
**The Financial Position
of Pennsylvania's Public Sectors:
Past, Present and Future**

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1. Introduction

History teaches us that where a government and its citizens are financially depends on the sort of economic and political decisions that were made in the past. This paper examines the financial position of Pennsylvania's state and local governmental sectors which we take to mean the long-term liabilities of Pennsylvania's public sector in relation to its long-term ability to finance them. We take this historical stock-taking to presage the future. Here, we review a few aggregate measures of Pennsylvania's declining economic importance, and then turn to the main research questions.

By way of summary, we observe that one's conclusion about the future depends on how far one is willing to look out. Generally, Pennsylvania's public sector liabilities grow very dramatically after 2010, and the implied tax rates to amortize rapidly rising debt service and long term obligations are dramatically higher than currently observed. Further, in the case of several of the state's largest municipalities, Philadelphia and Pittsburgh, there is reason to believe that their ability to leave their distressed status and oversight of various receivership boards is quite limited. Moreover, there is good reason to expect that more municipalities will join this class of distressed municipalities in the foreseeable future.

1.1 Background: Pennsylvania's Population and Income

Pennsylvania was one of the earliest settled colonies of the Middle Atlantic States in 1643, and composed 11% of the US population through the middle of the 19th century. Thereafter, Pennsylvania's share of the population has continued to decline (See Table 1). It was most important in terms of US population share in 1800, and most important in terms of share of the US *urban* population in 1970.

Over the last half century, Pennsylvania's population increased only 16% while that of the US increased 57.8%. This decline in general importance was accompanied by a very middle of the states standard of living. Median family income since World War II has been within a few percentage points of the US median family income. (See Table 2).

**Table 1: Actual and Predicted
Pennsylvania Population: 1790-2030**

Year	Pennsylvania Population	US Population	% Pennsylvania	% Urban	Pennsylvania Land Area as % of US
1790	434,373	3,929,214	11.1%	10.1%	5.2%
1800	602,365	5,308,483	11.3%	11.3%	5.2%
1810	810,091	7,239,881	11.2%	12.8%	2.7%
1820	1,049,458	9,638,453	10.9%	13.0%	2.6%
1830	1,348,233	12,868,020	10.5%	15.3%	2.6%
1840	1,724,033	17,069,453	10.1%	17.9%	2.6%
1850	2,311,786	23,191,876	10.0%	23.6%	1.5%
1860	2,906,215	31,443,321	9.2%	30.8%	1.5%
1870	3,521,951	39,818,449	8.8%	37.3%	1.5%
1880	4,282,891	50,155,783	8.5%	41.6%	1.5%
1890	5,258,014	62,947,714	8.4%	48.6%	1.5%
1900	6,302,115	75,994,575	8.3%	54.7%	1.5%
1910	7,665,111	91,972,266	8.3%	60.4%	1.5%
1920	8,720,017	105,710,620	8.2%	65.1%	1.5%
1930	9,631,350	122,775,046	7.8%	67.8%	1.3%
1940	9,900,180	131,669,275	7.5%	66.5%	1.3%
1950	10,498,012	150,697,361	7.0%	70.5%	1.3%
1960	11,319,366	178,464,236	6.3%	71.6%	1.3%
1970	11,800,766	203,302,031	5.8%	71.5%	1.3%
1980	11,864,720	226,542,199	5.2%	69.3%	1.3%
1990	11,881,643	248,709,873	4.8%	68.9%	1.3%
2000	12,281,054	281,421,906	4.4%	77.1%	1.3%
2010	12,584,487	308,935,581	4.1%		
2020	12,787,354	335,804,546	3.8%		
2030	12,768,184	363,584,435	3.5%		

**Table 2
Pennsylvania's Median Income: 1959-1999**

	US	PA	PA/US
1999	\$50,046	\$49,184	0.982
1989	\$35,225	\$34,856	0.989
1979	\$19,917	\$19,995	1.004
1969	\$9,586	\$9,554	0.997
1959	\$5,660	\$5,719	1.010

Source: Decennial Census

1.2 Background: Pennsylvania's Governmental Units

From the outset, Pennsylvania was devoted to local autonomy. A Commonwealth, Pennsylvania has always had disproportionately more local governments than other colonies or subsequent states. While Pennsylvania's share of the US population has declined over the last 50 years, its share of governmental units has remained relatively constant at about 5.7%. (See Table 3).

Table 3
Governmental Units by State
1942-2002

Year	US	PA	PA as % US
1942	155,116	5,263	3.4%
1952	116,807	5,156	4.4%
1962	91,237	6,202	6.8%
1967	82,299	4,999	6.1%
1972	78,269	4,936	6.3%
1977	79,913	5,247	6.6%
1982	81,831	5,199	6.4%
1987	83,237	4,957	6.0%
1992	85,006	5,159	6.1%
1997	87,504	5,071	5.8%
2002	87,576	5,032	5.7%

Source: Census(1982,2003).

Pennsylvania, like many states witnessed a remarkable consolidation of school districts in the 1950's and 1960's; the number of independent school districts dropped from 2,506 in 1952 to 516 in 2002. This decline in school districts was about offset by the remarkable increases in the number of special districts and primarily authorities which numbered 29 in 1952 and now number 1,885 in 2002. Note that Pennsylvania has never accorded property taxing authority to its public authorities, unlike other some other states (See Table 4 and 5).

Table 4
Pennsylvania State and Local Taxes
(\$Billions, Percapita, %)

	1	2	3	4	5	6	7	8	9
Panel A Year	Pa. State and Local Taxes \$billions	Pa. State Taxes \$billions	Pa. Local Taxes \$billions	Pa. State and Local Taxes Percapita	Pa. State Taxes Percapita	Pa. Local Taxes Percapita	US State and Local Taxes Percapita	US State Taxes Percapita	US Local Taxes Percapita
1972	\$6,225,858,000	\$3,862,969,000	\$2,362,889,000	\$523	\$324	\$198	\$526	\$287	\$238
1982	\$13,223,855,000	\$8,185,625,000	\$5,038,230,000	\$1,113	\$689	\$424	\$1,153	\$704	\$449
1992	\$26,282,781,000	\$16,269,988,000	\$10,012,793,000	\$2,189	\$1,355	\$834	\$2,188	\$1,294	\$894
2002	\$37,626,620,000	\$22,135,537,000	\$15,491,083,000	\$3,052	\$1,795	\$1,256	\$3,149	\$1,863	\$1,287
Panel B Year	Pa State and Local Taxes as % Personal Income	Pa. State Taxes as % Personal Income	Pa. Local Taxes as % Personal Income	US State and Local Taxes as % Personal Income	US State Taxes as % Personal Income	US Local Taxes as % Personal Income			
1972	11.2%	6.9%	4.2%	11.2%	6.1%	5.1%			
1982	9.4%	5.8%	3.6%	9.7%	5.9%	3.8%			
1992	10.3%	6.4%	3.9%	10.5%	6.2%	4.3%			
2002	9.8%	5.8%	4.0%	10.2%	6.1%	4.2%			

With a relatively moderate standard of living, stagnant population and numerous governmental units, Pennsylvania continues to impose significant tax burdens on its population and businesses.

Table 5
Local Governments by Type
Pennsylvania vs. US
1942-2003

Year	PA Counties	PA Municipalities	PA Townships	PA School Districts	Special Districts		Dependent SDs
					with Property Tax	w/o Property Tax	
1940							
1952	66	990	1,564	2,506	0	29	
1962	66	1,003	1,555	2,179	0	1,398	
1972	66	1,012	1,552	528	0	1,777	
1982	66	1,019	1,549	514	0	2,050	
1992	66	1,022	1,548	516	0	2,006	
2002	66	1,018	1,546	516	0	1,885	
Year	US Counties	US Municipalities	US Townships	US School Districts	Special Districts		Dependent SDs
					with Property Tax	w/o Property Tax	
1952	3,052	16,807	17,202	67,355		12,340	
1962	3,043	17,997	17,144	34,678		18,323	
1972	3,044	18,517	16,991	15,781		23,885	
1982	3,041	19,076	16,734	14,851	12,241	16,347	1,538
1992	3,043	19,279	16,656	14,422	14,951	16,604	1,412
2002	3,034	19,429	16,504	13,506	<i>(only one value provided)</i> 35,052		1,508

It is well known that states have sought to circumvent constitutional limitations on indebtedness through the use of state authorities.¹ Local governments, when empowered to establish local public authorities, have similarly pursued this indirect access to the capital market. Recall that governance of public authorities is typically accomplished by appointed rather than elected boards. Table 6 shows the importance of local authority debt and ranks the states by their share of total local debt. In 2001-2 Pennsylvania's public authorities and special districts, ranked 3rd highest overall, were responsible for 48.6% of total local debt, and \$62.8 billion overall. While California's total local debt was much larger at \$138 billion,² public authorities and special districts' debt was only 25.7% of total local debt. Below we will pay special attention to Pennsylvania's local public authority debt.

¹ See Bunch (1988, 1991).

² On a per-capita basis, however, California had less special district and authority per-capita debt at \$1,013 compared to Pennsylvania at \$2,544. It should be kept in mind, however, that these are averages, and are much higher in some Pennsylvania local governments such as Pittsburgh.

