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ISSUES OF SIZE AND COSTS OF EDUCATION IN RURAL AREAS

by

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"The universal disease of mankind is "Not Enough". ... For this simple reason individuals cannot have everything they want ... The price of more of A is less of B."
--J.B. Kohlmeyer

Introduction

The American educational system (made up of public, and private schools offering educational services at all levels from kindergarten through elementary, secondary and higher education) faces an enormous resource allocation task. Nearly everyone supports the general goal of making available to every student a "quality" education regardless of the individual's income, race, living conditions, socioeconomic status or geographic location (rural or urban).

Even though making a "quality" education available to every student is an agreed-upon but somewhat nebulous goal, the specific steps that need to be taken by educational administrators and other policymakers in order to achieve this goal can be difficult to identify. There are several reasons for this. First, educational professionals and policymakers do not fully agree on the specifics of what constitutes a "quality" education. Second, there are many constraints to achieving quality. For example, the mix of local, state and federal funding that supports most public schools means that not all public institutions have equal access to available funds (See the Supreme Court rulings on *Rodriguez*).

Even if access to funds were equal, school administrators face many options in deciding how to allocate available funds among competing uses in an effort to achieve the highest-quality education for students for a specific budget outlay. While individual states (in an effort to achieve greater uniformity among schools

and ensure that all students have equal access to certain programs) may mandate that local school districts provide certain curriculum and activities, most local districts have considerable flexibility in determining the specifics of how available funds are spent. Furthermore, these funding allocation decisions are based upon, in part, the local school administrator's own definition of the specific components of a quality education, and no two administrators would necessarily have the same definition.

In this paper, a conceptual framework is developed representing the dynamic optimization problem for maximizing educational quality subject to a limited amount of available funds. We then examine how the quality of education offered by a school system and the cost of producing education might be influenced by changes in enrollments (cost-size-quality relationships). Changes in enrollments might occur because of factors such as changing birth rates, economic development or decline that lead to population changes within the area served by the school. Policy alternatives, such as school consolidation and programmatic funding (rather than per pupil) of education represent options that could be used to deal with problems created by loss of enrollment. Last, we discuss some of the current policy problems affecting the provision for public education in rural areas. We highlight the continuing importance of research to better understand the process which transforms tax dollars into education.

The Dynamic Optimization Problem

There is a degree of agreement among school administrators and other educational policymakers as to a broad definition of what constitutes a quality education. A quality education might be defined as one that meets the individualized needs of all students and makes an effort to develop each student's full potential. All students have talents and skills. The function of an educational system is to attempt to develop these talents and skills to the

maximum extent possible. However, to fully develop every student's skills to the maximum extent possible would require highly individualized instruction supported with virtually limitless funding.

Obviously, the administration of a school system does not occur in a static, timeless environment. Rather, it is useful to think of the educational administration problem as a sequence of decisions that occur over a long period time. Decisions are interrelated, often conditional on decisions made in prior time periods, and each may influence the quality of education received by students at time t. In reality, the problem is one of making a series of optimal investment decisions along a time path for all $t = t_o, \ldots, T$. Consider the constrained optimization problem faced by the school administrator at time$t$.

Maximize QE_t, where

QE = individual talents and skills of students,

Subject to: $0 < L_t < UL$

$0 < S_t < US$

$0 , F_t < UF,$ or

spending can be no greater than limits (UL, US, UF) imposed by Local (L), State (S) and Federal (F) decision makers at time t.

Using the terminology of dynamic programming (Lambert), variables which cannot be altered by the local school administrator represent the *state* variables, while the variables under control of the administrator represent the *control* variables for the dynamic optimization problem. Examples of state variables include the socioeconomic characteristics of residents in the district, or the innate intelligence (genetics) of the students. Examples of the control variables which the local administrator might alter include the salary levels of individual teachers.

Educational policymakers (such as legislators) face an interrelated

dynamic optimization problem. Presumably, they are interested in maximizing the same objective function as are the local school administrators. However, they make policy decisions affecting changes in a different set of control variables than does the local school administrator. These policies include decisions about the levels and formulas for distributing state aid to local schools and changes in mandated curriculum requirements. There are actually two separate but interrelated dynamic optimization problems being solved sequentially, one by the state-level educational policymakers and the other by the local school administrator. Decisions made by the educational policymakers in part limit the options and otherwise act as constraints on the optimization problem solved by the local school administrator.

Other educational policy issues might also affect the optimal solution to the dynamic programming problem. Consider the school consolidation issue. Is it possible to achieve savings in expenditures per pupil (while maintaining a quality education at some level, Q*) by increasing pupil/teacher ratios through school consolidation? Advocates of consolidation argued that it was possible (Cohn and Riew). The difficulty here is that the linkages that may exist between the size of the pupil/teacher ratio (a variable under the control of the school administrator and possibly also other educational policymakers) and the ability of the school to assist the student in achieving his or her full potential are not completely understood.

