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Spending on Instructional Staff Support Among Big City School Districts: Why Are Urban Districts Spending at Such High Levels?

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"...Urban districts are...characterized by high concentrations of young and inexperienced teachers. This...translates to more expensive professional development programming."

Spending on Instructional Staff Support Among Big City School Districts: Why Are Urban Districts Spending at Such High Levels?

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Introduction

In a recent study conducted under the auspices of the Center for the Study of Teaching and Policy[1] (CTP), we found that U.S. school districts, on average, direct 2.8% of their annual budgets toward what the Census Bureau defines as instructional staff support (Killeen, Monk, & Plecki 2000). This figure represents annual expenditures of more than $8 billion or approximately $200 per pupil. Because these estimates are based on the universe of U.S. school districts, it is possible to make comparisons among districts of varying size, location, and level of poverty, and we found significant, expenditure differences between urban, suburban and rural school districts. After controlling for geographic differences in cost, urban school districts both spend more in per pupil terms and devote a greater share of their budget to instructional staff support than do less urban school districts (See Table 1). Urban districts' spending on this item is above the national average, while suburban and rural districts tend to spend at levels closer to the national average. To be specific, during the 1994-95 school year urban school districts on average spent $231 per pupil compared with rural school districts which spent at $188 per pupil. In per pupil terms, urban school district's spending is 20% higher than school districts at the national average. In terms of budget share, urban districts report spending on instructional staff support as a share of total expenditures at levels that are 27% higher than districts at the national average.

In this article we extend our analysis of expenditures on professional development and more closely focus on the case of large urban districts in the United States. We first review the existing literature on professional development financing and set the context for our analysis. Then, following a brief description of our datasets and research methods we report in Part I how these professional development expenditures vary by school district urbanicity, and provide descriptive information for the nation's 25 big city school districts. We provide new evidence regarding the magnitude of the differentials. We then turn to a longitudinal analysis and report how expenditures changed in the early 1990's. In Part II we discuss our findings in detail and explore alternative explanations for why these differentials in spending exist. This discussion also illuminates significant hurdles yet to be crossed as research on professional development financing continues into the 21st century. In doing so, we outline how school finance research needs to evolve to better account for spending on professional development.

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Research on Professional Development Financing

Prior to the CTP research, inquiries into spending on professional development within school districts were largely case study driven (see Moore and Hyde 1981; Little, 1989; Orlich and Evans 1990; Elmore and Burney 1997). These case study findings, though rich on organizational and contextual descriptions of school district management, provided limited opportunity for broad generalization by school district characteristics like enrollment size, poverty level or urbanicity.

The belief that school districts spend at low levels on professional development is remarkably well established despite the limited and largely anecdotal nature on the research base (see Houston and Freiberg 1979; Kearns 1988; Darling-Hammond 1994). Sparks and Hirsh stated unequivocally in the May 24, 2000 issue of *Education Week* that "despite the power of professional development to improve teaching, the typical school district allocates less than 1% of the budget for such activities"(42). Case study research on this topic has documented budget share ratios of between 1.8% and 11.8% (see Orlich and Evans 1990; Miller, Lord and Dorney 1994), and does not indicate that the majority of school districts spend less than 1%. The conclusion that school districts expend too little on professional development is premature given what little is known about financing ongoing teacher professional development. As Plecki (1999) summarizes "differences in cost estimation and in the metrics used for defining professional development investments underscore the need for more comprehensive and sophisticated notions of 'professional development' and 'investment' in these functions, and linked to these notions are more appropriate measurement, data collection, and analysis."

The existing literature on professional development financing supports the intuitive assumption that investments in ongoing teacher training and support are directly correlated with gains in student achievement. For example, in a recent interrogation of NELS:88 data, Rice (2000) documents how the participation of math and science teachers in professional development activities impacts student achievement. In a correlation analysis, Rice found that school support for professional development such as release time from teaching, travel or per diem expenses, stipends and professional growth credits contributed to teacher participation in professional development activities. And, among math teachers, school system workshops were strong predictors of student test scores. But in terms of broad and national level research, the data do not exist which enable researchers to tie the costs of ongoing teacher training and support to student achievement, making rigorous education productivity analysis difficult.

