773	5,219	2,459	20,144	1,958	4,544	4,293	23,368	3,187	2,905	74,667

45

Appendix Table 3. State Personal Consumption Expenditures by Major Type of Product, 2007 - Table Ends

[Millions of dollars]

	Line	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VA	VT	WA	WI	WV	WY	U.S. Total
Personal consumption expenditures......	1	**339,345**	**101,381**	**125,720**	**402,433**	**35,699**	**129,503**	**23,797**	**181,126**	**689,465**	**75,424**	**268,046**	**20,983**	**225,582**	**172,513**	**50,099**	**17,615**	**9,772,271**
Goods......	2	**116,699**	**37,867**	**43,771**	**134,021**	**11,041**	**49,303**	**8,867**	**64,851**	**265,935**	**30,234**	**93,245**	**7,566**	**75,766**	**60,378**	**19,268**	**6,397**	**3,363,945**
Durable goods......	3	39,166	13,951	16,139	45,095	3,503	16,356	3,566	22,800	101,307	11,280	33,397	2,506	27,323	20,602	6,637	2,396	1,188,447
Motor vehicles and parts......	4	13,679	5,869	5,034	15,777	1,055	5,815	1,419	8,507	40,269	3,740	11,316	958	8,316	6,923	2,253	1,008	399,919
Furnishings and durable household equipment......	5	8,663	2,762	3,783	10,309	788	3,848	692	5,117	20,461	2,728	7,717	591	6,705	4,608	1,532	469	271,297
Recreational goods and vehicles......	6	11,252	3,494	5,578	11,863	1,020	4,409	948	6,009	26,736	3,667	9,469	667	9,145	6,568	2,111	610	349,401
Other durable goods......	7	5,572	1,827	1,745	7,147	640	2,283	506	3,168	13,841	1,144	4,894	291	3,156	2,503	742	310	167,830
Nondurable goods......	8	77,533	23,916	27,632	88,926	7,538	32,947	5,301	42,051	164,628	18,955	59,848	5,059	48,443	39,775	12,631	4,001	2,175,498
Food and beverages purchased for off-premises consumption......	9	24,951	7,906	10,590	30,204	2,628	10,367	1,780	13,700	52,550	5,834	18,835	1,902	18,015	13,458	3,968	1,491	711,207
Clothing and footwear......	10	10,681	3,137	3,980	13,340	1,025	4,947	692	6,355	27,857	2,644	9,596	581	6,854	5,051	1,857	455	335,432
Gasoline and other energy goods......	11	13,708	5,149	4,349	15,074	1,368	6,832	1,007	7,408	30,013	3,293	11,145	1,052	7,147	7,948	2,301	750	364,765
Other nondurable goods......	12	28,193	7,724	8,712	30,308	2,517	10,801	1,822	14,588	54,209	7,184	20,272	1,525	16,428	13,319	4,506	1,305	764,094
Services......	13	**222,646**	**63,514**	**81,948**	**268,412**	**24,658**	**80,199**	**14,931**	**116,276**	**423,530**	**45,190**	**174,801**	**13,417**	**149,816**	**112,136**	**30,831**	**11,218**	**6,408,326**
Household consumption expenditures (for services)......	14	212,863	61,551	79,272	252,725	23,233	78,000	14,356	112,094	412,336	44,086	167,755	12,702	145,265	107,586	29,864	10,933	6,154,410
Housing and utilities......	15	50,808	14,709	27,449	62,155	6,508	23,190	3,493	28,651	92,862	12,901	51,874	3,117	49,350	28,078	7,735	3,186	1,756,152
Health care......	16	58,890	16,205	17,165	68,548	5,831	19,248	4,017	29,236	100,402	9,412	34,034	3,358	30,809	30,439	9,047	2,455	1,457,692
Transportation services......	17	10,010	3,831	3,966	11,839	1,047	3,190	614	4,902	25,439	2,399	7,091	601	7,329	4,667	1,135	531	307,022
Recreation services......	18	15,394	3,863	4,339	15,632	1,246	4,224	758	9,284	27,450	3,650	11,640	751	7,609	5,707	2,065	427	375,350
Food services and accommodations......	19	20,085	5,788	8,010	21,684	2,403	8,867	1,572	11,500	45,513	4,122	16,113	1,392	13,218	9,890	2,731	1,377	600,498
Financial services and insurance......	20	27,011	8,435	8,919	32,476	2,851	9,651	2,027	14,611	60,417	5,688	22,092	1,585	18,451	13,800	3,708	1,606	790,290
Other services......	21	30,664	8,722	9,424	40,390	3,348	9,628	1,875	13,909	60,253	5,912	24,912	1,899	18,498	15,005	3,443	1,351	867,406
Final consumption expenditures of non-profit institutions serving the households (NPISH)......	22	9,783	1,962	2,676	15,687	1,426	2,199	575	4,182	11,194	1,104	7,047	715	4,552	4,549	967	285	253,916
Gross output of nonprofit institutions......	23	40,522	8,452	11,432	57,439	5,390	9,717	3,045	16,864	46,527	5,254	23,758	2,987	18,288	20,293	5,236	1,477	989,367
Less: Receipts from sales of goods and services by nonprofit institutions......	24	30,739	6,489	8,756	41,752	3,964	7,518	2,470	12,683	35,333	4,150	16,711	2,272	13,736	15,743	4,269	1,193	735,450

46

Appendix Table 4. State Personal Consumption Expenditures by Major Type of Product as a Share of State Total Personal Consumption Expenditures Net of Nonprofit Expenditures, 2007

State	Total PCE Net of Nonprofit Expenditures	Motor Vehicles and Parts	Furnishings and Durable Household Equipment	Recreation Goods and Vehicles	Other Durable Goods	Off-premises Food and Beverages	Clothing and Footwear	Gasoline and Other Energy Goods	Other Nondurable Goods	Housing and Utilities	Health Care	Transportation Services	Recreation Services	Food Services and Accommodations	Financial Services and Insurance	Other Services
United States	1.00	0.04	0.03	0.04	0.02	0.07	0.04	0.04	0.08	0.18	0.15	0.03	0.04	0.06	0.08	0.09
Alabama	1.00	0.05	0.03	0.03	0.02	0.08	0.04	0.05	0.08	0.18	0.16	0.02	0.04	0.06	0.08	0.08
Alaska	1.00	0.04	0.03	0.06	0.01	0.06	0.03	0.04	0.08	0.16	0.19	0.03	0.04	0.05	0.09	0.09
Arizona	1.00	0.05	0.03	0.04	0.02	0.07	0.03	0.04	0.09	0.21	0.13	0.03	0.04	0.06	0.07	0.07
Arkansas	1.00	0.06	0.03	0.03	0.02	0.08	0.03	0.06	0.08	0.17	0.16	0.02	0.04	0.06	0.09	0.08
California	1.00	0.04	0.03	0.04	0.02	0.07	0.04	0.03	0.06	0.24	0.13	0.03	0.04	0.06	0.08	0.10
Colorado	1.00	0.04	0.03	0.04	0.02	0.08	0.03	0.03	0.09	0.17	0.13	0.04	0.05	0.07	0.08	0.09
Connecticut	1.00	0.04	0.03	0.03	0.02	0.07	0.04	0.03	0.07	0.19	0.15	0.03	0.04	0.05	0.09	0.11
Delaware	1.00	0.05	0.02	0.02	0.02	0.09	0.03	0.03	0.06	0.20	0.17	0.03	0.03	0.07	0.08	0.10
District of Columbia	1.00	0.03	0.02	0.03	0.02	0.05	0.04	0.03	0.05	0.20	0.18	0.03	0.04	0.07	0.10	0.11
Florida	1.00	0.04	0.03	0.04	0.01	0.07	0.03	0.03	0.11	0.20	0.15	0.03	0.03	0.06	0.08	0.08
Georgia	1.00	0.05	0.03	0.03	0.02	0.08	0.04	0.04	0.09	0.17	0.14	0.04	0.05	0.07	0.08	0.09
Hawaii	1.00	0.04	0.03	0.04	0.02	0.09	0.02	0.02	0.09	0.24	0.13	0.03	0.03	0.05	0.08	0.09
Idaho	1.00	0.06	0.03	0.04	0.01	0.08	0.03	0.05	0.09	0.20	0.13	0.03	0.03	0.06	0.08	0.07
Illinois	1.00	0.04	0.03	0.03	0.02	0.07	0.04	0.03	0.08	0.17	0.16	0.04	0.04	0.07	0.09	0.11
Indiana	1.00	0.04	0.03	0.04	0.02	0.08	0.03	0.06	0.09	0.15	0.18	0.03	0.03	0.07	0.08	0.09
Iowa	1.00	0.05	0.03	0.04	0.02	0.08	0.03	0.06	0.08	0.16	0.17	0.03	0.03	0.06	0.09	0.09
Kansas	1.00	0.05	0.03	0.03	0.02	0.09	0.03	0.04	0.08	0.15	0.17	0.03	0.04	0.06	0.09	0.09
Kentucky	1.00	0.04	0.03	0.03	0.02	0.09	0.03	0.05	0.10	0.15	0.17	0.03	0.03	0.06	0.08	0.08
Louisiana	1.00	0.05	0.03	0.04	0.02	0.08	0.04	0.05	0.07	0.17	0.16	0.03	0.03	0.07	0.09	0.08
Maine	1.00	0.04	0.03	0.04	0.02	0.09	0.03	0.05	0.08	0.16	0.16	0.02	0.03	0.07	0.07	0.09
Maryland	1.00	0.04	0.03	0.04	0.02	0.07	0.04	0.03	0.07	0.21	0.15	0.04	0.04	0.06	0.09	0.09
Massachusetts	1.00	0.03	0.03	0.03	0.02	0.07	0.04	0.03	0.07	0.18	0.18	0.03	0.04	0.06	0.08	0.11
Michigan	1.00	0.03	0.03	0.04	0.02	0.08	0.03	0.04	0.11	0.16	0.17	0.03	0.03	0.06	0.08	0.09
Minnesota	1.00	0.04	0.03	0.04	0.01	0.07	0.03	0.04	0.07	0.17	0.16	0.04	0.04	0.06	0.08	0.10
Mississippi	1.00	0.05	0.03	0.03	0.02	0.08	0.03	0.05	0.09	0.18	0.17	0.02	0.03	0.07	0.08	0.07
Missouri	1.00	0.05	0.03	0.04	0.02	0.07	0.03	0.05	0.08	0.15	0.17	0.04	0.05	0.07	0.08	0.09
Montana	1.00	0.05	0.02	0.04	0.02	0.09	0.03	0.06	0.08	0.19	0.14	0.03	0.04	0.07	0.07	0.07
Nebraska	1.00	0.05	0.03	0.03	0.02	0.08	0.03	0.04	0.09	0.14	0.18	0.03	0.04	0.06	0.09	0.09
Nevada	1.00	0.04	0.03	0.04	0.02	0.08	0.03	0.04	0.09	0.22	0.13	0.03	0.05	0.05	0.08	0.07
New Hampshire	1.00	0.04	0.03	0.03	0.02	0.08	0.04	0.04	0.08	0.17	0.15	0.03	0.04	0.07	0.08	0.09
New Jersey	1.00	0.03	0.03	0.03	0.02	0.07	0.04	0.03	0.07	0.20	0.14	0.04	0.05	0.06	0.09	0.10
New Mexico	1.00	0.05	0.03	0.03	0.02	0.08	0.03	0.05	0.09	0.20	0.15	0.03	0.04	0.07	0.07	0.07
New York	1.00	0.03	0.03	0.04	0.02	0.06	0.04	0.04	0.07	0.18	0.17	0.03	0.04	0.06	0.09	0.10
North Carolina	1.00	0.05	0.03	0.03	0.02	0.08	0.04	0.04	0.09	0.18	0.15	0.03	0.04	0.07	0.08	0.08
North Dakota	1.00	0.06	0.03	0.05	0.02	0.08	0.04	0.04	0.08	0.14	0.17	0.03	0.06	0.06	0.08	0.08
Ohio	1.00	0.04	0.03	0.03	0.02	0.08	0.03	0.04	0.09	0.15	0.18	0.03	0.05	0.06	0.08	0.09
Oklahoma	1.00	0.06	0.03	0.04	0.02	0.08	0.03	0.05	0.08	0.15	0.16	0.04	0.04	0.06	0.08	0.09
Oregon	1.00	0.04	0.03	0.05	0.01	0.09	0.03	0.04	0.07	0.22	0.14	0.03	0.04	0.07	0.07	0.08
Pennsylvania	1.00	0.04	0.03	0.03	0.02	0.08	0.03	0.04	0.08	0.16	0.18	0.03	0.04	0.06	0.08	0.10
Rhode Island	1.00	0.03	0.02	0.03	0.02	0.08	0.03	0.04	0.07	0.19	0.17	0.03	0.04	0.07	0.08	0.10
South Carolina	1.00	0.05	0.03	0.03	0.02	0.08	0.04	0.05	0.08	0.18	0.15	0.03	0.03	0.07	0.08	0.08
South Dakota	1.00	0.06	0.03	0.04	0.02	0.08	0.03	0.04	0.08	0.15	0.17	0.03	0.03	0.07	0.09	0.08
Tennessee	1.00	0.05	0.03	0.03	0.02	0.08	0.04	0.04	0.08	0.16	0.17	0.03	0.05	0.06	0.08	0.08
Texas	1.00	0.06	0.03	0.04	0.02	0.08	0.04	0.04	0.08	0.14	0.15	0.04	0.04	0.07	0.09	0.09
Utah	1.00	0.05	0.04	0.05	0.02	0.08	0.04	0.04	0.10	0.17	0.13	0.03	0.05	0.06	0.08	0.08
Vermont	1.00	0.05	0.03	0.03	0.01	0.09	0.03	0.05	0.08	0.15	0.17	0.03	0.04	0.07	0.08	0.09
Virginia	1.00	0.04	0.03	0.04	0.02	0.07	0.04	0.04	0.08	0.20	0.13	0.03	0.04	0.06	0.08	0.10
Washington	1.00	0.04	0.03	0.04	0.01	0.08	0.03	0.03	0.07	0.22	0.14	0.03	0.03	0.06	0.08	0.08
West Virginia	1.00	0.05	0.03	0.04	0.02	0.08	0.04	0.05	0.09	0.16	0.18	0.02	0.04	0.06	0.08	0.07
Wisconsin	1.00	0.04	0.03	0.04	0.01	0.08	0.03	0.05	0.08	0.17	0.18	0.03	0.03	0.06	0.08	0.09
Wyoming	1.00	0.06	0.03	0.04	0.02	0.09	0.03	0.04	0.08	0.18	0.14	0.03	0.02	0.08	0.09	0.08

Appendix Table 5. State Personal Consumption Expenditures by Major Type of Product as a Share of State Disposable Personal Income, 2007