Table 6
Role of Special District and
Local Public Authority Debt
Among the States 2001-2

Rank	State	Total Long Debt 2001-2 (\$1,000's)	% Share Special	% County	% Municipal	% Township
1	Nebraska	\$5,691	52.6%	4.5%	23.5%	–
2	Utah	\$8,520	50.8%	11.2%	21.9%	–
3	Pennsylvania	\$62,827	48.6%	7.4%	13.1%	2.4%
4	Washington	\$32,008	46.4%	12.2%	21.0%	–
5	Indiana	\$14,615	45.9%	7.1%	36.7%	0.3%
6	Georgia	\$26,058	36.0%	20.5%	28.6%	–
7	Massachusetts	\$20,106	31.0%	0.0%	31.3%	33.2%
8	North Carolina	\$22,332	29.9%	42.9%	27.2%	–
9	New Jersey	\$25,497	26.9%	16.5%	17.7%	17.4%
10	California	\$138,037	25.7%	14.8%	45.7%	–
11	Colorado	\$21,299	24.3%	8.7%	43.5%	–
12	South Carolina	\$12,757	23.5%	32.6%	15.0%	–
13	Wyoming	\$1,090	22.9%	42.2%	20.7%	–
14	Maine	\$2,025	22.9%	2.7%	31.8%	25.6%
15	Arizona	\$22,259	20.9%	17.4%	40.6%	–
16	Minnesota	\$25,602	20.0%	6.9%	43.6%	0.3%
17	Florida	\$70,010	19.5%	40.2%	27.4%	–
18	Oregon	\$11,159	19.5%	13.9%	35.5%	–
19	Illinois	\$46,176	19.5%	8.0%	44.5%	0.2%
20	Alabama	\$12,652	18.8%	20.8%	44.9%	–
21	Texas	\$98,801	18.7%	13.6%	37.5%	–
22	Delaware	\$1,494	18.7%	41.9%	26.8%	–
23	Virginia	\$21,637	18.6%	43.1%	38.1%	–
24	Nevada	\$12,105	14.9%	45.5%	12.8%	–
25	West Virginia	\$3,547	14.1%	59.5%	20.4%	–
26	Tennessee	\$17,500	13.6%	38.7%	46.9%	–
27	Vermont	\$744	11.6%		38.7%	16.5%
28	South Dakota	\$1,143	10.6%	9.1%	40.2%	–
29	Connecticut	\$6,984	9.9%		43.5%	44.4%
30	Kentucky	\$19,955	9.3%	51.9%	28.2%	–
31	Wisconsin	\$15,457	8.9%	10.8%	40.3%	2.5%
32	Missouri	\$11,552	8.4%	8.2%	50.1%	–
33	New York	\$107,339	8.2%	12.1%	64.5%	4.5%
34	Idaho	\$1,440	7.8%	11.7%	31.7%	–
35	Mississippi	\$5,774	7.6%	44.5%	23.1%	–
36	Arkansas	\$5,752	6.8%	16.3%	50.0%	–
37	Ohio	\$31,335	6.1%	41.8%	30.5%	0.4%
38	Rhode Island	\$1,489	5.8%		57.8%	34.9%
39	Montana	\$1,211	5.6%	10.9%	62.3%	–

Rank	State	Total Long Debt 2001-2 (\$1,000's)	% Share Special	% County	% Municipal	% Township
40	North Dakota	\$1,232	5.4%	21.7%	58.9%	–
41	Kansas	\$10,025	4.3%	17.8%	48.4%	–
42	Alaska	\$3,338	4.3%	33.2%	62.5%	–
43	Iowa	\$5,781	4.2%	9.5%	63.1%	–
44	Oklahoma	\$6,031	3.9%	14.6%	64.1%	–
45	Louisiana	\$11,753	3.9%	36.4%	40.8%	–
46	Michigan	\$32,248	3.8%	17.5%	32.5%	1.9%
47	Maryland	\$13,354	3.3%	80.8%	15.9%	–
48	New Hampshire	\$1,825	2.1%	1.4%	53.8%	13.0%
49	New Mexico	\$4,110	1.3%	17.1%	58.7%	–
50	Hawaii	\$2,792	0.0%	17.7%	82.3%	–
	Total US	\$1,038,468	21.0%	19.8%	37.9%	2.2%
	Average		16.9%	22.5%	38.8%	13.2%
	Median		13.9%	16.5%	38.4%	4.5%

1.3 Research Questions and Organization of Paper

With these essential facts about Pennsylvania's public sector, we move to the essential research questions of this paper:

- What has been the financial position of this public sector over the past ten years in terms of the present value of liabilities and assets? How does this picture change as the financial position is redefined in terms of broader concepts of public responsibilities?
- What are the prospects for the financial position of Pennsylvania's public sector over the next 25 years under optimistic, conservative, and pessimistic economic assumptions?

The paper is organized as follows. Section 2 develops an analytical framework for the long-term evaluation of the financial position of a state and its local governments, and how the prospective analysis under alternative economic assumptions can be constructed. Section 3 discusses the legal and constitutional background for state and local finance in Pennsylvania, and makes some comparative remarks about the extent of local autonomy. Section 4 discusses data sources and the historical results for the past 10 years. Section 5 presents the forecasts under the three essential economic assumptions, and Section 6 concludes.

2.0 A Framework for Evaluating the Financial Position of A State and its Local Governments

Just like individuals who seek to minimize their federal tax liabilities, state and local governments and their instrumentalities seek to issue federally tax favored or exempt debt in order to reduce the cost of borrowing. The term instrumentalities should be thought of rather broadly since it includes not only subsidiary governmental organizations such as local authorities, which often have their own independent ability to issue debt, but also private organizations that partner with local governments for economic development and other purposes. The Tax Reform Act of 1986 severely limited these activities; however, they continue to flourish and evolve.

In many respects the explosion of public authorities throughout the US, chronicled above, from 12,000 in 1952 to 25,000 in 2002, reflects moves by local governments to circumvent state limitations on their debt issuance through the creation of quasi-independent organizations. Also, such authorities can set charges and fees without the same political scrutiny that their parent organizations and parent legislative bodies must withstand.

2.1 Liabilities of the Public Sector: General

Since our interest is in the long-run liabilities of Pennsylvania's public sector in comparison to its capacity to finance them, we must classify both. With respect to debt, *per se*, we may distinguish between Full Faith and Credit Debt (FFC debt), Fee/Revenue Related

Debt, Tax Anticipation/Revenue Bonds, Intergovernmental Revenue Anticipation Bonds, and Non-guaranteed Bonds (NG). It is desirable to know not only if the debt is secured through a dedicated revenue stream, but also if any debt issue has been insured through a third party which may be a private insurance company, an insurance pool, or through credit enhancements that may link unsecured to revenue debt so that the former is partially self-insured.³ With respect to the long-run assets associated with debt, we may enquire about the predictability of anticipated funding flows, and the adequacy of existing sinking funds and reserves accumulated to pay off such bonded indebtedness. The adequacy or solvency of the entities under study entails a comparison of the present value of outflows with the present value of inflows.

Pennsylvania's public sector has additional liabilities that result from long-term obligations and contracts which behave or have the economic character of bonded indebtedness. State and local pension contracts that are typically defined benefit in character behave not only like debt in the sense they are long-term obligations that must be honored, but actually are more like index bonds whose liabilities rise over time since the obligation is typically based on 2% of the average of the last three years' salary times the years of service of the prospective retiree.⁴ Similarly, obligations to continue to pay those injured on the job under workmen's compensation can be viewed to be analogous to long-term indebtedness since those with permanent disabilities are eligible and receive compensation for long periods of time. Long-term leases are another contractual example of an activity that behaves like bonded indebtedness.

Construction of new public buildings and publicly supported entertainment facilities such as stadiums and concert halls are typically associated with bond issuance which in turn are routinely reported. Similarly, road construction is usually financed by a combination of bonded indebtedness and taxation. Related to these new capital initiatives are deferred investments in infrastructure needs which are periodically measured by external organizations. As we shall see below, in the case of deferred bridge repair, the amounts that should be annually expended in Pennsylvania are quite large.

State and federal law obligates Pennsylvania to spend on public education and public health, as well as spend to meet federal and state environmental standards. The notion here is that both human and physical capital require annual investments to meet agreed upon or mandated objectives, and the long-term under-investment of resources leads to deficits that can be viewed as analogous to the under-funding of public pensions. That is, Pennsylvania has made promises through legislation to ensure a free and efficient public education, but is not, in terms of outcomes, or physical infrastructure providing the resources to attain these desired results.

2.2 Classification of Governmental Indebtedness

³ A number of states organize municipal debt pools, assist through the provision of state insurance, and/or heavily supervise municipal borrowing to ensure that only credit-worthy local projects are undertaken.

⁴ See Furgeson, Strauss, and Vogt(2006) for a careful analysis of how Pennsylvania teachers respond to retirement incentives.

At the conceptual level, state governments generally can issue short-term debt to smooth out their cash flow in anticipation of taxes, intergovernmental transfers from the federal government, and in some instances long-term debt offerings and restructurings. The particulars of whether or not the debt reflects the full faith and credit (FFC)⁵ of the state government, agency, or quasi independent commission or public authority are of interest, as is the federal tax exemption status of such debt. The state governments may limit their debt issuance by statute or constitutionally.⁶ Other important characteristics of state indebtedness are whether or not the debt has been insured by a third party, is secured by an ongoing revenue stream, is associated with a sinking fund for repayment of principal, the coupon rate and maturity structure.

Local indebtedness follows the pattern in the state, although the use of public authorities to circumvent state limitations on local debt may get more complicated.

2.3 Other Long Term Public Obligations

The financial position of a public sector depends not only on its guaranteed and non-guaranteed long-term indebtedness in relation to the resources available to amortize them, but also on other long-term obligations which are contractual and therefore obligatory. The most prominent other long-term obligation involves promises to pay retirement benefits in conjunction with collective bargaining agreements. Most state and local retirement systems continue to be *defined benefit* rather than defined contribution in nature, and typically rely on 3 years of average salary to measure the replacement target, and years of service times a parameter to determine the replacement rate. Other foreseeable long-term obligations include the payment of health benefits and worker's compensation for those permanently disabled.

Deferred maintenance of capital infrastructure is difficult to measure, but in the case of transportation infrastructure (bridges, roads) periodically addressed by the American Society of Civil Engineers on a state by state basis.

More difficult to measure but of widespread interest are capital needs to maintain a given level of environmental quality for drinking water, the air, and water supplies and streams more generally.

2.4 Financing Long-Term Public Long-Term Liabilities

We shall in our analysis of long-term liabilities calculate what the financing requirements of Pennsylvania's long-term obligations in relation to state-wide personal income, and in relation to the state-wide property tax base. The former may be interpreted to be the implicit personal income tax rate needed to amortize the various liabilities on a systematic basis, while the latter may be interpreted to be the state-wide real-estate tax rate needed to amortize various long-term liabilities.

⁵ The Governments Division distinguishes between FFC debt and what they characterize as non-guaranteed debt (NG).

⁶ See Section 3 below for a detailed discussion of Pennsylvania's constitutional and statutory limitations on debt issuance.

3.0 The Legal Framework for Debt Issuance by Pennsylvania’s State & Local Governments

3.1 Evolution of Pennsylvania’s Constitutional and Legal Limitations on State and Municipal Debt

Borrowing to support both operating and capital costs of government are as old as government itself, and as Webber and Wildavsky (p 242) remind us:

“...before states had access to the growing market for capital, whichever [national] government ran out of money first had to surrender. Without funds to pay its sailors and unable to borrow, England’s navy met defeat in the Anglo-Dutch War of 1667.”

The exorbitant exuberances of 19th century government-supported economic development activities (canals and railroads in particular) were followed by notable state and local government bankruptcies. State constitutional amendments were needed to restore investor confidence in the security of state bonds, and such amendments frequently isolated the states from their constitutional children’s borrowing in order to immunize state credit ratings.