Emerging Research at the National Level

Two new efforts at the national level are attempting to broaden this research base. Efforts from the Center for the Study of Teaching and Policy at the University of Washington, and emerging work from The Finance Project in Washington, D.C. are summarized below.

The Center for the Study of Teaching and Policy, an Office of Educational Research and Improvement funded Center, is in the process

Table 1. Instructional Staff Support Expenditures[2] Among Urban, Suburban and Rural School Districts, 1994-1995

				School District Averages[3]	
Urbanicity[1]	Enrollment	Total Instructional Staff Support Expenditures (ISS in 000's)	Total General Expenditures (TGE in 000's)	Instructional Staff Support Expenditures as a Percentage of General Expenditures, School District Averages	Instructional Staff Support Expenditures Per Pupil
Nationally	37,515,224	8,033,816	241,785,693	2.76	192
Urban	10,716,974	2,442,759	70,378,913	3.51	231
Suburban	17,040,343	3,570,088	109,987,763	2.80	195
Rural	9,757,907	2,020,969	61,419,017	2.68	188

Data Sources: *US Census Survey of Local Government Finances: School District Expenditures (F-33), 1994-1995*; *NCES Common Core of Data, 1994-1995*.
Notes: (1) The metro status area is the NCES classification of the agency's service area relative to a Metropolitan Statistical Area, where: Urban= School district that primarily serves a central city of an MSA; Suburban= Serves an MSA but not primarily its central city; Rural= Does not serve an MSA.
(2) Fiscal data are adjusted using Chambers' *1998 Geographic Cost Index*.
(3) This statistic represents a simple average of all school districts at the national level, then along the three point urbanicity scale.

of conducting an ambitious study on this topic that will involve intensive case studies in four states (California, New York, North Carolina, and Washington) to learn more about the kinds of investments that are being made in teacher professional development. The study is structured to begin with an examination of national data to see what can be learned from these sources about the allocation of resources for professional development purposes. Attention will turn next to data collection efforts that exist within each of the four states that will be studied. The study will then move directly to the individual school district level and will include an intensive analysis of a single large district within each of the four states. The goal for this portion of the study is to gain insights into teacher professional development efforts that are not available from routinely collected data at both the state and national levels.

The nested and sequential nature of the data collection and analysis makes good sense given the sometimes elusive nature of the available fiscal data on professional development activities. There are numerous conceptual as well as operational difficulties that surround efforts to generate estimates of investments in professional development. For example, programs are not always operated out of local school districts, and yet the existing accounting systems tend to be oriented around the school district as the unit of analysis. Some states provide summer institutes for teachers and the costs for these institutes may be accounted for within a state agency's budget. The agency in question may vary depending on the state and depending on the type of service being provided. The CTP effort, then, is to capture these investments by working backwards from the delivery point to make sure that the costs are included.

Similarly *The Finance Project*[2], will soon begin a multi-year, Ford Foundation supported project to study innovative mechanisms for financing professional development in education. Arguing that current systems for financing professional development are fragmented, and that professional development programs fail to properly utilize resources, *The Finance Project* hopes to inform standards based reform efforts with effective professional development policies. Goals of their effort include mapping how resource streams affect professional development programming, quality, as well as how available resources affect costs. Research will be guided by an inter-disciplinary team, and result in the development and dissemination of new policies on professional development financing.

Data and Methods

The findings and statistics reported in this study are based upon the entire population of US school districts. The data are drawn from two sources: (1) The Census Bureau's *Survey of School District Finances (F-33)*, and (2) the *Common Core of Data*, which is compiled by the National Center for Education Statistics. We focus on fiscal years 1992 and 1995.

Specifically, we have focused on a F-33 data element called: "Instructional Staff Support," as an estimate of school district spending on professional development. This variable is defined by the Census Bureau to include: Supervision of instruction service improvements, curriculum development, instructional staff training, and media, library, audiovisual, television, and computer-assisted instruction services3.