State	Total PCE Net of Nonprofit Expenditures	Motor Vehicles and Parts	Furnishings and Durable Household Equipment	Recreation Goods and Vehicles	Other Durable Goods	Off-premises Food and Beverages	Clothing and Footwear	Gasoline and Other Energy Goods	Other Nondurable Goods	Housing and Utilities	Health Care	Transportation Services	Recreation Services	Food Services and Accommodations	Financial Services and Insurance	Other Services
United States	0.91	0.04	0.03	0.03	0.02	0.07	0.03	0.04	0.07	0.17	0.14	0.03	0.04	0.06	0.08	0.08
Alabama	0.91	0.05	0.03	0.03	0.02	0.07	0.03	0.04	0.08	0.16	0.15	0.02	0.03	0.05	0.08	0.07
Alaska	0.86	0.03	0.03	0.05	0.01	0.06	0.03	0.03	0.07	0.13	0.16	0.02	0.03	0.05	0.08	0.08
Arizona	1.04	0.05	0.03	0.04	0.02	0.08	0.03	0.04	0.10	0.22	0.13	0.04	0.05	0.07	0.08	0.08
Arkansas	0.89	0.05	0.02	0.03	0.02	0.07	0.03	0.05	0.07	0.15	0.15	0.02	0.03	0.05	0.08	0.07
California	0.93	0.03	0.02	0.03	0.02	0.06	0.03	0.03	0.06	0.22	0.12	0.03	0.04	0.06	0.08	0.09
Colorado	0.90	0.04	0.03	0.04	0.01	0.07	0.03	0.03	0.08	0.15	0.12	0.04	0.04	0.07	0.08	0.08
Connecticut	0.82	0.03	0.02	0.03	0.02	0.06	0.03	0.02	0.06	0.16	0.13	0.03	0.03	0.04	0.08	0.09
Delaware	0.98	0.05	0.02	0.02	0.02	0.09	0.03	0.03	0.06	0.20	0.17	0.03	0.03	0.07	0.08	0.10
District of Columbia	0.79	0.03	0.02	0.02	0.01	0.04	0.03	0.02	0.04	0.16	0.15	0.03	0.03	0.05	0.08	0.09
Florida	0.98	0.04	0.03	0.04	0.01	0.07	0.03	0.03	0.11	0.20	0.14	0.03	0.03	0.06	0.08	0.08
Georgia	0.95	0.05	0.03	0.03	0.02	0.07	0.04	0.04	0.08	0.17	0.13	0.04	0.04	0.06	0.08	0.08
Hawaii	0.95	0.04	0.03	0.04	0.02	0.08	0.02	0.02	0.08	0.23	0.13	0.03	0.03	0.05	0.08	0.08
Idaho	0.99	0.06	0.03	0.04	0.01	0.08	0.03	0.05	0.09	0.20	0.13	0.03	0.03	0.06	0.08	0.07
Illinois	0.87	0.03	0.02	0.03	0.02	0.06	0.03	0.03	0.07	0.15	0.14	0.03	0.04	0.06	0.08	0.10
Indiana	0.94	0.04	0.03	0.03	0.01	0.07	0.03	0.05	0.08	0.14	0.16	0.03	0.03	0.06	0.08	0.08
Iowa	0.87	0.04	0.02	0.03	0.01	0.07	0.03	0.05	0.07	0.14	0.15	0.02	0.03	0.05	0.08	0.08
Kansas	0.85	0.04	0.03	0.03	0.01	0.08	0.03	0.04	0.07	0.13	0.15	0.03	0.03	0.05	0.08	0.07
Kentucky	0.95	0.04	0.03	0.03	0.02	0.08	0.03	0.05	0.09	0.15	0.17	0.03	0.03	0.06	0.08	0.07
Louisiana	0.89	0.05	0.03	0.03	0.02	0.07	0.03	0.04	0.06	0.15	0.15	0.03	0.03	0.06	0.08	0.07
Maine	1.04	0.04	0.03	0.04	0.02	0.10	0.03	0.06	0.09	0.16	0.17	0.03	0.03	0.07	0.08	0.09
Maryland	0.89	0.04	0.03	0.03	0.02	0.06	0.03	0.03	0.06	0.19	0.13	0.03	0.03	0.05	0.08	0.08
Massachusetts	0.93	0.03	0.02	0.03	0.02	0.07	0.03	0.03	0.07	0.16	0.16	0.03	0.04	0.06	0.08	0.10
Michigan	0.92	0.03	0.02	0.03	0.02	0.07	0.03	0.04	0.10	0.15	0.15	0.03	0.03	0.06	0.08	0.08
Minnesota	0.92	0.03	0.03	0.04	0.01	0.06	0.03	0.04	0.07	0.15	0.15	0.04	0.04	0.06	0.08	0.09
Mississippi	0.95	0.04	0.03	0.03	0.01	0.08	0.03	0.05	0.08	0.17	0.17	0.02	0.03	0.07	0.08	0.06
Missouri	0.93	0.04	0.02	0.03	0.02	0.07	0.03	0.05	0.07	0.14	0.16	0.03	0.05	0.06	0.08	0.08
Montana	1.07	0.05	0.02	0.04	0.02	0.09	0.03	0.06	0.09	0.20	0.15	0.03	0.05	0.08	0.08	0.07
Nebraska	0.87	0.05	0.03	0.03	0.01	0.07	0.03	0.04	0.07	0.12	0.15	0.03	0.04	0.05	0.08	0.08
Nevada	0.93	0.04	0.03	0.04	0.02	0.07	0.03	0.03	0.08	0.21	0.12	0.03	0.04	0.05	0.08	0.07
New Hampshire	0.91	0.04	0.02	0.03	0.02	0.08	0.04	0.04	0.07	0.15	0.13	0.03	0.04	0.06	0.08	0.08
New Jersey	0.88	0.03	0.03	0.03	0.02	0.06	0.04	0.02	0.06	0.18	0.12	0.03	0.04	0.05	0.08	0.09
New Mexico	1.02	0.05	0.03	0.03	0.02	0.08	0.03	0.06	0.09	0.20	0.15	0.03	0.04	0.07	0.08	0.07
New York	0.85	0.02	0.02	0.03	0.01	0.05	0.04	0.03	0.06	0.15	0.14	0.03	0.03	0.05	0.08	0.09
North Carolina	0.94	0.05	0.03	0.03	0.02	0.07	0.03	0.04	0.08	0.17	0.15	0.03	0.04	0.06	0.08	0.07
North Dakota	0.94	0.05	0.03	0.04	0.02	0.07	0.03	0.04	0.08	0.13	0.16	0.03	0.05	0.05	0.08	0.08
Ohio	0.93	0.04	0.02	0.03	0.02	0.07	0.03	0.04	0.08	0.14	0.17	0.03	0.04	0.06	0.08	0.09
Oklahoma	0.89	0.05	0.02	0.03	0.02	0.07	0.03	0.05	0.07	0.13	0.15	0.03	0.03	0.05	0.08	0.08
Oregon	1.05	0.04	0.03	0.05	0.01	0.09	0.03	0.04	0.07	0.23	0.15	0.03	0.04	0.07	0.08	0.08
Pennsylvania	0.90	0.04	0.02	0.03	0.02	0.07	0.03	0.04	0.07	0.15	0.16	0.03	0.04	0.05	0.08	0.09
Rhode Island	0.91	0.03	0.02	0.03	0.02	0.07	0.03	0.04	0.07	0.17	0.16	0.03	0.03	0.06	0.08	0.09
South Carolina	1.00	0.05	0.03	0.03	0.02	0.08	0.04	0.05	0.08	0.18	0.15	0.03	0.03	0.07	0.08	0.08
South Dakota	0.87	0.05	0.03	0.04	0.02	0.07	0.03	0.04	0.07	0.13	0.15	0.02	0.03	0.06	0.08	0.07
Tennessee	0.92	0.04	0.03	0.03	0.02	0.07	0.03	0.04	0.08	0.15	0.15	0.03	0.05	0.06	0.08	0.07
Texas	0.85	0.05	0.03	0.03	0.02	0.07	0.03	0.04	0.07	0.12	0.13	0.03	0.03	0.06	0.08	0.08
Utah	0.99	0.05	0.04	0.05	0.02	0.08	0.04	0.04	0.10	0.17	0.13	0.03	0.05	0.06	0.08	0.08
Vermont	0.97	0.05	0.03	0.03	0.01	0.09	0.03	0.05	0.07	0.15	0.16	0.03	0.04	0.07	0.08	0.09
Virginia	0.90	0.04	0.03	0.03	0.02	0.06	0.03	0.04	0.07	0.18	0.12	0.02	0.04	0.06	0.08	0.09
Washington	0.91	0.03	0.03	0.04	0.01	0.07	0.03	0.03	0.07	0.20	0.13	0.03	0.03	0.05	0.08	0.08
West Virginia	1.01	0.05	0.03	0.04	0.02	0.08	0.04	0.05	0.09	0.16	0.19	0.02	0.04	0.06	0.08	0.07
Wisconsin	0.92	0.04	0.03	0.04	0.01	0.07	0.03	0.04	0.07	0.15	0.17	0.03	0.03	0.05	0.08	0.08
Wyoming	0.82	0.05	0.02	0.03	0.01	0.07	0.02	0.04	0.06	0.15	0.12	0.03	0.02	0.07	0.08	0.06

Appendix Table 6. Average Contribution to Annual Percent Growth in Total Per Capita Personal Consumption Expenditures Net of NPISHs by Major Category, 1997-2007

State	State PCE, excluding Nonprofits	Motor Vehicles and Parts	Furnishings and Durable Household Equipment	Recreation Goods and Vehicles	Other Durable Goods	Off-premises Food and Beverages	Clothing and Footwear	Gasoline and Other Energy Goods	Other Nondurable Goods	Housing and Utilities	Health Care	Transportation Services	Recreation Services	Food Services and Accommodations	Financial Services and Insurance	Other Services
United States	4.67	0.12	0.13	0.21	0.09	0.24	0.08	0.25	0.41	0.85	0.77	0.10	0.19	0.29	0.29	0.50
Alabama	4.60	0.19	0.13	0.19	0.09	0.21	0.08	0.32	0.41	0.93	0.68	0.08	0.19	0.26	0.42	0.42
Alaska	4.62	0.20	0.15	0.24	0.08	0.18	0.04	0.21	0.35	0.61	1.24	0.05	0.14	0.25	0.43	0.46
Arizona	5.21	0.18	0.15	0.19	0.09	0.24	0.12	0.24	0.52	1.21	0.76	0.11	0.26	0.30	0.41	0.43
Arkansas	4.65	0.17	0.12	0.19	0.08	0.19	0.07	0.38	0.39	0.89	0.78	0.03	0.20	0.24	0.44	0.47
California	5.02	0.15	0.15	0.22	0.12	0.26	0.13	0.18	0.31	1.17	0.69	0.07	0.20	0.33	0.44	0.60
Colorado	3.84	0.12	0.12	0.17	0.06	0.23	0.09	0.20	0.38	0.49	0.64	0.03	0.15	0.27	0.42	0.47
Connecticut	4.52	0.10	0.16	0.20	0.13	0.24	0.06	0.17	0.35	0.72	0.69	0.12	0.23	0.25	0.48	0.60
Delaware	4.65	0.15	0.11	0.14	0.11	0.38	0.08	0.23	0.31	1.06	0.92	0.07	-0.04	0.27	0.39	0.46
District of Columbia	4.77	-0.08	0.17	0.04	0.08	0.17	0.11	0.03	0.25	1.26	0.82	-0.28	0.33	0.42	0.63	0.80
Florida	4.91	0.10	0.16	0.24	0.07	0.24	0.07	0.20	0.68	1.23	0.67	0.01	0.11	0.26	0.42	0.44
Georgia	4.13	0.12	0.10	0.18	0.06	0.18	0.06	0.28	0.40	0.73	0.56	0.19	0.21	0.26	0.37	0.41
Hawaii	4.71	0.23	0.18	0.27	0.08	0.26	-0.02	0.14	0.41	1.19	0.62	0.17	0.11	0.22	0.40	0.43
Idaho	5.27	0.20	0.19	0.25	0.08	0.27	0.07	0.34	0.49	1.20	0.75	0.10	0.21	0.26	0.42	0.44
Illinois	4.55	0.09	0.12	0.20	0.10	0.28	0.08	0.20	0.39	0.68	0.79	0.15	0.20	0.31	0.42	0.56
Indiana	4.07	0.06	0.10	0.20	0.06	0.18	0.05	0.37	0.41	0.51	0.91	0.07	0.10	0.26	0.36	0.41
Iowa	4.46	0.09	0.12	0.20	0.07	0.20	0.07	0.44	0.37	0.72	0.85	0.10	0.14	0.23	0.42	0.45
Kansas	4.38	0.13	0.14	0.17	0.08	0.33	0.06	0.27	0.30	0.61	0.86	0.13	0.17	0.25	0.44	0.43
Kentucky	4.37	0.08	0.11	0.17	0.08	0.33	0.06	0.34	0.49	0.66	0.81	0.04	0.18	0.25	0.38	0.40
Louisiana	5.37	0.27	0.21	0.27	0.10	0.24	0.12	0.35	0.36	0.97	0.80	0.06	0.21	0.45	0.51	0.45
Maine	5.30	0.15	0.18	0.28	0.09	0.30	0.06	0.41	0.53	0.85	0.96	0.08	0.13	0.37	0.39	0.53
Maryland	5.11	0.16	0.15	0.23	0.11	0.22	0.09	0.20	0.32	1.15	0.78	0.22	0.16	0.29	0.48	0.55
Massachusetts	5.08	0.10	0.15	0.19	0.12	0.27	0.09	0.18	0.41	0.72	0.99	0.14	0.29	0.30	0.45	0.68
Michigan	3.32	-0.11	0.05	0.15	0.08	0.18	-0.01	0.26	0.53	0.30	0.76	0.08	0.12	0.25	0.33	0.36
Minnesota	4.57	0.02	0.12	0.23	0.07	0.19	0.06	0.28	0.31	0.76	0.93	0.19	0.18	0.28	0.42	0.55
Mississippi	5.50	0.14	0.15	0.22	0.09	0.29	0.10	0.41	0.49	1.15	0.94	0.07	0.16	0.46	0.44	0.40
Missouri	4.27	0.09	0.11	0.19	0.09	0.19	0.05	0.36	0.33	0.60	0.80	0.16	0.19	0.29	0.38	0.44
Montana	6.05	0.25	0.15	0.29	0.14	0.39	0.09	0.47	0.53	1.29	0.91	0.12	0.26	0.37	0.44	0.35
Nebraska	4.89	0.23	0.06	0.20	0.10	0.24	0.06	0.36	0.46	0.59	1.07	0.08	0.26	0.23	0.46	0.49
Nevada	4.80	0.16	0.14	0.25	0.13	0.20	0.15	0.21	0.45	1.21	0.66	0.05	0.20	0.18	0.39	0.42
New Hampshire	4.69	0.10	0.12	0.20	0.12	0.17	0.07	0.30	0.42	0.76	0.80	0.12	0.31	0.31	0.44	0.45
New Jersey	4.75	0.11	0.16	0.20	0.13	0.32	0.10	0.17	0.35	0.90	0.68	0.11	0.25	0.24	0.43	0.61
New Mexico	5.33	0.21	0.09	0.18	0.08	0.26	0.08	0.41	0.50	1.22	0.83	0.06	0.24	0.29	0.41	0.47
New York	5.18	0.11	0.15	0.27	0.11	0.25	0.15	0.24	0.44	0.90	0.87	0.04	0.24	0.35	0.46	0.61
North Carolina	4.23	0.09	0.11	0.18	0.07	0.22	0.07	0.26	0.40	0.78	0.74	0.08	0.16	0.30	0.37	0.41
North Dakota	5.42	0.15	0.18	0.33	0.16	0.30	0.08	0.34	0.44	0.72	0.90	0.12	0.50	0.25	0.50	0.43
Ohio	3.99	0.04	0.08	0.16	0.07	0.20	0.03	0.26	0.40	0.50	0.90	0.11	0.22	0.21	0.35	0.47
Oklahoma	5.14	0.24	0.14	0.22	0.10	0.28	0.07	0.37	0.33	0.72	0.87	0.27	0.20	0.25	0.49	0.58
Oregon	5.00	0.07	0.13	0.26	0.07	0.32	0.07	0.21	0.37	1.31	0.85	0.09	0.17	0.29	0.35	0.44
Pennsylvania	4.70	0.11	0.12	0.19	0.09	0.29	0.06	0.27	0.38	0.70	0.91	0.11	0.20	0.25	0.42	0.61
Rhode Island	5.23	0.12	0.14	0.22	0.13	0.31	0.10	0.21	0.42	0.95	0.88	0.14	0.20	0.38	0.44	0.58
South Carolina	4.68	0.13	0.13	0.21	0.09	0.22	0.10	0.39	0.44	0.93	0.76	0.12	0.10	0.30	0.38	0.39
South Dakota	5.00	0.24	0.15	0.27	0.15	0.24	0.04	0.34	0.36	0.82	0.97	0.09	0.05	0.34	0.50	0.44
Tennessee	4.14	0.09	0.10	0.18	0.08	0.19	0.05	0.24	0.43	0.69	0.69	0.09	0.28	0.24	0.40	0.40
Texas	4.18	0.23	0.13	0.22	0.09	0.21	0.10	0.29	0.36	0.40	0.66	0.14	0.14	0.29	0.45	0.45
Utah	4.90	0.15	0.18	0.24	0.07	0.27	0.09	0.31	0.56	0.74	0.67	0.18	0.32	0.22	0.41	0.49
Vermont	5.29	0.21	0.20	0.20	0.09	0.38	0.03	0.38	0.44	0.79	1.10	0.13	0.21	0.30	0.44	0.38
Virginia	5.11	0.17	0.15	0.23	0.10	0.24	0.10	0.30	0.40	1.06	0.70	0.09	0.23	0.31	0.46	0.57
Washington	5.12	0.13	0.17	0.23	0.08	0.32	0.09	0.21	0.40	1.17	0.86	0.11	0.15	0.27	0.45	0.46
West Virginia	4.73	0.13	0.12	0.27	0.05	0.21	0.08	0.29	0.45	0.85	0.90	0.08	0.33	0.26	0.38	0.34
Wisconsin	4.70	0.07	0.11	0.20	0.07	0.26	0.05	0.32	0.38	0.80	1.08	0.08	0.15	0.26	0.41	0.47
Wyoming	5.73	0.35	0.14	0.22	0.07	0.34	0.05	0.35	0.35	1.16	0.91	0.12	0.19	0.40	0.62	0.46