Pennsylvania was relatively early among the original states to limit through its constitution overall state indebtedness. Prior to the Civil War, Pennsylvania limited state indebtedness to \$750,000, and in the 1857 amendment to its constitution (Section 5 and Section 6 of Article XI) prohibited the Commonwealth from taking on any private or municipal debts, except when local governmental instance of debt were locally incurred to stop a local insurrection:

“The Commonwealth shall not assume the debt, or any part thereof, of any county, city, borough, incorporated town, township or any similar general purpose unit of government unless such debt shall have been incurred to enable the Commonwealth to suppress insurrection or to assist the Commonwealth in the discharge of any portion of its present indebtedness. (Amendments of 1857; Section 5 of Article XI of Pennsylvania Constitution of 1838)

“The credit of the Commonwealth shall not be pledged or loaned to any individual, company, corporation or association nor shall the Commonwealth become a joint owner or stockholder in any company, corporation or association. (Amendments of 1857; Section 6 of Article XI of Pennsylvania Constitution of 1838)

Constitutional limitations on local debt issuance in relation to the assessed value of property arose in the Pennsylvania Constitution of 1874:

“The debt of any municipality, city, borough, township, school district or other municipality or incorporated district, except as herein provided, shall never exceed seven per centum upon the assessed value of the taxable property therein, nor shall any such municipality or district incur any new debt, or increase its indebtedness to an amount exceeding two per centum upon such assessed valuation of property, without the assent of the electors thereof at a public election, in such manner as shall be provided by law; but any city, the debt of which now exceeds seven per centum of such assessed valuation, may be authorized by law to increase the same three per centum, in the aggregate at any one time, upon such valuation.(Section 8 of Title IX of Pennsylvania Constitution of 1874).

On November, 1918, the above article was amended to permit Philadelphia to be under a 10% limitation and also enabled to issue 50 year debt as long as accompanied by a sinking fund mechanism. The method of measuring Philadelphia’s debt limitation was refined in constitutional amendments of 1920, and the debt limit raised to 13.5% in the constitutional amendment to Section 8, Article IX on November 6, 1951. The limit in the rate of growth in Philadelphia’s debt, previously 2%/year was increased to 3%/year.

The growth in municipal capital infrastructure projects in the early 1900’s led to important exceptions being granted in the calculation of municipal debt limitations. Section 15 was added on November 4, 1913 to Article IX of the Pennsylvania Constitution of 1874, and provided:

“No obligations which have been heretofore issued, or which may hereafter be issued, by any county or municipality, other than Philadelphia, to provide for the construction or acquisition of waterworks, subways, underground railways or street railways, or the appurtenances thereof, shall be considered as a debt of a municipality, within the meaning of section eight of article nine of the Constitution of Pennsylvania or of this amendment, if the net revenue derived from said property for a period of five years, either before or after the acquisition thereof, or, where the same is constructed by the county or municipality, after the completion thereof, shall have been sufficient to pay interest and sinking-fund charges during said period upon said obligations, or if the said obligations shall be secured by liens upon the respective properties, and shall impose no municipal liability.

As Pennsylvania continued to grow, and face various challenges it increased the state’s constitutional authority to borrow for budgetary purposes (\$25 million bonded indebtedness per year was constitutionally enabled in 1933 to fund budget deficits; \$500 million of bonded indebtedness was enabled in 1945 to compensate World War II veterans and their families; \$150 million of bonded indebtedness was enabled in 1967 to compensate Korean War veterans and their families; \$500 million of bonded indebtedness was also enabled in 1967 for water and reclamation projects.

Constitutional limitations on local indebtedness were replaced in the Constitution of 1968 through the delegation to the General Assembly of authority to impose such limitations *by law*; however, previous limitations based on the ratio of debt to assessed value of real property were replaced by limitations based on the ratio of debt to municipal *revenues*:

“Subject only to the restrictions imposed by this section, the General Assembly shall prescribe the debt limits of all units of local government including municipalities and school districts. For such purposes, the debt limit base shall be a percentage of the total revenue, as defined by the General Assembly, of the unit of local government computed over a specific period immediately preceding the year of borrowing. The debt limit to be prescribed in every such case shall exclude all indebtedness (1) for any project to the extent that it is self-liquidating or self-supporting or which has heretofore been defined as self- liquidating or self-supporting, or (2) which has been approved by referendum held in such manner as shall be provided by law. The provisions of this paragraph shall not apply to the City or County of Philadelphia. Any unit of local government, including municipalities and school districts, incurring any indebtedness, shall at or before the time of so doing adopt a covenant, which shall be binding upon it so long as any such indebtedness shall remain unpaid, to make payments out of its sinking fund or any other of its revenues or funds at such time and in such annual amounts specified in such covenant as shall be sufficient for the payment of the interest thereon and the principal thereof when due. (Section 10 of Article IX of the Constitution of 1968)

This was accomplished in 1972 and refined several times (1978, and 1996) in Pennsylvania’s *Unit Debt Act*.

3.2 Current Debt Limitation Law: Pennsylvania’s Unit Debt Act

Pennsylvania state law distinguishes between local debt that has been approved through referenda, *electoral debt*, and debt that has not been approved by direct voting, *non-electoral debt* and debt issued by local authorities, or so-called *lease-rental debt*. It should be remembered that in both instances, governing boards, either elected or appointed by the respective municipal government, must vote to issue such debt, and meet certain state imposed requirements. Electoral debt is free of state limitation, although the state is prohibited, as noted above, from taking on such liabilities of local government or its instrumentalities.

Debt limitations imposed by the Unit Debt Act are expressed as ratios of certain debt to certain kinds of revenues or borrowing base of a local government. The borrowing base is essentially a net revenue concept and is calculated by subtracting from all monies received by the local government intending to borrow the following items:

- Subsidies or reimbursements from the federal or state government by the cost or given on account of the particular project;
- Revenues, user charges etc. pledged to pay off the debt;

- Interest on sinking fund monies or reserves that are pledged to pay off the debt;
- Grants and gifts designed for the project; and,
- Non-recurring receipts such as bond proceeds and proceeds from sales of capital assets.

A three year moving average of the so-calculated base is then compared to outstanding and proposed debt, and compared to percentages which constitute the debt limit *per se*. Table 6 displays the percentage limits that the ratio of new debt to the three year moving average of net revenues must be less than in order for the local government or authority, in the case of lease-rental debt, to issue additional net debt:

**Table 6
Unit Debt Act Limitations on Local
Government Borrowing**

Type of Local Government	Type of Debt	
	Non-Electoral Debt	Lease-Rental Debt + Non-Electoral Debt
Philadelphia School District	100%	200%
Counties	300%	400%
1 st Class A - 4 th Class School Districts	225%	225%
Any other Local Government	250%	350%

3.3 Pennsylvania’s Statutory Provisions for Troubled Municipalities and School Districts

While state governments often isolate themselves from the indebtedness and bankruptcy risk of their constitutional creatures, that usually does *not* mean that the states are indifferent to the financial malfeasance of local governments and their instrumentalities. Especially in the case of public school districts, states intervene not only when districts are unable to meet their operating and capital obligations, but also now intervene, largely due to federal pressures, when academic progress or learning outcomes are inadequate.

Under the Pennsylvania School Code, 24 PS-691, the Secretary of Education may declare a school district “distressed” and appoint an administrator to take over and run the district, and request that a local court appoint 2 citizens from the district to constitute an oversight board. Precipitating conditions include: (1) failure to pay teacher salaries for 90 days, (2) default on bonds or interest on bonds or long-term leases for 90 days, (3) illegal borrowing, and (4) accumulated deficits equal to 2% or more of assessed value for 2 years or more. In the case of the Philadelphia school district, distressed status may be found if (1) a budget is not adopted or complied with, (2) if funds are not transferred from the Philadelphia City budget to ensure minimum instruction in the school year, or (3) if funds are not transferred from the Philadelphia City I compliance with the City budget.

Takeover of municipal finances is generally contemplated under Pennsylvania's Municipalities Financial Recovery Act of 1987. Act 47 sets forth 11 criteria, which if any is present, permits the Pennsylvania Department of Community and Economic Development to declare a municipality "distressed" and thereby appoint a "coordinator" and require the distressed municipality to obtain approval from the coordinator of subsequent budgets. Reasons for being deemed distress include default on principal or interest on bonds, failure to make payroll, accumulated deficits over 2 years of 5% or more of revenues, or a decline in the level of municipal services. Since Pennsylvania municipal tax law imposes statutory millage limits by class of municipality, municipalities with declining or stagnant tax bases accompanied by lack of fiscal discipline can find themselves under Act 47.⁷

In 1991 and in 2004, the Pennsylvania General Assembly enacted separate oversight legislation for respectively the City of Philadelphia, and the City of Pittsburgh. In both cases, the so-called Intergovernmental Cooperation Acts provided for oversight boards appointed by the General Assembly and Governor. Philadelphia was exempted from being under Act 47 and has been under receivership of its intergovernmental authority since 1991; Pittsburgh was not exempted under its intergovernmental cooperation legislation and has been subject to *two* oversight processes since 2004. In both instances the circumstances or triggers for oversight entail a finding of distress that reflect the above indicators of financial distress, e.g. chronic deficits, failure to pay interest or principal of bonds etc, by the Pennsylvania Department of Community and Economic Development. The oversight boards must approve proposed budgets, and may also provide relief from state public collective bargaining laws that require binding arbitration of final offers.

4.0 Measuring Pennsylvania's Financial Position, 1992-2003

4.1 Federal and Pennsylvania Data Sources and Governmental Demography

The Governments Division of the US Bureau of the Census is the federal data source on Pennsylvania's public sector indebtedness. The Division is primarily responsible for measuring in a consistent manner state and local finances, employment, and retirement systems. Every five years, the second and seventh year of each decade, the Division performs a Census of Governments that captures the financial and employment information of every state and its local governments (counties, municipalities, townships, school districts, and special districts and authorities. In other years, the Division measures the same information from a large sample of such jurisdictions. As Table 7 indicates, the number of jurisdictions sampled during non-Census years is on the order of 700 or 800, while about 5,000 jurisdictions are enumerated twice a decade.

In order to make consistent *aggregate* comparisons across time, we shall focus on Census of Governments years of 1992, 1997, and 2002.

⁷ While most aspects of being under Act 47 involve the diminution of local control, a distressed municipality may ask its coordinator to in turn request a local municipal judge impose a commuter tax at a rate which the municipality and its coordinator agree to. The judge is empowered only to decide in favor or against the commuter tax.

Table 7
Count of Pennsylvania Local
Governments in Governments Division
Data Base 1992-2003

Year	Counties	Municipalities	Townships and Boroughs	Special Districts and Authorities	School Districts	Total
1992	66	1022	1548	2006	516	5160
1993	40	63	60	310	256	731
1994	40	65	60	313	255	735
1995	40	65	60	307	253	727
1996	40	65	60	334	254	754
1997	66	1023	1546	1919	516	5071
1998	40	65	60	313	517	996
1999	40	65	60	305	516	987
2000	58	182	226	256	515	1238
2001	31	22	74	214	515	857
2002	61	893	1437	1183	515	4090
2003	31	21	71	166	514	804

Over the period 1992-2003, long-term indebtedness of the state and local sector grew by 85.7% while in Pennsylvania it grew by 69%; however, on a per-capita basis, total US state and local debt per-capita grew by 69% and Pennsylvania's state and local percapita debt grew by 64%.

