AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

US Government Spending Allocation Database by State (SADS)

by

Asif M. Islam

WP 13-03

Department of Agricultural and Resource Economics

The University of Maryland, College Park

Copyright © 2013 by Asif M. Islam
All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

US GOVERNMENT SPENDING ALLOCATION DATABASE BY STATE (SADS)

Asif M. Islam

University of Maryland at College Park
2106 Symons Hall
College Park, MD 20740
Tel: +1 301 405 1293
Email: aislam@arec.umd.edu

US GOVERNMENT SPENDING ALLOCATION DATABASE BY STATE (SADS)

Abstract

The US government spending allocation database provides new data on a set of disaggregated government spending categories covering all the states in the US for the period 1983-2008. The data allows for the comparison of federal versus state and local government spending over time on various spending items including health, education, social security and welfare among many others distributed over all states. This is achieved by categorizing and aggregating expenditures for over 1,500 federal programs and combining data on state and local government spending. The key challenge in separating federal and state and local government spending is the issue of double counting since part of state and local spending is from the federal government. This new data set is mostly free of double counting. The dataset presented will aid researchers in separately accounting for both state and local, as well as federal spending in future research.

1. Introduction

The US government spending allocation database (from now on SADS) provides data on a set of government spending categories by state and local as well as federal governments distributed over states for the years 1983-2008.[1] The unique feature of this database is that it provides consistent disaggregated government spending data by functional categories across states while limiting the overlap of expenditures between the different government levels. This is achieved by categorizing and aggregating over 1,500 federal programs and combining it with data on state and local government spending.

In comparison to existing datasets, there are three specific contributions of the SADS database: (i) It provides aggregated federal spending data by functional categories distributed over states. Currently available spending datasets essentially include time series national aggregates as maintained by the Bureau of Economic Analysis, and the Office of Budget and Management.

[1] A link to the dataset can be found here:
https://sites.google.com/site/asifmislam/home/documents/Spending_AIslam_2012.zip

Furthermore these aggregated categories are typically based on spending by federal agency or department instead of functional categories. (ii) Aggregated federal spending categories are separated by direct expenditures including grants, salaries and wages, and federal indirect expenditures that include loans and insurance. (iii) SADS combines a pre-existing state government spending database with the federal spending data, developing aggregated categories consistent across federal and state government spending and mitigates double counting of government expenditures. There is currently no database that has consistent spending categories by function across state and federal governments distributed geographically over all states.

There are signification contributions the SADS database can have towards future research. For instance the 2008-2009 US financial crisis has indicated that although federal governments have risen spending by enacting various stimulus packages, most of the impact has been diminished due to corresponding spending cuts by state and local governments. Furthermore, there is much debate on the pros and cons of undertaking fiscal policy at the state versus federal level of government.

The key challenges of separately considering federal and state and local government spending involve (a) creating spending categories that are consistent, and (b) tackling the issue of double counting since part of state and local spending is from the federal government. In relation to (a), the more detailed the spending categories, the greater the potential for research. However, due to constraints with regards data sources, only a certain level of disaggregation is possible in order to maintain consistency. The main spending categories include Education, Health, Social Welfare, Housing, Public Order and Safety, Parks Libraries Arts and Humanities, Infrastructure and Communication, Economic Affairs and Private Subsidies, and Other

Spending. State government spending includes environmental spending as part of health expenditures. Thus, in the SADs database, environmental spending is available as a separate category at the federal level. In relation to (b), the issue of double counting is alleviated by using a third data source in order to identify and exclude federal transfers to state governments. There are several key assumptions and procedures used to maintain a degree of consistency, and these are explained in detail in this document.

This paper is organized as follows: section 2 provides a description of data sources and methodology of data collection, section 3 highlights the issues and procedures used to address them, section 4 provides spending definitions and coverage, section 5 presents the data and examples of how it may be used, and finally section 6 concludes.

2. Sources and Methodology

The SADS database is created by combining three different data sources: The Consolidated Federal Funds Report (CFFR), State and Local Government Finances, and the Federal Aid to States (FAS), which is part of the CFFR series. All data sources are maintained by the US Census Bureau. A rigorous understanding of the three data sources is essential to determine the quality of SADS database. Each data source is constrained by differing levels of spending aggregation, and degree of accuracy due to changes in the data source over time. The spending aggregation limits the level of spending detail the SADS database can attain, and the changes in the underlying data sources over time have to be accounted for in order to have a consistent database. This section will describe the data sources, highlighting the strengths and weaknesses of each, and where possible pointing out the impact on the final quality of the data. Each data

source will be analyzed with regards to richness (detail), inter-temporal consistency, spending exclusions, data limitations, and other issues.

The Consolidated Federal Funds Report (CFFR)

The Consolidated Federal Funds Report (CFFR) maintained by the US census bureau is the primary source for federal expenditures. The data consists of federal expenditures or obligations distributed by state and local areas at the program level. The report is created by combining several statistics on federal government expenditures. The primary sources are: Federal Assistance Award Data System (FAADS), Federal Procurement Data System, U.S. Department of Defense, Office of Personnel Management, U.S. Postal Service, and Federal Aids to State Survey.

Most of the information is submitted by individual agencies to the federal reporting system. CFFR is available from 1983 – 2008, with more recent years made available as the reports are completed. The data is rich in detail as all spending is presented as individual programs identified by the Catalog of Federal Domestic Assistance (CFDA) number and geographical location and is available for over 1500 programs. The CFFR data set does have a few alterations over time that mostly occurs in 1993. Data before 1993 has the following differences from the data 1993 onwards: (i) there is no department classification or agency classification in the database. Most of the agencies and departments are inferred by the program ID or CFDA numbers present in the database. (ii) Most salary, wage, and procurement data have generic program IDs, and thus cannot be identified by agency and department for Pre-1993 data, apart from Defense, Postal Service, and the FBI, which have

special codes. Data 1993 onwards does not have this issue as agency coding is available for salary, wages and procurement data. (iii) Certain agencies and branches are missing data pre-1993. These include Corps of Engineers – Civil Works, Executive Office of the President, and the Judicial Branch. Further contact with Census Bureau indicated that it is not possible to recollect the missing information for pre-1993 data. Corps of Engineers – Civil Works is also missing for 2008.

There are limitations in the coverage of CFFR data. Amounts excluded from the CFFR are grouped into two general categories - conceptual exclusions and agency/program omissions. Conceptual exclusions include spending not geographically distributed for example all international transactions and foreign payments, and also agencies not covered by the reporting systems. The reporting systems and federal agencies omit federal procurement, travel, and other expenditures to the extent that they are not covered by contractual agreements or government charge card purchases. Exclusions include: Net interest on federal government debt, Central Intelligence Agency, Defense Intelligence Agency, National Security, Agency, Procurement actions of the judicial and legislative sectors of the federal government, Expenditures other than salaries and wages are not available for the Federal Deposit Insurance Corporation, National Credit Union Administration, and Federal Savings and Loan Insurance Corporation.

An additional limitation of the CFFR is that it is not possible to identify whether the recipient of the expenditure is a state or local government or a private entity. This necessitates a third data source to account for federal expenditures to state governments. Finally assistance

spending may also involve obligations. Typically de-obligations are indicated as negative amounts in CFFR. It is difficult to track, by program, when obligations were made, and how to distribute the negative amounts in prior years. Thus, negative figures are retained, and appear as a subtraction from the aggregate estimation of the spending type. In summary, the CFFR data is rich in detail with the presentation of all spending at the program level allowing for flexibility in the creation of spending categories.

State and Local Government Data Source

The State and Local Government Finances maintained by the US Census Bureau is the data source for state and local government spending. Local governments specifically comprise of counties, municipalities, townships, special districts, and independent school districts. Activities of dependent public school systems are included with the data of their parent state or local government. This data is collected by the census bureau in 2 ways. First, the US Census Bureau conducts the nation's Economic Census every five years, in years ending in "2" and "7", where the census of governments is one component of the economic census. The US Census Bureau also conducts recurrent annual surveys related to the census of governments. Essentially four methods are used to collect the data: Mail Canvass, Compilation using direct government reports and records, central collection where other states share data from their own collection systems, and finally imputation for government units that did not respond. Imputation is typically used by examining existing public records.