Appendix Table 7a. Percent Change from Preceding Period of Residency-adjusted Motor Vehicles and Parts (MOT) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	9.25%	9.53%	3.56%	5.52%	4.71%	-0.08%	0.71%	1.07%	-3.28%	1.29%
Alabama	8.39%	9.53%	0.55%	4.74%	6.80%	1.02%	0.93%	3.09%	-0.52%	1.38%
Alaska	12.45%	15.36%	5.31%	9.85%	15.96%	4.10%	1.98%	-5.35%	-8.36%	1.61%
Arizona	10.47%	10.68%	6.19%	7.47%	3.71%	2.04%	5.20%	8.10%	3.13%	1.72%
Arkansas	8.36%	8.59%	0.96%	6.20%	7.18%	1.97%	0.37%	-1.99%	-3.16%	4.60%
California	13.74%	14.05%	6.12%	7.84%	7.98%	-0.39%	1.28%	2.73%	-4.09%	-4.46%
Colorado	11.80%	13.87%	8.76%	8.89%	3.53%	-3.62%	-0.80%	-2.30%	-4.91%	5.53%
Connecticut	6.76%	8.78%	2.21%	4.22%	3.41%	2.78%	1.79%	0.74%	-4.61%	1.69%
Delaware	8.91%	11.61%	3.23%	3.82%	6.96%	3.48%	2.42%	-0.15%	-3.61%	2.59%
District of Columbia	**-6.20%**	**-5.59%**	**8.10%**	**-8.54%**	**5.72%**	**-12.06%**	**-5.54%**	**7.61%**	**10.74%**	**-3.37%**
Florida	9.62%	6.39%	5.28%	3.12%	4.12%	-0.68%	4.71%	8.07%	-0.77%	-4.08%
Georgia	11.14%	10.39%	2.18%	6.83%	4.46%	0.28%	0.47%	1.93%	-0.48%	3.02%
Hawaii	5.50%	11.52%	9.96%	8.52%	15.72%	14.76%	4.63%	1.98%	-3.15%	-1.18%
Idaho	8.23%	5.77%	-0.75%	4.81%	7.76%	3.41%	5.56%	5.00%	3.14%	7.58%
Illinois	6.41%	10.11%	1.30%	5.13%	0.48%	-1.79%	0.15%	1.21%	-4.44%	2.28%
Indiana	7.39%	8.93%	-1.09%	3.99%	3.57%	-1.61%	0.40%	-2.51%	-5.69%	1.71%
Iowa	8.58%	8.07%	-1.51%	5.22%	0.02%	-2.05%	1.48%	-2.43%	-4.91%	4.01%
Kansas	9.07%	6.93%	-0.41%	3.82%	2.62%	-0.97%	0.71%	2.15%	0.45%	6.19%
Kentucky	7.72%	8.06%	1.32%	-0.28%	4.38%	0.42%	0.51%	-0.85%	-3.55%	1.77%
Louisiana	11.13%	6.26%	1.37%	4.68%	4.85%	4.07%	1.75%	4.22%	3.82%	1.86%
Maine	9.21%	13.69%	1.05%	6.32%	7.52%	2.63%	-0.62%	-3.10%	-6.62%	0.00%
Maryland	7.81%	10.30%	8.77%	8.37%	7.47%	1.68%	0.25%	-0.80%	-4.63%	0.19%
Massachusetts	8.14%	7.83%	6.74%	5.50%	4.57%	3.35%	-1.05%	-0.40%	-7.61%	-2.61%
Michigan	5.07%	9.87%	-1.80%	6.21%	4.71%	-11.02%	-8.13%	-11.01%	-13.87%	-8.95%
Minnesota	8.27%	8.04%	1.58%	7.11%	2.95%	-2.82%	-1.90%	-5.80%	-8.59%	0.42%
Mississippi	10.74%	10.87%	-1.61%	5.67%	3.00%	-0.35%	-1.62%	1.30%	0.30%	-1.09%
Missouri	8.54%	6.51%	-0.16%	8.43%	4.05%	0.21%	-2.77%	-0.30%	-5.18%	1.35%
Montana	7.76%	9.25%	4.92%	8.88%	8.97%	1.35%	1.95%	-0.69%	-1.14%	6.98%
Nebraska	9.55%	12.22%	1.04%	11.01%	6.40%	0.93%	1.86%	-3.59%	-4.13%	6.74%
Nevada	11.37%	13.76%	6.57%	11.10%	7.53%	0.77%	11.00%	8.54%	-0.50%	-2.06%
New Hampshire	**10.52%**	**7.65%**	**2.19%**	**7.87%**	**5.59%**	**4.79%**	**-4.74%**	**0.22%**	**-5.65%**	**-2.31%**
New Jersey	6.21%	8.05%	6.06%	6.14%	6.89%	0.74%	0.16%	-2.35%	-3.69%	0.41%
New Mexico	8.64%	8.78%	2.30%	8.58%	7.13%	0.68%	4.07%	4.52%	-1.64%	5.31%
New York	7.61%	8.27%	4.81%	5.45%	6.10%	3.59%	1.01%	0.44%	-4.81%	2.07%
North Carolina	8.44%	10.80%	2.73%	1.88%	3.89%	0.06%	1.08%	1.74%	-3.62%	4.29%
North Dakota	-2.49%	5.38%	2.85%	11.28%	4.08%	0.44%	-0.44%	-1.19%	-3.83%	6.87%
Ohio	5.20%	7.31%	-0.49%	2.15%	2.07%	-0.60%	-2.26%	-1.41%	-6.68%	1.59%
Oklahoma	9.62%	9.97%	1.06%	6.25%	3.46%	2.88%	0.04%	0.79%	-0.99%	8.71%
Oregon	9.73%	7.95%	-1.79%	1.13%	4.41%	-3.21%	1.84%	3.72%	-1.21%	1.30%
Pennsylvania	7.08%	7.31%	1.60%	4.50%	4.70%	1.63%	1.94%	-3.20%	-5.67%	1.83%
Rhode Island	9.31%	10.63%	11.18%	4.13%	8.89%	2.98%	-4.26%	-1.38%	-7.08%	-4.59%
South Carolina	9.80%	10.74%	4.05%	0.45%	6.03%	0.86%	-1.29%	2.84%	-0.43%	4.00%
South Dakota	5.57%	8.86%	3.82%	7.18%	5.57%	2.92%	1.03%	-2.10%	-2.05%	11.06%
South Dakota	8.75%	9.31%	0.39%	1.57%	2.24%	-0.26%	-0.23%	2.04%	-2.03%	3.37%
Texas	13.50%	11.60%	7.90%	9.49%	2.83%	-0.66%	0.11%	2.72%	-0.24%	6.88%
Utah	6.00%	2.05%	4.94%	2.96%	8.11%	-3.01%	4.74%	7.49%	4.80%	10.58%
Vermont	10.63%	8.47%	3.56%	8.33%	7.84%	5.43%	5.15%	-2.40%	-7.72%	1.90%
Virginia	9.11%	9.53%	6.93%	6.29%	5.49%	2.41%	5.29%	1.32%	-4.29%	1.00%
Washington	16.53%	8.92%	6.36%	-4.39%	5.29%	0.20%	1.80%	4.04%	-2.01%	4.87%
West Virginia	6.60%	5.76%	1.16%	5.81%	4.73%	1.00%	0.64%	-3.07%	-3.65%	3.74%
Wisconsin	7.95%	9.44%	2.40%	4.30%	2.69%	-0.74%	-2.27%	-2.89%	-7.00%	2.02%
Wyoming	11.30%	11.87%	2.46%	9.98%	7.43%	0.95%	5.84%	4.46%	3.59%	10.46%

Note: States in bold have been directly adjusted to account for spending by non-residents.

Appendix Table 7b. Percent Change from Preceding Period of Residency-adjusted Furnishings and Durable Household Equipment (FDH) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	8.15%	10.14%	8.85%	3.28%	5.08%	2.62%	6.56%	5.78%	3.89%	-0.06%
Alabama	5.76%	7.83%	3.67%	2.24%	5.46%	5.14%	8.06%	8.17%	3.54%	0.95%
Alaska	5.14%	7.85%	1.08%	5.41%	11.58%	4.14%	7.87%	7.71%	5.51%	2.83%
Arizona	8.03%	8.70%	10.76%	3.76%	5.18%	4.84%	11.31%	12.60%	9.72%	-0.61%
Arkansas	6.71%	9.92%	10.14%	0.21%	4.51%	3.02%	6.06%	6.90%	2.64%	-0.19%
California	10.47%	12.21%	12.96%	6.26%	5.84%	2.57%	5.25%	5.87%	4.09%	-0.87%
Colorado	8.15%	12.80%	10.22%	4.82%	3.61%	-0.39%	5.40%	5.40%	2.78%	1.68%
Connecticut	8.60%	7.07%	9.66%	5.57%	8.63%	2.30%	8.38%	4.89%	4.02%	-0.32%
Delaware	**9.34%**	**14.77%**	**7.23%**	**6.02%**	**9.12%**	**3.24%**	**8.50%**	**4.52%**	**-0.58%**	**-2.32%**
District of Columbia	**6.31%**	**14.44%**	**8.55%**	**-2.47%**	**7.69%**	**13.82%**	**12.91%**	**10.52%**	**9.57%**	**1.75%**
Florida	9.20%	9.68%	9.52%	5.94%	5.62%	4.21%	9.42%	11.38%	5.40%	-3.68%
Georgia	7.17%	11.22%	6.45%	3.02%	0.55%	2.90%	6.05%	5.98%	6.89%	0.35%
Hawaii	1.00%	10.00%	9.88%	8.36%	3.54%	7.46%	11.25%	9.06%	6.43%	3.72%
Idaho	7.42%	10.58%	13.01%	4.22%	3.31%	4.74%	11.02%	16.74%	7.19%	-0.29%
Illinois	5.69%	6.95%	14.50%	1.47%	3.75%	-0.44%	4.47%	3.29%	1.88%	2.10%
Indiana	6.07%	9.31%	6.79%	1.76%	4.89%	2.74%	5.30%	3.56%	2.08%	-0.13%
Iowa	6.74%	9.94%	4.51%	0.24%	4.04%	3.45%	7.41%	2.83%	3.90%	0.15%
Kansas	9.64%	7.52%	5.18%	1.85%	3.84%	4.00%	7.00%	2.65%	7.82%	3.58%
Kentucky	6.95%	9.95%	5.89%	0.40%	5.25%	2.72%	4.59%	4.44%	2.72%	0.68%
Louisiana	7.56%	6.82%	6.03%	3.20%	6.58%	5.60%	7.41%	6.39%	17.04%	2.23%
Maine	9.16%	12.60%	7.40%	7.07%	9.00%	3.38%	8.60%	5.91%	5.02%	1.18%
Maryland	7.62%	9.54%	8.77%	6.52%	9.12%	3.03%	8.60%	6.00%	3.13%	-0.58%
Massachusetts	8.59%	13.24%	9.59%	5.44%	4.88%	3.46%	9.25%	5.20%	-1.56%	-2.66%
Michigan	7.30%	9.99%	6.09%	0.94%	2.28%	-2.75%	3.15%	-2.14%	-2.28%	-4.25%
Minnesota	8.22%	10.53%	15.56%	2.32%	4.55%	1.97%	7.66%	-0.43%	-2.74%	-1.25%
Mississippi	8.66%	12.04%	4.35%	0.42%	4.91%	5.02%	6.87%	8.49%	11.88%	-3.92%
Missouri	6.78%	8.98%	5.68%	4.62%	8.30%	2.60%	3.72%	3.95%	1.82%	-0.13%
Montana	**7.61%**	**9.86%**	**6.77%**	**7.31%**	**12.01%**	**5.19%**	**8.70%**	**5.94%**	**5.44%**	**5.77%**
Nebraska	-0.33%	4.97%	2.89%	0.62%	-0.53%	2.49%	7.30%	6.13%	0.68%	1.45%
Nevada	9.62%	14.91%	11.81%	9.06%	6.72%	6.62%	11.26%	9.54%	4.94%	-3.38%
New Hampshire	**7.69%**	**12.63%**	**8.89%**	**4.77%**	**7.88%**	**3.87%**	**8.08%**	**3.09%**	**0.40%**	**-4.43%**
New Jersey	8.51%	11.98%	11.06%	2.10%	8.11%	4.93%	2.85%	5.25%	5.12%	-2.09%
New Mexico	4.96%	7.65%	2.23%	0.85%	4.03%	4.01%	7.55%	3.86%	4.75%	0.35%
New York	8.04%	11.26%	9.55%	4.33%	7.91%	1.22%	7.01%	3.53%	3.03%	1.76%
North Carolina	7.04%	10.11%	10.05%	0.74%	0.75%	1.10%	5.75%	7.34%	2.68%	2.94%
North Dakota	7.74%	4.21%	4.62%	2.63%	6.14%	4.31%	6.93%	8.27%	9.33%	4.18%
Ohio	7.49%	6.60%	7.22%	-0.35%	3.62%	-0.25%	2.83%	0.99%	0.15%	-0.96%
Oklahoma	7.05%	8.48%	5.58%	2.71%	2.65%	4.75%	6.90%	8.10%	5.34%	3.60%
Oregon	5.94%	10.64%	2.74%	-0.93%	3.82%	3.06%	10.19%	7.52%	7.91%	1.72%
Pennsylvania	7.21%	10.04%	7.69%	2.38%	4.09%	3.30%	5.32%	4.08%	0.47%	0.56%
Rhode Island	6.80%	13.19%	12.15%	2.56%	14.71%	4.46%	10.81%	4.39%	2.41%	-12.13%
South Carolina	8.46%	10.43%	4.29%	-0.39%	2.28%	3.93%	10.27%	6.88%	6.00%	2.06%
South Dakota	6.31%	9.93%	7.64%	3.61%	5.22%	3.24%	6.37%	6.15%	3.42%	2.65%
Tennessee	8.46%	9.72%	6.10%	-0.90%	2.22%	1.92%	5.75%	5.64%	3.53%	1.72%
Texas	8.99%	10.13%	9.15%	3.69%	5.26%	2.26%	6.38%	9.27%	6.33%	1.38%
Utah	5.75%	7.88%	3.46%	2.56%	5.04%	4.60%	12.09%	8.83%	12.03%	7.89%
Vermont	8.71%	14.55%	15.28%	9.46%	10.79%	0.19%	11.49%	6.86%	2.54%	1.51%
Virginia	9.50%	12.16%	7.54%	3.88%	7.95%	2.97%	8.53%	6.21%	2.44%	-2.41%
Washington	16.13%	8.59%	6.72%	0.81%	3.90%	6.37%	7.55%	7.41%	6.96%	3.56%
West Virginia	**5.30%**	**6.59%**	**6.14%**	**-0.95%**	**4.61%**	**0.80%**	**4.70%**	**3.47%**	**2.39%**	**0.85%**
Wisconsin	7.70%	11.83%	4.59%	3.74%	3.45%	3.70%	6.07%	1.81%	2.00%	-1.39%
Wyoming	10.26%	2.15%	1.68%	5.19%	6.62%	2.26%	7.17%	8.76%	9.33%	9.31%

Note: States in bold have been directly adjusted to account for spending by non-residents.

Appendix Table 7c. Percent Change from Preceding Period of Residency-adjusted Recreational Goods and Vehicles (REQ) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	9.99%	10.74%	10.04%	2.44%	4.90%	5.65%	9.33%	7.68%	6.80%	4.58%
Alabama	5.72%	8.50%	7.46%	1.64%	7.49%	6.50%	10.60%	6.25%	5.38%	14.71%
Alaska	3.54%	1.57%	-0.42%	2.24%	12.40%	7.54%	11.68%	6.99%	7.90%	5.36%
Arizona	11.06%	4.98%	13.45%	2.39%	4.89%	7.86%	10.64%	9.17%	11.16%	1.28%
Arkansas	8.50%	9.79%	11.04%	0.56%	3.41%	7.57%	6.44%	6.88%	6.25%	7.81%
California	11.40%	12.18%	14.86%	0.27%	2.64%	5.00%	7.06%	8.76%	7.21%	2.55%
Colorado	7.31%	12.03%	14.15%	2.71%	5.98%	-0.17%	6.47%	5.18%	2.35%	4.75%
Connecticut	10.83%	3.57%	6.27%	6.98%	8.20%	3.86%	8.59%	8.63%	7.19%	6.37%
Delaware	**8.07%**	**15.71%**	**-0.38%**	**6.82%**	**8.37%**	**13.07%**	**12.69%**	**10.54%**	**7.08%**	**6.52%**
District of Columbia	**3.31%**	**4.87%**	**7.52%**	**-2.58%**	**3.18%**	**-3.64%**	**0.62%**	**-1.97%**	**-1.11%**	**1.41%**
Florida	8.47%	7.76%	7.66%	5.31%	4.39%	7.94%	12.17%	13.81%	7.12%	4.21%
Georgia	9.95%	10.88%	8.11%	2.53%	5.19%	11.75%	8.55%	7.04%	8.18%	5.53%
Hawaii	0.75%	7.87%	8.68%	5.38%	6.35%	6.64%	17.75%	12.00%	11.98%	9.27%
Idaho	7.67%	13.30%	12.72%	-0.19%	3.83%	7.79%	12.21%	13.81%	6.93%	1.31%
Illinois	5.17%	10.85%	17.21%	0.96%	5.97%	-1.34%	7.13%	4.47%	5.34%	14.07%
Indiana	10.52%	10.25%	10.55%	2.57%	6.34%	8.97%	10.61%	6.41%	1.91%	1.40%
Iowa	10.71%	10.42%	2.71%	1.56%	6.06%	8.26%	10.25%	5.62%	8.02%	2.38%
Kansas	9.42%	9.27%	1.04%	5.70%	3.07%	6.69%	12.27%	-10.02%	14.19%	8.10%
Kentucky	6.06%	11.66%	9.82%	-2.60%	6.60%	6.36%	9.98%	4.58%	8.59%	5.34%
Louisiana	6.68%	5.66%	7.39%	2.39%	9.71%	9.30%	10.24%	5.73%	16.88%	6.56%
Maine	11.18%	15.72%	5.85%	7.79%	6.57%	9.12%	7.47%	5.66%	7.53%	6.67%
Maryland	11.13%	7.76%	9.91%	3.70%	6.56%	8.58%	11.65%	6.85%	5.19%	3.45%
Massachusetts	6.34%	15.06%	11.89%	4.47%	6.57%	3.05%	10.10%	10.39%	0.12%	-1.31%
Michigan	10.74%	11.26%	5.73%	1.12%	3.61%	-2.97%	7.46%	2.89%	3.14%	-0.06%
Minnesota	8.28%	17.80%	13.71%	2.22%	6.96%	4.57%	8.68%	-0.58%	1.64%	0.22%
Mississippi	11.11%	13.11%	7.03%	2.69%	6.91%	9.21%	11.35%	11.19%	15.07%	-2.52%
Missouri	10.62%	8.82%	8.42%	6.45%	8.75%	5.75%	7.62%	4.80%	2.02%	1.24%
Montana	**5.85%**	**8.58%**	**11.63%**	**8.93%**	**13.33%**	**11.91%**	**11.97%**	**8.42%**	**11.05%**	**11.47%**
Nebraska	8.31%	7.89%	7.55%	3.79%	3.98%	5.92%	11.38%	9.27%	8.98%	3.96%
Nevada	14.35%	13.59%	9.24%	7.66%	7.60%	13.07%	17.29%	13.66%	6.56%	2.93%
New Hampshire	**11.91%**	**12.60%**	**7.97%**	**6.03%**	**10.72%**	**7.30%**	**7.07%**	**6.49%**	**2.07%**	**2.59%**
New Jersey	11.67%	8.81%	6.04%	3.17%	6.62%	7.81%	2.99%	7.74%	12.95%	4.00%
New Mexico	7.43%	11.97%	6.15%	5.38%	8.21%	5.59%	14.26%	4.43%	2.10%	3.67%
New York	9.81%	13.25%	10.82%	6.47%	7.39%	6.45%	10.80%	6.72%	8.44%	11.41%
North Carolina	11.45%	12.97%	9.12%	1.94%	1.62%	5.64%	9.08%	7.10%	5.81%	7.48%
North Dakota	9.37%	7.86%	9.72%	7.26%	10.44%	7.11%	7.81%	7.77%	9.89%	4.77%
Ohio	9.98%	7.32%	10.44%	-0.67%	4.12%	3.03%	5.87%	4.29%	4.42%	3.69%
Oklahoma	16.44%	9.82%	6.10%	3.39%	-3.88%	7.15%	9.04%	10.58%	6.86%	7.90%
Oregon	9.74%	14.17%	5.93%	2.08%	6.27%	3.68%	9.78%	7.10%	7.58%	5.23%
Pennsylvania	8.28%	10.19%	9.05%	5.98%	3.34%	7.48%	7.94%	7.63%	5.28%	4.89%
Rhode Island	9.92%	16.73%	16.67%	2.28%	14.01%	7.30%	6.17%	7.27%	4.71%	1.16%
South Carolina	10.93%	13.81%	7.65%	3.61%	1.26%	8.70%	11.54%	11.90%	7.93%	5.86%
South Dakota	9.69%	17.89%	11.05%	0.79%	8.41%	5.55%	9.37%	5.43%	4.55%	5.17%
Tennessee	10.72%	10.93%	8.45%	0.37%	2.00%	6.93%	12.29%	6.30%	3.69%	5.89%
Texas	13.14%	11.98%	10.58%	0.74%	3.19%	4.88%	11.68%	13.06%	7.77%	3.95%
Utah	5.32%	10.45%	6.68%	2.36%	3.54%	3.18%	11.51%	6.08%	11.99%	8.92%
Vermont	8.80%	12.41%	11.19%	6.07%	8.72%	1.10%	7.53%	8.99%	0.46%	3.31%
Virginia	12.55%	12.95%	9.45%	-0.09%	8.19%	6.88%	13.11%	11.97%	8.34%	-0.16%
Washington	16.03%	7.48%	8.14%	-2.03%	1.88%	11.39%	9.10%	2.82%	11.07%	6.16%
West Virginia	**7.96%**	**6.72%**	**8.72%**	**2.16%**	**6.74%**	**5.11%**	**17.93%**	**5.03%**	**6.04%**	**6.97%**
Wisconsin	6.71%	10.84%	5.53%	4.65%	7.04%	5.95%	8.03%	2.64%	5.72%	1.55%
Wyoming	7.89%	6.86%	4.83%	4.63%	8.67%	7.39%	9.71%	8.12%	9.56%	10.66%

Note: States in bold have been directly adjusted to account for spending by non-residents.