Finally consider a specified increased in the per pupil funding level, Δ P*. Will a higher quality education be achieved if the school administrator reduces class sizes by hiring additional inexperienced (and inexpensive) teachers, or will greater quality gains be realized by maintaining larger class sizes, increasing salaries of teachers already in the system, and encouraging experienced teachers to become better teachers by steps such as taking additional college credit and completing graduate degrees? It is not easy to answer

questions of administrative policy such as this. While numerous attempts to quantify the linkages between educational policy variables and the quality of education have been made by researchers in both education and economics, the research is by no means complete, and the results of various studies are frequently in conflict.

Fundamental School Finance Relationships

A useful starting point for economic analysis from an educational policy perspective is to begin with the fundamental algebraic relations that govern the level of expenditures made by public schools on a per pupil basis. This is a question familiar to most agricultural economists as one of economies versus diseconomies of size. Suppose we specify our objective function at some specified quality level, Q*. Can economies of size (as measured by reductions in per pupil expenditure levels) be achieved through enrollment gains while still maintaining the quality level, Q*? What is the underlying average and marginal cost structure of a school system? If true size economies can be achieved as enrollments increase, we would expect declining average and marginal costs, although at some point these costs may level out or even begin to increase.

Current fund expenditures for educational purposes can be divided into six primary categories: 1) instruction and instructional support, 2) plant operation and maintenance, 3) capital outlay and debt service, 4) transportation expenditures, 5) general administration and 6) all other expenditures. The largest of all these expenditures is instruction and instructional support services which encompass expenditures on teacher salaries, student services (e.g., guidance and media) and staff training.

Education is labor, not capital-intensive. Despite perceived high costs for buildings, school buses and other capital items, the salaries of teachers is and has always been the major expenditure item in budgets for most school

districts. Between the 1967-68 and 1971-72 school years, Kohlmeyer estimated that instructional costs were approximately 75 percent of net operating costs for Indiana schools. More recent statistics calculated for Florida school corporations during the 1984-85 school year indicates that expenditures on instruction account for approximately 58 percent of total expenditures or 64 percent of total current expenditures (excluding capital outlay and debt service). Given the importance of instructional expenditures in determining total costs, and the fact that as classes (and pupil/teacher ratios) become larger, the salary of the teacher is spread over a larger number of students, the fundamental cost item of importance to the question of economies of scale is per pupil expenditures for instruction and instructional support.

An equation links the salaries of teachers, the pupil/teacher ratio and per pupil expenditures for instruction. If nonsalary items in the instructional account are ignored, this equation always holds as an identity (Debertin):

(1) $PPS = S/(P/T)$,

where: PPS = per pupil expenditures for teachers salaries (instruction),

S = average teacher salaries, and

P/T = pupil teacher ratio.

Neither an econometric model nor a regression equation is needed to identify the relationship established by equation (1) (Debertin). If equation (1) is differentiated with respect to the pupil/teacher ratio (P/T) "per pupil expenditures for teachers' salaries vary inversely with the square of the pupil/teacher ratio . . ." and it is observed "that savings in per pupil expenditures for teacher salaries (PPS) can come about only if average teachers' salaries are reduced or if the pupil/teacher ratio is increased (Debertin)." Increases in enrollment will affect per pupil expenditures for teacher salaries (by far the largest component of all per pupil expenditures) only to the extent

that the increase in enrollment allows the pupil/teacher ratio to *increase*. This conclusion can, and should, be carried another step. Public elementary and secondary education obtains funds from three sources:

$$TA = SA + LA + FA \quad (2)$$

where:

TA = Total funds in support of public elementary and secondary education,

SA = State aid support

LA = Local aid support, and

FA = Federal aid support.

Since federal aid is a small component of total aid (less than 8 percent in Florida schools for 1984-85) and federal aid is available only for a few specific educational programs (there is no general federal aid to education), FA can be dropped to simplify the arithmetic. Per pupil total aid can then be expressed as the individual terms in equation 2) divided by the number of pupils (FTEs, ADA, ADM, etc.).

The mechanism for supplying state aid to local schools is quite different from the mechanism used to generate local revenue. State aid is usually distributed as a dollar amount times the number (usually weighted in some manner) of students adjusted by various indexes representing the ability of local residents to fund education (for example, indices of property assessments or income levels in the local school district or corporation). In solving their own constrained optimization problem, local school administrators have little or no incentive to take steps to cut back on the use of state aid. Therefore, it is possible for local school administrators to increase pupil/teacher ratios and yet not incur any of the theoretical cost savings (measured by reductions in pupil expenditures). State aid, in part based on enrollment levels, is still forthcoming. In most states, local revenues come primarily from local property

taxes, and the amount is determined by multiplying the taxable value of property (real or real and personal) times the local millage rate.