The coverage is from 1977 to 2009, and the data is fairly consistent. One general issue is that local government spending is omitted for 2001 and 2003. Data users can either choose to interpolate these years, or use the totals for state government spending alone. The main limitation of this data source is the level of aggregation presented. This limitation essentially dictates the possible attainable spending categories for the SADS database in order to allow for spending comparisons across the different levels of government. For instance research and regulation spending is typically included in spending aggregates, and it is impossible to separate out conservation efforts (forest conservation) and marketing efforts (timber production promotion) from spending under economic affairs. There is also certain unexpected bundling of expenditures, for instance environmental spending is under health spending.

In summary, State and Local Government Finances is the most consistent database with regards to computation and collection across US states. Its main drawback is it level of disaggregation in spending categories.

Federal Aid to States (FAS)

Federal Aid to States (FAS) is the data source for federal spending directly to state governments. FAS is part of the CFFR series, and thus has the advantage that it is consistent with the main source of federal spending data for the SADS.

Similar to the CFFR, the FAS data have been consolidated and tabulated by the Census Bureau under the auspices of the US Office of Management and Budget (OMB). The data in the FAS is similar to the CFFR apart from the fact that the former consists of federal grants to local and

state governments and is available at the program level of disaggregation, while the latter has data on all grants both to government and non-government entities with more aggregated data. Thus subtracting FAS data from CFFR would provide federal expenditures excluding spending on state and local governments.

The FAS data includes the following: Direct cash grants to state or local government units, payments for grants-in-kind, such as purchases of commodities distributed to state or local government institutions (e.g., school lunch and breakfast programs), payments to nongovernment entities when such payments result in cash or in-kind services passed on to state or local governments, payments to regional commissions and organizations that are redistributed to the state or local level, federal government payments to state and local governments for research and development that is an integral part of the provision of public services, and federal revenues shared with state and local governments. Specific exclusions from the FAS that are available in the CFFR are: federal government payments directly to individuals, profit or nonprofit institutions not covered above, and payments for services rendered. The FAS report was known as the Federal Expenditures by State prior to 1997. The available coverage is for the years 1981-2008.

The main drawback of the FAS database is that spending is not presented at the program level and thus the level of disaggregation is much greater than CFFR. This adds a further constraint on the possible degrees of spending disaggregation for the SADS database. However, the aggregation categories can generally be matched to state level spending categories, and thus the limitation does not detract from the possible categories at the state and local level.

Furthermore, there are several inconsistencies in the totals of the categories and subcategories for data before 1990s. The specific issue is that the category totals do not match with the totals of the subcategories. There are also inconsistencies between total state spending listed, and the total spending of all state sub-categories. The state sub-categories do not add up to the total state total for data after the 1990s. Further communication with the US Census Bureau revealed that they are unable to provide documentation or account for the inconsistencies. For the SADS database, the total of the sub-categories of spending in the FAS are used as they are essentially what is required for creating the categories. Thus it is assumed that the error is in either calculation of the totals in the FAS dataset, or there are missing categories.

In summary, the FAS data is the most problematic of all 3 data sources due to its level of disaggregation and inconsistencies in totals. However, it is the consistent with the CFFR data, and as far as the author knows, the best available data for expenditures by federal government to state governments.

3. Procedures For Resolving Issues

There are essentially two issues that have to be accounted for in the creation of the SADS database. The first is the treatment of administrative spending in the CFFR data source. Second is the removal of direct spending by federal governments to state governments in order to avoid double counting.

Treatment of Administrative Expenditures

Administrative expenditures are allocated by department for the CFFR data 1993 onwards. If all the programs in a department can be identified under one category of spending, the administrative expenditures are then included in that spending category. However, when a whole department does not fall under one category of spending, the administrative expenditures are distributed into different spending categories in the department by the ratio of each type of spending over total department spending.

(1) $$adst_{ij} = \frac{tot_{ij}}{tot_j} * adst_j$$

Where $adst_{ij}$ is administrative spending for category *i* in department *j*. tot_{ij} is the total spending for category *j* in department *i*, while tot_j is the total spending in department *j* excluding un-allocable administrative expenditures. Therefore $\sum^{i} tot_{ij} = tot_j$. Finally $adst_j$ is the un-allocable administrative spending for department *j*. The assumption is that administrative spending is proportional to the amount of spending per category in each department.

In the case of pre-1993 data, the administrative spending is not allocated by department. Thus the administrative spending is first allocated to each department by the proportion of department spending over total spending. This is then further distributed into the type of spending within the department, using the proportion of the category of spending in the department over total department spending. Thus administrative spending is spread over departments using the following formula:

(2) $$adst_j = \frac{tot_j}{tot} * adst$$

Where $adst_j$ is the administrative spending for department j, tot_j is the total spending in department j, tot is the total spending in CFFR excluding un-allocable administrative spending such that $\sum^{j} tot_j = tot$ and $adst$ is the un-allocable total administrative for the whole of CFFR. The assumption is that administrative spending is proportional to the amount of spending per department.

Excluding Federal Grants to States

The most significant obstacle in disaggregating federal, state and local spending is the possibility of double counting. For example, in the CFFR, federal spending on states is counted as federal expenditures. However, databases on state government spending would count such expenditures as state government spending. Thus such items would be double counted. In order to remove double counting, the Federal Aid to States (FAS) is used, which is part of the CFFR series.

Each spending category is identified in the FAS dataset that corresponds to the categories created in the CFFR data. Thus the final categories for direct federal spending are created by a simple subtraction as indicated in equation (3) below:

(3) $$fedsp_{SADS} = fedsp_{CFFR} - fedsp_{FAS}$$

Where *fedsp* is the spending category, and the subscript indicates the database. Therefore we subtract out transfers from the federal government to the state governments from federal spending. The accuracy of federal spending in the SADS database is dependent on the degree of consistency of the categories between CFFR and FAS. Under the assumption that the FAS data comprehensively covers all federal spending to states, the SADS data can be considered reasonably consistent.

4. Description of SADS Categories

There are essentially 9 categories of spending in the SADS database: (i) Education, (ii) Health, (iii) Social Security & Welfare, (iv) Housing, (v) Public Order and Safety, (vi) Parks, Libraries, Arts, and Humanities, (vii) Infrastructure and Communication, (viii) Economic Affairs & Private Subsidies, and (ix) Other Spending. Spending by state and local governments exactly match each of the above aggregate categories, apart from Economic affairs & private spending and other spending. However, federal spending has to be aggregated over individual programs in order to generate similar categories.

For federal spending, each program is identified by department, and categorized under the above categories. This identification is done using the program description provided in the data, or obtained by tracking the CFDA number for each program through other sources. Each type of spending can be broken down into two groups – direct spending and assistance spending. Direct spending includes grants, salaries and wages, procurement contracts, and other direct payments. Direct assistance includes direct loans, guaranteed/insured loans and insurance. The components of direct spending and assistance spending are presented in table 1.

A few departments have more than one type of government spending. Each program is classified by spending type by department. For instance, in the department of Agriculture, about 37% of department spending on average for all states was on private subsidies in 2008. The top private subsidy is crop insurance, which typically accounts for most of the Agricultural spending on private subsidies in addition to production stabilization and flexibility payments.

However, Agricultural spending on Food stamps and school lunch programs account for about 21% of Agricultural department spending, both of which fall under the category of social welfare.

All spending in the database is presented as shares of total government spending. Below is a short description of the spending categories available in the SADS database

1) Education

   There are three variables available under education: the share of education spending by state and local governments over total state and local government spending, the share of direct education spending by federal governments over total direct federal spending, and finally the share of federal education loans and insurance spending over federal total loans and insurance spending. State and local education spending is categorized according to the Government State and Local Finances database as spending under education. This spending category includes essentially all spending involved in the operation, maintenance, and construction of public schools and education institutions for all levels of education. The corresponding federal categories include education spending by the department of education, and typically most expenditure carried out by departments that involve education or labor training programs.