Appendix Table 7d. Percent Change from Preceding Period of Residency-adjusted Other Durable Goods (ODG) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	7.82%	9.12%	7.44%	-1.84%	4.64%	7.07%	8.32%	7.28%	9.61%	8.54%
Alabama	3.69%	3.32%	5.84%	-4.65%	6.22%	5.50%	11.39%	7.88%	10.64%	12.54%
Alaska	5.89%	6.18%	2.09%	-1.34%	11.07%	5.45%	13.47%	10.91%	14.61%	15.66%
Arizona	7.69%	10.10%	8.00%	-2.62%	2.96%	2.80%	13.41%	12.63%	18.10%	8.40%
Arkansas	5.18%	7.05%	1.96%	-0.60%	-0.59%	8.37%	2.81%	9.88%	11.18%	15.58%
California	8.87%	10.73%	9.98%	-1.66%	8.41%	7.06%	8.77%	9.96%	10.02%	9.03%
Colorado	6.95%	8.83%	7.10%	-3.64%	2.31%	4.14%	7.47%	8.07%	11.84%	11.92%
Connecticut	9.49%	7.66%	4.86%	-2.58%	9.43%	10.72%	16.23%	12.05%	7.25%	10.57%
Delaware	9.66%	15.55%	4.39%	1.35%	8.45%	8.19%	6.91%	2.87%	7.90%	3.12%
District of Columbia	1.88%	12.63%	3.60%	0.95%	2.41%	8.68%	4.10%	9.22%	7.50%	6.88%
Florida	**8.12%**	**9.02%**	**9.64%**	**-3.04%**	**1.98%**	**10.57%**	**12.05%**	**10.89%**	**9.64%**	**11.10%**
Georgia	7.52%	10.04%	5.66%	-2.94%	5.77%	9.17%	7.97%	-3.32%	10.51%	8.45%
Hawaii	**-0.98%**	**6.95%**	**4.62%**	**-4.02%**	**-3.33%**	**9.10%**	**11.91%**	**15.44%**	**14.73%**	**13.50%**
Idaho	3.05%	5.22%	14.10%	-3.65%	1.44%	9.81%	13.58%	13.33%	14.24%	12.91%
Illinois	5.87%	8.94%	5.36%	2.57%	2.98%	1.42%	8.41%	6.08%	8.51%	11.00%
Indiana	4.68%	8.78%	6.49%	-3.33%	3.41%	5.75%	5.21%	1.37%	4.33%	3.76%
Iowa	4.75%	8.64%	3.31%	-5.05%	4.35%	8.21%	8.11%	0.94%	10.01%	4.67%
Kansas	7.75%	7.10%	5.36%	-5.35%	4.06%	2.75%	7.30%	2.82%	12.54%	11.02%
Kentucky	8.27%	10.87%	8.89%	-4.51%	4.23%	3.18%	7.00%	2.34%	8.03%	6.31%
Louisiana	3.88%	3.87%	7.27%	-4.95%	1.85%	9.68%	7.90%	1.19%	13.27%	11.99%
Maine	7.21%	10.68%	2.34%	-2.92%	6.88%	4.92%	7.67%	6.76%	8.96%	8.41%
Maryland	9.51%	7.07%	9.37%	0.84%	9.33%	7.31%	8.95%	8.64%	10.75%	7.04%
Massachusetts	8.50%	10.01%	8.13%	-0.58%	4.74%	9.50%	12.20%	10.02%	5.13%	9.07%
Michigan	8.84%	8.00%	5.68%	-2.48%	4.38%	1.65%	5.65%	0.50%	8.88%	6.19%
Minnesota	7.15%	9.69%	8.21%	5.07%	1.41%	5.40%	7.01%	1.61%	3.59%	4.98%
Mississippi	6.65%	8.69%	7.56%	-6.01%	2.52%	9.21%	12.82%	11.41%	13.85%	5.71%
Missouri	7.24%	8.61%	7.42%	0.03%	6.08%	7.85%	4.96%	5.38%	7.56%	5.55%
Montana	1.71%	4.45%	9.15%	-5.87%	7.32%	15.60%	12.85%	14.23%	24.32%	27.80%
Nebraska	10.36%	7.32%	5.62%	-0.50%	1.73%	4.86%	12.28%	11.39%	12.74%	5.98%
Nevada	**12.66%**	**18.90%**	**9.75%**	**5.98%**	**2.90%**	**14.81%**	**11.93%**	**12.59%**	**15.25%**	**11.42%**
New Hampshire	9.15%	14.50%	6.84%	-3.78%	7.86%	5.77%	9.64%	7.40%	5.28%	8.76%
New Jersey	9.71%	11.13%	9.55%	-3.64%	7.49%	9.02%	8.13%	6.68%	10.26%	6.35%
New Mexico	0.48%	10.94%	0.12%	-6.00%	-3.01%	9.36%	11.99%	7.92%	15.37%	18.14%
New York	**8.55%**	**10.91%**	**9.59%**	**-1.02%**	**7.91%**	**8.17%**	**10.29%**	**7.76%**	**9.59%**	**8.78%**
North Carolina	7.56%	9.32%	11.41%	-2.13%	0.54%	12.77%	4.52%	6.14%	5.08%	7.09%
North Dakota	12.92%	8.03%	8.15%	1.15%	8.31%	7.38%	4.86%	6.77%	19.05%	14.46%
Ohio	9.03%	7.08%	5.54%	-2.21%	6.03%	4.20%	1.76%	2.36%	7.18%	4.84%
Oklahoma	4.70%	7.18%	9.11%	-3.68%	-0.98%	10.68%	9.15%	9.13%	12.67%	11.77%
Oregon	9.93%	10.47%	1.32%	-2.61%	4.84%	4.13%	7.74%	9.75%	12.88%	9.86%
Pennsylvania	9.36%	8.32%	2.70%	0.10%	3.18%	7.89%	3.63%	4.80%	5.39%	6.54%
Rhode Island	9.41%	13.02%	3.92%	1.25%	11.32%	9.27%	12.63%	9.48%	9.93%	7.96%
South Carolina	4.54%	9.34%	8.17%	-5.37%	3.69%	9.59%	11.23%	6.96%	11.15%	9.50%
South Dakota	5.71%	9.16%	3.96%	0.79%	3.92%	6.83%	15.25%	13.05%	20.93%	27.48%
Tennessee	9.89%	11.47%	11.12%	0.03%	-5.24%	8.97%	7.75%	3.59%	4.17%	7.47%
Texas	6.85%	6.79%	8.59%	-3.32%	2.87%	7.91%	8.69%	11.92%	12.68%	7.90%
Utah	4.93%	2.27%	5.76%	0.43%	6.62%	4.20%	7.62%	11.39%	19.12%	13.13%
Vermont	10.08%	10.78%	9.20%	-2.03%	8.02%	2.73%	12.08%	9.41%	7.98%	6.91%
Virginia	8.15%	11.01%	8.31%	-3.72%	6.18%	6.38%	11.64%	7.96%	10.34%	6.44%
Washington	13.06%	7.37%	4.50%	-2.33%	3.76%	5.71%	8.32%	13.63%	7.95%	11.80%
West Virginia	**5.33%**	**3.81%**	**1.55%**	**-0.87%**	**2.99%**	**0.50%**	**2.12%**	**2.26%**	**5.83%**	**6.40%**
Wisconsin	7.41%	12.73%	3.08%	0.47%	3.11%	5.16%	3.67%	2.05%	7.67%	3.68%
Wyoming	**-1.53%**	**-2.49%**	**1.93%**	**-8.91%**	**0.27%**	**7.11%**	**16.13%**	**12.61%**	**18.79%**	**14.76%**

Note: States in bold have been directly adjusted to account for spending by non-residents.

Appendix Table 7e. Percent Change from Preceding Period of Residency-adjusted Food and Beverages Purchased for Off-premises Consumption (FXA) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	2.47%	5.56%	4.65%	4.14%	1.77%	3.15%	4.33%	5.14%	4.61%	5.49%
Alabama	1.12%	5.01%	1.27%	4.30%	3.30%	2.09%	2.83%	5.08%	2.66%	3.00%
Alaska	**0.99%**	**6.33%**	**-0.99%**	**3.99%**	**5.78%**	**4.82%**	**4.10%**	**4.08%**	**3.16%**	**4.52%**
Arizona	3.15%	6.44%	5.69%	5.77%	3.20%	4.51%	6.92%	9.19%	7.43%	4.06%
Arkansas	0.65%	5.53%	4.22%	1.41%	0.24%	2.47%	3.59%	4.04%	3.99%	5.33%
California	3.42%	7.07%	7.27%	4.88%	2.05%	2.96%	4.22%	5.26%	4.33%	4.90%
Colorado	3.90%	9.38%	6.54%	6.98%	-0.05%	1.89%	3.53%	4.59%	3.62%	6.95%
Connecticut	1.57%	3.92%	3.53%	5.42%	3.61%	1.70%	5.08%	4.07%	4.64%	4.95%
Delaware	3.34%	9.41%	3.75%	5.20%	5.34%	6.58%	7.44%	6.39%	6.15%	6.07%
District of Columbia	-4.30%	11.38%	7.27%	7.39%	2.67%	-0.11%	2.60%	-1.34%	2.39%	1.89%
Florida	3.98%	4.37%	5.69%	5.48%	0.71%	3.70%	7.20%	9.30%	6.80%	2.67%
Georgia	3.60%	7.99%	4.97%	4.80%	1.07%	1.40%	2.87%	5.28%	4.86%	4.32%
Hawaii	-3.38%	3.74%	5.37%	5.67%	2.70%	4.46%	5.00%	5.50%	4.12%	3.48%
Idaho	1.07%	6.05%	4.10%	2.60%	0.11%	5.13%	6.43%	11.74%	12.09%	3.30%
Illinois	1.10%	3.88%	7.54%	3.44%	0.99%	3.28%	4.82%	5.08%	5.80%	8.44%
Indiana	0.49%	3.71%	1.64%	2.46%	0.61%	3.19%	4.71%	3.51%	3.98%	5.24%
Iowa	1.74%	5.48%	2.14%	2.22%	0.14%	1.73%	3.68%	1.94%	3.30%	5.04%
Kansas	2.88%	3.93%	2.53%	2.46%	0.28%	4.71%	4.15%	6.92%	8.07%	8.72%
Kentucky	2.68%	5.65%	3.65%	2.51%	2.50%	5.23%	5.55%	5.56%	5.95%	6.39%
Louisiana	1.34%	2.00%	0.80%	2.26%	0.85%	2.52%	1.64%	2.69%	9.25%	4.57%
Maine	4.59%	5.19%	1.90%	5.39%	3.51%	2.80%	3.27%	0.14%	2.16%	4.85%
Maryland	1.67%	3.40%	4.51%	6.07%	2.41%	4.62%	4.59%	3.89%	3.69%	3.94%
Massachusetts	2.67%	6.80%	5.22%	5.67%	1.97%	3.91%	5.32%	2.92%	0.66%	3.37%
Michigan	2.29%	5.36%	2.57%	3.10%	0.68%	1.05%	3.04%	1.47%	1.37%	3.40%
Minnesota	3.20%	6.22%	6.90%	5.29%	1.95%	1.81%	3.70%	-0.14%	0.43%	3.51%
Mississippi	3.24%	6.43%	-0.10%	2.58%	1.01%	3.79%	3.97%	6.06%	9.14%	3.12%
Missouri	1.04%	3.34%	0.47%	3.92%	3.08%	3.52%	2.83%	4.27%	3.47%	5.78%
Montana	1.12%	4.42%	1.77%	4.89%	5.17%	4.24%	6.60%	5.81%	8.23%	11.33%
Nebraska	-0.16%	5.26%	1.92%	5.23%	0.29%	3.52%	5.18%	3.46%	2.84%	7.61%
Nevada	3.16%	8.73%	4.53%	6.22%	2.27%	7.09%	11.02%	9.63%	8.21%	4.10%
New Hampshire	**1.16%**	**5.96%**	**4.55%**	**5.21%**	**2.87%**	**3.05%**	**2.11%**	**1.34%**	**0.65%**	**0.38%**
New Jersey	1.32%	5.58%	6.54%	7.69%	4.66%	5.56%	3.12%	4.25%	4.64%	5.99%
New Mexico	1.62%	3.02%	1.57%	2.41%	1.60%	5.28%	7.17%	6.36%	8.11%	8.00%
New York	1.69%	5.58%	4.59%	4.51%	2.77%	2.53%	4.13%	4.91%	3.46%	5.59%
North Carolina	2.59%	7.15%	6.30%	3.12%	0.59%	1.62%	4.05%	6.75%	4.42%	7.68%
North Dakota	-0.11%	2.48%	3.17%	5.13%	3.50%	4.31%	4.49%	4.53%	5.68%	6.45%
Ohio	2.22%	4.00%	4.35%	1.72%	1.15%	3.24%	1.08%	1.62%	1.48%	5.83%
Oklahoma	-0.13%	2.37%	2.33%	3.14%	-0.76%	4.66%	4.75%	8.36%	9.91%	10.27%
Oregon	3.23%	6.16%	3.71%	3.05%	3.41%	2.71%	6.20%	6.31%	7.41%	6.35%
Pennsylvania	1.63%	5.12%	4.44%	4.14%	2.77%	4.91%	2.69%	3.74%	3.19%	5.53%
Rhode Island	0.06%	6.03%	8.93%	2.65%	5.29%	3.56%	2.60%	1.32%	0.08%	12.78%
South Carolina	3.42%	6.88%	3.00%	1.71%	1.95%	2.13%	4.98%	4.73%	5.06%	5.73%
South Dakota	0.57%	4.18%	4.69%	4.76%	2.02%	3.53%	3.29%	3.06%	3.30%	5.57%
Tennessee	2.15%	5.31%	2.59%	-0.10%	1.02%	2.21%	4.00%	5.92%	4.59%	7.36%
Texas	3.50%	6.13%	5.66%	4.30%	0.13%	1.49%	3.87%	7.33%	5.65%	7.37%
Utah	3.25%	8.03%	-3.10%	3.93%	2.80%	3.77%	8.22%	6.21%	10.66%	12.00%
Vermont	1.86%	4.97%	5.45%	7.86%	4.67%	0.82%	5.17%	4.49%	2.89%	4.42%
Virginia	2.17%	5.86%	4.07%	4.55%	3.67%	4.05%	5.90%	5.50%	4.16%	4.33%
Washington	8.20%	5.26%	4.79%	2.48%	2.72%	4.10%	4.52%	7.35%	4.36%	6.14%
West Virginia	-0.77%	2.15%	1.01%	1.62%	1.84%	2.54%	3.83%	3.50%	4.34%	6.05%
Wisconsin	0.49%	5.36%	2.37%	2.09%	-0.30%	5.32%	6.04%	5.02%	6.22%	6.65%
Wyoming	3.44%	3.75%	0.60%	4.30%	1.54%	2.94%	4.37%	6.13%	10.00%	11.72%

Note: States in bold have been directly adjusted to account for spending by non-residents.