4.1.2 State and Local Data Sources

Data on the unfunded liabilities of state retirement systems are available from the annual reports of the Pennsylvania Employees Retirement System while data on the unfunded liabilities of municipal retirement systems, which are not state funded, are in annual reports of the Public Employee Retirement Commission. The Commission was established by the Pennsylvania General Assembly in 1984 to monitor and assist municipal retirement plans, and additionally in 2002 to monitor and assist county retirement plans.

4.2 Measurement Results: Historical Aggregate Liabilities

We begin our analysis of Pennsylvania's public sector long-term liabilities by examining historical long-term indebtedness. Table 8 shows for the three census years the long term indebtedness by level and type of government. State long term debt has grown from \$12.2 billion to \$19.9 billion over the 11 year period 1992-2002, a 60.6% overall increase, or

4.4%/year. During this period, long-term state debt was about 25% of the state and local long-term debt total. Total local debt grew by 72%, or 5.05%/year.

Among local governments, school district debt grew the fastest, at 172% over the 11 year period or 9.5%/year. Special districts and authorities were the single largest component of local debt, and accounted for from 54.5% of total local long term debt in 1992 to 46.5% of total local long term debt in 2002. (See Table 8).

Up until 2003, the major state retirement plans had positive situations with respect to the balance between the present value of their assets and liabilities. Pennsylvania's Employees Retirement System, which is the teachers' retirement plan, had a positive balance of assets vs. liabilities until 2003. Most recently, it now has a deficiency or shortfall of proceeds to make the long-term plan be actuarially sound. In 2004, the present value of liabilities was \$5 billion greater than the present value of assets for the teacher retirement plan, and \$1 billion greater for the other state plan.⁸ If we add in the 2003 local unfunded accrued liabilities, then they total over \$10 billion, or about 13% of state long-term bonded indebtedness. Two years earlier the net financial position of the various plans was \$2 billion net positive. (See Table 9)

Each year the American Society of Civil Engineers estimates the value by state of deferred or delayed bridge maintenance. Their estimate for Pennsylvania in 2005 was \$2.3 billion in deferred road maintenance and \$8 billion for deferred bridge maintenance for 725 bridges. To turn these cost estimates into financing requirements requires that the useful lives of the two sorts of capital undertakings be known, and that appropriate bond finance with reasonable interest rates be also assumed. Table 10 indicates what the debt service requirements would be at 5% were the projects to begin in 2007.

⁸ There is a several year reporting lag for both state funds in the recognition of the material decline in equity values that accompanied the 2001 stock market collapse.

Table 8
Long-Term Debt of
Pennsylvania's Public Sector

State + Local	1992	%	1997	%	2002	%
State	\$12,448,794,000	26.4%	\$14,988,308,000	25.2%	\$19,988,693,000	25.1%
County	3,110,691,000	6.6%	4,033,643,000	9.1%	4,550,397,000	5.7%
Municipal	5,625,073,000	11.9%	5,735,719,000	12.9%	8,042,435,000	10.1%
Townships	481,328,000	1.0%	1,022,806,000	2.3%	1,430,651,000	1.8%
Special Districts and Authorities	18,898,573,000	40.1%	22,162,129,000	49.9%	27,768,043,000	34.9%
School Districts	6,555,305,000	13.9%	11,433,564,000	25.8%	17,871,039,000	22.4%
Total	\$47,119,764,000	100.0%	\$59,376,169,000	100.0%	\$79,651,258,000	100.0%
Local	1992	% Local	1997	% Local	2002	% Local
County	\$3,110,691,000	9.0%	\$4,033,643,000	6.8%	\$4,550,397,000	7.6%
Municipal	5,625,073,000	16.2%	5,735,719,000	9.7%	8,042,435,000	13.5%
Townships	481,328,000	1.4%	1,022,806,000	1.7%	1,430,651,000	2.4%
Special Districts and Authorities	18,898,573,000	54.5%	22,162,129,000	37.3%	27,768,043,000	46.5%
School Districts	6,555,305,000	18.9%	11,433,564,000	19.3%	17,871,039,000	30.0%
Total	\$34,670,970,000	100.0%	\$44,387,861,000	100.0%	\$59,662,565,000	100.0%

Tabulations of Governments Division Database.

Table 9
Other Accrued Long-Term Liabilities:
Pennsylvania State and Local Pension Plans
(\$millions)

Total Unfunded Accrued Liabilities (\$1,000s)*							
	State Pension Liabilities			Local Pension Liabilities			State and Local Total
	State Employee Retirement System	Pennsylvania Employees Retirement System	State Total	County	Municipal	TOTAL Local	
1992	-280,974	-4,501,424	-4,782,398				-4,782,398
1993	-846,877	-3,303,187	-4,150,064				-4,150,064
1994	-249,429	-3,796,758	-4,046,187	105,714		105,714	-3,940,473
1995	-443,104	-3,101,518	-3,544,622	105,714	3,807,986	3,913,700	369,078
1996	-904,453	-1,458,937	-2,363,390	38,075	3,807,986	3,846,061	1,482,671
1997	-1,276,723	1,663,150	386,427	38,075	3,655,585	3,693,660	4,080,087
1998	-2,312,812	3,832,794	1,519,982	38,075	3,655,585	3,693,660	5,213,642
1999	-4,532,427	-7,107,477	-11,639,904	38,075	3,655,585	3,693,660	-7,946,244
2000	-6,392,028	-9,470,215	-15,862,243	9,330	3,655,585	3,664,915	-12,197,328
2001	-3,846,737	-6,913,006	-10,759,743	9,330	2,043,626	2,052,956	-8,706,787
2002	-1,847,075	-2,499,857	-4,346,932	58,548	2,043,626	2,102,174	-2,244,758
2003	-1,285,854	1,543,310	257,456	58,548	3,831,393	3,889,941	4,147,397
2004	1,099,000	5,028,521	6,127,521	58,548	3,831,393	3,889,941	10,017,462

*Note: positive entries are accrued net liabilities, negative entries are accrued net surpluses. Local liabilities for 2004 are repetitions of 2003 liabilities.

Table 10
Annual Debt Service to Refurbish
Pennsylvania's Roads and Bridges*

Year	Road Refurbishment	Bridge Refurbishment	Total
2007	531,242,036	520,411,481	1,051,653,516
2008	531,242,036	520,411,481	1,051,653,516
2009	531,242,036	520,411,481	1,051,653,516
2010	531,242,036	520,411,481	1,051,653,516
2011	531,242,036	520,411,481	1,051,653,516
2012		520,411,481	520,411,481
2013		520,411,481	520,411,481
2014		520,411,481	520,411,481
2015		520,411,481	520,411,481
2016		520,411,481	520,411,481
2017		520,411,481	520,411,481
2018		520,411,481	520,411,481
2019		520,411,481	520,411,481
2020		520,411,481	520,411,481
2021		520,411,481	520,411,481
2022		520,411,481	520,411,481
2023		520,411,481	520,411,481
2024		520,411,481	520,411,481
2025		520,411,481	520,411,481
2026		520,411,481	520,411,481
2027		520,411,481	520,411,481
2028		520,411,481	520,411,481
2029		520,411,481	520,411,481
2030		520,411,481	520,411,481
2031		520,411,481	520,411,481
2032		520,411,481	520,411,481
2033		520,411,481	520,411,481
2034		520,411,481	520,411,481
2035		520,411,481	520,411,481
2036		520,411,481	520,411,481

*Assumes level payment for 5 and 30 years respectively to amortize \$2.3 and \$8.0 billion.

Table 11
Pennsylvania State and Local Total Debt Outstanding
Compared to Revenue, Expenditures and Real Estate Tax Bases

	Total State and Local Revenue	Total State and Local Revenue from own sources	Total State and Local General Revenue	Total State and Local General Revenue Own Sources	Total State and Local Expenditures	Market Value of All Local Property**	Assessed Value of All Local Property**
1992*	76.6%	106.0%	89.0%	131.2%	78.0%	NA	NA
1993	75.2%	103.1%	90.7%	134.6%	80.2%	NA	NA
1994	78.0%	107.8%	93.1%	138.7%	80.8%	NA	NA
1995	71.3%	99.6%	83.7%	125.7%	72.7%	NA	NA
1996	73.0%	100.8%	88.0%	132.0%	78.0%	13.8%	48.2%
1997*	71.8%	97.8%	90.2%	135.3%	81.7%	16.6%	48.4%
1998	71.4%	98.5%	87.4%	131.9%	79.3%	14.8%	27.8%
1999	78.0%	108.8%	93.5%	141.2%	83.4%	16.4%	30.5%
2000	78.3%	107.4%	94.9%	141.3%	85.1%	16.6%	28.9%
2001	89.0%	132.7%	93.5%	143.0%	81.9%	16.6%	23.0%
2002*	93.5%	142.3%	95.2%	146.3%	81.6%	17.3%	24.8%
2003	91.6%	141.1%	96.4%	152.9%	82.5%	16.7%	22.9%

*Note: Census of Governments Year

**Note: statewide totals of market and assessed values due to Pennsylvania State Tax Equalization Board

As noted earlier in Table 6, Pennsylvania through its constitution and the Unit Debt Act has limited local borrowing in relation to well-defined net revenues. Table 11 performs some initial calculations by dividing total state and local long term debt, as measured by the Governments Division by various measures of government revenues, expenditures⁹, and real estate tax bases. No distinction is made between non-electoral debt by the Governments Division, and the indicated ratios in relation to revenues are well within the 225% to 300% local Unit Debt Act limits. On the other hand, had Pennsylvania continued to restrict borrowing in relation to measures of the real estate tax base, then it is obvious that limitations would have been reached.

Table 12 performs the same ratio analysis but just for total local long-term debt in relation to total local budgetary and real estate tax base measures. Since long term debt of local governments and authorities are included, this more focused analysis should be compared to the limitations that range from 200% for Philadelphia to 400% for counties. The ratio analysis shows that when total debt of local governments is compared to total own source

⁹ The various budgetary measures are due to the Governments Division.

revenues, which would include some items that properly should be subtracted, aggregate debt limits appear to be getting much closer to being triggered. Further, if assessed value were still the debt limit base, at 10 or 13%, it is clear that statewide local indebtedness would have been severely limited.