2) Health

   There are two variables available under health: the share of health spending by state and local governments over total spending by state and local governments, and the

share of direct health spending by federal governments over total direct spending by federal governments. State and local health spending is categorized according to the Government State and Local Finances database as spending under health. This spending category includes essentially all spending towards the provision of services for the conservation and improvement of public health and financial support of other governments' health programs. However, environmental programs are also included under state and local health spending. The corresponding federal category includes spending by the department of health. Federal environmental spending by the EPA is not included in this category, but is available as a spate category in case users would like to include it.

3) Social Welfare

There are two variables available under social welfare: the share of social welfare and social security spending by state and local governments over total state and local government spending, and the share of direct social welfare and social security spending by federal governments over total direct federal spending. State and local social welfare and security spending encompasses public welfare spending, employment security administration, employee retirement spending, unemployment and workers compensation spending. The corresponding federal categories include spending over a wide range of federal departments. Social security administration, Earned income tax credit from the treasury department, food stamps from the department of agriculture, retirement and disability payments, as well as weatherization assistance to low income households, and Unemployment trust funds.

4) Housing

There are three variables available under housing: the share of housing spending by state and local governments over total state and local government spending, the share of direct housing spending by federal governments over total direct federal spending, and finally the share of federal housing loans and insurance spending over total federal loans and insurance spending. State and local housing spending encompasses construction, operation, and support of housing and redevelopment projects and other activities to promote or aid public and private housing and community development. The corresponding federal categories mostly include housing spending by the department of housing and urban development. A few programs by other departments are also included, for example spending on rural housing by the department of Agriculture.

5) Public Order and Safety

There are three variables available under public order and safety: the share of public order and safety spending by state and local governments over total state and local government spending, the share of direct public order and safety spending by federal governments over total direct federal spending, and finally the share of federal public order and safety loans and insurance spending over total federal loans and insurance spending. State and local public order and safety spending encompasses judicial and legal, legislative activities, police protection, corrections institutions, protective inspection and regulation, and fire protection spending. The corresponding federal

categories include spending by the department of justice, homeland security programs, and spending by the legislative and judicial branches.

6) Parks, Libraries, Arts and Humanities

There are two variables available under parks, libraries, arts and humanities: the share of parks, libraries spending by state and local governments over total state and local government spending, and the share of direct federal spending on parks, libraries, arts and humanities over total direct federal spending. State and local spending involves spending on public libraries, and parks and recreation. The corresponding federal categories essentially include spending by the Institute of Museum and Library Sciences, National Park Service, National Foundation on the Arts and Humanities, Tennessee Valley Authority, Appalachian Region Commission.

7) Infrastructure and Communication

There are three variables available under infrastructure and communication: the share of infrastructure and communication spending by state and local governments over total state and local government spending, the share of direct federal infrastructure and communication spending over total direct federal spending, and finally the share of federal infrastructure and communication loans and insurance spending over total federal loans and insurance spending. State and local infrastructure and communication spending includes general public buildings, highways, sanitation, sea and inland port facilities, and transit utilities. The corresponding federal spending encompasses a wide range of departments that engage in infrastructure spending. However the main

categories include spending by the department of transportation, development grants for public works by the department of commerce, water resources development, and flood insurance.

8) Economic Affairs and Private Subsidies

There are three variables available under economic affairs and private subsidies: the share of economic affairs and private subsidies by state and local governments over total by state and local government spending, the share of direct economic affairs and private subsidies spending by federal governments over total direct federal spending, and finally the share of federal economic affairs and private subsidy loans and insurance spending over total federal loans and insurance spending. State and local economic affairs and private subsidy spending involve spending in economic affairs (agriculture, fishing, forestry, and mining), miscellaneous commercial activities, utility spending (water, gas, and electric) and liquor store spending. Economic affairs tends to cover most of private subsidies, however it is difficult to disaggregate conservation and regulation efforts for state and local spending, and thus this category includes not just private subsidies but other types of spending that falls under economic affairs. Federal spending categories are made consistent with this definition. They essentially involve spending by the department of agriculture excluding food stamps ad extension services, the department of interior, and small business administration. A few programs in each of these departments are under separate categories due to the nature of the programs.

9) Other Spending

The three variables include other spending by state and local governments, federal direct spending, and federal loans and assistance spending. At the state level, the bulk of this spending is those that are hard to categorize. This includes spending on parking facilities, veterans bonuses, general un-allocable spending, and administration spending that cannot be categorized under the above categories. Federal spending mostly includes defense spending, veterans' affairs, general services administration and various international programs. This category is the most disparate when comparing the state and federal levels.

10) Separate Federal Categories

There are two separate federal categories available to data users. These include spending by the Environmental Protection Agency (EPA) and federal research programs that are difficult to categorize under the above programs, for instance the National Science Foundation (NSF), and National Aeronautics and Space Administration (NASA). It may make sense to include NSF spending under education spending, however it is worth noting that research under NSF is broad, and encompasses several categories in the SADS database. This is complicated by the fact that research spending under is already included each individual category at the state level. Thus, it is up to the user to decide how they wish to allocation NSF, NASA, and EPA spending. EPA spending is a separate category mostly due to the design of the state spending categories. Environmental spending by states is included under health spending, and it is not possible to separate the two. Users may be uncomfortable

combining health spending and EPA spending at the federal level, and thus the option is left to their discretion.

5. The Use of SADS Data

This section essentially consists of three parts. First excerpts are provided from the data to give the reader a feel for what is available in the SADS database. Second, an example is provided of how the SADS database can be used to observe the evolution of spending over time across states. Finally, a simple study is conducted to explore the possibility of substitution or complementarities for the same spending categories but across different levels of government. Finally, some caveats are provided with regards to how to interpret the data.

5.1 Excerpt from SADS

Tables 2 through 4 provide trends of all categories of spending, averaged over all states, for state and local governments, federal direct spending, and federal loans and insurance. Federal direct spending includes grants, salaries and wages, and procurement contracts. From this data much can be inferred about the inter-temporal movements of spending for each of the categories indicated as well as level of government.

Tables 5 through 7 provide cross-state comparisons of spending averaged over 1983-2008. This data is provided for all the SADS categories as well as for state and local governments, federal direct spending, and federal assistance spending (federal loans and insurance). In

additional to the shares of spending provided, total expenditures for each state over time will also be provided in case users would like to work with real values instead of shares.

5.2 Changes in Social Welfare, Health, and Education Spending

A simple illustration of what can be done using the SADS database is shown in tables 8, 9 and 10. Welfare, health and education spending shares are tracked over decade averages of 1983-1989, 1990-1999, and 2000-2008. Social welfare and health spending involve state and local spending, and federal direct spending, while education spending additionally includes federal loans and insurance.

Perhaps not surprising, the one striking feature is that the differences across the spending shares of states is far greater than the differences over time for each state. Health and social welfare spending shares have gone up for most states from the 80s to the 90s, however the trends have been mixed moving into the 2000s, as some states have experienced increases in the spending shares while others have declined. The federal direct spending on education consists of mostly grants and administrative costs. The better indication of education spending is the assistance spending in terms of loans. Most of the assistance spending provided in table 10 involves student loans, and the changes across the years for states vary significantly. Contrast the District of Columbia where overall the loans have been on an upward trend to Minnesota, which has experienced sharp declines. In contrast, state and local spending on education over time has been mostly flat for both Minnesota and the District of Columbia. The SADS data provides finer annual data as opposed to the decadal averages presented and thus these trends can be studied in further detail.

5.3 Complementarities and Substitution of spending shares across levels of government

Table 10 and 11 present the correlations of education, health, and social welfare and security spending shares across government levels, and specifically for education, across federal direct and assistance spending as well. These are pair-wise correlation, all of them significant at 1%. A few interesting results stand out. For instance state spending on education is negatively correlated with both federal direct and assistance spending, both with a correlation around -0.10. This may indicate some degree of substitutability between state and federal spending in terms of education. In contrast federal spending shares in education for direct and assistance spending is positively correlated at 0.30. Since federal direct education spending mostly captures administrative spending, it makes sense that there would be a high positive correlation between direct and assistance federal spending on education.

We also find a negative correlation between federal and state level spending share on health of around -0.072, implying a degree of substitution between federal spending and state and local spending in health. However, with regards to social security and welfare spending, we find a positive correlation of 0.19 indicating some degree of complementarities between state and federal social security and welfare spending.