To discriminate standard operating school districts from other educational organizations defined by the Census Bureau, we followed the database creation steps defined by O'Leary and Moskowitz (1995). Even with the basic database development steps, our research still required handling of those records with missing data for instructional staff support. During the F-33 universe years, approximately one third of all states report some level of missing values for the instructional staff support. Our research identified those school districts with missing records for "instructional staff support" at levels above 15%. Rather than impute values for the missing records, a total of seven states in 1991-1992 and five states in 1994-1995 were removed from the study. In 1991-1992, those states were Alaska, Arizona, Maine, Montana, Nebraska, Nevada, and North Dakota; In 1994-1995 those states were California, Montana, Nebraska, Nevada, and North Dakota. Although the Census Bureau provides the F-33 as a universe dataset, school districts in Kentucky, Massachusetts, Tennessee and New Jersey in 1992 included imputed values for our target variable. Due to implausible results discovered for districts in Massachusetts, Tennessee and New Jersey, these states were removed from the 1992 dataset. This culling only affects the longitudinal analysis section of this report.

The comparison of school districts across rural and urban continuums, as well as region, requires standardization of educational costs. For school districts, cost differences can come from variation in the salaries that must be paid to hire and retain teachers as well as differences in the form of the educational services being delivered. Efforts to control for cost inputs also allows for an approximate means to adjust expenditures by

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geography (Chambers xi, 1998). We used Chambers' *Geographic Cost of Education Index* (GCEI) to adjust for regional differences in instructional staff development expenditures that come from differences in the cost of key inputs into the educational process. Specifically, we utilized Chamber's *1990-91 GCEI* to adjust FY 1992 F-33 data, and the 1993-94 GCEI to adjust the FY 95 F-33 data.

We are primarily concerned here with comparisons of instructional staff support expenditures across places and across time. Comparison of resources by place requires standardization by population size. In keeping with reporting standards in the school finance literature, we report instructional staff support expenditures in per pupil terms as well as in terms of the share of the total general fund expenditures. These two statistics are then categorized by one of two urbanicity scales developed by the National Center for Education Statistics in 1995. The same urbanicity scale is used for both years of fiscal data.

Part I. Findings: Spending on Instructional Staff Support Among Big City School Districts

Comparing School District Expenditures in During the 1994-1995 School Year

As we noted earlier and as Table 1 demonstrates, school districts in urban areas devote 3.5% of their budget on average to instructional staff support activities, a level that exceeds the national average of 2.8%. Per pupil spending on this item is also highest for urban districts at $231, and greater than districts at the national average of $192.

Given that urban school districts appear to spend greater resources on professional development, we sought to refine our measure of urbanicity or "urban-ness" and reexamine if those same expenditure patterns hold across districts that vary in their type of urbanicity. By widening our urbanicity scale a bit further, in Table 2, we are better able to compare the relationship between urbanicity or population density and instructional staff support expenditures. We observe that school districts serving large central cities, mid sized central cities, and large towns devote the greatest proportion of their budget to instructional staff support. School districts on the fringes of urban areas, the suburbs, as well as rural school districts devote the least. This same pattern holds when the target variable is expressed in per pupil terms. The most surprising observation is the decline, expressed in per pupil or budget share terms, as one travels from the urban core out—until one reaches school districts in the large towns when the statistics climb again.

Table 3 focuses in on the 25 largest school districts serving large central cities. We call these big city districts. We have highlighted the top 25 big city districts and ranked them by enrollment. These 25 big city districts represent almost 10% of all US students and more than 9% of all expenditures on instructional staff support[4].

Together these districts tend to exceed national averages in terms of staff support budget share and expenditures per pupil. Excluding New York City for the moment, the budget share ratios range from 2% in Philadelphia to more than 6.6% in Orlando. School districts serving cities like Orlando, Tampa, Louisville and Washington, D.C. tend to lead other city districts in staff support expenditures per pupil. Expressed in per pupil terms, staff support spending is lowest in districts serving large cities like Mobile, Salt Lake City, and Philadelphia.