Table 12
Pennsylvania's Total Local Debt
Compared to Various Local Budget and Tax Base Measures

	Total Local Revenue	Total Local Revenue from own sources	Total State Local General Revenue	Total Local General Revenue Own Sources	Total Local Expenditures	Market Value of All Local Property**	Assessed Value of All Local Property**
1992*	134.9%	210.6%	145.4%	237.3%	130.9%		
1993	146.1%	231.3%	163.5%	278.2%	147.7%		
1994	150.9%	241.4%	165.6%	281.3%	149.0%		
1995	133.8%	217.4%	145.1%	248.7%	135.3%		
1996	138.8%	225.6%	152.6%	264.6%	140.0%	9.6%	33.4%
1997*	130.7%	208.9%	142.7%	241.1%	130.9%	12.3%	36.0%
1998	130.0%	215.4%	143.5%	255.1%	131.0%	10.5%	19.7%
1999	143.0%	237.3%	157.0%	278.4%	143.2%	11.8%	22.1%
2000	148.3%	244.5%	161.1%	281.3%	149.7%	12.1%	21.1%
2001	152.0%	254.5%	162.4%	285.0%	146.2%	12.1%	16.8%
2002*	148.6%	245.7%	156.2%	267.1%	136.4%	12.8%	18.4%
2003	146.9%	256.5%	154.4%	280.4%	141.0%	11.6%	15.9%

*Note: Census of Governments Year

**Note: statewide totals of market and assessed values due to Pennsylvania State Tax Equalization Board

4.3 Some Troubled Pennsylvania Local Governments

Our review of the indebtedness of Pennsylvania's local governments leads us to examine more closely municipalities which in conjunction with their overlapping school districts and public authorities have high per-capita long-term debt, and whose debt has been growing rapidly. In some instances, total overlapping debt has been relatively constant in per-capita terms; Allentown's per-capita debt was \$1,930 in 1992 and \$1,970. In 2002. Bethlehem, near Allentown, increased its overlapping debt per-capita by factor of 5 from \$1,044 in 1992 to \$5,187 in 2002. Erie's overlapping debt per-capita rose from \$741 to \$3,592. Among the municipalities reviewed in detail, Harrisburg, the state capitol, had the highest over-lapping debt per-capita: it was \$16,153 in 1992, and \$14, 456 in 2002.

Philadelphia's overlapping debt per-capita rose from \$4,667 in 1992 to \$7,923 in 2002 while Pittsburgh's overlapping debt jumped from \$3,282 in 1992 to \$6,095 in 2002.

Table 13
Major Pennsylvania Municipalities and their Overlapping Long-Term Debt
Sum of Municipal, School and Authorities Debt

Municipality	Year	Population	Full Faith and Credit	Non-Guaranteed Debt	Total Debt Per Capita
ALLENTOWN	1992	105,090	\$34,285,000	\$168,521,000	\$1,930
	1997	102,211	\$121,053,000	\$156,739,000	\$2,718
	2002	106,632	\$122,663,000	\$87,443,000	\$1,970
ALTOONA	1992	51,881	\$15,865,000	\$24,773,000	\$783
	1997	50,101	\$49,494,000	\$76,313,000	\$2,511
BETHLEHEM	1992	71,428	\$57,155,000	\$17,392,000	\$1,044
	1997	70,245	\$274,751,000	\$126,785,000	\$5,716
	2002	71,329	\$211,994,000	\$157,972,000	\$5,187
CARBONDALE	1992	10,664	\$255,000	\$0	\$24
	1997	9,953	\$8,095,000	\$40,000	\$817
COATESVILLE	1992	11,038	\$45,685,000	\$30,082,000	\$6,864
	1997	10,827	\$101,123,000	\$19,945,000	\$11,182
	2002	10,838	\$104,183,000	\$0	\$9,613
ERIE	1992	108,718	\$42,735,000	\$37,859,000	\$741
	1997	105,270	\$115,761,000	\$138,423,000	\$2,415
	2002	103,717	\$222,839,000	\$149,586,000	\$3,591
HARRISBURG	1992	52,376	\$60,387,000	\$785,639,000	\$16,153
	1997	50,886	\$193,086,000	\$224,437,000	\$8,205
	2002	48,950	\$277,391,000	\$430,212,000	\$14,456
JOHNSTOWN	1992	28,134	\$2,760,000	\$8,844,000	\$412
	1997	26,149	\$15,296,000	\$30,086,000	\$1,736
	2002	23,906	\$7,557,000	\$0	\$316
LANCASTER	1992	55,551	\$8,250,000	\$87,603,000	\$1,725
	1997	53,597	\$23,831,000	\$108,250,000	\$2,464
	2002	56,348	\$158,412,000	\$0	\$2,811
LEBANON	1992	24,800	\$1,470,000	\$13,550,000	\$606
	1997	23,791	\$1,490,000	\$18,395,000	\$836
MCKEESPORT	1992	26,016	\$2,720,000	\$19,920,000	\$870
	1997	23,343	\$60,656,000	\$24,023,000	\$3,628
	2002	24,040	\$109,448,000	\$6,743,000	\$4,833
NEW CASTLE	1992	28,334	\$20,038,000	\$32,289,000	\$1,847
	1997	26,845	\$12,822,000	\$35,671,000	\$1,806
NEW KENSINGTON	1992	15,894	\$2,060,000	\$0	\$130
	1997	15,233	\$4,522,000	\$12,933,000	\$1,146
	2002	14,701	\$820,000	\$28,000	\$58
PHILADELPHIA	1992	1,585,577	\$2,045,418,000	\$5,353,800,000	\$4,667

Municipality	Year	Population	Full Faith and Credit	Non-Guaranteed Debt	Total Debt Per Capita
	1997	1,478,002	\$1,615,830,000	\$5,643,852,000	\$4,912
	2002	1,517,550	\$2,840,666,000	\$9,183,245,000	\$7,923
PITTSBURGH	1992	369,879	\$566,643,000	\$647,142,000	\$3,282
	1997	350,363	\$782,290,000	\$782,714,000	\$4,467
	2002	334,563	\$1,209,391,000	\$829,628,000	\$6,095
READING	1992	78,380	\$126,341,000	\$54,301,000	\$2,305
	1997	75,723	\$136,280,000	\$83,654,000	\$2,904
	2002	81,207	\$256,133,000	\$66,615,000	\$3,974
SCRANTON	1992	81,805	\$18,737,000	\$34,069,000	\$646
	1997	77,189	\$23,896,000	\$32,878,000	\$736
	2002	76,415	\$104,633,000	\$8,265,000	\$1,477
SHARON	1992	17,493	\$4,281,000	\$32,852,000	\$2,123
	1997	16,766	\$11,478,000	\$31,363,000	\$2,555
	2002	16,328	\$40,261,000	\$33,955,000	\$4,545
WILKES BARRE	1992	47,523	\$12,790,000	\$26,750,000	\$832
	1997	44,407	\$30,511,000	\$13,309,000	\$987
YORK	1992	42,192	\$39,169,000	\$59,911,000	\$2,348
	1997	40,779	\$71,961,000	\$37,508,000	\$2,684

4.4 Philadelphia and Pittsburgh in More Detail

In 1991 the short-term bond market refused to lend further to the City of Philadelphia which in turn precipitated a financial crisis. The Pennsylvania General Assembly passed the Intergovernmental Cooperation Act that applied just to Philadelphia, and an oversight board installed with the responsibility to oversee the City (but not the School District or related public authorities) Budget. In 2004, debt service for Pittsburgh was projected to be 23% of operating expenses; this figure is better than twice that recommended by the Municipal Finance Officers of American, and higher than New York City experienced during its “debt service moratorium” in the 1970s.

4.4.1 Philadelphia

Table 14 displays the components to the City of Philadelphia, and the long-term debt outstanding as collected and reported by the Governments Division of the Census Bureau. We have included in these calculations indebtedness of the Philadelphia Hospital Authority but not the Philadelphia Airport. We estimate that the total overlapping long term debt outstanding for Philadelphia in 2003 was \$13.2 billion, or \$8,831 in per-capita terms. Note that it has steadily increased even though it has been in receivership, and that it has been

rising most quickly in the areas of Economic Development and in the Philadelphia public schools.

Table 14
Philadelphia's Overlapping Debt
(\$millions)

	City Government (\$Millions)	Parking Authority (\$Millions)	Other Authorities (\$Millions)	Hospital Authority (\$Millions)	Economic Development (\$Millions)	School District (\$Millions)	Total (\$Millions)	Per-Capita Debt
1992	\$3,739	\$103	\$224	\$1,106	\$1,222	\$860	\$7,254	\$4,575
1993	\$3,781	\$101	\$224	\$1,517	\$1,129	\$832	\$7,584	\$4,783
1994	\$3,673	\$99	\$431	\$1,528	\$1,055	\$967	\$7,753	\$5,087
1995	\$3,590	\$96	\$0	\$1,420	\$961	\$721	\$6,788	\$4,453
1996	\$3,515	\$93	\$434	\$1,494	\$867	\$860	\$7,264	\$4,915
1997	\$3,423	\$96	\$224	\$1,522	\$857	\$937	\$7,059	\$4,776
1998	\$3,961	\$94	\$411	\$1,445	\$915	\$943	\$7,769	\$5,256
1999	\$4,783	\$144	\$385	\$1,516	\$1,397	\$1,058	\$9,283	\$6,463
2000	\$4,435	\$354	\$362	\$1,487	\$2,700	\$1,152	\$10,489	\$6,912
2001	\$4,673	\$424	\$335	\$1,466	\$2,834	\$1,293	\$11,024	\$7,264
2002	\$5,158	\$424*	\$19	\$1,473	\$3,284	\$2,030	\$12,386	\$8,162
2003	\$5,469	\$424*	\$19*	\$1,857	\$3,302	\$2,108	\$13,179	\$8,831

*Estimate based on prior year.

4.4.2 Pittsburgh

The indebtedness situation in Pittsburgh is complicated by a complex public authority structure¹⁰ as well as the responsibility that Pittsburgh residents have for various county indebtedness in support of two professional sports stadiums through the joint City-County Sports and Exhibition Authority, and the Allegheny County Airport whose debt is now the responsibility of the Airport Authority. Allegheny County also has a hospital authority with several billions of outstanding long-term indebtedness, as well as a new convention center that is currently losing \$20 million/year. If one adds up outstanding City long-term debt, its unfunded pension liabilities, the debt of the Pittsburgh Public schools, and the city's proportionate share of county debt, long-term debt per-capita can reach \$12,000 in 2004.

While most attention has been focused on Pittsburgh's near bankruptcy, the financial position of the Pittsburgh Public Schools has deteriorated materially in 2006, and is expected to worsen in 2007 when it will be facing a \$20 million deficit.

5.0 Pennsylvania's Foreseeable Financial Future

We now turn to examine what the future holds for Pennsylvania's public sector. Given commitments made in the past, what will debt service burdens look like over the next quarter century? What will the implied tax rates be needed to pay off this debt?