5.4 Caveats about the use of SADS

Thus far, the potential inconsistencies across spending categories and the limitation of accuracy due to different category aggregation across data sources have been mentioned as potential drawbacks. One additional drawback is the interpretation of spending. Recall that federal

spending is direct federal spending to individuals in states (as opposed to state governments), while for state level spending, this may include federal spending as long as the delivery through state governments. Thus conceptually, the distinction between federal and state level government spending is really by delivery. Any analyses on the effectiveness of federal spending in the SADS database will be unable to make statements about the overall efficacy of federal spending, since federal spending visa states may still be efficient. The analyses can mainly make statements on direct federal spending.

6. Conclusion

This document has presented a unique dataset on US government spending allocation for a set of government spending categories by state and local as well as federal governments distributed over states for the years 1983-2008. The unique feature of this database is that it provides disaggregated government spending categories by federal and state and local governments levels distributed over states and also limits the overlap of expenditures between the different government levels. The drawbacks have been specified, and also the procedures to handle different issues have been described. A few illustrations were provided on how this data may be used by researchers. Finally, this database will be updated regularly as the data sources are updated. Furthermore, the codebooks for the aggregation of each type of federal spending program into respective spending categories will be made available online for users to create new sub-categories or submit possible errors that will be corrected with each round of updates. With continued feedback from users, the SADS database may expand and also improve in quality

References

U.S. Census Bureau, Consolidated Federal Funds, U.S. Government Printing Office, Washington, DC, 2011

U.S. Census Bureau, Federal Aid to States, U.S. Government Printing Office, Washington, DC, 2011

US Census Bureau, Federal Assistance Award Data System (FAADS) http://www.census.gov/govs/www/faads.html

US Department of Commerce, Bureau of Economic Analysis (BEA), www.bea.gov

US Office of Budget and Management (OBM), http://www.whitehouse.gov/OMB/organization

Table 1: Direct Spending and Assistance

Direct Spending	Assistance
Grants (Block, Formula, Project, and Cooperative Agreements) Salaries and Wages Procurement Contracts Retirement and Disability Payments for Individuals Other Direct Payments for Individuals Direct Payments Other than for Individuals	Direct Loans Guaranteed/Insured Loans Insurance

Table 2: Annual Shares of State & Local Government Spending Categories over Total State and Local Government Spending averaged over all States

year	Education	Health	Social Welfare	Housing	Public Order and Safety	Parks, Libraries, Arts and Humanities	Infrastructure and Communication	Economic Affairs and Private Subsidies	Other Spending (Mostly includes Military/ Defense Spending)
1983	30.07	7.39	17.29	1.41	7.71	1.74	13.37	13.64	7.38
1984	30.40	7.46	15.99	1.45	7.83	1.69	13.73	13.49	7.97
1985	30.20	7.22	15.96	1.46	7.87	1.69	13.91	13.54	8.14
1986	30.52	7.10	15.69	1.48	7.91	1.71	13.77	13.29	8.53
1987	30.37	7.07	15.94	1.46	7.97	1.71	13.58	13.21	8.68
1988	30.74	7.27	15.76	1.44	8.17	1.77	13.50	12.67	8.68
1989	30.76	7.32	15.92	1.51	8.28	1.81	13.37	12.49	8.53
1990	30.87	7.39	16.65	1.45	8.37	1.82	12.99	12.15	8.32
1991	30.50	7.31	18.10	1.42	8.30	1.83	12.89	11.67	7.99
1992	29.40	7.29	20.20	1.39	8.17	1.82	12.50	11.39	7.85
1993	29.58	7.43	21.16	1.39	8.02	1.72	12.37	10.91	7.42
1994	29.58	7.56	21.09	1.42	8.14	1.76	12.33	10.94	7.19
1995	29.54	7.47	21.53	1.42	8.24	1.77	12.25	10.75	7.03
1996	30.00	7.48	21.17	1.40	8.46	1.80	12.08	10.56	7.05
1997	29.85	7.28	20.86	1.41	8.64	1.89	12.21	10.87	7.01
1998	30.29	7.21	20.16	1.44	8.75	1.93	12.26	10.89	7.07
1999	30.52	7.07	20.11	1.36	8.85	1.92	12.22	10.91	7.04
2000	30.47	7.05	20.21	1.39	8.90	1.90	12.24	11.03	6.81
2002	29.72	6.89	21.98	1.39	8.59	1.91	11.93	11.13	6.46
2004	29.72	6.81	23.46	1.52	8.37	1.79	11.46	10.62	6.25
2005	29.88	6.99	23.29	1.60	8.54	1.80	11.41	10.35	6.14
2006	30.00	7.04	22.68	1.55	8.55	1.86	11.49	10.73	6.11
2007	29.96	7.04	22.15	1.63	8.56	1.86	11.64	11.02	6.16
2008	30.07	7.18	22.24	1.66	8.55	1.92	11.48	10.75	6.16

Table 3: Annual Shares of Federal Direct Government Spending Categories over Total Federal Direct Government Spending averaged over all States.

year	Education	Health	Social Welfare	Housing	Public Order and Safety	Parks, Libraries, Arts and Humanities	Infrastructure and Communication	Economic Affairs and Private Subsidies	Other Spending (Mostly includes Military/ Defense Spending)	EPA	Federal Research excluded from other Categories (NSF, NASA)
1983	1.49	11.56	44.74	1.42	0.14	0.00	0.00	2.83	33.75	0.13	3.93
1984	1.75	11.26	44.00	1.51	0.13	0.01	1.08	1.92	37.89	0.18	0.26
1985	1.54	11.90	42.66	1.09	0.07	0.01	0.00	3.53	35.53	0.04	3.63
1986	1.70	12.23	42.36	1.86	0.23	0.03	0.88	3.83	36.47	0.04	0.37
1987	1.90	12.62	41.45	2.36	0.16	0.03	0.76	4.42	35.89	0.06	0.35
1988	2.09	12.94	42.70	1.82	0.12	0.03	0.69	4.71	34.41	0.13	0.35
1989	2.38	13.28	44.16	1.98	0.16	0.04	0.51	4.08	33.01	0.05	0.35
1990	2.31	15.00	45.38	1.79	0.36	0.03	0.51	2.82	31.24	0.16	0.41
1991	2.29	14.63	46.19	1.83	0.16	0.03	0.90	2.78	30.51	0.28	0.41
1992	2.10	16.87	47.04	1.69	0.21	0.03	0.83	2.59	28.11	0.11	0.43
1993	1.62	15.48	43.63	1.34	0.85	0.14	1.11	5.41	28.90	0.25	1.26
1994	1.46	15.69	44.31	0.95	0.95	0.14	1.42	5.11	28.64	0.20	1.15
1995	1.44	16.11	45.42	0.80	1.07	0.11	1.10	4.69	28.02	0.24	1.01
1996	1.21	16.82	45.41	0.86	1.11	0.10	0.99	4.07	28.13	0.30	1.02
1997	0.96	18.71	45.50	1.02	1.00	0.09	1.20	4.04	26.19	0.27	1.00
1998	1.24	17.66	45.65	0.58	1.20	0.10	1.22	4.61	26.35	0.32	1.07
1999	1.02	17.48	45.30	0.40	1.11	0.12	1.47	5.53	26.22	0.32	1.04
2000	0.89	17.32	44.89	0.97	1.09	0.13	1.53	5.67	26.31	0.20	0.99
2001	1.64	17.19	45.03	0.57	1.02	0.13	1.48	6.74	24.60	0.19	0.92
2002	1.45	18.22	43.84	0.15	1.10	0.14	1.82	6.46	25.70	0.18	0.94
2003	1.96	17.73	43.60	0.22	1.82	0.16	1.94	4.94	26.55	0.14	0.93
2004	2.03	18.21	42.51	0.20	1.62	0.15	1.27	4.92	28.03	0.13	0.94
2005	1.66	18.84	41.44	0.74	2.10	0.15	0.92	5.14	27.91	0.20	0.91
2006	2.14	19.08	40.80	0.68	2.57	0.17	1.50	4.77	27.33	0.14	0.84
2007	2.06	18.78	40.90	0.23	1.81	0.16	2.00	4.14	28.92	0.12	0.89
2008	2.07	20.80	40.56	0.31	1.82	0.18	0.77	4.51	27.92	0.12	0.93