However, there is quite a noteworthy exception to this nationwide pattern, and the source of this departure are the data coming from New York City. As the largest school district in the nation, New York City

Table 2. Instructional Staff Support Expenditures[2] by School District Urbanicity, 1994-1995

				School District Averages[3]	
Urbanicity	Enrollment	Total Instructional Staff Support Expenditures (ISS in 000's)	Total General Expenditures (TGE in 000's)	Instructional Staff Support Expenditures as a Percentage of General Expenditures, School District Averages	Instructional Staff Support Expenditures Per Pupil
Nationally	37,515,224	8,033,816	241,785,693	2.76	192
Large Central City	6,400,757	1,289,739	41,543,143	3.43	222
Mid-Size Central City	6,821,494	1,651,373	42,945,351	3.30	215
Urban Fringe of Large City	9,174,881	2,020,461	61,785,121	2.92	210
Urban Fringe of Mid-Size City	3,421,769	694,244	20,855,026	3.03	192
Large Town	784,255	168,645	4,575,077	3.42	208
Small Town	5,172,465	1,092,706	32,106,224	3.04	195
Rural	5,739,590	1.116,647	37,975,751	2.46	182

Data Sources: *US Census Survey of Local Government Finances: School District Expenditures (F-33), 1994-1995*; *NCES Common Core of Data, 1994-1995*.
Notes: (1) The urbanicity scale used here is a seven point NCES classification, where: A. Large City: A central city of a Consolidated Metropolitan Statistical Area (CMSA) or MSA, with the city having a population greater than or equal to 250,000; B. Mid-Size City: A central city of a CMSA or MSA, with the city having a population less than 250,000; C. Urban Fringe of Large City: Any incorporated place, Census-designatd place, or non-place territory within a CMSA or MSA of a Large City and defined as urban by the Census Bureau; D. Urban Fringe of Mid-Size City: Any incorporated place, census designated place, or non-place territory within a CMSA or MSA of a Mid-Size City and defined as urban by the Census Bureau; E. Large Town: An incorporated place or Census designated place with population greater than or equal to 25,000 and located outside a CMSA or MSA; F: Small Town: An incorporated place or Census designated place with population less than 25,000 and greater than or equal to 2,500 and located outside a CMSA or MSA; G: Rural: Any incorporated place, Census designated place, or non-place territory designated as rural by the Census Bureau.
(2) Fiscal data are adjusted using Chambers' *1998 Geographic Cost Index*.
(3) This statistic represents a simple average of all school districts at the national level, then along the three point urbanicity scale.

Table 3. Spreading Instructional Staff Support[1] Among Big City Districts, 1994-1995

Top Twenty-Five Big City School Districts[2,3]	City Serving	Enrollment	Total Instructional Staff Support Expenditures (ISS in 000's)	Total General Expenditures (TGE in 000's)	Instructional Staff Support Expenditures as a Percentage of General Expenditures, School District Averages[4]	Instructional Staff Support Expenditures Per Pupil[4]
Nationally		37,515,224	8,033,816	241,785,693	2.76	192
New York City	New York	1,022,534	32,158	8,092,824	0.40	31
City of Chicago SD	Chicago	407,241	80,336	2.382,982	3.37	197
Dade County SD	Miami	321,615	82,494	2,346,713	3.52	257
Philadelphia Schools	Philadelphia	208,710	26,834	1,313,788	2.04	129
Houston Ind. SD	Houston	202,149	42,128	1,087,083	3.88	208
Detroit Public Schools	Detroit	170,855	26,219	1,228,045	2.14	153
Dallas Ind. School District 9	Dallas	145,019	37,863	826,270	4.58	261
Hillsborough Co. Schools	Tampa	138,575	51,776	976,218	5.30	3.74
Duval County SD	Jacksonville	121,362	27,428	680,548	4.03	226
Orange Co. School Board	Orlando	118,666	47,442	722,269	6.57	400
Baltimore City Schools	Baltimore	113,428	24,259	660,507	3.67	214
Memphis City Schools	Memphis	108,643	26,142	533,763	4.90	241
Milwaukee City Schools	Milwaukee	102,909	30,313	728,031	4.16	295
Pinellas County SD	St. Petersburg	102,170	30,904	662,760	4.66	302
Jefferson County Schools	Louisville	93,407	28,608	552,373	5.18	306
Albuquerque SD	Albuquerque	89,001	20,362	445,747	4.57	229
Orleans Parish Schools	New Orleans	86,028	13,922	413,646	3.37	162
Charlotte-Mecklenburg Sch.	Charlotte	86,023	15,922	560,774	2.84	185
DC Public Schools	Washington	80,450	33,132	659,450	5.02	412
Granite SD	Salt Lake City	78,590	10,716	288,276	3.72	136
Wake County Schools	Raleigh	76,922	15,463	472,605	3.27	201
Virginia Beach City	Virginia Beach	75,926	22,435	411,174	5.46	295
Mobile County SD	Mobile	64,645	7,882	292,356	2.70	122
Brevard County SD	Palm Bay	64,595	17,359	399,007	4.35	269
East Baton Rouge Parish	Baton Rouge	61,460	10,844	319,266	3.40	376