¹⁰ Pittsburgh has an: Parking Authority, Urban Redevelopment Authority, Water and Sewer Authority, a Stadium Authority (for 3 Rivers Stadium), a Housing Authority, a joint Sports and Exhibition Authority, and an Equipment Leasing Authority. Allegheny County has an Airport Authority, and a Hospital Authority.

5.1 General Considerations and Assumptions

Unfortunately, no long-run growth model of the Pennsylvania economy is available to develop measures of either income or real estate tax base. The median growth rate over the past decade was 3.8%, and is used as a first approximation of what will be available to ultimately pay for debt service. Since we do not readily know how much of the debt we open our analysis with in 2004 is self-liquidating, the following calculations must be viewed as very preliminary. The second strong assumption we make at the outset of this analysis, which will be revised upon further analysis, is that the total state and local long-term debt of \$79 billion outstanding is what needs to be amortized. Sinking funds exist that make this figure considerably smaller; however, in the interests of performing a first analysis, we shall presume that the \$79 billion needs to be amortized on a level basis for 25 years at 5%.

The actuaries of the two state pension plans report contribution schedules going out beyond 25 years, and we shall use their analysis in arriving at the annual pattern of total debt service. Unfortunately, the municipal plans do not report in the aggregate a similar contribution schedule, and we shall assume that the unfunded liability is amortized on a level basis over 25 years at 5%. It should be noted that the two state pension funds are quite optimistic in assuming a 8.5% annual rate of return.

5.2. Results: Paying for the Next 25 Years

Our first calculations of debt service requirements for Pennsylvania's state and local sector are contained in Table 15. Paying off the opening debt of \$79 billion over 25 years requires about \$6 billion/year in interest and principal, while the actuarial projections for the two large state pension plans (PSERS and SERS) begin modestly at \$.855 in 2005 and then grow rapidly. By 2010 the pension plans require \$2 billion/year, and by 2012 (6 years from now), require \$5.4 billion/year, or almost as much annual funding as that needed to pay off the bonded indebtedness.

The implied tax rate on BEA personal income ranges from 1.7% in 2006 to 1.8% in the following 2 years. In 2013, largely because of anticipated increases in pension contributions, the implied tax rate jumps to 2.1% and then declines to 2.0% in 2014. Of course, less optimistic assumptions about economic growth could easily increase this implied tax rate. Currently, Pennsylvania's state income tax rate is 3.08%, and most municipalities and school districts levy a 1% combined local earned income tax rate. Thus, the implied tax rate in Table 15 is not small.

Table 15
Debt Service Projections
(\$ millions)

Year	Amortization Of State and Local Debt	PSERS and SERS - actuarial projections	Pension - Municipal and County Amortization	Total State and Local Debt Service	Ratio of Debt Service to Personal Income
2005	6,072.7	855.0	295.5	7,223.2	1.7%
2006	6,072.7	1,394.0	295.5	7,762.2	1.7%
2007	6,072.7	1,711.0	295.5	8,079.2	1.8%
2008	6,072.7	1,881.0	295.5	8,249.2	1.8%
2009	6,072.7	1,969.0	295.5	8,337.2	1.7%
2010	6,072.7	2,036.0	295.5	8,404.2	1.7%
2011	6,072.7	3,093.0	295.5	9,461.2	1.6%
2012	6,072.7	5,378.0	295.5	11,746.2	1.8%
2013	6,072.7	5,286.0	295.5	11,654.2	2.1%
2014	6,072.7	5,196.0	295.5	11,564.2	2.0%
2015	6,072.7	5,249.0	295.5	11,617.2	1.9%
2016	6,072.7	5,306.0	295.5	11,674.2	1.9%
2017	6,072.7	5,370.0	295.5	11,738.2	1.8%
2018	6,072.7	5,433.0	295.5	11,801.2	1.8%
2019	6,072.7	5,506.0	295.5	11,874.2	1.7%
2020	6,072.7	5,583.0	295.5	11,951.2	1.7%
2021	6,072.7	5,662.0	295.5	12,030.2	1.6%
2022	6,072.7	5,744.0	295.5	12,112.2	1.6%
2023	6,072.7	5,830.0	295.5	12,198.2	1.5%
2024	6,072.7	5,922.0	295.5	12,290.2	1.5%
2025	6,072.7	6,016.0	295.5	12,384.2	1.4%
2026	6,072.7	6,114.0	295.5	12,482.2	1.4%
2027	6,072.7	6,217.0	295.5	12,585.2	1.3%
2028	6,072.7	6,324.0	295.5	12,692.2	1.3%
2029	6,072.7	6,429.0	295.5	12,797.2	1.2%
2030	6,072.7	6,544.0	295.5	12,912.2	1.2%

6.0 Summary and Future Research

The purpose of this paper has been to measure the long-term financial position of Pennsylvania's state and local public sector, and to make projections. At the conceptual level, these long-term obligations or liabilities are composed of bonded indebtedness of state government, local governments and their instrumentalities. To these must be added other liabilities which are of the same character: pension and health care commitments that reflect collective bargaining decisions and the defined benefit plans that characterize state and local government, deferred maintenance of the capital stock, and constitutional promises about maintenance of human capital (education), and statutory promises about maintaining the physical environment.

As a practical matter, measuring all these promises, both historically and projecting into the future is beyond the scope of one paper. In Pennsylvania, measurement is complicated by the plethora of local governments, and the practice of relying on public authorities for about ½ of local long-term capital commitments. This not only impedes scholarly measurement, but also public transparency.

Historically, Pennsylvania has limited state exposure to the risks of local indebtedness except to defray the costs of putting down local insurrections. Otherwise, local governments are on their own. That said, over the past decade, state long-term debt, including that of various state authorities as been about 25% of total state and local long-term debt that is measured by the Governments Division of the Census Bureau.

Local long-term debt has been a rather high percentage of locally assessed real estate, ranging from 36% in 1997 to 18.4% in 2003. When compared to equalized market value, local long term debt has ranged from 12.3% in 1997 to 12.8% in 2003. Had earlier debt limits based on the assessed value of the real estate tax base been put in place, which ranged from 10 to 13%, it is clear that such levels of indebtedness would not be sustainable.

Investigation of overlapping per-capita long-term indebtedness of municipalities in Pennsylvania indicates that there is widespread variation. Philadelphia and Pittsburgh, both under receivership have per-capita overlapping debt of respectively \$8,831 and \$12,000. Harrisburg's overlapping per-capita debt has been as high as \$16,000, and that does not include calculations for the accrued net liabilities of its local pension plans.

In 2005, total state and local debt service, including amortization of unfunded pension liabilities, was 1.7% of BEA personal income, and is projected to remain at that level of implied tax rate for several years. By 2013, however, it jumps to 2.1%, a 23% increase, largely because of the adverse position of the two largest state pension plans. Taxpayers will largely be surprised by this necessary adjustment in contributions, and likely there will be active political discussion of the sort of local taxes (real estate and or income) that will be increased.

The analysis reported should be viewed as preliminary but indicative, and much work remains to refine the indebtedness calculations, taking into account extant sinking fund assets, and the fees routinely used to amortize existing debt. Since the quality of our life depends on the condition of our public infrastructure and the efficacy of ongoing commitments to human capital and the environment, further effort is required to measure these resource needs.

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Appendix 1: List of Pennsylvania Authorities

Three largest authorities:

Higher Educational Facilities Authority

Pennsylvania Turnpike Commission

State Public School Building Authority

Automobile Theft Prevention Authority

Ben Franklin Technology Development Authority

Commonwealth Mental Health Research Foundation

Delaware River Bridge and Tunnel Commission

Delaware River Joint Bridge Commission of Pennsylvania and New York

Department of transportation districts

Flood control districts

Health districts

Insurance Fraud Prevention Authority

Parking authorities in first-class cities

Patient Safety Authority

Pennsylvania Civil Disorder Authority

Pennsylvania Economic Development Financing Authority

Pennsylvania Energy Development Authority

Pennsylvania Higher Education Assistance Agency

Pennsylvania Infrastructure Investment Authority

Pennsylvania Minority Business Development Authority

Pennsylvania Nursing Home Loan Agency

Pennsylvania Parent Assistance Authority

Pennsylvania Public Television Network Commission

Pocono Mountain Memorial Parkway Commission

Underground Storage Tank Indemnification Board

Appendix 2

Per-capita Debt of County Governments

Primary Government

NAME	YEAR	POPULATION	FFC	NG	debt per capita
ALLEGHENY	1992	1,336,449	\$651,434,000	\$626,547,000	\$956
	1997	1,296,037	\$611,515,000	\$818,060,000	\$1,103
	2002	1,281,666	\$602,219,000	\$772,940,000	\$1,073
ARMSTRONG	1992	73,478	\$3,090,000	\$0	\$42
	1997	73,872	\$11,010,000	\$0	\$149
	2002	72,392	\$0	\$0	
BEAVER	1992	186,093	\$17,868,000	\$0	\$96
	1997	187,009	\$80,081,000	\$0	\$428
	2002	181,412	\$80,180,000	\$0	\$442
BERKS	1992	336,523	\$130,749,000	\$0	\$389
	1997	352,353	\$195,503,000	\$0	\$555
	2002	373,638	\$225,147,000	\$0	\$603
BLAIR	1992	130,542	\$7,500,000	\$0	\$57
	1997	131,450	\$5,403,000	\$0	\$41
	2002	129,144	\$18,300,000	\$0	\$142
BRADFORD	1992	60,967	\$8,860,000	\$0	\$145
	1997	62,352	\$0	\$6,920,000	\$111
	2002	62,761	\$0	\$4,870,000	\$78
BUCKS	1992	541,174	\$118,588,000	\$3,975,000	\$226
	1997	578,715	\$105,840,000	\$0	\$183
	2002	597,635	\$120,960,000	\$0	\$202
BUTLER	1992	152,013	\$23,160,000	\$0	\$152
	1997	167,732	\$25,237,000	\$0	\$150
	2002	174,083	\$20,898,000	\$0	\$120
CAMBRIA	1992	163,029	\$13,090,000	\$0	\$80
	1997	158,500	\$41,107,000	\$0	\$259
	2002	152,598	\$55,017,000	\$0	\$361
CARBON	1992	56,846	\$0	\$0	
	1997	58,783	\$17,340,000	\$0	\$295
	2002	58,802	\$16,540,000	\$0	\$281
CENTRE	1992	123,786	\$0	\$4,450,000	\$36
	1997	131,489	\$27,390,000	\$0	\$208
CHESTER	1992	376,396	\$49,870,000	\$0	\$132
	1997	410,744	\$133,618,000	\$0	\$325
	2002	433,501	\$201,998,000	\$0	\$466
CLEARFIELD	1992	78,097	\$1,415,000	\$0	\$18
	1997	79,640	\$3,018,000	\$0	\$38
	2002	83,382	\$1,228,000	\$0	\$15
CRAWFORD	1992	86,169	\$0	\$5,940,000	\$69
	1997	89,175	\$13,929,000	\$0	\$156
	2002	90,366	\$11,468,000	\$0	\$127