Table 4: Annual Shares of Federal Government Loans and Insurance Spending Categories over Total Federal Government Loans and Insurance averaged over all States

year	education	Housing	Public Order and Safety	Infrastructure and Communication	Economic Affairs and Private Subsidies	Other Spending (Mostly includes Military/ Defense Spending)
1983	6.47	20.64	32.09	4.55	31.50	4.72
1984	9.71	25.99	30.86	2.85	25.66	4.89
1985	10.32	18.43	36.74	2.04	27.89	4.55
1986	6.31	27.86	37.04	1.75	22.15	4.85
1987	4.91	38.37	32.25	1.20	18.11	5.13
1988	6.96	28.70	38.57	1.42	20.63	3.70
1989	7.01	36.44	36.03	0.87	16.92	2.70
1990	7.50	32.64	36.51	1.38	18.83	3.12
1991	8.03	33.72	34.83	1.53	19.41	2.45
1992	7.22	26.92	43.30	1.32	19.46	1.76
1993	7.27	29.44	40.93	1.51	18.19	2.64
1994	7.63	32.60	36.32	1.25	16.55	5.63
1995	9.01	18.64	41.54	1.31	25.59	3.87
1996	9.00	22.15	42.23	1.04	21.57	3.98
1997	9.92	20.93	47.62	0.95	17.39	3.17
1998	10.38	23.36	45.48	1.00	16.24	3.54
1999	9.96	19.92	45.59	1.13	17.79	5.60
2000	9.90	20.86	47.96	1.38	17.62	2.28
2001	8.98	22.71	46.82	1.28	17.65	2.54
2002	9.48	25.42	44.37	1.62	16.41	2.70
2003	10.02	26.17	43.57	1.72	15.70	2.81
2004	12.27	19.65	44.17	1.45	16.19	6.26
2005	13.33	12.80	51.04	2.00	16.31	4.51
2006	11.70	11.58	54.49	0.97	16.81	4.44
2007	11.77	10.91	54.77	1.11	17.36	4.07
2008	8.43	22.04	47.34	0.84	15.60	5.75

Table 5: Shares of State & Local Government Spending Categories over Total State and Local Government Spending by Geographical Location (1983-2008 average)

State	Education	Health	Social Welfare	Housing	Public Order and Safety	Parks, Libraries, Arts and Humanities	Infrastructure and Communication	Economic Affairs and Private Subsidies	Other Spending (Mostly includes Military/ Defense Spending)
Alabama	31.34	13.73	17.98	1.23	6.71	1.35	9.71	12.16	5.74
Alaska	21.19	3.01	15.91	1.74	7.07	1.20	14.35	23.44	12.07
Arizona	29.88	4.65	17.15	0.92	10.79	2.20	11.98	14.83	7.07
Arkansas	35.28	8.00	21.87	1.02	7.12	1.23	11.14	8.12	6.08
California	25.69	7.51	22.43	2.00	11.01	1.80	9.20	12.96	7.11
Colorado	30.52	5.95	18.46	1.21	8.72	2.85	12.71	11.51	8.05
Connecticut	27.76	6.71	22.80	1.98	8.84	1.47	10.38	11.52	8.46
Delaware	33.31	5.11	16.32	1.85	9.16	1.54	14.06	8.01	10.64
District of Columbia	13.30	7.59	21.97	3.47	13.27	2.10	24.16	7.52	6.63
Florida	27.18	8.22	15.31	1.12	11.45	2.31	12.89	13.32	7.77
Georgia	31.38	11.35	17.94	1.38	8.21	1.47	11.26	11.86	5.08
Hawaii	23.83	7.01	19.55	2.70	8.23	2.86	14.34	13.11	8.28
Idaho	33.07	8.16	19.44	0.67	8.53	1.47	13.26	9.22	5.99
Illinois	28.95	5.68	22.86	1.72	8.77	2.98	13.31	7.92	7.52
Indiana	36.02	8.44	18.56	1.36	6.82	1.82	10.24	10.09	6.07
Iowa	34.59	9.58	19.11	0.76	6.39	1.76	13.50	9.27	4.96
Kansas	34.43	7.34	16.37	0.69	7.62	1.44	12.90	11.58	7.56
Kentucky	30.43	5.88	24.66	1.07	7.15	1.35	11.75	9.31	8.39
Louisiana	27.82	11.35	20.81	1.74	8.23	1.76	11.20	8.73	8.29
Maine	29.64	4.99	27.57	1.76	6.42	0.98	11.94	9.44	7.12
Maryland	31.44	4.54	20.23	2.05	10.37	2.46	12.96	8.17	7.70
Massachusetts	23.61	6.46	25.16	2.77	8.33	1.26	12.86	11.33	7.81
Michigan	34.25	8.55	22.97	0.63	8.57	1.42	9.32	8.58	5.44
Minnesota	29.77	6.51	24.29	1.66	6.41	2.17	11.71	9.90	7.17
Mississippi	30.84	12.99	20.78	1.09	6.18	0.99	10.87	10.57	5.31
Missouri	32.42	8.42	20.57	1.25	8.27	1.84	12.58	8.42	6.22

Montana	32.67	5.64	20.10	1.32	6.94	1.11	13.43	10.16	8.37
Nebraska	29.74	6.78	14.54	0.91	5.88	1.34	10.44	25.54	4.50
Nevada	25.98	6.52	17.29	1.09	12.77	3.24	14.24	9.53	8.56
New Hampshire	31.90	3.43	20.79	1.65	8.41	1.26	11.50	11.25	9.73
New Jersey	30.53	4.58	21.33	1.27	9.30	1.83	12.63	10.32	7.86
New Mexico	32.98	7.67	19.27	0.69	8.95	2.08	13.15	7.62	7.08
New York	23.56	7.68	26.57	2.03	8.56	1.39	13.79	9.54	6.61
North Carolina	32.40	10.19	18.44	1.26	7.77	1.53	9.84	13.75	4.63
North Dakota	33.58	3.24	20.12	1.38	5.42	1.90	13.66	14.13	6.41
Ohio	29.96	7.05	28.48	1.59	8.24	1.50	10.19	6.77	5.94
Oklahoma	33.83	7.82	21.00	1.02	7.96	1.65	10.97	9.52	6.18
Oregon	29.46	6.45	21.59	1.56	8.80	1.73	11.79	10.09	8.47
Pennsylvania	29.47	5.31	26.55	1.58	7.50	1.00	11.93	9.24	7.35
Rhode Island	27.36	4.98	27.65	1.90	9.36	1.42	9.76	7.09	10.39
South Carolina	31.07	12.57	19.24	0.89	6.85	1.23	8.27	13.79	5.73
South Dakota	30.98	4.49	17.05	1.06	6.50	2.33	16.35	12.82	8.38
Tennessee	25.21	8.98	19.42	1.31	7.01	1.45	9.70	22.12	4.62
Texas	34.79	7.65	17.27	0.93	8.57	1.38	11.80	10.92	6.68
Utah	33.25	5.78	14.98	1.03	7.28	2.06	11.63	17.92	6.09
Vermont	35.98	2.81	21.01	1.85	6.19	0.95	12.67	11.20	7.31
Virginia	34.61	7.66	15.90	1.52	9.61	1.93	13.91	7.58	7.04
Washington	27.46	7.17	20.97	1.26	7.78	2.01	12.24	15.77	5.30
West Virginia	31.88	5.45	27.15	0.94	5.10	1.21	12.35	7.93	7.98
Wisconsin	33.44	5.78	23.27	0.86	8.47	1.86	12.28	7.34	6.13
Wyoming	31.35	10.97	14.64	0.38	7.03	1.98	14.73	10.77	7.65

Table 6: Shares of Federal Direct Government Spending Categories over Total Federal Direct Government Spending by Geographical Location (1983-2008 average)