Data Source: *US Census Survey of Local Government Finances: School District Expenditures (F-33), 1994-1995*.
Notes: (1) The expenditure data were adjusted using Chambers' *1998 Geographic Cost Index*.
(2) The following states, and therefore the large urban districts within them, were removed fom the analysis due to a high proportion of missing values in 1994-1995: California, Montana, Nebraska, Nevada, and North Dakota.
(3) The 25 Big City Districts are those LEA's ranked by student enrollment and characterized by the Census Bureau as being a district that primarily serves a central city of an MSA.
(4) The weighted average, reported here, is calculated as the summation of expenditures per district divided by the total enrollment.

reports spending very little on this item. According to Table 3, in 1994-95 NYC reported spending a little over $32 million on instructional staff support. This amount equated to about $30 per pupil in instructional staff support, and amounted to less than 1/2 of 1% of total general expenditures.

Comparing School District Expenditures between 1992 and 1995

In Tables 4 and 5 we turn from our cross-sectional analysis and examine changes in expenditures from 1992 to 1995.

Among U.S. school districts in the early 1990's, we observe a 25% increase in instructional staff support spending per pupil and an 8% increase in the share of staff support expenditures in the total budget. As Table 4 depicts, these growth rates are generally highest in urban areas, whereas rural areas are among the slowest to change. In terms of growth in expenditures per pupil, school districts serving mid sized central cities as well as their suburbs, grew faster than school districts serving the large central cities and their suburbs. By comparison though, the budget share ratios are generally half of the per pupil growth rates. School districts serving large central cities and mid sized central cities generally grew the share of instructional staff support in the total budget at a rate that was twice that of the nation[5], and three times that of rural areas. This is probably an indication of professional development revenues not keeping pace with general budget growth.

Like Table 3, Table 5 focuses attention on changes in staff support expenditures for the 25 big city districts. Districts serving East Baton Rouge, Salt Lake City, Milwaukee, Chicago and NYC grew the fastest in terms of this variable. One should note that although NYC's growth statistics appear to be large, the district was moving from quite a low level of spending during the earlier period. To be specific New York City increased its per pupil spending on instructional staff support from $21.54 to $31.45 between 1991-1992 and 1994-1995. The share statistics increased from .32 to .40 over the same period. Second, a wide range of districts grew their expenditures per pupil at paces faster than other districts serving "large central cities", but only Milwaukee outpaced the budget share ratio in a concurrent fashion. Last, there are a fair number of districts that demonstrate growth in per pupil expenditures but exhibit negative growth values in the budget share statistic. This is the case in districts serving Dallas and Tampa, among others.

In summary then, we have found that urban school districts, primarily those serving large and mid sized central cities as well as those serving large towns, expend more resources on instructional staff support than do suburban or rural school districts. For example, in 1994-95 districts serving large central cities spent $222 per pupil on staff support, an amount that was 6% higher than districts at the fringes of the cities and 22% greater than rural districts. And, between the 1991-92 and 1994-95 school years, these figures moved farther apart. Districts serving more

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Table 4. Longitudinal Analysis of Instructional Staff Support Expenditures[2] By Urbanicity[1], 1991-1992 and 1994-1995

	Growth[3] in Instructional Staff Support Expenditures as a Percentage of General Expenditures	Growth[3] in Instructional Staff Support Expenditures per Pupil
Nationally	8	25
Large Central City	17	30
Mid-Size Central City	14	33
Urban Fringe of Large City	11	27
Urban Fringe of Mid-Size City	14	32
Large Town	9	22
Small Town	4	23
Rural	6	22

Data Sources: *US Census Survey of Local Government Finances: School District Expenditures (F-33), 1991-1992, & 1994-1995*; *NCES Common Core of Data, 1991-1992 & 1994-1995*.