NAME	YEAR	POPULATION	FFC	NG	debt per capita
CUMBERLAND	1992	195,257	\$14,390,000	\$0	\$74
	1997	207,042	\$24,201,000	\$0	\$117
	2002	213,674	\$35,615,000	\$0	\$167
DAUPHIN	1992	237,813	\$48,790,000	\$0	\$205
	1997	246,807	\$54,936,000	\$0	\$223
	2002	251,798	\$107,682,000	\$0	\$428
DELAWARE	1992	547,651	\$135,548,000	\$0	\$248
	1997	547,592	\$234,561,000	\$0	\$428
	2002	550,864	\$325,270,000	\$0	\$590
ERIE	1992	275,572	\$38,840,000	\$0	\$141
	1997	280,570	\$37,820,000	\$0	\$135
	2002	280,843	\$0	\$32,064,000	\$114
FAYETTE	1992	145,351	\$0	\$0	
	1997	145,628	\$0	\$0	
	2002	148,644	\$11,715,000	\$0	\$79
FRANKLIN	1992	121,082	\$0	\$0	
	1997	127,035	\$4,760,000	\$0	\$37
	2002	129,313	\$5,180,000	\$0	\$40
HUNTINGDON	1992	44,164	\$415,000	\$0	\$9
	1997	44,977	\$130,000	\$0	\$3
LACKAWANNA	1992	219,039	\$29,199,000	\$0	\$133
	1997	213,323	\$52,955,000	\$0	\$248
	2002	213,295	\$105,451,000	\$0	\$494
LANCASTER	1992	422,822	\$41,290,000	\$0	\$98
	1997	450,834	\$53,878,000	\$0	\$120
	2002	470,658	\$0	\$122,326,000	\$260
LAWRENCE	1992	96,246	\$4,835,000	\$0	\$50
	1997	95,780	\$14,940,000	\$0	\$156
LEBANON	1992	113,744	\$0	\$6,341,000	\$56
	1997	117,179	\$5,257,000	\$0	\$45
	2002	120,327	\$10,852,000	\$0	\$90
LEHIGH	1992	291,130	\$76,635,000	\$0	\$263
	1997	297,802	\$139,956,000	\$0	\$470
	2002	312,090	\$133,666,000	\$0	\$428
LUZERNE	1992	328,149	\$23,845,000	\$0	\$73
	1997	321,309	\$70,628,000	\$0	\$220
	2002	319,250	\$75,415,000	\$11,140,000	\$271
LYCOMING	1992	118,710	\$18,180,000	\$0	\$153
	1997	119,083	\$17,110,000	\$0	\$144
	2002	120,044	\$0	\$34,705,000	\$289
MCKEAN	1992	47,131	\$1,959,000	\$0	\$42
	1997	48,156	\$2,103,000	\$0	\$44
MERCER	1992	121,003	\$0	\$2,547,000	\$21
	1997	122,155	\$6,062,000	\$0	\$50
	2002	120,293	\$34,524,000	\$0	\$287

NAME	YEAR	POPULATION	FFC	NG	debt per capita
MONTGOMERY	1992	678,111	\$70,985,000	\$690,546,000	\$1,123
	1997	708,782	\$141,788,000	\$638,350,000	\$1,101
	2002	750,097	\$213,858,000	\$497,734,000	\$949
NORTHAMPTON	1992	247,105	\$10,895,000	\$0	\$44
	1997	257,719	\$22,754,000	\$0	\$88
	2002	267,066	\$140,500,000	\$0	\$526
NORTHUMBERLAND	1992	96,771	\$0	\$0	
	1997	95,897	\$8,580,000	\$0	\$89
	2002	94,556	\$27,410,000	\$0	\$290
SCHUYLKILL	1992	152,585	\$16,590,000	\$0	\$109
	1997	152,630	\$20,119,000	\$0	\$132
	2002	150,336	\$29,430,000	\$0	\$196
SUSQUEHANNA	1992	40,380	\$4,250,000	\$0	\$105
	1997	42,002	\$7,085,000	\$0	\$169
	2002	42,238	\$0	\$6,065,000	\$144
UNION	1992	36,176	\$0	\$0	
	1997	40,826	\$0	\$0	
	2002	41,624	\$0	\$0	
VENANGO	1992	59,381	\$4,995,000	\$0	\$84
	1997	58,820	\$15,275,000	\$0	\$260
	2002	57,565	\$13,148,000	\$0	\$228
WASHINGTON	1992	204,584	\$10,343,000	\$0	\$51
	1997	206,708	\$6,571,000	\$0	\$32
	2002	202,897	\$13,035,000	\$0	\$64
WESTMORELAND	1992	370,321	\$73,052,000	\$0	\$197
	1997	376,297	\$153,465,000	\$0	\$408
	2002	369,993	\$170,340,000	\$0	\$460
YORK	1992	339,574	\$34,150,000	\$0	\$101
	1997	368,332	\$31,335,000	\$0	\$85
	2002	381,751	\$95,870,000	\$0	\$251

Appendix 3
Overlapping Per-capita Debt – County Government, authorities, education

NAME	YEAR	POPULATION	FFC	NG	debt per capita
ALLEGHENY	1992	1,336,449	\$651,434,000	\$2,377,118,000	\$2,266
	1997	1,296,037	\$651,291,000	\$2,506,371,000	\$2,436
	2002	1,281,666	\$602,725,000	\$5,652,419,000	\$4,880
ARMSTRONG	1992	73,478	\$3,090,000	\$29,969,000	\$450
	1997	73,872	\$11,010,000	\$17,590,000	\$387
	2002	72,392	\$0	\$65,862,000	\$910
BEAVER	1992	186,093	\$17,868,000	\$590,019,000	\$3,267
	1997	187,009	\$80,081,000	\$212,861,000	\$1,566
	2002	181,412	\$80,180,000	\$494,556,000	\$3,168
BERKS	1992	336,523	\$130,749,000	\$544,815,000	\$2,007
	1997	352,353	\$195,503,000	\$373,919,000	\$1,616
	2002	373,638	\$240,606,000	\$496,938,000	\$1,974
BLAIR	1992	130,542	\$7,500,000	\$88,767,000	\$737
	1997	131,450	\$5,462,000	\$70,110,000	\$575
	2002	129,144	\$18,777,000	\$41,163,000	\$464
BRADFORD	1992	60,967	\$8,860,000	\$15,432,000	\$398
	1997	62,352	\$0	\$21,427,000	\$344
	2002	62,761	\$0	\$46,394,000	\$739
BUCKS	1992	541,174	\$118,588,000	\$222,780,000	\$631
	1997	578,715	\$106,869,000	\$316,226,000	\$731
	2002	597,635	\$123,489,000	\$317,234,000	\$737
BUTLER	1992	152,013	\$23,440,000	\$126,408,000	\$986
	1997	167,732	\$25,442,000	\$277,644,000	\$1,807
	2002	174,083	\$20,898,000	\$262,942,000	\$1,630
CAMBRIA	1992	163,029	\$13,090,000	\$195,150,000	\$1,277
	1997	158,500	\$41,107,000	\$541,424,000	\$3,675
	2002	152,598	\$55,017,000	\$241,457,000	\$1,943
CARBON	1992	56,846	\$161,000	\$17,043,000	\$303
	1997	58,783	\$20,161,000	\$918,000	\$359
	2002	58,802	\$26,540,000	\$23,363,000	\$849
CENTRE	1992	123,786	\$0	\$13,853,000	\$112
	1997	131,489	\$29,893,000	\$16,041,000	\$349
CHESTER	1992	376,396	\$49,870,000	\$620,245,000	\$1,780
	1997	410,744	\$133,631,000	\$406,616,000	\$1,315
	2002	433,501	\$213,799,000	\$382,770,000	\$1,376
CLEARFIELD	1992	78,097	\$1,415,000	\$940,000	\$30
	1997	79,640	\$3,018,000	\$0	\$38
	2002	83,382	\$1,228,000	\$0	\$15
CRAWFORD	1992	86,169	\$0	\$16,552,000	\$192
	1997	89,175	\$14,242,000	\$0	\$160
	2002	90,366	\$11,468,000	\$0	\$127
CUMBERLAND	1992	195,257	\$14,390,000	\$74,560,000	\$456

NAME	YEAR	POPULATION	FFC	NG	debt per capita
	1997	207,042	\$24,201,000	\$39,886,000	\$310
	2002	213,674	\$35,785,000	\$22,864,000	\$274
DAUPHIN	1992	237,813	\$48,790,000	\$481,163,000	\$2,228
	1997	246,807	\$57,572,000	\$347,285,000	\$1,640
	2002	251,798	\$107,682,000	\$867,191,000	\$3,872
DELAWARE	1992	547,651	\$135,548,000	\$1,058,698,000	\$2,181
	1997	547,592	\$234,561,000	\$1,335,486,000	\$2,867
	2002	550,864	\$325,270,000	\$1,486,813,000	\$3,290
ERIE	1992	275,572	\$38,840,000	\$233,541,000	\$988
	1997	280,570	\$38,194,000	\$205,062,000	\$867
	2002	280,843	\$0	\$303,100,000	\$1,079
FAYETTE	1992	145,351	\$0	\$2,110,000	\$15
	1997	145,628	\$0	\$2,819,000	\$19
	2002	148,644	\$11,715,000	\$0	\$79
FRANKLIN	1992	121,082	\$0	\$35,231,000	\$291
	1997	127,035	\$4,760,000	\$44,733,000	\$390
	2002	129,313	\$5,180,000	\$29,203,000	\$266
HUNTINGDON	1992	44,164	\$4,498,000	\$0	\$102
	1997	44,977	\$875,000	\$2,670,000	\$79
LACKAWANNA	1992	219,039	\$29,199,000	\$25,006,000	\$247
	1997	213,323	\$67,425,000	\$8,666,000	\$357
	2002	213,295	\$114,832,000	\$0	\$538
LANCASTER	1992	422,822	\$41,290,000	\$371,006,000	\$975
	1997	450,834	\$53,878,000	\$389,452,000	\$983
	2002	470,658	\$0	\$664,551,000	\$1,412
LAWRENCE	1992	96,246	\$4,835,000	\$34,357,000	\$407
	1997	95,780	\$14,940,000	\$10,594,000	\$267
LEBANON	1992	113,744	\$0	\$54,539,000	\$479
	1997	117,179	\$5,257,000	\$75,405,000	\$688
	2002	120,327	\$10,852,000	\$99,774,000	\$919
LEHIGH	1992	291,130	\$82,690,000	\$552,418,000	\$2,182
	1997	297,802	\$139,956,000	\$606,529,000	\$2,507
	2002	312,090	\$135,006,000	\$592,631,000	\$2,331
LUZERNE	1992	328,149	\$23,845,000	\$32,855,000	\$173
	1997	321,309	\$94,733,000	\$52,959,000	\$460
	2002	319,250	\$75,415,000	\$30,097,000	\$330
LYCOMING	1992	118,710	\$18,517,000	\$139,322,000	\$1,330
	1997	119,083	\$17,110,000	\$167,243,000	\$1,548
	2002	120,044	\$0	\$243,977,000	\$2,032
MCKEAN	1992	47,131	\$1,959,000	\$22,713,000	\$523
	1997	48,156	\$3,906,000	\$37,497,000	\$860
MERCER	1992	121,003	\$0	\$14,443,000	\$119
	1997	122,155	\$6,062,000	\$7,076,000	\$108
	2002	120,293	\$34,586,000	\$0	\$288
MONTGOMERY	1992	678,111	\$70,985,000	\$1,165,315,000	\$1,823