State	Education	Health	Social Welfare	Housing	Public Order and Safety	Parks, Libraries, Arts and Humanities	Infrastructure and Communication	Economic Affairs and Private Subsidies	Other Spending (Mostly includes Military/ Defense Spending)	EPA	Federal Research excluded from other Categories (NSF, NASA)
Alabama	1.27	15.72	44.45	0.58	0.52		0.78	2.74	31.41	0.04	2.49
Alaska	0.96	8.68	20.88	1.58	1.15	0.30	5.47	1.97	56.66	0.40	1.95
Arizona	1.26	14.16	42.35	0.85	0.94	0.08	0.54	0.78	38.15	0.04	0.86
Arkansas	1.25	17.59	51.33	0.57	0.36	0.04	0.99	5.26	22.23	0.06	0.32
California	1.27	18.23	37.26	1.09	0.69	0.07	0.71	1.75	36.98	0.06	1.89
Colorado	1.43	11.98	34.91	2.24	0.68	0.14	0.95	5.51	39.85	0.30	2.01
Connecticut	0.88	17.22	37.71	0.95	0.40	0.03	0.66	0.59	40.78	0.04	0.74
Delaware	1.02	16.48	50.58	0.87	0.33	0.04	0.74	1.18	27.47	0.32	0.98
District of Columbia	5.38	8.51	26.39	2.32	12.19	1.51	0.82	4.41	35.21	1.36	1.90
Florida	0.95	20.38	46.87	0.41	0.88	0.03	0.64	0.53	28.29	0.03	0.99
Georgia	1.49	14.68	41.45	0.69	0.70	0.05	0.91	1.60	37.72	0.19	0.51
Hawaii	0.59	8.40	32.27	0.56	0.69	0.10	1.37	0.59	54.71	0.07	0.66
Idaho	1.38	12.35	47.13	2.77	0.34	0.08	1.55	9.73	23.72	0.20	0.75
Illinois	1.63	21.20	51.12	0.98	0.48	0.03	0.62	4.09	19.04	0.17	0.64
Indiana	3.76	17.16	49.65	0.67	0.41	0.02	0.73	2.82	24.06	0.06	0.67
Iowa	2.03	17.37	48.34	0.55	0.32	0.02	0.37	14.94	15.43	0.07	0.54
Kansas	1.57	15.41	41.20	0.44	0.43	0.03	0.74	9.10	30.39	0.25	0.43
Kentucky	1.51	16.20	49.68	0.77	0.59	0.00	0.68	4.59	25.55	0.07	0.37
Louisiana	2.01	17.30	43.80	0.96	3.32	0.04	1.24	3.09	26.82	0.06	1.35
Maine	1.16	15.43	45.16	0.82	0.46	0.05	0.60	0.53	35.23	0.10	0.46
Maryland	0.97	18.06	37.27	1.85	1.21	0.18	1.18	2.51	33.97	0.13	2.67
Massachusetts	1.67	22.13	37.00	1.18	0.50	0.13	0.80	0.69	34.31	0.27	1.32
Michigan	1.37	22.70	54.67	0.60	0.34	0.02	0.44	1.13	18.03	0.15	0.55
Minnesota	3.43	17.41	45.57	0.86	0.53	0.06	0.71	7.59	23.17	0.09	0.58
Mississippi	1.44	14.33	42.88	1.04	1.50	0.00	0.93	3.72	32.95	0.05	1.15

Missouri	1.38	15.19	40.68	0.77	0.44	0.07	0.70	4.09	36.27	0.06	0.36
Montana	1.51	14.39	44.49	0.92	0.39	0.16	1.46	15.71	19.46	0.27	1.26
Nebraska	3.28	14.68	42.74	0.53	0.37	0.04	0.52	13.94	23.25	0.12	0.54
Nevada	0.66	13.92	46.87	3.08	0.55	0.10	0.99	5.07	27.78	0.24	0.76
New Hampshire	1.11	15.25	45.87	0.85	0.49	0.07	1.23	0.62	33.40	0.22	0.89
New Jersey	1.02	20.35	48.57	0.90	0.73	0.03	1.21	0.46	25.96	0.15	0.62
New Mexico	1.87	11.43	36.16	2.16	0.68	0.08	5.35	7.91	33.23	0.14	0.99
New York	2.37	23.57	48.81	0.95	0.60	0.10	0.61	1.00	21.31	0.08	0.60
North Carolina	1.18	16.03	47.93	0.50	0.53	0.02	0.64	1.66	30.66	0.35	0.50
North Dakota	1.52	13.56	33.47	0.56	0.59	0.03	1.01	24.57	23.86	0.16	0.67
Ohio	1.78	20.40	49.77	1.03	0.27	0.02	0.41	1.74	23.54	0.14	0.90
Oklahoma	1.30	16.15	44.67	0.65	0.54	0.02	1.66	3.21	31.31	0.09	0.40
Oregon	1.31	17.81	57.40	0.83	0.49	0.05	1.61	1.36	18.24	0.16	0.74
Pennsylvania	1.68	22.79	50.99	0.64	0.48	0.04	0.49	1.23	21.00	0.13	0.53
Rhode Island	2.06	19.24	46.30	1.40	0.36	0.05	0.74	0.36	28.36	0.20	0.93
South Carolina	1.32	12.66	45.09	1.02	0.81	0.02	0.77	5.15	32.73	0.05	0.38
South Dakota	4.95	14.63	38.89	0.73	0.37	0.08	1.05	17.57	20.78	0.20	0.75
Tennessee	1.36	17.90	46.98	2.17	0.36	0.00	0.75	9.35	20.51	0.06	0.56
Texas	1.45	14.65	38.92	0.67	1.11	0.02	0.72	2.75	37.07	0.09	2.56
Utah	2.10	10.62	42.24	1.31	0.34	0.10	1.04	1.28	37.03	0.11	3.83
Vermont	2.38	17.73	49.01	0.87	1.61	0.07	0.71	0.97	25.52	0.20	0.92
Virginia	1.87	10.00	27.02	1.43	2.05	0.08	1.99	2.13	49.95	0.42	1.07
Washington	1.12	13.35	41.13	1.18	0.51	0.07	1.05	5.49	35.21	0.20	0.68
West Virginia	1.45	18.29	59.58	0.64	1.62	0.02	1.15	1.57	14.28	0.10	1.28
Wisconsin	2.15	19.61	53.92	0.64	0.53	0.03	0.64	3.38	18.29	0.13	0.68
Wyoming	1.25	13.19	46.97	1.17	0.26	0.29	1.09	0.00	34.18	0.20	1.41

Table 7: Shares of Federal Government Loans and Insurance Spending Categories over Total Federal Government Loans and Insurance Spending by Geographical Location (1983-2008 average)

State	Education	Housing	Public Order and Safety	Infrastructure and Communication	Economic Affairs and Private Subsidies	Other Spending (Mostly includes Military/ Defense Spending)
Alabama	8.89	18.62	53.12	2.10	12.95	4.31
Alaska	1.33	45.23	28.63	5.00	10.27	9.53
Arizona	10.30	38.49	37.82	0.66	5.93	6.79
Arkansas	5.71	32.74	22.17	2.59	33.23	3.55
California	5.53	22.96	57.30	0.10	10.71	3.38
Colorado	8.70	41.91	23.85	1.43	16.14	7.96
Connecticut	6.48	19.04	67.03	0.21	5.51	1.71
Delaware	2.52	10.11	79.63	0.54	4.96	2.25
District of Columbia	35.27	31.65	5.69	0.00	25.29	2.05
Florida	0.58	3.18	94.23	0.08	1.20	0.72
Georgia	4.46	26.87	45.36	3.59	15.04	4.66
Hawaii	1.21	15.15	78.25	0.33	3.17	1.89
Idaho	5.98	33.11	26.48	1.12	28.07	5.23
Illinois	10.31	31.12	25.14	1.32	28.84	3.26
Indiana	21.60	26.89	22.23	1.07	24.76	3.45
Iowa	8.24	7.01	9.41	1.41	72.71	1.21
Kansas	8.56	18.20	19.38	1.56	48.42	3.86
Kentucky	9.40	23.06	36.51	5.03	21.98	4.00
Louisiana	0.84	3.07	92.09	0.47	3.09	0.44
Maine	10.46	22.09	50.49	2.73	9.82	4.35
Maryland	3.89	43.40	43.25	0.26	2.97	5.99
Massachusetts	16.53	13.45	60.64	0.31	7.25	1.79
Michigan	14.40	34.94	28.37	1.61	16.34	4.32
Minnesota	13.88	29.22	8.28	1.72	43.90	2.98
Mississippi	2.83	11.35	60.61	1.54	22.00	1.66
Missouri	10.59	31.48	28.06	2.02	23.68	4.15