Notes: (1) The urbanicity scale used here is a seven point NCES classification, where: A. Large City: A central city of a Consolidated Metropolitan Statistical Area (CMSA) or MSA, with the city having a population greater than or equal to 250,000; B. Mid-Size City: A central city of a CMSA or MSA, with the city having a population less than 250,000; C. Urban Fringe of Large City: Any incorporated place, Census-designatd place, or non-place territory within a CMSA or MSA of a Large City and defined as urban by the Census Bureau; D. Urban Fringe of Mid-Size City: Any incorporated place, census designated place, or non-place territory within a CMSA or MSA of a Mid-Size City and defined as urban by the Census Bureau; E. Large Town: An incorporated place or Census designated place with population greater than or equal to 25,000 and located outside a CMSA or MSA; F: Small Town: An incorporated place or Census designated place with population less than 25,000 and greater than or equal to 2,500 and located outside a CMSA or MSA; G: Rural: Any incorporatedplace, Census designated place, or non-place territory designated as rural by the Census Bureau.

(2) Fiscal data are adjusted using Chambers' *1998 Geographic Cost Index*.

(3) Growth is measured as the rate of change between the simple average statistics from 1995 and 1992.

urbanized areas tended to grow faster in terms of the amount spent on staff support as well as the proportion of the district's budget expended on staff support.

Part II. Why are Urban Districts Spending at Such High Levels?

While these recent findings indicate an apparent urban advantage in supporting teacher professional development, they are also indicative of significant difficulties in the measurement of teacher professional development financing. By controlling for differences in resource costs to school districts, as well as by reporting expenditures in per pupil terms, we avoid attributing instructional staff support expenditure differences to geographic cost differences or enrollment size.

The pattern of urban school district spending described in this article may be related to greater demand by these school districts for professional development services. Circumstances like high teacher turnover, a young teaching force, challenging student populations or unusual resource streams for professional development programming could foster greater need or demand for services within the school district organization. This demand could exceed what is being experienced by suburban and rural school districts, and therefore drive up spending. We discuss two examples of factors that create high demand for professional development in urban school districts.

High Levels of Student Need

Urban school districts, with large populations of special needs, poverty stricken, and minority school children face difficult challenges. The federal government recognizes these conditions and appropriates tax dollars to mitigate these challenges for school districts. Although the majority of school-based federal dollars allocate at least a portion to professional development (EFRC 1998), the Eisenhower Professional Development Program is the most comprehensive program to do so. Because 50% of all Eisenhower funds must be allocated by states according to existing Title I appropriations, urban districts can be expected to receive a disproportionate share of professional development funds. Moreover, if state school finance systems also allocate funds for professional development based on an entitlement criteria or a poverty ratio, one would expect urban districts to again be favored. In this argument then, students with high-needs, concentrated in urban school districts, generates the disproportionate allocation of special revenues for professional development activities to urban districts.

We explore this argument further by focusing on the distribution of Eisenhower Funds[6]. In 1994-1995, we found that urban school districts receive on a per pupil basis more Eisenhower funds than suburban or rural districts. Urban districts receive 89% more Eisenhower funds per pupil than suburban districts and 44% more than rural districts. Assuming that all Eisenhower Funds are expended via our instructional staff support variable, Eisenhower funds comprise 2.2% of all professional development expenditures among urban districts whereas the shares equal 1.3% and 1.7% among suburban and rural school districts. Eisenhower funds, therefore, appear to assist urban districts in tipping their scales in terms of greater resources available for professional development spending.

It would be interesting to see if these earmarked revenues coming from the federal government for professional development serve to leverage additional spending in this area from state and local sources. However, due to limitations in the national data sets researchers are unable at this time to disaggregate total spending on professional development according to source. This condition restricts the ability to formally measure, such as through an econometric model, the effects of multiple revenue streams on an expenditure item such as professional development.