NAME	YEAR	POPULATION	FFC	NG	debt per capita
	1997	708,782	\$141,788,000	\$1,326,534,000	\$2,072
	2002	750,097	\$221,673,000	\$1,133,772,000	\$1,807
NORTHAMPTON	1992	247,105	\$10,895,000	\$175,680,000	\$755
	1997	257,719	\$22,754,000	\$379,262,000	\$1,560
	2002	267,066	\$140,500,000	\$340,700,000	\$1,802
NORTHUMBERLAND	1992	96,771	\$0	\$77,886,000	\$805
	1997	95,897	\$8,580,000	\$76,383,000	\$886
	2002	94,556	\$27,410,000	\$0	\$290
SCHUYLKILL	1992	152,585	\$16,590,000	\$44,020,000	\$397
	1997	152,630	\$20,119,000	\$90,582,000	\$725
	2002	150,336	\$29,430,000	\$4,015,000	\$222
SUSQUEHANNA	1992	40,380	\$4,250,000	\$5,063,000	\$231
	1997	42,002	\$7,085,000	\$4,402,000	\$273
	2002	42,238	\$0	\$6,065,000	\$144
UNION	1992	36,176	\$0	\$44,125,000	\$1,220
	1997	40,826	\$0	\$67,055,000	\$1,642
	2002	41,624	\$0	\$49,015,000	\$1,178
VENANGO	1992	59,381	\$4,995,000	\$0	\$84
	1997	58,820	\$15,275,000	\$0	\$260
	2002	57,565	\$13,148,000	\$0	\$228
WASHINGTON	1992	204,584	\$10,343,000	\$72,599,000	\$405
	1997	206,708	\$6,571,000	\$231,135,000	\$1,150
	2002	202,897	\$13,035,000	\$229,025,000	\$1,193
WESTMORELAND	1992	370,321	\$73,052,000	\$337,267,000	\$1,108
	1997	376,297	\$187,670,000	\$327,223,000	\$1,368
	2002	369,993	\$170,434,000	\$324,426,000	\$1,337
YORK	1992	339,574	\$34,150,000	\$230,831,000	\$780
	1997	368,332	\$31,335,000	\$391,935,000	\$1,149
	2002	381,751	\$182,055,000	\$281,264,000	\$1,214

Appendix 4
Accrued Liabilities of County Pensions – FY 2002

County	Unfunded liabilities
ADAMS	-\$6,472,265
ALLEGHENY	\$54,399,109
ARMSTRONG	-\$3,005,787
BEAVER	-\$2,631,081
BEDFORD	\$0
BERKS	\$0
BLAIR	\$0
BRADFORD	\$0
BUCKS	\$0
BUTLER	\$0
CAMBRIA	-\$7,874,922
CAMERON	\$0
CARBON	-\$10,179,110
CENTRE	\$0
CHESTER	\$0
CLARION	-\$3,367,616
CLEARFIELD	-\$3,925,021
CLINTON	\$0
COLUMBIA	\$0
CRAWFORD	-\$3,241,238
CUMBERLAND	\$0
DAUPHIN	\$0
DELAWARE	-\$44,692,398
ELK	-\$1,187,486
ERIE	-\$9,385,558
FAYETTE	-\$22,164,035
FOREST	\$1,424
FRANKLIN	-\$1,361,933
FULTON	-\$59,306
GREENE	\$0
HUNTINGDON	-\$579,921
INDIANA	\$0
JEFFERSON	-\$3,691,532
JUNIATA	\$0
LACKAWANNA	\$0
LANCASTER	\$1,019,662
LAWRENCE	-\$4,257,305
LEBANON	-\$13,378,057
LEHIGH	-\$29,500,665
LUZERNE	\$0
LYCOMING	-\$11,182,727
MCKEAN	\$0
MERCER	-\$4,105,594

County	Unfunded liabilities
MIFFLIN	\$211,041
MONROE	\$0
MONTGOMERY	-\$101,994,918
MONTOUR	-\$167,387
NORTHAMPTON	-\$11,011,145
NORTHUMBERLAND	-\$13,848,049
PERRY	\$0
PIKE	\$1,530,903
POTTER	\$0
SCHUYLKILL	-\$4,188,148
SNYDER	-\$282,508
SOMERSET	\$0
SULLIVAN	\$0
SUSQUEHANNA	\$0
TIOGA	\$0
UNION	-\$1,740,669
VENANGO	-\$16,514,544
WARREN	-\$1,457,228
WASHINGTON	-\$3,169,768
WAYNE	\$0
WESTMORELAND	-\$4,202,334
WYOMING	\$0
YORK	\$0
TOTAL	-\$287,658,116

Appendix 5

Municipal Debt Percapita

NAME	YEAR4	POPULATION	FFC	NG	debt per capita
ALLENTOWN	1992	105,090	\$0	\$82,039,000	\$781
	1997	102,211	\$86,695,000	\$77,367,000	\$1,605
	2002	106,632	\$84,000,000	\$75,794,000	\$1,499
ALTOONA	1992	51,881	\$1,301,000	\$1,235,000	\$49
	1997	50,101	\$2,164,000	\$0	\$43
BETHLEHEM	1992	71,428	\$21,790,000	\$0	\$305
	1997	70,245	\$59,482,000	\$91,120,000	\$2,144
	2002	71,329	\$26,868,000	\$147,309,000	\$2,442
CARBONDALE	1992	10,664	\$255,000	\$0	\$24
	1997	9,953	\$1,990,000	\$0	\$200
COATESVILLE	1992	11,038	\$5,180,000	\$0	\$469
	1997	10,827	\$4,948,000	\$0	\$457
	2002	10,838	\$7,959,000	\$0	\$734
ERIE	1992	108,718	\$8,860,000	\$0	\$81
	1997	105,270	\$29,525,000	\$0	\$280
	2002	103,717	\$94,705,000	\$0	\$913
HARRISBURG	1992	52,376	\$50,671,000	\$464,310,000	\$9,832
	1997	50,886	\$71,882,000	\$810,000	\$1,429
	2002	48,950	\$76,476,000	\$43,807,000	\$2,457
JOHNSTOWN	1992	28,134	\$2,760,000	\$0	\$98
	1997	26,149	\$13,391,000	\$21,455,000	\$1,333
	2002	23,906	\$7,196,000	\$0	\$301
LANCASTER	1992	55,551	\$8,250,000	\$0	\$149
	1997	53,597	\$23,575,000	\$0	\$440
	2002	56,348	\$72,276,000	\$0	\$1,283
LEBANON	1992	24,800	\$1,470,000	\$6,775,000	\$332
	1997	23,791	\$1,490,000	\$0	\$63
MCKEESPORT	1992	26,016	\$2,720,000	\$0	\$105
	1997	23,343	\$1,672,000	\$0	\$72
	2002	24,040	\$22,129,000	\$0	\$921
NEW CASTLE	1992	28,334	\$3,615,000	\$0	\$128
	1997	26,845	\$4,275,000	\$0	\$159
NEW KENSINGTON	1992	15,894	\$2,060,000	\$0	\$130
	1997	15,233	\$1,857,000	\$0	\$122
	2002	14,701	\$820,000	\$28,000	\$58
PHILADELPHIA	1992	1,585,577	\$1,181,982,000	\$2,556,528,000	\$2,358
	1997	1,478,002	\$511,564,000	\$2,911,223,000	\$2,316
	2002	1,517,550	\$866,559,000	\$4,291,136,000	\$3,399
PITTSBURGH	1992	369,879	\$413,425,000	\$247,394,000	\$1,787
	1997	350,363	\$579,210,000	\$218,424,000	\$2,277
	2002	334,563	\$852,821,000	\$277,142,000	\$3,377
READING	1992	78,380	\$43,500,000	\$0	\$555

NAME	YEAR4	POPULATION	FFC	NG	debt per capita
	1997	75,723	\$62,922,000	\$29,433,000	\$1,220
	2002	81,207	\$107,322,000	\$3,165,000	\$1,361
SCRANTON	1992	81,805	\$6,030,000	\$0	\$74
	1997	77,189	\$4,685,000	\$0	\$61
	2002	76,415	\$26,760,000	\$0	\$350
SHARON	1992	17,493	\$749,000	\$17,612,000	\$1,050
	1997	16,766	\$5,102,000	\$10,863,000	\$952
	2002	16,328	\$12,612,000	\$0	\$772
WILKES BARRE	1992	47,523	\$0	\$8,740,000	\$184
	1997	44,407	\$5,031,000	\$0	\$113
YORK	1992	42,192	\$14,704,000	\$4,860,000	\$464
	1997	40,779	\$43,339,000	\$0	\$1,063

Appendix 6

Accrued Liabilities of Municipal Pensions – FY 2003

Name	Unfunded liabilities
ALLENTOWN	\$6,599,940
ALTOONA	\$16,048,774
BETHLEHEM	\$37,871,857
CARBONDALE	\$4,016,673
COATESVILLE	\$778,073
ERIE	\$22,195,388
HARRISBURG	-\$22,795,335
JOHNSTOWN	\$18,704,396
LANCASTER	\$3,157,135
LEBANON	\$3,102,094
MCKEESPORT	\$5,553,921
NEW CASTLE	\$14,522,910
NEW KENSINGTON	\$2,439,363
PHILADELPHIA	\$2,668,092,020
PITTSBURGH	\$454,291,957
READING	\$30,638,360
SCRANTON	\$79,491,161
SHARON	-\$529,605
WILKES BARRE	\$3,256,264
YORK	\$8,674,960
TOTAL	\$3,333,461,592

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