Appendix Table 7f. Percent Change from Preceding Period of Residency-adjusted Clothing and Footwear (CLO) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	4.17%	5.16%	3.59%	-1.06%	0.35%	2.63%	4.38%	5.13%	4.23%	2.48%
Alabama	3.31%	4.90%	0.00%	-0.62%	1.99%	2.52%	3.94%	5.76%	2.80%	1.08%
Alaska	2.23%	5.44%	-3.14%	-0.41%	4.24%	3.24%	3.26%	3.03%	2.15%	1.28%
Arizona	6.26%	7.37%	6.60%	1.56%	2.98%	5.35%	8.85%	10.43%	8.48%	2.31%
Arkansas	3.85%	5.84%	4.41%	-3.34%	-0.55%	2.56%	4.09%	5.58%	3.93%	2.86%
California	4.64%	6.27%	5.90%	0.06%	1.07%	4.35%	5.98%	6.65%	5.14%	3.11%
Colorado	5.75%	8.93%	5.68%	1.30%	-1.31%	2.22%	4.50%	5.67%	4.46%	5.22%
Connecticut	2.08%	2.20%	1.55%	-1.65%	0.49%	0.94%	5.23%	4.39%	3.74%	2.37%
Delaware	**5.86%**	**8.94%**	**3.13%**	**0.62%**	**3.79%**	**2.46%**	**4.12%**	**2.97%**	**1.29%**	**-0.07%**
District of Columbia	**-3.53%**	**4.69%**	**0.34%**	**-3.56%**	**-4.75%**	**8.19%**	**11.26%**	**7.03%**	**7.15%**	**7.54%**
Florida	**5.02%**	**4.00%**	**5.44%**	**-0.32%**	**-0.22%**	**4.01%**	**8.12%**	**9.98%**	**7.23%**	**1.11%**
Georgia	4.75%	7.85%	3.51%	-0.40%	0.00%	1.65%	3.22%	6.05%	5.22%	2.39%
Hawaii	**-6.21%**	**-1.79%**	**0.21%**	**-4.65%**	**-6.47%**	**2.91%**	**5.79%**	**7.57%**	**5.02%**	**3.03%**
Idaho	3.41%	5.72%	4.45%	-1.06%	-0.31%	4.20%	5.70%	11.38%	9.98%	0.67%
Illinois	2.56%	2.54%	6.00%	-2.00%	-0.89%	1.92%	3.74%	3.98%	3.71%	1.86%
Indiana	4.02%	5.40%	2.90%	-1.52%	1.15%	0.49%	2.80%	1.53%	1.54%	-0.06%
Iowa	3.74%	6.16%	1.95%	-2.79%	-0.65%	2.08%	4.17%	2.48%	2.83%	1.33%
Kansas	6.26%	4.96%	2.67%	-1.75%	-0.18%	0.50%	0.83%	2.09%	4.23%	2.20%
Kentucky	4.68%	6.62%	3.02%	-2.26%	0.59%	1.52%	1.94%	2.80%	1.93%	1.36%
Louisiana	5.05%	4.12%	2.02%	-0.56%	1.79%	1.70%	1.59%	2.58%	7.88%	1.09%
Maine	3.68%	2.85%	-0.26%	-1.21%	0.66%	3.10%	5.46%	1.65%	3.48%	2.62%
Maryland	4.71%	3.68%	4.23%	0.92%	0.95%	2.77%	4.84%	4.39%	3.16%	1.12%
Massachusetts	3.33%	5.11%	3.00%	-1.39%	-1.46%	4.57%	6.34%	3.83%	0.16%	1.21%
Michigan	3.95%	4.34%	1.28%	-2.69%	-1.62%	-2.47%	0.75%	-1.43%	-1.73%	-2.56%
Minnesota	4.13%	5.03%	7.07%	-1.25%	-0.39%	2.11%	5.42%	0.67%	0.14%	1.01%
Mississippi	7.18%	7.92%	0.78%	-1.46%	1.29%	2.22%	2.82%	4.33%	6.56%	-2.60%
Missouri	3.56%	4.03%	0.70%	-0.55%	2.79%	1.59%	1.04%	3.04%	1.82%	1.00%
Montana	2.77%	3.65%	1.41%	0.14%	4.45%	3.87%	4.60%	3.68%	5.77%	6.22%
Nebraska	1.35%	4.80%	1.59%	-0.18%	-1.24%	1.71%	4.20%	3.23%	1.65%	4.00%
Nevada	**8.34%**	**11.82%**	**7.41%**	**3.92%**	**3.74%**	**10.19%**	**15.13%**	**13.38%**	**11.32%**	**5.66%**
New Hampshire	3.12%	5.68%	2.78%	-0.44%	0.98%	3.92%	4.37%	3.61%	2.04%	-0.51%
New Jersey	1.80%	3.65%	4.40%	-1.14%	0.96%	4.50%	1.83%	4.23%	4.11%	3.55%
New Mexico	6.20%	5.19%	2.38%	-0.07%	2.59%	2.29%	4.85%	2.80%	4.27%	2.60%
New York	**3.82%**	**5.50%**	**3.59%**	**-0.99%**	**1.11%**	**2.68%**	**5.51%**	**5.74%**	**4.32%**	**4.06%**
North Carolina	4.65%	6.96%	4.50%	-2.11%	-0.95%	1.03%	4.14%	7.27%	4.22%	4.83%
North Dakota	3.82%	-0.19%	0.80%	-3.01%	0.60%	1.88%	2.81%	4.47%	7.41%	2.96%
Ohio	3.83%	3.14%	0.12%	-0.50%	-1.01%	1.21%	0.64%	0.14%	0.05%	0.74%
Oklahoma	3.98%	5.20%	3.43%	-1.50%	-0.11%	1.87%	2.09%	5.25%	4.04%	2.91%
Oregon	3.11%	5.29%	0.62%	-2.75%	0.82%	1.96%	6.92%	6.83%	6.96%	2.96%
Pennsylvania	2.76%	4.27%	2.83%	-2.26%	0.15%	2.93%	1.24%	2.18%	1.52%	1.18%
Rhode Island	2.85%	8.48%	3.80%	3.05%	2.43%	2.01%	4.86%	3.01%	0.98%	-1.66%
South Carolina	5.81%	7.88%	1.31%	-2.75%	0.84%	2.78%	6.02%	5.59%	5.29%	4.15%
South Dakota	1.69%	2.38%	3.16%	-2.99%	-1.58%	2.58%	3.77%	4.62%	2.26%	2.05%
Tennessee	4.64%	4.87%	2.30%	-3.90%	0.07%	0.86%	3.32%	5.45%	3.26%	3.68%
Texas	5.51%	5.26%	4.71%	-0.63%	-0.20%	2.36%	4.04%	8.24%	8.15%	4.74%
Utah	4.87%	8.96%	-2.02%	-2.68%	2.58%	2.90%	7.90%	5.37%	9.42%	7.66%
Vermont	0.11%	2.06%	1.65%	-0.94%	-0.45%	-0.38%	4.03%	4.30%	1.54%	0.85%
Virginia	4.25%	6.36%	3.19%	-0.79%	2.51%	3.71%	6.49%	5.58%	4.17%	1.58%
Washington	8.77%	3.63%	2.72%	-3.96%	-0.39%	4.23%	5.29%	8.29%	4.77%	4.45%
West Virginia	**3.53%**	**3.50%**	**2.85%**	**-1.98%**	**1.46%**	**0.36%**	**2.24%**	**2.47%**	**2.49%**	**1.77%**
Wisconsin	3.82%	6.46%	0.80%	0.18%	-0.60%	1.37%	2.94%	1.57%	2.18%	-0.20%
Wyoming	**4.59%**	**1.15%**	**-2.33%**	**-2.15%**	**-1.19%**	**2.04%**	**3.56%**	**5.94%**	**8.73%**	**7.72%**

Note: States in bold have been directly adjusted to account for spending by non-residents.

Appendix Table 7g. Percent Change from Preceding Period of Residency-adjusted Gasoline and Other Energy Goods (GOE) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	-9.69%	11.59%	26.90%	-2.78%	-4.91%	20.00%	19.07%	21.80%	10.36%	8.81%
Alabama	-10.60%	10.49%	23.14%	-2.93%	-4.22%	22.47%	20.77%	25.51%	11.36%	8.79%
Alaska	-11.96%	13.10%	24.05%	-7.96%	-4.01%	18.45%	18.18%	15.28%	7.05%	8.59%
Arizona	-10.49%	11.49%	26.14%	-2.99%	-5.99%	21.11%	22.40%	27.12%	13.99%	7.48%
Arkansas	-8.82%	14.29%	29.68%	-3.36%	-4.87%	18.88%	18.61%	21.00%	9.27%	8.21%
California	-10.24%	11.81%	26.04%	-1.79%	-4.29%	18.85%	17.80%	20.92%	9.35%	6.07%
Colorado	-9.73%	15.02%	27.88%	-1.42%	-7.55%	18.07%	18.32%	20.96%	9.21%	11.10%
Connecticut	-11.79%	9.11%	25.06%	-1.33%	-4.82%	17.86%	17.64%	18.29%	9.45%	6.26%
Delaware	-9.94%	15.88%	25.66%	-2.20%	-1.64%	24.41%	21.95%	23.01%	10.08%	9.96%
District of Columbia	**-22.15%**	**-2.54%**	**27.83%**	**-12.51%**	**-12.80%**	**18.56%**	**15.59%**	**17.88%**	**0.40%**	**-2.16%**
Florida	-7.80%	10.68%	28.25%	-2.28%	-5.66%	20.24%	22.10%	27.56%	12.62%	4.71%
Georgia	-7.89%	14.72%	27.61%	-1.95%	-6.72%	19.85%	20.12%	25.22%	13.70%	9.86%
Hawaii	-15.25%	8.49%	26.88%	-0.24%	-11.19%	16.72%	19.48%	23.53%	11.60%	12.08%
Idaho	-9.36%	12.93%	27.92%	-3.05%	-5.34%	20.31%	20.26%	28.48%	15.79%	5.56%
Illinois	-11.95%	8.25%	27.29%	-4.41%	-7.17%	19.80%	19.09%	20.57%	10.75%	9.87%
Indiana	-8.43%	13.44%	26.80%	-1.55%	-3.97%	20.54%	19.66%	20.85%	10.05%	9.43%
Iowa	-8.36%	12.81%	25.04%	-2.92%	-6.02%	21.20%	22.01%	20.74%	12.50%	11.76%
Kansas	-8.31%	10.93%	24.32%	-3.99%	-6.13%	18.71%	15.89%	20.46%	10.50%	9.30%
Kentucky	-8.72%	12.41%	26.00%	-4.51%	-4.67%	20.17%	18.44%	20.46%	10.32%	7.59%
Louisiana	-8.82%	9.19%	23.84%	-3.92%	-5.18%	19.73%	17.39%	21.24%	17.11%	8.32%
Maine	-5.68%	13.16%	27.37%	0.40%	-1.34%	22.91%	19.78%	19.93%	9.80%	10.16%
Maryland	-11.60%	9.87%	28.11%	-0.63%	-2.60%	21.13%	18.55%	19.75%	8.80%	7.07%
Massachusetts	-11.27%	9.47%	25.91%	-2.73%	-6.09%	20.71%	19.79%	20.24%	7.91%	7.03%
Michigan	-10.34%	12.18%	25.56%	-3.11%	-5.27%	20.03%	18.83%	18.32%	8.59%	8.75%
Minnesota	-9.79%	10.97%	29.10%	-2.39%	-6.43%	21.36%	21.31%	18.65%	7.36%	9.60%
Mississippi	-5.48%	15.88%	24.05%	-2.07%	-3.87%	18.97%	16.88%	20.98%	13.80%	4.18%
Missouri	-8.95%	11.60%	23.51%	-0.92%	-2.99%	20.66%	18.47%	21.98%	10.39%	10.52%
Montana	-6.86%	15.70%	29.65%	3.22%	1.80%	15.39%	18.63%	19.81%	11.12%	11.97%
Nebraska	**-8.47%**	**14.63%**	**27.71%**	**0.95%**	**-2.58%**	**24.32%**	**24.44%**	**24.10%**	**12.21%**	**15.03%**
Nevada	-9.49%	16.00%	24.31%	0.74%	-4.58%	22.14%	22.06%	22.91%	12.76%	6.00%
New Hampshire	-8.28%	13.32%	30.31%	1.73%	-2.19%	23.42%	17.01%	19.76%	8.04%	5.62%
New Jersey	-13.82%	7.35%	24.13%	-4.29%	-5.76%	22.65%	21.28%	21.72%	11.01%	9.37%
New Mexico	-7.96%	14.46%	27.05%	-1.00%	-1.72%	20.76%	19.39%	22.95%	11.81%	10.98%
New York	**-11.98%**	**9.88%**	**26.94%**	**-3.17%**	**-4.80%**	**19.95%**	**17.61%**	**19.65%**	**8.15%**	**9.13%**
North Carolina	-9.01%	13.07%	30.54%	-3.56%	-5.97%	17.23%	17.26%	21.67%	8.86%	9.79%
North Dakota	**-9.71%**	**9.81%**	**29.43%**	**1.52%**	**-1.83%**	**22.19%**	**18.36%**	**20.84%**	**11.40%**	**10.44%**
Ohio	-9.65%	10.87%	26.83%	-3.91%	-3.56%	19.02%	16.41%	18.43%	7.31%	10.67%
Oklahoma	-9.30%	10.90%	26.06%	-0.74%	-5.71%	19.25%	17.60%	22.98%	11.89%	11.00%
Oregon	-11.48%	9.31%	21.67%	-7.59%	-6.92%	18.60%	22.22%	22.49%	13.38%	9.40%
Pennsylvania	-10.07%	11.24%	26.40%	-2.75%	-5.19%	22.55%	19.23%	20.57%	8.77%	10.00%
Rhode Island	**-13.60%**	**9.39%**	**28.19%**	**-4.86%**	**-2.74%**	**22.04%**	**11.60%**	**14.20%**	**1.46%**	**4.29%**
South Carolina	-7.15%	14.24%	28.49%	-3.77%	-3.70%	21.75%	23.20%	25.68%	13.86%	11.26%
South Dakota	**-7.51%**	**13.43%**	**31.47%**	**2.07%**	**-1.02%**	**22.16%**	**19.21%**	**20.38%**	**9.92%**	**10.48%**
Tennessee	-9.73%	11.86%	23.66%	-8.18%	-6.55%	17.73%	17.85%	21.93%	10.45%	10.88%
Texas	-8.27%	12.59%	28.27%	-0.46%	-5.06%	19.50%	19.14%	26.10%	11.58%	10.77%
Utah	-6.42%	12.77%	23.30%	-1.69%	-3.61%	16.88%	21.89%	22.31%	15.22%	13.23%
Vermont	-9.09%	13.17%	30.78%	4.05%	-0.27%	17.37%	18.39%	18.08%	7.23%	7.66%
Virginia	-8.35%	13.57%	29.33%	-0.72%	-2.29%	20.30%	19.69%	21.24%	8.25%	6.40%
Washington	-7.00%	8.64%	23.90%	-8.06%	-6.69%	24.36%	21.41%	24.47%	13.30%	11.74%
West Virginia	-10.05%	10.64%	25.55%	-2.20%	-3.08%	15.71%	15.00%	16.25%	7.43%	7.86%
Wisconsin	-8.51%	14.54%	37.49%	-9.20%	-4.97%	19.63%	17.62%	18.19%	9.07%	8.01%
Wyoming	**-5.05%**	**12.80%**	**26.38%**	**1.39%**	**-1.75%**	**20.11%**	**20.24%**	**24.03%**	**17.28%**	**17.35%**

Note: States in bold have been directly adjusted to account for spending by non-residents.

Appendix Table 7h. Percent Change from Preceding Period of Residency-adjusted Other Nondurable Goods (ONG) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	7.37%	10.35%	7.43%	5.65%	5.00%	5.06%	5.31%	5.00%	6.07%	4.24%
Alabama	6.34%	10.99%	5.93%	7.15%	7.14%	3.37%	3.60%	4.22%	4.14%	2.30%
Alaska	5.91%	11.67%	1.20%	6.18%	8.54%	2.60%	4.14%	4.02%	4.51%	4.10%
Arizona	6.75%	10.37%	7.91%	7.40%	6.53%	6.88%	10.59%	11.47%	12.05%	6.72%
Arkansas	6.47%	12.05%	9.69%	2.99%	4.21%	4.43%	3.59%	5.65%	4.72%	3.52%
California	6.99%	10.27%	7.88%	6.61%	5.36%	4.03%	3.42%	4.23%	5.87%	4.24%
Colorado	8.22%	13.72%	8.74%	6.00%	3.75%	3.49%	4.74%	5.06%	5.82%	4.91%
Connecticut	6.80%	8.60%	6.67%	6.00%	5.65%	2.11%	5.14%	4.31%	5.09%	3.44%
Delaware	**8.88%**	**14.65%**	**6.12%**	**6.87%**	**5.73%**	**5.05%**	**5.75%**	**4.20%**	**6.07%**	**3.58%**
District of Columbia	4.77%	13.70%	9.16%	0.21%	7.54%	2.92%	4.75%	0.69%	5.69%	-2.48%
Florida	7.84%	9.05%	8.68%	9.62%	4.40%	9.55%	10.96%	11.39%	9.72%	6.14%
Georgia	8.18%	11.95%	7.35%	5.68%	5.04%	6.51%	7.01%	3.59%	8.80%	4.84%
Hawaii	2.92%	9.23%	6.33%	6.13%	3.05%	4.80%	5.03%	6.04%	5.86%	3.53%
Idaho	6.44%	12.03%	9.08%	3.99%	3.62%	7.14%	8.53%	9.90%	12.17%	4.00%
Illinois	5.35%	8.09%	10.34%	3.66%	4.14%	3.05%	6.00%	4.30%	6.63%	4.92%
Indiana	6.91%	10.23%	6.75%	4.04%	4.85%	4.31%	4.47%	2.84%	5.17%	3.27%
Iowa	7.53%	10.69%	5.94%	3.56%	4.66%	4.38%	4.37%	0.50%	4.28%	2.13%
Kansas	7.89%	8.83%	5.45%	2.49%	4.12%	0.69%	2.47%	1.96%	4.04%	3.57%
Kentucky	7.69%	11.48%	7.26%	5.25%	5.32%	5.17%	4.72%	3.73%	6.10%	4.32%
Louisiana	5.87%	8.22%	5.80%	3.85%	5.57%	4.27%	2.76%	0.80%	5.71%	3.89%
Maine	10.69%	11.59%	4.09%	6.98%	6.44%	6.20%	7.54%	4.65%	8.66%	6.67%
Maryland	7.65%	8.70%	7.41%	7.19%	6.09%	4.10%	3.56%	2.16%	3.20%	1.08%
Massachusetts	7.33%	11.67%	6.82%	5.95%	5.19%	5.90%	6.49%	4.83%	3.95%	2.78%
Michigan	7.90%	9.79%	6.48%	4.34%	3.11%	4.85%	6.30%	3.20%	6.66%	4.53%
Minnesota	7.05%	10.15%	9.27%	3.93%	3.20%	4.33%	4.54%	1.56%	0.89%	2.59%
Mississippi	9.29%	12.63%	5.27%	4.22%	4.88%	5.26%	5.20%	4.12%	7.37%	1.50%
Missouri	5.70%	8.59%	4.28%	5.40%	6.29%	4.66%	3.40%	4.48%	3.83%	3.66%
Montana	8.94%	11.26%	7.57%	6.68%	10.19%	5.03%	4.39%	2.48%	6.03%	5.41%
Nebraska	6.99%	10.64%	5.91%	8.32%	4.27%	4.87%	5.66%	4.63%	5.25%	3.60%
Nevada	8.68%	14.65%	9.21%	9.26%	4.23%	10.97%	9.47%	8.36%	9.39%	6.20%
New Hampshire	**7.33%**	**12.51%**	**7.51%**	**6.08%**	**6.75%**	**5.55%**	**6.80%**	**5.11%**	**3.10%**	**1.96%**
New Jersey	7.47%	10.81%	9.52%	7.17%	7.26%	2.69%	1.20%	0.31%	2.55%	0.28%
New Mexico	7.83%	10.65%	6.86%	4.64%	4.89%	5.48%	6.11%	4.98%	8.93%	5.65%
New York	6.84%	9.85%	6.78%	6.60%	5.65%	4.96%	6.82%	6.79%	5.30%	4.78%
North Carolina	6.67%	11.61%	7.61%	3.58%	2.35%	6.53%	6.09%	7.74%	7.34%	7.95%
North Dakota	7.73%	9.10%	5.34%	5.10%	6.05%	3.31%	3.55%	2.78%	5.43%	2.16%
Ohio	8.67%	8.32%	8.25%	3.36%	4.84%	5.71%	1.32%	2.53%	2.31%	4.81%
Oklahoma	5.99%	8.75%	6.22%	3.90%	3.15%	4.08%	1.73%	3.53%	4.76%	3.16%
Oregon	8.61%	11.45%	5.78%	5.47%	5.86%	3.92%	5.63%	5.57%	7.72%	3.53%
Pennsylvania	6.64%	10.87%	7.15%	4.22%	5.36%	4.72%	1.97%	2.24%	3.49%	1.32%
Rhode Island	5.69%	12.26%	11.93%	2.77%	6.86%	3.11%	3.94%	1.80%	3.46%	11.24%
South Carolina	8.59%	12.71%	6.08%	5.33%	5.18%	5.00%	6.41%	5.79%	6.30%	5.20%
South Dakota	5.15%	8.69%	5.01%	4.26%	3.45%	3.57%	6.00%	4.26%	5.08%	4.32%
Tennessee	9.45%	12.93%	6.93%	5.57%	1.12%	7.68%	5.73%	5.47%	4.93%	6.71%
Texas	7.91%	10.80%	7.34%	5.62%	5.36%	4.65%	5.44%	6.29%	6.81%	3.70%
Utah	8.71%	6.57%	6.26%	5.96%	5.36%	7.42%	10.32%	9.79%	13.32%	10.50%
Vermont	6.94%	12.45%	7.97%	8.49%	7.62%	1.70%	6.05%	5.70%	4.26%	3.28%
Virginia	7.77%	11.80%	7.29%	5.28%	6.35%	4.43%	5.99%	4.49%	5.71%	2.80%
Washington	10.95%	10.86%	7.32%	4.94%	5.79%	5.14%	4.83%	5.15%	6.52%	4.73%
West Virginia	7.15%	9.85%	7.23%	3.76%	5.79%	2.00%	3.04%	0.99%	4.06%	3.09%
Wisconsin	5.79%	10.48%	4.68%	4.15%	3.82%	5.81%	5.33%	3.93%	7.31%	3.39%
Wyoming	6.42%	7.58%	2.70%	2.66%	4.23%	3.66%	4.63%	4.77%	8.41%	7.22%

Note: States in bold have been directly adjusted to account for spending by non-residents.