Montana	7.20	23.06	15.74	2.03	48.90	3.05
Nebraska	8.94	10.37	17.58	0.54	59.74	2.83
Nevada	1.77	46.57	39.50	0.28	3.70	8.19
New Hampshire	13.22	26.94	41.51	2.68	10.00	5.63
New Jersey	2.62	10.18	84.58	0.06	1.54	1.01
New Mexico	6.88	32.81	39.32	2.90	10.30	7.78
New York	15.38	18.92	54.26	0.24	10.14	1.05
North Carolina	2.84	16.66	59.73	1.66	14.91	4.20
North Dakota	3.37	8.22	16.52	2.25	68.71	0.91
Ohio	12.90	37.98	25.70	1.10	16.84	5.45
Oklahoma	9.53	29.48	33.02	2.94	19.24	5.78
Oregon	8.70	28.44	45.36	1.17	12.68	3.62
Pennsylvania	19.06	20.60	51.60	1.04	4.87	2.81
Rhode Island	11.47	13.86	69.34	0.19	3.67	1.46
South Carolina	1.68	6.54	84.36	1.42	4.23	1.77
South Dakota	6.36	12.35	9.50	3.43	66.36	1.97
Tennessee	8.79	44.44	24.45	1.85	14.20	6.25
Texas	2.69	13.04	74.13	0.45	7.57	2.13
Utah	7.57	57.18	10.26	0.97	18.98	5.04
Vermont	24.41	12.28	40.69	2.59	17.49	2.49
Virginia	4.63	27.56	52.62	1.68	5.22	8.28
Washington	7.08	35.38	34.15	0.38	14.58	8.41
West Virginia	12.10	12.37	65.06	1.80	6.27	2.39
Wisconsin	24.54	18.26	20.48	2.26	28.82	5.58
Wyoming	5.70	35.78	29.41	2.75	20.51	5.81

Table 8: Shares of State & Local Government Spending Categories over Total State & Local Government Spending over Time and Geographical Location

State	Education			Health			Social Welfare & Security		
	1983-1989	1990-1999	2000-2008	1983-1989	1990-1999	2000-2008	1983-1989	1990-1999	2000-2008
Alabama	31.89	29.73	32.71	12.77	14.80	13.28	11.84	17.76	23.00
Alaska	21.17	20.82	21.62	2.77	3.30	2.86	9.29	15.62	21.39
Arizona	31.17	29.89	28.87	4.15	4.30	5.41	10.85	17.04	22.16
Arkansas	36.99	34.28	35.08	8.57	8.83	6.65	16.77	21.90	25.82
California	26.13	24.33	26.87	7.25	7.90	7.28	20.86	21.91	24.24
Colorado	30.80	30.67	30.12	6.53	5.42	6.09	14.97	17.91	21.78
Connecticut	27.88	26.67	28.87	6.33	6.76	6.96	18.74	23.37	25.33
Delaware	34.58	33.50	32.10	4.59	5.04	5.59	11.10	16.24	20.48
District of Columbia	12.81	12.15	15.43	7.36	8.15	7.02	19.04	24.90	20.71
Florida	28.21	26.77	26.83	9.22	8.51	7.13	9.57	14.43	20.75
Georgia	28.52	30.43	34.67	14.84	11.84	8.08	12.55	17.62	22.49
Hawaii	24.17	21.21	26.47	6.18	6.63	8.08	17.63	18.60	22.09
Idaho	33.30	33.85	32.04	8.72	8.37	7.49	15.43	18.22	23.90
Illinois	29.25	28.78	28.91	5.48	5.84	5.67	20.27	21.81	26.05
Indiana	36.75	36.64	34.76	9.09	9.07	7.22	15.03	17.99	21.96
Iowa	34.99	34.69	34.17	8.89	9.89	9.76	15.64	17.80	23.26
Kansas	34.23	34.71	34.28	7.26	7.95	6.74	12.99	14.91	20.63
Kentucky	30.88	30.23	30.30	5.84	5.83	5.98	18.28	24.41	29.90
Louisiana	27.15	27.58	28.61	10.20	12.33	11.15	17.82	21.18	22.71
Maine	31.28	30.43	27.47	4.24	4.70	5.90	22.90	27.80	30.95
Maryland	30.56	31.37	32.20	4.29	4.22	5.07	16.69	20.04	23.19
Massachusetts	23.50	22.48	24.93	7.77	6.96	4.90	22.60	25.31	26.98
Michigan	32.06	34.39	35.79	8.82	8.40	8.52	22.53	22.41	23.92
Minnesota	29.51	29.77	29.97	7.20	7.58	4.78	19.13	22.50	30.29
Mississippi	31.85	31.41	29.41	14.10	13.56	11.49	15.12	19.22	26.92
Missouri	33.16	32.82	31.39	9.43	7.91	8.20	14.71	19.84	25.94
Montana	33.48	33.38	31.25	4.79	5.45	6.51	17.97	20.54	21.29

Nebraska	28.00	30.81	29.90	7.40	6.62	6.47	9.36	13.29	19.97
Nevada	23.45	25.32	28.69	7.33	6.64	5.76	15.87	18.00	17.60
New Hampshire	31.63	30.90	33.23	4.93	3.03	2.70	13.53	23.08	23.89
New Jersey	29.46	30.13	31.80	5.16	4.32	4.43	17.17	21.28	24.63
New Mexico	34.71	32.12	32.60	7.25	8.54	7.03	12.40	18.19	25.81
New York	24.18	23.23	23.45	8.45	7.91	6.84	21.78	26.27	30.64
North Carolina	34.31	31.32	32.12	8.27	11.39	10.36	12.97	17.60	23.63
North Dakota	34.70	33.70	32.57	4.69	2.97	2.40	15.84	20.55	22.98
Ohio	30.48	29.80	29.73	7.14	7.04	6.98	25.61	27.59	31.69
Oklahoma	33.52	33.39	34.56	8.53	8.96	5.99	16.91	20.32	24.95
Oregon	31.77	29.81	27.28	5.32	6.64	7.11	14.96	20.21	28.27
Pennsylvania	29.20	30.08	28.99	5.06	5.09	5.76	22.67	25.30	30.94
Rhode Island	28.44	27.06	26.85	6.49	5.12	3.65	23.16	26.18	32.77
South Carolina	33.40	30.31	30.10	11.68	13.73	11.98	12.69	19.45	24.11
South Dakota	31.10	31.76	30.02	4.61	4.66	4.21	11.74	16.11	22.22
Tennessee	24.55	24.98	25.98	8.85	9.72	8.28	12.84	17.55	26.62
Texas	35.05	34.09	35.35	7.44	8.22	7.17	11.12	17.18	22.16
Utah	31.06	33.53	34.64	4.89	5.76	6.48	11.33	14.32	18.55
Vermont	34.91	35.99	36.80	3.76	2.38	2.54	15.90	20.61	25.43
Virginia	35.55	33.95	34.60	8.08	7.33	7.69	11.60	15.42	19.78
Washington	26.32	27.58	28.21	5.51	7.14	8.49	17.56	20.36	24.31
West Virginia	32.67	31.72	31.44	6.41	5.58	4.55	21.64	28.62	29.79
Wisconsin	34.19	34.22	31.99	6.66	5.50	5.41	20.76	21.89	26.77
Wyoming	33.49	31.83	29.14	9.73	11.04	11.86	10.28	14.59	18.10

Table 9: Shares of Federal Direct Spending Categories over Total Federal Direct Spending by Time and Geographical Location