Table 5. Longitudinal Analysis of Instructional Staff Support Expenditures[1] City-By-City[2,3] Comparisons, 1991-1992 and 1994-1995

Affiliated City Staff Support,	School District	Growth in Instructional Staff Support as a Share of Total General Expenditures	Growth in Instructional Per Pupil
	Nationally	8	25
New York	New York City	24.2	46
Chicago	City of Chicago SD	12.8	32
Miami	Dade County SD	6.2	29
Philadelphia	Philadelphia Schools	-11.6	-16
Houston	Houston Ind. SD	5.3	20
Detroit	Detroit Public Schools	0.2	22
Dallas	Dallas Ind. School District 9	-11.4	18
Tampa	Hillsborough Co. Schools	-4.6	15
Jacksonville	Duval County SD	-7.6	-3
Orlando	Orange Co. School Board	10.0	13
Baltimore	Baltimore City Schools	6.1	16
Memphis	Memphis City Schools	na	na
Milwaukee	Milwaukee City Schools	51.4	65
St. Petersburg	Pinellas County SD	-1.2	16
Louisville	Jefferson County Schools	-24.5	-9
Albuquerque	Albuquerque SD	-0.3	17
New Orleans	Orleans Parish Schools	-18.1	-24
Charlotte	Charlotte-Mecklenburg Sch.	-28.7	-6
Washington	DC Public Schools	29.2	21
Salt lake City	Granite SD	14.0	36
Raleigh	Wake County Schools	16.9	10
Virginia Beach	Virginia Beach City	10.5	31
Mobile	Mobile County SD	-5.1	22
Palm Bay	Brevard County SD	-11.9	5
Baton Rouge	East Baton Rouge Parish	24.4	36

Data Source: *US Census Survey of Local Government Finances: School District Expenditures (F-33), 1991-1992 & 1994-1995*.
Notes: (1) The expenditure data were adjusted using Chambers 1998 Geographic Cost Index.
(2) The following states were removed fom the analysis due to a high proportion of missing values in 1994-1995: California, Montana, Nebraska, Nevada, and North Dakota. Massachusetts, New Jersey and Tennessee were removed from the longitudinal analysis due to incomplete Census Bureau estimates for the 1991-1992 school year.
(3) The 25 Big City Districts are those LEA's ranked by student enrollment and characterized by the Census Bureau as being a district that primarily serves a central city of an MSA.

Staff Turnover Demands More Training, More Expensive Training

Beginning in the 1987-1988 school year, principals reported via the NCES Schools and Staffing Survey that it is most difficult in urban settings, over suburban and rural, to attract and hire teachers (Lippman et al, 1996). Urban school teachers themselves report having little control over their curriculum and display job absenteeism at rates higher than suburban and rural districts; Furthermore, urban districts have high concentrations of teachers with less than three years of experience (*ibid*). These findings suggest hiring and retaining teachers, let alone experienced teachers in urban areas creates difficult challenges in urban districts. Translating these challenges to increased professional development costs may be explained, in part, as a demographic issue.

Two concepts related to teacher composition and retention help to elaborate this argument. Rice (2000) in her review of professional development programming based on SASS data, noted that inexperienced teachers participate more frequently in professional development activities than do teachers with more than three years of experience. Urban schools and districts, with high concentrations of inexperienced teachers would therefore likely expend more on professional development. A second and related reason for higher expenditures may be a function of high migration rates among young teachers, in and out of urban districts. It is well known among demographers that the primary factor influencing migration is age. Young people in their 20's, particularly well educated persons, tend to migrate at rates that exceed other age groups. High rates of teacher turnovers would force a district to continually retrain new teachers or perhaps invest more in existing teachers in order to stem out migration. This point is difficult, however, to quantify. Simply correlating growth rates in the size of the teacher and administrator labor force with professional development expenditures, clouds this issue of migration. Future research will want to discern and measure the importance of (a) new hires due to staff attrition, from (b) new hires due to enrollment growth. We argue that new hires due to staff attrition will impact urban districts more heavily than suburban and rural districts and therefore might serve to influence professional development costs.