Appendix Table 7i. Percent Change from Preceding Period of Housing and Utilities (HUT) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	5.48%	5.61%	6.53%	7.44%	3.65%	4.43%	4.91%	8.22%	6.55%	4.15%
Alabama	6.63%	5.39%	8.48%	12.05%	5.31%	0.02%	8.95%	-0.50%	10.66%	5.30%
Alaska	6.11%	5.48%	4.70%	7.53%	2.30%	-1.66%	5.02%	2.38%	5.97%	11.19%
Arizona	7.55%	6.82%	8.19%	8.63%	6.81%	4.24%	8.86%	19.89%	16.67%	4.41%
Arkansas	5.30%	4.31%	9.14%	12.76%	5.45%	4.09%	-2.05%	13.52%	8.70%	4.15%
California	5.75%	5.64%	5.26%	4.64%	5.26%	7.82%	8.95%	10.31%	5.38%	1.93%
Colorado	8.36%	8.13%	7.55%	7.13%	2.64%	4.17%	-1.90%	2.44%	3.86%	1.83%
Connecticut	4.34%	4.71%	3.27%	8.22%	2.60%	4.02%	2.95%	4.28%	2.90%	2.95%
Delaware	5.51%	6.27%	4.85%	8.49%	6.85%	6.30%	8.60%	8.42%	11.41%	6.17%
District of Columbia	4.62%	5.81%	4.33%	10.41%	6.79%	6.14%	10.07%	7.74%	7.87%	4.65%
Florida	7.02%	5.58%	7.12%	11.25%	8.52%	6.31%	9.74%	17.67%	13.61%	2.23%
Georgia	7.27%	5.55%	10.01%	9.57%	4.39%	3.06%	1.59%	8.02%	6.34%	6.72%
Hawaii	5.37%	5.37%	4.95%	1.33%	-0.51%	2.80%	13.67%	13.69%	8.08%	6.08%
Idaho	6.90%	6.77%	10.51%	9.41%	6.54%	1.74%	-0.29%	21.56%	17.89%	7.49%
Illinois	4.52%	5.26%	6.69%	6.78%	1.03%	3.21%	1.23%	6.78%	2.52%	4.49%
Indiana	5.71%	6.51%	6.69%	9.47%	0.67%	-0.46%	1.31%	4.18%	4.10%	1.45%
Iowa	4.75%	5.35%	8.48%	6.82%	-1.11%	4.97%	2.24%	8.82%	9.07%	0.09%
Kansas	5.68%	4.14%	10.07%	7.51%	0.62%	0.87%	1.45%	5.58%	7.37%	1.47%
Kentucky	4.86%	5.36%	8.58%	9.86%	3.76%	0.40%	5.47%	4.28%	4.21%	3.47%
Louisiana	4.98%	4.97%	8.68%	2.64%	1.22%	5.82%	0.82%	5.63%	4.36%	24.67%
Maine	4.72%	4.64%	4.98%	14.96%	8.11%	2.43%	5.45%	3.09%	7.77%	4.90%
Maryland	5.88%	6.40%	4.80%	6.44%	4.75%	6.53%	8.30%	13.14%	7.04%	4.05%
Massachusetts	4.64%	5.52%	4.47%	11.18%	1.89%	6.56%	1.28%	3.87%	0.39%	0.47%
Michigan	0.37%	2.42%	1.79%	6.71%	1.57%	3.19%	0.69%	1.32%	0.66%	0.24%
Minnesota	5.59%	6.96%	8.79%	8.37%	3.25%	5.74%	2.38%	6.87%	4.95%	2.21%
Mississippi	5.97%	3.88%	10.29%	10.84%	2.00%	4.98%	-0.11%	12.21%	6.00%	23.98%
Missouri	5.37%	5.22%	8.19%	9.32%	0.46%	1.84%	3.86%	3.30%	7.36%	1.44%
Montana	3.87%	6.03%	10.97%	10.82%	3.69%	4.24%	6.71%	20.43%	17.00%	-0.13%
Nebraska	4.64%	5.10%	8.85%	8.78%	-0.33%	0.25%	0.59%	10.73%	7.26%	-1.37%
Nevada	9.10%	7.47%	8.25%	11.27%	4.39%	8.32%	20.60%	17.80%	10.48%	3.60%
New Hampshire	4.49%	5.33%	4.30%	9.80%	8.00%	8.87%	2.12%	6.53%	2.14%	5.14%
New Jersey	4.52%	5.45%	3.30%	7.94%	4.74%	6.36%	7.47%	3.85%	3.75%	3.43%
New Mexico	4.92%	5.07%	9.35%	15.26%	6.41%	5.28%	3.41%	14.14%	5.95%	8.54%
New York	4.08%	5.28%	5.04%	8.78%	4.28%	5.69%	3.70%	7.74%	2.65%	4.70%
North Carolina	6.68%	6.46%	8.87%	11.12%	4.50%	0.78%	4.91%	4.35%	6.88%	8.37%
North Dakota	2.76%	4.30%	7.77%	8.07%	3.38%	-2.99%	11.14%	6.41%	11.29%	2.49%
Ohio	5.31%	6.48%	6.99%	6.18%	-1.08%	1.65%	-0.83%	3.79%	1.53%	2.15%
Oklahoma	5.31%	3.68%	10.05%	10.67%	1.11%	2.46%	2.62%	4.81%	9.58%	4.84%
Oregon	7.72%	7.24%	8.89%	8.84%	5.28%	0.85%	4.98%	9.46%	13.87%	9.90%
Pennsylvania	4.49%	4.78%	5.19%	8.54%	1.55%	2.44%	2.97%	6.35%	4.25%	5.07%
Rhode Island	3.29%	4.13%	4.47%	10.05%	4.86%	13.56%	4.71%	8.56%	1.16%	-0.53%
South Carolina	6.32%	5.10%	9.33%	13.64%	5.19%	0.25%	5.63%	4.27%	6.62%	12.32%
South Dakota	3.57%	4.43%	10.64%	10.33%	6.21%	10.71%	-5.19%	10.37%	13.94%	-1.49%
Tennessee	7.26%	6.21%	7.78%	10.16%	2.65%	-1.04%	4.26%	4.68%	7.72%	5.29%
Texas	5.86%	4.92%	8.54%	-2.86%	3.31%	3.11%	2.93%	6.70%	10.89%	4.86%
Utah	8.96%	7.85%	8.44%	6.03%	-1.91%	1.48%	-0.78%	9.70%	15.81%	7.26%
Vermont	4.02%	5.28%	6.18%	12.84%	4.04%	2.54%	6.31%	4.70%	6.59%	5.23%
Virginia	5.83%	6.31%	6.38%	8.55%	3.60%	7.56%	8.60%	11.44%	7.00%	3.85%
Washington	7.10%	7.53%	7.61%	7.90%	2.21%	1.60%	4.19%	7.49%	11.53%	12.38%
West Virginia	3.34%	5.84%	6.94%	12.29%	6.02%	2.31%	4.56%	6.49%	5.59%	5.37%
Wisconsin	6.04%	7.72%	8.32%	8.01%	2.96%	3.22%	2.71%	7.83%	6.69%	0.79%
Wyoming	5.18%	5.49%	10.35%	10.62%	8.96%	-0.90%	8.18%	9.00%	16.48%	4.52%

Note: This category did not require an adjustment to account for spending by non-residents.

Appendix Table 7j. Percent Change from Preceding Period of Health Care (HLC) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	5.20%	3.79%	6.35%	8.51%	8.66%	6.03%	7.00%	6.54%	4.95%	6.12%
Alabama	2.87%	1.38%	4.05%	6.66%	7.63%	5.55%	4.89%	11.64%	3.09%	1.09%
Alaska	4.38%	7.17%	14.56%	13.23%	13.48%	10.18%	8.84%	9.43%	4.78%	5.06%
Arizona	7.01%	5.65%	9.36%	9.32%	11.51%	9.79%	9.63%	12.34%	6.96%	8.39%
Arkansas	5.81%	3.67%	6.31%	8.48%	8.31%	4.69%	5.24%	6.16%	3.15%	5.27%
California	5.99%	4.11%	6.56%	6.62%	9.75%	5.35%	7.09%	6.80%	5.74%	8.58%
Colorado	6.48%	5.66%	9.72%	12.03%	10.33%	5.88%	7.71%	4.55%	4.73%	7.19%
Connecticut	4.56%	3.26%	3.83%	8.76%	7.44%	3.90%	5.89%	4.05%	4.66%	5.26%
Delaware	5.16%	5.17%	5.60%	10.85%	9.38%	10.76%	9.29%	9.18%	4.05%	6.23%
District of Columbia	-0.50%	1.61%	4.24%	6.99%	7.42%	2.44%	6.18%	5.27%	4.65%	7.68%
Florida	4.22%	2.73%	7.71%	8.91%	9.49%	6.31%	7.75%	6.77%	6.55%	5.21%
Georgia	4.94%	2.38%	7.91%	8.02%	9.04%	6.94%	6.49%	7.69%	3.54%	5.42%
Hawaii	2.06%	1.50%	3.94%	9.00%	6.78%	6.93%	3.50%	9.96%	3.59%	8.52%
Idaho	7.25%	5.82%	7.79%	9.11%	11.16%	8.19%	6.91%	8.71%	6.31%	5.86%
Illinois	3.89%	4.27%	6.42%	7.64%	6.84%	4.31%	5.18%	6.80%	4.75%	7.89%
Indiana	6.15%	3.78%	6.28%	8.27%	8.40%	6.69%	8.91%	5.31%	5.24%	7.27%
Iowa	6.89%	4.78%	6.20%	7.23%	6.76%	3.73%	6.16%	6.57%	3.78%	5.12%
Kansas	4.03%	4.23%	5.36%	8.95%	6.68%	5.29%	7.43%	6.82%	4.26%	6.87%
Kentucky	5.27%	3.56%	6.92%	8.71%	7.97%	4.11%	6.08%	6.96%	3.77%	3.61%
Louisiana	2.74%	2.10%	1.15%	7.37%	7.88%	5.45%	7.27%	3.54%	1.47%	7.45%
Maine	7.11%	6.60%	6.32%	8.21%	7.53%	5.44%	8.20%	7.52%	4.60%	6.28%
Maryland	3.32%	3.71%	5.73%	10.34%	8.47%	6.98%	8.84%	6.29%	5.08%	6.67%
Massachusetts	7.20%	0.49%	7.42%	8.50%	8.41%	6.67%	7.16%	5.61%	7.57%	6.65%
Michigan	2.72%	2.40%	5.85%	6.67%	6.75%	5.72%	7.45%	6.19%	5.08%	5.45%
Minnesota	5.40%	7.49%	7.85%	9.21%	12.17%	5.48%	5.76%	5.66%	10.05%	4.76%
Mississippi	5.32%	1.08%	6.35%	8.59%	7.75%	5.57%	9.05%	3.60%	6.86%	6.81%
Missouri	6.29%	2.96%	5.38%	8.80%	8.19%	7.21%	4.46%	5.74%	0.81%	8.84%
Montana	7.18%	7.39%	6.71%	9.61%	7.53%	6.02%	6.06%	7.38%	4.40%	8.24%
Nebraska	6.78%	5.06%	9.66%	10.57%	8.30%	9.91%	7.13%	8.18%	4.82%	2.86%
Nevada	7.68%	7.84%	8.49%	11.19%	13.13%	7.09%	12.68%	9.09%	7.90%	12.24%
New Hampshire	5.21%	6.30%	6.15%	8.95%	11.72%	8.15%	7.34%	7.59%	4.46%	6.53%
New Jersey	6.11%	0.58%	7.15%	6.89%	9.42%	5.26%	6.02%	6.19%	3.81%	4.12%
New Mexico	4.11%	2.53%	3.71%	9.05%	12.10%	5.14%	13.49%	9.08%	3.65%	8.39%
New York	5.36%	4.52%	4.90%	7.21%	6.95%	6.30%	6.20%	4.22%	3.57%	4.26%
North Carolina	5.34%	5.17%	8.42%	10.47%	7.09%	6.99%	8.67%	6.20%	5.61%	4.94%
North Dakota	5.27%	2.07%	3.09%	9.01%	9.40%	1.42%	7.10%	5.96%	4.38%	6.21%
Ohio	3.92%	4.42%	5.96%	9.04%	8.95%	5.97%	7.10%	6.43%	3.39%	3.42%
Oklahoma	4.52%	2.40%	5.18%	8.63%	7.99%	8.94%	6.01%	8.40%	4.78%	6.00%
Oregon	5.95%	6.77%	7.83%	10.79%	10.81%	4.90%	8.36%	8.41%	6.71%	8.39%
Pennsylvania	3.44%	3.55%	5.24%	8.41%	7.00%	6.01%	6.76%	7.25%	4.45%	5.59%
Rhode Island	6.94%	-0.51%	5.34%	7.38%	9.75%	5.65%	7.45%	6.51%	4.14%	5.33%
South Carolina	5.22%	5.35%	7.27%	9.58%	8.09%	5.62%	6.56%	6.50%	5.70%	6.63%
South Dakota	5.43%	7.35%	5.40%	8.28%	10.18%	7.39%	4.70%	6.84%	4.48%	5.17%
Tennessee	1.82%	2.08%	6.17%	7.66%	7.19%	5.68%	7.57%	6.06%	6.27%	5.01%
Texas	6.50%	3.34%	6.43%	11.03%	9.86%	5.52%	5.88%	6.38%	5.06%	5.94%
Utah	3.99%	0.29%	11.30%	9.85%	11.15%	7.54%	10.17%	9.92%	7.45%	4.46%
Vermont	6.06%	8.50%	7.36%	12.57%	10.31%	8.84%	8.22%	7.94%	5.49%	5.14%
Virginia	4.28%	6.18%	6.85%	8.79%	8.41%	7.42%	8.21%	8.24%	5.18%	6.19%
Washington	14.27%	7.98%	3.31%	9.81%	9.29%	6.38%	7.37%	6.54%	4.56%	10.35%
West Virginia	4.84%	3.11%	4.77%	7.64%	7.00%	5.80%	6.77%	4.65%	1.87%	4.69%
Wisconsin	6.24%	6.14%	7.91%	10.54%	10.59%	7.29%	8.02%	6.65%	4.97%	5.27%
Wyoming	6.35%	6.20%	8.17%	10.01%	10.65%	7.41%	6.62%	8.19%	5.63%	7.73%

Note: This category did not require an adjustment to account for spending by non-residents.