State	Education			Health			Social Welfare & Security		
	1983-1989	1990-1999	2000-2008	1983-1989	1990-1999	2000-2008	1983-1989	1990-1999	2000-2008
Alabama	1.87	1.18	0.89	12.24	16.21	17.90	46.57	45.67	41.45
Alaska	0.93	0.82	1.15	6.63	9.27	9.63	18.30	22.85	20.71
Arizona	1.51	0.85	1.51	10.63	15.54	15.37	40.56	45.01	40.78
Arkansas	1.19	1.25	1.30	13.01	18.44	20.21	48.37	53.66	51.05
California	1.37	1.26	1.20	12.74	17.72	23.06	31.89	39.29	39.18
Colorado	1.51	1.42	1.39	9.71	11.90	13.84	34.33	34.92	35.34
Connecticut	1.06	0.83	0.79	10.30	18.65	21.03	31.67	42.44	37.14
Delaware	0.91	1.02	1.12	11.96	16.71	19.74	46.51	50.87	53.41
District of Columbia	8.09	4.84	3.86	11.75	8.74	5.75	41.45	25.54	15.63
Florida	1.10	0.84	0.96	14.86	20.16	24.94	46.38	47.99	46.01
Georgia	1.22	1.01	2.23	9.23	14.74	18.85	40.01	42.87	41.00
Hawaii	0.41	0.69	0.63	5.37	8.46	10.68	28.11	34.56	32.97
Idaho	1.75	1.51	0.96	11.38	12.78	12.61	50.64	47.36	44.15
Illinois	2.41	1.48	1.20	17.11	21.68	23.85	52.03	52.87	48.47
Indiana	1.86	4.36	4.57	12.64	18.14	19.57	48.74	51.61	48.18
Iowa	2.04	2.05	1.99	14.02	17.47	19.88	48.26	48.55	48.17
Kansas	1.87	1.25	1.69	11.22	16.42	17.55	36.94	43.97	41.43
Kentucky	1.48	1.39	1.65	13.02	15.92	19.00	53.85	51.50	44.42
Louisiana	2.08	1.46	2.58	10.75	18.25	21.35	43.56	46.59	40.88
Maine	1.49	1.19	0.86	12.87	15.25	17.62	44.38	44.29	46.72
Maryland	1.20	0.90	0.87	11.64	18.07	23.03	39.03	39.51	33.40
Massachusetts	1.88	1.59	1.60	14.80	22.37	27.58	32.54	39.12	38.10
Michigan	2.05	1.23	0.98	18.39	23.41	25.27	53.62	56.48	53.47
Minnesota	4.14	3.77	2.49	12.32	17.47	21.30	41.20	47.48	46.85
Mississippi	1.69	1.38	1.32	10.39	15.09	16.56	40.50	45.53	41.79
Missouri	1.20	0.94	2.01	10.61	15.75	18.13	35.80	42.52	42.42
Montana	1.44	1.77	1.28	11.07	14.62	16.71	45.60	43.84	44.33
Nebraska	2.42	2.97	4.29	11.47	15.31	16.48	42.42	44.73	40.76

Nevada	1.11	0.55	0.41	12.59	13.91	14.96	43.79	47.99	48.01
New Hampshire	0.65	1.32	1.24	10.78	16.31	17.56	39.60	48.15	48.20
New Jersey	1.63	0.82	0.77	15.04	20.39	24.44	45.98	50.22	48.76
New Mexico	2.99	1.43	1.48	11.88	11.37	11.16	42.91	35.42	31.74
New York	3.41	2.28	1.66	17.06	23.81	28.36	45.49	51.00	48.96
North Carolina	1.46	1.06	1.09	11.77	16.43	18.89	46.35	48.94	48.04
North Dakota	1.26	1.39	1.86	10.57	15.27	13.99	31.14	36.82	31.57
Ohio	1.72	1.32	2.33	14.64	20.23	25.08	49.45	51.77	47.80
Oklahoma	1.44	1.42	1.05	12.06	16.80	18.62	44.03	45.87	43.83
Oregon	1.49	1.43	1.04	15.67	18.08	19.16	58.77	57.92	55.75
Pennsylvania	2.19	1.43	1.55	17.16	23.28	26.61	52.08	52.51	48.45
Rhode Island	1.48	1.70	2.93	14.12	18.80	23.70	44.28	47.94	46.04
South Carolina	1.04	1.14	1.72	9.37	12.58	15.31	44.29	45.28	45.51
South Dakota	2.83	2.09	9.79	11.94	16.65	14.47	41.00	41.78	34.05
Tennessee	1.91	1.21	1.09	15.29	17.48	20.40	52.21	46.88	43.02
Texas	1.51	1.49	1.37	10.94	15.50	16.58	35.83	41.69	38.23
Utah	2.25	2.23	1.83	7.88	11.02	12.30	38.82	44.62	42.27
Vermont	2.21	2.66	2.21	14.94	18.54	19.00	48.85	52.32	45.46
Virginia	1.46	1.51	2.66	8.04	10.64	10.91	28.80	28.65	23.43
Washington	1.61	1.01	0.86	9.94	13.71	15.61	38.42	43.00	41.18
West Virginia	2.11	1.42	0.98	14.42	18.74	20.80	65.63	59.82	54.60
Wisconsin	2.64	2.06	1.88	16.38	20.62	21.00	53.42	55.50	52.54
Wyoming	1.17	1.54	0.98	10.44	13.89	14.55	46.39	48.79	45.40

Table 10: Shares of Federal Government Loans and Insurance Spending Categories over Total Federal Government Loans and Insurance by Time and Geographical Location

State	Education		
	1983-1989	1990-1999	2000-2008
Alabama	4.16	10.48	10.79
Alaska	0.42	0.54	2.92
Arizona	4.54	6.67	18.81
Arkansas	2.48	5.84	8.07
California	5.56	4.29	6.90
Colorado	4.40	8.22	12.59
Connecticut	8.89	5.09	6.15
Delaware	2.91	2.18	2.61
District of Columbia	36.99	20.08	50.81
Florida	0.60	0.46	0.71
Georgia	2.05	4.32	6.51
Hawaii	1.91	0.79	1.13
Idaho	3.96	5.57	7.99
Illinois	8.26	8.38	14.05
Indiana	6.87	39.57	13.09
Iowa	4.07	8.19	11.53
Kansas	14.03	3.55	9.86
Kentucky	3.82	10.09	12.97
Louisiana	0.45	0.87	1.12
Maine	8.84	10.85	11.29
Maryland	3.94	3.08	4.75
Massachusetts	15.45	17.27	16.55
Michigan	10.64	13.08	18.80
Minnesota	21.38	9.70	12.70
Mississippi	1.87	2.89	3.51
Missouri	6.07	9.27	15.57
Montana	3.58	7.69	9.48
Nebraska	7.31	9.94	9.09
Nevada	1.76	0.86	2.78
New Hampshire	10.79	12.97	15.39
New Jersey	3.55	2.24	2.33
New Mexico	4.89	7.78	7.44
New York	20.88	12.16	14.67
North Carolina	1.46	2.80	3.95
North Dakota	2.32	3.28	4.28
Ohio	10.46	11.21	16.68

Oklahoma	3.44	10.43	13.26
Oregon	8.43	8.38	9.27
Pennsylvania	14.87	20.59	20.62
Rhode Island	13.93	9.32	11.95
South Carolina	0.97	1.87	2.02
South Dakota	5.14	6.41	7.26
Tennessee	4.52	8.88	12.03
Texas	1.64	3.20	2.92
Utah	5.75	7.96	8.56
Vermont	19.38	25.75	26.83
Virginia	2.47	4.79	6.13
Washington	4.77	7.78	8.10
West Virginia	15.47	7.20	14.94
Wisconsin	17.93	30.79	22.76
Wyoming	6.20	2.57	8.80

Table 11: Education – Complementarities and Substitution of Spending Shares Government Levels

	State Education Spending	Federal Direct Education Spending
Federal Direct Education Spending	-0.1068***	1
Federal Assistance Education Spending	-0.1025***	0.3001***

Table 12: Health and Social Security & Welfare – Complementarities and Substitution of Spending Shares Government Levels

	Federal Direct Health Spending
State Health Spending	-0.0718***
	Federal Direct Social Security & Welfare Spending
State Social Security & Welfare Spending	0.1878***