Conclusion

In this article we have sought to contribute to the existing knowledge of teacher professional development financing. Our findings are drawn from the Census Bureau's Survey of School District Finances, specifically a variable titled instructional staff support. We utilize this self-reported school district variable as an estimate of professional development expenditures across the U.S. We highlight an intriguing pattern of expenditures among urban districts, particularly districts serving large and medium sized central cities. In these districts, expenditures on instructional staff support are higher than those in suburban and rural districts. These differentials exist when expenditures are expressed in per pupil terms as well as in terms of shares of total general expenditures, and persist even after controlling for variations in resource costs. We also find some evidence that these differentials grew during the early 1990's. We point to two

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possible explanations for higher spending among urban school districts. First, we argue that urban districts, characterized by high concentrations of poverty, are favored with federal grants that exceed levels in suburban and rural school districts. These revenues supply a steady and supplemental source of professional development revenues that afford urban districts the opportunity to spend at higher levels. Second, we argue that urban districts are also characterized by high concentrations of young and inexperienced teachers. This composition translates to more expensive professional development programming. These two arguments also highlight the dearth of available data on professional development financing. This condition limits the ability of school finance researchers to effectively define and trace the revenues, costs, and benefits of professional development activities and hence inform 21st century policies.

In conclusion, the national debate about teacher quality and its improvement prompts interest in knowing more about the current investments in professional development. While some data like the instructional staff support item from the U.S. Census Bureau are available, there is a clear need for more refined measures that provide deeper insights into current practices. We believe the analyses we report in this article take a useful step in the correct direction, but we are acutely aware of the need for better data that more precisely measure flows of resources into the professional development of teachers and other staff members in the nation's schools. The detailed case studies currently being conducted by the Center for the Study of Teaching and Policy at the University of Washington will build on the results we report here and should add greater clarity to the debate over the proper level of support for the further professional development of teachers.

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Endnotes

1. The Center for the Study of Teaching and Policy (CTP), housed at the University of Washington, is a consortium of five universities which has been created to investigate the relation between excellent teaching and policymaking at national, state, and local levels. The mission of CTP is to investigate the relation between excellent teaching and policymaking. CTP was founded in 1997 and is funded for five years by the National Institute for Educational Governance, Finance, Policymaking, and Management of the Office of Educational Research and Improvement (OERI) in the U.S. Department of Education. For more information, visit the CTP web site at <http://depts.washington.edu/ctpmail/target.html>.

2. Information about *The Finance Project* initiative on professional development financing my be found at their website at <http://www.financeproject.org>.

3. According to definitions in the NCES Financial Accounting for Local and State School Systems (Fowler 1990), instructional staff support is composed of two main categories: Improvement of Instruction Services and Educational Media Services. The former clearly encapsulates an intuitive conception of expenditures for teacher support services or staff development. Items for this section include:

a. Activities concerned with directing, managing, and supervising the improvement of instructional services.

b. Activities that assist instructors in designing curriculum, using special curriculum materials, and learning of techniques to stimulate and motivate students.

c. Activities that involve improving the occupational health or professional training of instructional staff, including expenditures for workshops, demonstrations, school visits courses for college credit, sabbatical leave, and travel leaves.

The second major component, Educational Media Services, includes expenditures for activities related to managing and directing educational media, school library services, and audiovisual services. The intent of this component is to capture costs associated with use and preparation of those devices, content materials, methods or experiences used for teaching and learning purposes. The emphasis here is not on training of instructional staff to use the library services or other audiovisual materials, per se, but rather on the general personnel and materials costs involved with preparing audiovisual and other media for use by staff and students. Textbooks are not intended to be charged to this component.

4. Given that a number of states were removed from our dataset, it is likely that these estimates are overstated somewhat.

5. The growth rates reported here for the nation represent the rate of change between 1992 and 1995 for simple averages of all U.S. school districts. If the simple average for each state is calculated first, then growth is measured year to year across the state averages, the "national average growth" is a bit lower. In terms of the budget share the figure is .9%, and in per pupil terms the statistic is 14% (Killeen, Monk, Plecki 2000).

6. The findings reported here were generated utilizing the same 1994-1995 database used to generate Tables 1-5. However, tables were not created to display the findings presented in the concluding remarks.

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