Appendix Table 7k. Percent Change from Preceding Period of Residency-adjusted Transportation Services (TRS) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	6.00%	7.10%	7.80%	0.18%	-2.28%	2.52%	3.99%	4.48%	4.03%	3.20%
Alabama	5.95%	4.73%	3.92%	1.80%	-0.18%	0.65%	3.40%	9.55%	5.36%	1.42%
Alaska	**16.51%**	**8.61%**	**14.13%**	**-5.25%**	**2.59%**	**5.81%**	**-0.61%**	**-7.32%**	**-10.64%**	**-7.52%**
Arizona	10.10%	9.10%	8.42%	1.92%	-0.78%	0.53%	5.96%	8.98%	8.31%	3.97%
Arkansas	3.41%	7.43%	2.75%	-0.87%	-5.12%	3.96%	2.50%	-2.81%	7.19%	2.71%
California	4.47%	6.41%	11.24%	0.47%	-1.99%	-1.24%	2.45%	2.77%	3.82%	-0.98%
Colorado	2.19%	2.98%	2.08%	-2.57%	-7.88%	0.95%	6.92%	6.92%	11.03%	4.75%
Connecticut	3.15%	12.28%	3.65%	4.94%	1.77%	3.39%	4.24%	4.89%	1.91%	0.64%
Delaware	9.54%	9.90%	13.69%	9.17%	-16.98%	-0.26%	4.59%	3.73%	-1.04%	3.30%
District of Columbia	**-20.76%**	**-13.84%**	**-6.49%**	**-6.03%**	**-15.10%**	**5.95%**	**11.84%**	**5.59%**	**1.47%**	**3.53%**
Florida	4.19%	3.77%	9.86%	-4.11%	-3.95%	1.42%	2.19%	6.00%	4.35%	-0.46%
Georgia	8.67%	9.02%	10.05%	1.35%	-0.53%	11.06%	8.14%	7.70%	4.70%	14.68%
Hawaii	**7.11%**	**6.70%**	**10.87%**	**0.15%**	**-2.82%**	**8.22%**	**10.88%**	**10.96%**	**9.57%**	**4.67%**
Idaho	7.97%	8.01%	10.18%	2.21%	-2.59%	4.28%	5.86%	6.57%	5.92%	4.08%
Illinois	**2.63%**	**5.85%**	**3.65%**	**-0.85%**	**-5.66%**	**6.62%**	**8.02%**	**10.00%**	**13.61%**	**4.37%**
Indiana	7.06%	7.88%	5.37%	0.15%	-2.22%	0.92%	0.69%	3.33%	1.44%	1.72%
Iowa	8.16%	15.45%	0.79%	-2.15%	-5.77%	-2.08%	3.14%	8.69%	5.65%	5.36%
Kansas	12.58%	10.82%	3.74%	6.60%	0.43%	2.23%	3.53%	4.41%	2.79%	0.07%
Kentucky	9.23%	9.22%	11.69%	-8.52%	-1.73%	8.96%	0.13%	-5.98%	-12.49%	3.64%
Louisiana	7.95%	-1.01%	6.24%	-1.48%	-5.52%	2.02%	1.65%	0.13%	4.41%	3.15%
Maine	3.75%	8.67%	5.72%	0.41%	-1.04%	2.00%	5.27%	9.64%	4.05%	-3.53%
Maryland	6.19%	22.81%	10.73%	9.18%	1.14%	2.33%	4.17%	4.70%	4.57%	0.16%
Massachusetts	7.52%	10.49%	7.01%	4.28%	-2.56%	6.62%	3.39%	2.57%	1.61%	0.38%
Michigan	2.02%	6.41%	7.91%	-1.37%	-0.50%	3.95%	5.63%	0.40%	-3.34%	2.97%
Minnesota	9.76%	7.73%	9.89%	-2.34%	-2.71%	3.76%	10.31%	6.85%	-0.25%	13.14%
Mississippi	6.69%	8.14%	6.26%	1.08%	1.13%	3.37%	2.11%	1.72%	5.56%	-0.88%
Missouri	7.77%	10.29%	4.78%	5.01%	-0.55%	3.18%	4.26%	4.48%	6.71%	6.32%
Montana	6.60%	9.84%	7.26%	2.53%	1.56%	4.20%	-2.29%	1.58%	2.10%	3.92%
Nebraska	9.42%	6.61%	6.92%	4.69%	-7.82%	15.67%	3.54%	-15.34%	1.28%	3.22%
Nevada	**5.14%**	**6.95%**	**5.30%**	**-0.61%**	**-3.71%**	**0.26%**	**12.59%**	**13.51%**	**12.07%**	**8.90%**
New Hampshire	8.44%	12.51%	9.09%	-0.59%	-2.12%	2.78%	6.37%	5.00%	2.92%	-0.46%
New Jersey	8.34%	9.47%	8.54%	2.74%	0.07%	0.54%	0.51%	1.15%	0.75%	-3.31%
New Mexico	4.38%	3.83%	9.00%	2.12%	-0.04%	3.44%	0.92%	4.32%	-0.85%	1.65%
New York	3.73%	-0.16%	2.31%	-4.53%	-6.54%	5.74%	4.39%	3.51%	2.75%	4.64%
North Carolina	7.49%	11.99%	10.59%	-2.84%	-5.36%	1.89%	5.89%	5.19%	4.31%	5.40%
North Dakota	4.00%	7.12%	4.89%	2.85%	-0.38%	3.07%	3.55%	5.73%	0.67%	7.33%
Ohio	9.84%	10.54%	15.48%	1.63%	2.72%	-1.15%	-0.49%	-0.83%	-2.97%	-3.74%
Oklahoma	8.89%	10.97%	10.69%	6.68%	-0.69%	8.35%	9.05%	16.10%	13.72%	8.59%
Oregon	8.23%	12.90%	5.86%	-2.44%	-2.69%	1.84%	0.44%	3.30%	3.30%	2.92%
Pennsylvania	4.82%	7.16%	6.61%	1.51%	-0.90%	4.07%	4.51%	2.41%	2.92%	2.97%
Rhode Island	10.52%	2.80%	15.62%	1.63%	-1.56%	5.57%	9.34%	4.00%	-1.62%	0.76%
South Carolina	11.93%	14.39%	13.53%	4.66%	1.74%	1.03%	6.74%	2.10%	-1.29%	1.46%
South Dakota	8.14%	7.72%	2.73%	2.39%	0.86%	1.85%	5.30%	-1.62%	1.86%	4.30%
Tennessee	8.85%	8.88%	7.87%	4.18%	1.26%	3.76%	-0.84%	4.11%	1.15%	0.18%
Texas	7.10%	7.52%	5.85%	0.86%	-4.22%	2.00%	5.82%	10.92%	12.48%	10.86%
Utah	**15.96%**	**18.60%**	**10.87%**	**6.69%**	**9.57%**	**-1.57%**	**1.43%**	**0.12%**	**-2.79%**	**12.80%**
Vermont	4.66%	7.60%	4.67%	5.52%	0.11%	9.80%	6.90%	4.39%	0.83%	-0.08%
Virginia	7.82%	7.32%	9.44%	-0.07%	-1.54%	3.53%	5.76%	5.74%	2.01%	0.08%
Washington	7.96%	1.64%	4.86%	-3.37%	-2.24%	3.16%	8.10%	9.85%	7.34%	9.75%
West Virginia	**3.91%**	**7.79%**	**3.95%**	**5.14%**	**3.16%**	**-1.95%**	**0.22%**	**1.86%**	**0.53%**	**5.04%**
Wisconsin	7.21%	6.42%	6.05%	1.11%	-4.09%	0.82%	3.31%	4.01%	2.25%	2.59%
Wyoming	5.14%	12.64%	10.36%	-6.18%	12.32%	-0.73%	-8.97%	1.12%	5.47%	11.84%

Note: States in bold have been directly adjusted to account for spending by non-residents.

Appendix Table 7l. Percent Change from Preceding Period of Residency-adjusted Recreation Services (RCA) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	5.89%	8.25%	6.99%	3.16%	3.52%	6.32%	8.00%	4.77%	7.07%	6.80%
Alabama	**4.87%**	**7.28%**	**2.24%**	**7.60%**	**9.42%**	**0.81%**	**11.33%**	**7.87%**	**5.69%**	**8.58%**
Alaska	2.03%	3.81%	3.61%	1.66%	4.80%	4.50%	15.44%	2.70%	4.98%	6.72%
Arizona	11.68%	18.45%	-3.35%	-0.31%	8.56%	8.60%	11.29%	11.00%	16.82%	9.75%
Arkansas	**6.42%**	**12.31%**	**9.48%**	**4.16%**	**10.98%**	**6.92%**	**7.13%**	**2.00%**	**6.75%**	**5.04%**
California	**2.09%**	**7.62%**	**7.70%**	**8.34%**	**0.53%**	**5.61%**	**10.41%**	**8.27%**	**9.66%**	**10.88%**
Colorado	6.06%	10.14%	9.96%	2.66%	3.50%	3.39%	1.58%	2.31%	8.26%	2.30%
Connecticut	9.25%	11.06%	-5.70%	7.43%	11.03%	9.41%	8.23%	6.69%	8.70%	3.63%
Delaware	15.67%	15.43%	17.66%	8.55%	-26.18%	-3.09%	-2.16%	-8.22%	-4.90%	-13.76%
District of Columbia	**14.50%**	**15.14%**	**11.19%**	**11.33%**	**11.16%**	**20.71%**	**-0.77%**	**3.81%**	**0.57%**	**16.01%**
Florida	**4.16%**	**5.51%**	**7.86%**	**-0.92%**	**0.06%**	**5.94%**	**9.89%**	**7.25%**	**5.99%**	**7.39%**
Georgia	4.82%	7.58%	10.48%	2.66%	-2.79%	4.27%	10.57%	9.90%	12.33%	12.92%
Hawaii	**-0.96%**	**11.11%**	**9.33%**	**3.35%**	**0.47%**	**7.80%**	**4.15%**	**3.50%**	**3.58%**	**-3.09%**
Idaho	6.24%	11.52%	6.20%	-1.93%	10.41%	6.65%	13.90%	12.82%	13.56%	14.92%
Illinois	5.49%	6.41%	6.11%	1.08%	1.81%	5.18%	8.92%	5.00%	5.94%	7.55%
Indiana	3.45%	6.61%	8.25%	0.99%	4.60%	4.96%	4.04%	2.30%	0.79%	-1.17%
Iowa	2.10%	6.26%	-0.57%	-0.33%	9.34%	3.32%	10.77%	-2.79%	8.47%	14.39%
Kansas	**13.81%**	**14.39%**	**-9.45%**	**3.65%**	**6.44%**	**21.44%**	**1.91%**	**-4.28%**	**-6.53%**	**6.01%**
Kentucky	4.55%	9.68%	9.60%	-0.26%	11.93%	9.79%	8.89%	3.61%	7.66%	3.74%
Louisiana	5.36%	5.88%	6.16%	-1.95%	5.44%	9.63%	12.22%	5.42%	-0.32%	21.48%
Maine	4.00%	12.70%	6.17%	4.01%	7.30%	8.76%	0.72%	1.23%	-1.97%	-0.23%
Maryland	1.07%	15.11%	13.54%	2.44%	-8.47%	5.57%	7.93%	3.23%	4.84%	8.46%
Massachusetts	11.62%	14.50%	6.89%	7.41%	4.85%	9.91%	8.68%	4.89%	6.98%	9.05%
Michigan	3.20%	11.13%	9.66%	3.78%	1.71%	0.74%	5.63%	0.13%	0.98%	-0.10%
Minnesota	3.61%	3.65%	0.42%	0.50%	3.63%	4.78%	9.08%	6.11%	12.32%	16.63%
Mississippi	**5.54%**	**8.51%**	**4.83%**	**2.42%**	**7.47%**	**6.77%**	**4.20%**	**3.68%**	**10.60%**	**0.87%**
Missouri	5.77%	4.91%	4.06%	1.40%	1.93%	4.37%	8.28%	4.62%	6.39%	6.14%
Montana	-2.77%	0.19%	3.80%	-3.17%	6.57%	4.84%	18.03%	13.09%	17.35%	33.16%
Nebraska	3.08%	6.88%	5.98%	6.43%	8.56%	4.00%	8.98%	5.16%	10.48%	21.35%
Nevada	4.02%	7.87%	13.89%	5.24%	0.47%	10.87%	7.39%	6.57%	11.73%	18.71%
New Hampshire	3.95%	16.74%	22.81%	18.85%	22.53%	25.93%	-1.07%	-4.77%	-2.03%	-14.25%
New Jersey	**6.95%**	**0.98%**	**3.73%**	**7.57%**	**3.87%**	**2.79%**	**2.69%**	**6.56%**	**13.02%**	**18.85%**
New Mexico	**19.71%**	**12.46%**	**-15.18%**	**0.63%**	**14.90%**	**8.89%**	**11.25%**	**7.49%**	**11.28%**	**13.20%**
New York	**10.08%**	**10.94%**	**11.87%**	**3.89%**	**6.84%**	**11.68%**	**8.19%**	**3.07%**	**4.14%**	**-6.51%**
North Carolina	8.33%	5.74%	5.25%	0.82%	6.19%	2.04%	10.38%	5.23%	11.17%	8.87%
North Dakota	17.49%	6.61%	14.98%	16.17%	23.15%	19.87%	-1.22%	2.38%	5.34%	23.33%
Ohio	6.23%	9.45%	11.08%	0.09%	2.95%	4.42%	5.97%	6.87%	2.50%	1.42%
Oklahoma	**0.73%**	**5.63%**	**1.94%**	**-5.83%**	**5.72%**	**2.65%**	**8.90%**	**9.21%**	**18.55%**	**22.80%**
Oregon	2.38%	13.76%	-0.80%	4.73%	4.87%	4.34%	9.70%	7.36%	7.18%	8.41%
Pennsylvania	6.90%	5.18%	6.10%	-0.66%	6.05%	4.28%	8.52%	6.09%	3.75%	7.45%
Rhode Island	2.59%	12.65%	18.87%	3.64%	1.52%	6.74%	5.30%	3.89%	4.65%	-0.77%
South Carolina	3.81%	12.74%	-2.28%	-9.70%	-0.38%	5.54%	10.65%	6.54%	11.20%	6.59%
South Dakota	-1.98%	7.05%	-7.33%	-1.34%	8.84%	0.79%	12.65%	-5.79%	1.90%	7.38%
Tennessee	1.72%	2.24%	9.78%	3.17%	8.68%	9.14%	11.98%	7.25%	12.69%	8.03%
Texas	9.50%	8.15%	8.26%	0.42%	1.95%	5.31%	9.17%	0.67%	5.19%	3.37%
Utah	5.04%	12.91%	11.10%	12.72%	17.51%	-13.23%	9.42%	9.05%	15.83%	21.75%
Vermont	3.96%	11.39%	16.29%	3.37%	36.08%	41.56%	-8.40%	-25.54%	-11.11%	-11.83%
Virginia	7.62%	7.68%	5.67%	3.90%	8.00%	6.93%	9.48%	5.13%	8.84%	2.97%
Washington	6.70%	5.95%	10.05%	0.61%	2.69%	5.88%	8.66%	1.53%	6.38%	6.61%
West Virginia	5.42%	15.75%	36.18%	41.08%	-33.85%	-2.80%	23.76%	6.73%	14.81%	7.70%
Wisconsin	5.65%	7.04%	2.70%	6.04%	4.77%	8.25%	4.71%	3.95%	5.18%	3.19%
Wyoming	13.32%	33.19%	-9.85%	19.16%	61.58%	69.92%	-34.19%	-31.44%	-17.27%	-23.56%

Note: States in bold have been directly adjusted to account for spending by non-residents.

Appendix Table 7m. Percent Change from Preceding Period of Residency-adjusted Food Services and Accommodations (FSA) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	5.35%	5.12%	7.48%	2.71%	4.03%	5.93%	7.52%	6.98%	6.80%	5.31%
Alabama	4.34%	7.33%	3.40%	1.48%	3.34%	8.18%	5.70%	7.44%	6.84%	4.97%
Alaska	**2.54%**	**5.16%**	**7.33%**	**3.25%**	**6.68%**	**9.13%**	**8.72%**	**5.84%**	**6.48%**	**4.99%**
Arizona	5.75%	8.22%	7.90%	2.75%	4.23%	6.40%	9.92%	11.14%	9.54%	7.85%
Arkansas	4.67%	5.20%	6.51%	3.58%	4.54%	4.14%	5.43%	6.24%	6.60%	4.79%
California	7.22%	4.96%	7.66%	3.54%	4.57%	6.20%	8.73%	8.08%	7.89%	6.43%
Colorado	4.45%	7.14%	9.70%	4.64%	2.95%	3.13%	6.90%	5.19%	6.32%	7.66%
Connecticut	3.90%	8.06%	7.07%	0.53%	3.98%	6.82%	6.72%	5.29%	6.71%	5.31%
Delaware	3.51%	5.88%	6.81%	0.66%	2.95%	5.77%	11.31%	7.23%	8.11%	5.72%
District of Columbia	**-1.18%**	**9.12%**	**16.99%**	**1.33%**	**2.84%**	**7.48%**	**11.18%**	**11.69%**	**5.39%**	**5.67%**
Florida	3.40%	3.08%	4.65%	4.46%	4.89%	6.86%	11.14%	10.36%	7.52%	3.56%
Georgia	5.94%	8.06%	9.10%	2.55%	4.00%	7.19%	6.74%	6.97%	6.19%	3.90%
Hawaii	**-0.71%**	**2.75%**	**4.39%**	**0.48%**	**3.42%**	**7.10%**	**12.75%**	**9.32%**	**8.45%**	**4.31%**
Idaho	6.87%	4.11%	8.21%	3.32%	4.77%	6.78%	7.54%	8.22%	10.16%	7.48%
Illinois	7.84%	-0.29%	6.78%	3.92%	2.54%	5.30%	7.02%	7.82%	7.01%	5.17%
Indiana	3.99%	6.07%	4.51%	2.85%	7.74%	0.43%	3.72%	5.68%	5.15%	9.17%
Iowa	4.14%	3.00%	7.54%	0.30%	3.30%	4.98%	5.58%	7.13%	4.27%	4.04%
Kansas	5.65%	0.64%	5.31%	2.75%	18.29%	1.97%	6.20%	1.90%	5.27%	0.50%
Kentucky	7.73%	1.74%	2.72%	3.11%	4.94%	5.52%	7.36%	5.64%	5.78%	3.14%
Louisiana	6.49%	6.81%	7.99%	1.76%	4.80%	21.29%	16.57%	1.48%	-4.38%	-2.56%
Maine	3.98%	6.33%	8.83%	4.30%	7.26%	7.72%	7.60%	5.08%	6.60%	3.36%
Maryland	4.68%	7.54%	4.74%	4.27%	5.31%	4.50%	8.48%	8.22%	8.14%	5.70%
Massachusetts	6.18%	5.95%	7.54%	2.98%	2.73%	5.41%	5.97%	4.30%	4.82%	4.13%
Michigan	4.58%	3.56%	7.80%	-0.86%	3.87%	5.06%	4.79%	3.51%	3.87%	9.02%
Minnesota	3.95%	6.95%	18.67%	12.41%	-11.39%	6.08%	6.55%	5.02%	6.07%	3.52%
Mississippi	8.38%	10.90%	6.13%	3.82%	10.66%	5.86%	8.82%	6.97%	3.73%	7.28%
Missouri	5.16%	6.42%	6.07%	3.71%	6.94%	2.28%	2.74%	5.76%	9.31%	3.47%
Montana	3.65%	4.17%	7.14%	2.94%	7.63%	5.36%	7.14%	6.58%	6.21%	8.00%
Nebraska	5.22%	6.47%	5.39%	0.67%	2.61%	5.69%	5.95%	5.12%	4.34%	4.02%
Nevada	**5.09%**	**12.26%**	**0.75%**	**3.11%**	**2.27%**	**4.54%**	**16.83%**	**15.19%**	**11.31%**	**5.49%**
New Hampshire	7.87%	2.71%	9.33%	5.88%	5.91%	6.62%	7.75%	4.73%	4.82%	4.20%
New Jersey	3.70%	3.67%	3.88%	3.05%	5.17%	6.37%	7.00%	5.79%	7.30%	2.45%
New Mexico	2.15%	4.21%	7.95%	3.52%	5.96%	5.90%	6.55%	6.21%	8.43%	4.45%
New York	5.44%	8.44%	9.34%	-0.19%	3.13%	5.77%	7.79%	6.81%	7.83%	6.75%
North Carolina	4.95%	6.41%	8.66%	0.45%	6.95%	5.63%	8.56%	7.76%	7.80%	7.98%
North Dakota	1.87%	0.55%	3.48%	0.45%	7.51%	2.37%	5.60%	7.93%	6.96%	8.41%
Ohio	4.59%	0.78%	8.40%	1.58%	3.60%	4.40%	4.37%	2.96%	2.45%	4.41%
Oklahoma	3.09%	4.95%	8.02%	2.10%	3.84%	2.83%	4.43%	7.57%	8.13%	5.13%
Oregon	3.34%	6.81%	4.99%	1.10%	5.14%	6.62%	6.68%	8.49%	6.98%	5.95%
Pennsylvania	3.94%	2.47%	8.21%	3.13%	4.32%	5.31%	5.65%	5.34%	4.06%	6.97%
Rhode Island	2.52%	12.19%	10.90%	3.44%	7.23%	7.67%	6.06%	3.16%	2.69%	1.96%
South Carolina	4.60%	6.43%	5.59%	1.25%	4.70%	7.60%	7.49%	7.59%	7.31%	5.65%
South Dakota	3.20%	8.69%	5.92%	1.96%	8.41%	4.85%	7.34%	4.51%	7.52%	6.16%
Tennessee	0.92%	6.12%	4.53%	1.33%	4.92%	7.24%	6.13%	7.95%	5.68%	5.25%
Texas	7.09%	7.39%	9.48%	2.54%	2.93%	5.69%	7.15%	8.22%	8.22%	6.27%
Utah	4.69%	4.33%	8.38%	3.36%	5.72%	2.27%	5.73%	7.56%	9.96%	6.60%
Vermont	4.25%	4.95%	6.39%	4.02%	3.84%	4.15%	9.04%	4.40%	4.34%	2.47%
Virginia	4.12%	6.56%	8.24%	4.00%	4.08%	7.91%	9.99%	8.41%	7.39%	4.65%
Washington	12.84%	-1.66%	9.91%	0.49%	0.26%	6.63%	6.87%	9.43%	12.89%	0.95%
West Virginia	4.49%	4.21%	4.53%	1.91%	4.54%	7.25%	6.07%	4.13%	6.81%	4.08%
Wisconsin	3.99%	5.46%	7.38%	2.49%	3.18%	6.55%	6.05%	4.94%	6.30%	3.96%
Wyoming	1.25%	7.04%	3.61%	1.37%	7.79%	5.44%	8.14%	8.92%	13.53%	3.86%

Note: States in bold have been directly adjusted to account for spending by non-residents.

Appendix Table 7n. Percent Change from Preceding Period of Financial Services and Insurance (IFS) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	8.89%	9.49%	10.84%	-1.26%	2.38%	4.56%	8.17%	7.17%	4.90%	7.87%
Alabama	7.98%	8.59%	8.62%	-0.65%	2.13%	4.94%	8.92%	7.87%	3.76%	7.74%
Alaska	5.40%	7.86%	10.41%	1.20%	3.58%	3.30%	8.51%	8.91%	4.34%	8.74%
Arizona	11.53%	11.38%	12.96%	0.23%	3.80%	5.82%	11.23%	12.24%	7.49%	8.42%
Arkansas	7.27%	9.66%	8.62%	1.03%	1.24%	6.62%	8.72%	7.08%	4.82%	9.89%
California	10.92%	9.82%	11.38%	-1.07%	3.49%	4.77%	8.56%	7.00%	5.30%	6.78%
Colorado	10.14%	13.44%	15.31%	2.08%	1.15%	2.55%	7.65%	8.27%	5.34%	7.43%
Connecticut	8.01%	8.87%	11.25%	-0.81%	2.10%	2.65%	8.26%	5.44%	6.71%	8.32%
Delaware	10.50%	8.74%	11.88%	-0.33%	4.32%	4.47%	8.94%	6.64%	5.48%	6.61%
District of Columbia	4.85%	5.67%	12.15%	8.92%	2.35%	4.51%	9.79%	9.34%	6.97%	9.64%
Florida	9.77%	9.84%	11.12%	-0.68%	4.29%	6.01%	11.17%	9.81%	6.98%	7.21%
Georgia	9.42%	11.39%	12.08%	-0.46%	2.22%	4.25%	7.63%	9.17%	3.93%	8.61%
Hawaii	4.35%	7.54%	8.78%	-3.50%	3.68%	4.84%	10.45%	8.79%	6.29%	9.87%
Idaho	10.21%	11.03%	10.49%	0.45%	3.68%	4.06%	11.93%	7.86%	6.71%	8.75%
Illinois	7.81%	8.04%	10.32%	-2.68%	2.07%	4.42%	6.79%	5.34%	4.19%	7.44%
Indiana	9.00%	8.47%	10.59%	-2.56%	1.24%	5.46%	6.50%	4.79%	3.42%	5.84%
Iowa	7.10%	7.85%	10.81%	-2.93%	2.93%	3.05%	10.40%	4.15%	2.73%	8.79%
Kansas	9.16%	8.43%	9.81%	-0.61%	0.38%	5.17%	6.14%	5.88%	5.73%	8.22%
Kentucky	8.39%	9.14%	12.07%	-2.79%	1.85%	3.37%	7.65%	6.60%	4.39%	6.93%
Louisiana	7.40%	6.97%	8.12%	1.80%	1.56%	4.26%	7.60%	9.86%	2.63%	12.45%
Maine	8.57%	9.47%	9.49%	0.89%	3.13%	5.43%	7.85%	3.76%	3.34%	7.06%
Maryland	9.48%	10.42%	11.64%	0.35%	3.53%	4.91%	9.43%	7.39%	4.06%	6.97%
Massachusetts	8.40%	9.83%	11.69%	0.14%	3.02%	2.66%	6.89%	5.78%	5.60%	6.93%
Michigan	7.89%	8.73%	9.69%	-2.08%	0.88%	4.93%	3.99%	4.15%	0.69%	4.88%
Minnesota	10.82%	11.42%	10.30%	-1.76%	2.54%	5.40%	8.18%	4.57%	3.81%	7.47%
Mississippi	8.42%	8.63%	8.95%	0.62%	0.49%	4.69%	8.11%	9.59%	1.84%	9.40%
Missouri	7.83%	8.58%	10.39%	-2.18%	2.84%	5.03%	7.08%	5.19%	3.93%	7.34%
Montana	9.25%	7.80%	10.11%	2.87%	1.18%	6.79%	9.21%	8.01%	5.42%	8.41%
Nebraska	8.45%	9.82%	9.28%	-0.42%	1.60%	7.84%	6.05%	5.67%	1.74%	9.82%
Nevada	12.11%	12.98%	11.78%	-0.49%	3.49%	8.79%	14.09%	13.48%	4.54%	9.06%
New Hampshire	11.18%	10.09%	13.53%	-1.37%	3.38%	3.63%	8.66%	4.54%	5.05%	7.05%
New Jersey	7.54%	8.14%	12.80%	-1.82%	2.28%	2.89%	7.35%	5.26%	6.16%	7.42%
New Mexico	8.54%	7.18%	9.60%	4.40%	1.14%	4.75%	9.53%	9.28%	4.32%	8.81%
New York	6.03%	8.40%	9.34%	-3.64%	1.98%	3.76%	8.35%	7.78%	4.92%	8.95%
North Carolina	8.93%	11.01%	10.76%	-2.05%	1.33%	3.95%	9.40%	8.33%	4.53%	8.58%
North Dakota	13.33%	5.33%	11.78%	-2.49%	1.45%	9.67%	4.41%	8.66%	1.09%	12.79%
Ohio	7.97%	8.42%	8.23%	-2.90%	1.53%	4.23%	5.18%	4.94%	2.68%	5.93%
Oklahoma	7.78%	9.54%	11.89%	1.40%	0.03%	3.94%	9.82%	8.02%	7.58%	7.36%
Oregon	8.35%	9.47%	10.06%	-1.60%	3.42%	4.41%	5.99%	5.27%	5.91%	8.41%
Pennsylvania	8.91%	8.27%	9.34%	-3.31%	2.73%	4.06%	6.81%	5.05%	4.65%	7.65%
Rhode Island	7.05%	8.44%	9.56%	1.10%	4.10%	5.60%	6.92%	4.75%	3.10%	7.21%
South Carolina	9.29%	10.64%	11.48%	-2.04%	2.14%	4.28%	8.17%	7.95%	5.37%	8.31%
South Dakota	9.76%	9.38%	10.68%	0.33%	0.35%	10.71%	8.73%	5.72%	-0.14%	12.82%
Tennessee	9.48%	9.90%	9.78%	-1.31%	2.39%	4.87%	7.73%	6.98%	3.89%	8.06%
Texas	10.23%	11.04%	12.76%	-1.04%	1.01%	4.94%	9.33%	10.19%	6.12%	9.81%
Utah	9.87%	9.78%	12.22%	1.28%	2.09%	3.39%	8.66%	10.57%	6.60%	10.86%
Vermont	9.77%	10.89%	10.84%	-0.29%	1.99%	5.05%	8.05%	3.80%	5.52%	7.69%
Virginia	7.06%	10.35%	11.63%	1.29%	2.97%	5.91%	9.12%	8.70%	4.91%	8.55%
Washington	10.23%	10.36%	11.45%	-1.08%	1.98%	4.26%	10.10%	5.23%	6.88%	10.17%
West Virginia	7.34%	7.28%	8.01%	0.38%	2.43%	3.15%	5.96%	5.25%	5.61%	6.52%
Wisconsin	9.74%	9.53%	9.49%	-1.19%	2.92%	4.25%	6.37%	5.42%	3.90%	6.52%
Wyoming	9.41%	11.48%	10.47%	2.01%	3.87%	7.45%	10.05%	10.58%	10.46%	7.75%

Note: This category did not require an adjustment to account for spending by non-residents.

Appendix Table 7o. Percent Change from Preceding Period of Residency-adjusted Other Services (OTS) Expenditures

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
United States	10.50%	8.22%	9.28%	7.26%	4.52%	6.06%	5.35%	4.95%	6.12%	5.18%
Alabama	10.42%	7.75%	8.07%	7.19%	6.35%	7.35%	3.81%	2.93%	4.44%	3.05%
Alaska	9.26%	7.37%	7.84%	15.23%	4.63%	19.36%	-4.92%	-0.23%	1.25%	-0.21%
Arizona	13.42%	10.75%	10.31%	7.64%	8.85%	9.26%	5.37%	6.23%	8.82%	2.57%
Arkansas	11.84%	8.51%	8.31%	8.89%	5.46%	8.98%	4.41%	3.97%	6.18%	5.62%
California	8.03%	9.48%	12.01%	8.69%	6.21%	6.46%	7.59%	6.98%	8.02%	6.32%
Colorado	11.17%	10.74%	12.62%	10.06%	4.66%	3.03%	4.47%	5.21%	6.08%	4.70%
Connecticut	11.14%	8.35%	4.67%	8.67%	5.94%	5.88%	5.52%	4.82%	5.88%	4.68%
Delaware	6.69%	3.75%	8.10%	8.92%	2.47%	6.94%	9.17%	6.61%	6.84%	4.95%
District of Columbia	**9.60%**	**6.68%**	**10.81%**	**11.23%**	**4.72%**	**9.86%**	**11.40%**	**7.26%**	**7.26%**	**1.60%**
Florida	11.80%	7.19%	11.08%	7.51%	7.09%	6.62%	6.24%	6.69%	9.68%	2.29%
Georgia	12.07%	7.52%	9.02%	7.84%	4.75%	4.81%	5.78%	6.58%	6.94%	5.52%
Hawaii	7.76%	2.39%	7.22%	5.76%	3.97%	6.25%	5.62%	6.37%	6.94%	5.40%
Idaho	12.62%	11.72%	11.26%	12.19%	10.14%	11.28%	2.39%	2.35%	5.43%	2.26%
Illinois	10.23%	5.88%	7.23%	5.82%	3.41%	6.21%	3.64%	3.69%	5.08%	4.12%
Indiana	10.83%	7.44%	8.75%	5.31%	3.82%	4.56%	4.83%	2.81%	3.72%	4.46%
Iowa	10.23%	7.94%	7.11%	5.68%	5.20%	5.53%	4.84%	1.73%	3.26%	3.22%
Kansas	12.07%	7.73%	6.57%	7.21%	3.43%	7.77%	2.88%	3.36%	3.24%	0.56%
Kentucky	10.21%	8.41%	10.03%	7.27%	4.72%	3.34%	4.97%	3.95%	4.97%	2.56%
Louisiana	10.97%	5.60%	5.73%	8.28%	4.16%	6.14%	2.79%	0.18%	4.65%	8.43%
Maine	11.73%	5.36%	8.43%	9.33%	7.63%	7.32%	6.27%	4.87%	3.98%	2.20%
Maryland	10.42%	7.83%	11.71%	7.97%	4.37%	5.80%	5.52%	5.27%	5.85%	4.62%
Massachusetts	**9.46%**	**7.47%**	**10.55%**	**7.84%**	**1.45%**	**4.98%**	**6.69%**	**5.82%**	**7.27%**	**9.47%**
Michigan	10.69%	7.83%	7.06%	6.84%	2.70%	2.97%	0.42%	2.79%	1.97%	-0.04%
Minnesota	8.76%	11.26%	10.77%	5.85%	5.48%	7.91%	4.88%	0.98%	4.23%	4.80%
Mississippi	12.11%	9.95%	8.32%	7.74%	6.02%	5.45%	1.57%	2.79%	3.65%	1.85%
Missouri	11.16%	7.17%	9.40%	6.43%	4.25%	4.61%	3.23%	2.61%	4.74%	4.52%
Montana	10.02%	3.91%	1.35%	9.20%	5.42%	8.34%	4.24%	3.69%	5.22%	3.21%
Nebraska	11.00%	8.07%	8.03%	8.25%	5.40%	5.17%	2.43%	3.31%	3.61%	4.00%
Nevada	15.87%	12.06%	8.97%	10.14%	9.80%	9.15%	9.16%	10.50%	7.37%	4.43%
New Hampshire	12.68%	8.65%	8.75%	6.36%	2.87%	6.02%	4.62%	3.57%	5.36%	1.97%
New Jersey	9.07%	5.85%	8.17%	8.01%	6.91%	6.44%	6.27%	4.94%	7.12%	7.75%
New Mexico	11.03%	10.11%	8.50%	8.32%	7.69%	10.07%	4.51%	4.60%	7.44%	3.35%
New York	**9.41%**	**7.93%**	**8.47%**	**4.37%**	**2.22%**	**5.33%**	**5.82%**	**5.66%**	**5.74%**	**7.99%**
North Carolina	13.59%	9.06%	8.90%	6.86%	3.79%	6.34%	4.22%	5.55%	6.94%	7.01%
North Dakota	7.34%	9.18%	6.15%	5.50%	5.73%	15.92%	-4.08%	-0.53%	1.59%	2.07%
Ohio	11.31%	7.65%	8.91%	6.99%	2.82%	4.67%	3.52%	2.19%	4.00%	3.95%
Oklahoma	12.84%	9.48%	6.98%	10.75%	4.62%	6.90%	5.62%	5.81%	7.84%	6.31%
Oregon	12.21%	8.90%	9.00%	8.65%	3.31%	8.64%	5.55%	4.64%	5.03%	3.58%
Pennsylvania	10.17%	8.48%	7.98%	7.05%	3.67%	5.68%	6.74%	4.43%	4.34%	6.97%
Rhode Island	9.13%	7.37%	8.48%	8.30%	6.40%	8.62%	5.30%	3.39%	3.84%	2.73%
South Carolina	12.79%	5.91%	6.67%	7.92%	5.87%	6.40%	3.01%	4.51%	6.73%	6.39%
South Dakota	12.48%	6.53%	1.42%	7.89%	3.50%	9.52%	10.68%	0.29%	3.39%	5.08%
Tennessee	11.49%	7.80%	8.69%	6.29%	3.33%	5.44%	5.66%	5.00%	6.44%	4.89%
Texas	13.40%	10.54%	11.04%	6.14%	2.51%	5.68%	5.55%	5.26%	6.24%	5.35%
Utah	10.43%	8.57%	12.14%	10.11%	6.05%	3.98%	6.17%	7.66%	13.37%	9.66%
Vermont	5.31%	0.92%	4.31%	5.10%	4.08%	6.79%	2.15%	4.63%	6.44%	4.96%
Virginia	10.30%	8.07%	10.73%	9.61%	6.25%	8.17%	5.74%	7.16%	5.29%	3.23%
Washington	9.74%	9.71%	10.06%	5.27%	2.77%	6.86%	6.81%	4.59%	6.24%	5.96%
West Virginia	8.17%	4.91%	5.40%	8.11%	5.70%	3.75%	2.82%	2.87%	4.97%	2.22%
Wisconsin	9.43%	8.80%	6.39%	7.23%	4.78%	5.95%	4.78%	3.69%	5.19%	4.76%
Wyoming	9.61%	12.06%	-0.76%	6.54%	8.60%	3.47%	8.46%	4.88%	8.85%	7.72%

Note: States in bold have been directly adjusted to account for spending by non-residents.