Given the methods used for distributing state aid to local schools, the only means by which costs per pupil can be declining is if additional students are being added and local property taxes collected in support of the additional student (N+1) are less than the collections supporting other students (1, ..., N). Why? Equation (2) can be rewritten as the total cost curve of the school corporation:

$$TC = PPSA*N + PPLA*N \tag{3}$$

where:

TC = Total cost and is approximately equal to TA,

N = Number of students,

PPSA = Per pupil state aid, and

PPLA = Per pupil local aid.

An econometric model is not needed to verify the relationships established in equation (3). By differentiating equation (3) with respect to N we find:

$$\frac{\partial TC}{\partial N} = (PPSA + PPLA). \tag{4}$$

Only when PPLA is constant, declining, or increasing at a decreasing rate will decreasing average and marginal costs occur, assuming that PPSA is stable for all pupils 1 , . . ., N. This is also consistent with Debertin's conclusion, because each additional student increases the pupil/teacher ratio. However, it is the lack of additional local tax effort that results in declining per pupil expenses. State aid is the same for student N+1, as it is for N, but local aid is usually based primarily on the value of the property in the district or corporation, which may be only weakly linked to the enrollment in the school (Large-enrollment districts might be expected to contain the most taxable property, but in any state there are many exceptions and counterexamples.)

Can average and marginal costs ever decline as enrollments increase? Suppose that two schools are consolidated. Savings come in two forms. First, consolidation offers the opportunity to alter pupil/teacher ratios and spread the salary of the teacher over a large number of pupils. Consider a course offered in the high school curriculum of school A and B prior to consolidation. Neither school had a large enrollment in the course. Through consolidation, students could still obtain the course and at a lower cost per student than when the schools operated separately (assuming the classes were combined). For a specific funding level, large-enrollment districts almost invariably are able to offer a greater number of courses than can small enrollment districts (Debertin). If a quality education is defined as one that meets the individualized needs of all of its students, a large number of course offerings is one quantifiable quality measure. This is also one measure by which many rural schools fall far short of their urban counterparts, particularly rural schools located in sparsely-populated regions. (As is evident from equation (1), the incremental cost of educating the twenty-fifth student in the classroom is considerably lower than the incremental cost of educating the first, fifth or even the tenth student. There is some debate as to whether the quality of education available to the student when the classes are combined would be inferior to, as good as, or better than it was when the same classes were taught separately at the two schools.)

Second, consolidation also offers the opportunity to lower local tax effort needed to fund schools by eliminating some facility acquisition, operation and maintenance costs and spreading the fixed components of these costs over a large number of students. For example, the cost of visual aid equipment and other electronic teaching aids can be spread over a larger number of students. High-cost athletic facilities, such as swimming pools, might be prohibitively expensive for a small school, but economically feasible for a

consolidated district.

In Florida, these capital expenditure costs account for, on the average, between 8 and 11 percent of total expenditures. Realistically, it might be possible to decrease these costs by three to four cents on the dollar. However, these savings can be offset if transportation costs increase significantly or if additional courses are added to the curriculum (this most likely would alter pupil/teacher ratios). Since consolidation programs frequently involve building new facilities, potential savings arising from better use of existing facilities are often not fully realized.

In elementary and secondary schools, lower birth rates eventually lead to declining enrollments. With declining birth rates, if corresponding adjustments are not made in teacher numbers, the result will be a decline in the pupil/teacher ratios and consequent increases in per pupil (though not total) expenditures. Declining student numbers is a particular problem for high schools located in sparsely-populated rural areas. In sparsely-populated areas, it is difficult, if not impossible, to maintain an adequate breadth of curriculum in face of declining student numbers if the pupil/teacher ratio is not allowed to decline (Debertin, Clouser and Pagoulatos). In most states, since the 1970s, because of declining birth rates and increasing curriculum requirements mandated by the state, the number of pupils per teacher has been declining.

Students are lost or gained one at a time, but the administrate decisions affecting these students are often lumpy. Does the school have a sufficient number of students to offer a particular course? Is one classroom needed for first graders, or two classrooms? As a result, the administrative decisions often lag enrollment losses, and the lumpy decision to not offer the course or to put all the first-graders in one classroom rather than two is made only when it becomes absolutely apparent to the administrator that it is not economically feasible for the school to continue to operate in the same manner as it did before

the enrollment was lost.

One might think of the high school curriculum as fixed in part by the minimums imposed by the state. Regardless of student numbers, this curriculum must be maintained if the high school is to remain open. Elimination of course offerings not mandated by the state might keep expenditures down. However, in large measure, these nonmandatory offerings represent ways in which the educational program offered by the local school is individualized in order to help each student achieve his or her full potential.

Programmatic Funding of Costs in Rural Areas

One of the major educational policy issues is the disparity in the way in which public education is produced within the local school systems and the way in which education is funded. Many, educational administrators, perhaps properly, like to think of and produce education on a programmatic basis. Does the school have a special education program, a vocational agriculture program, or a program in math and science? The diverse collection of these programs comprises the school.

However, states do not fund programs: rather they provide a specific amount of funds in support of the education of each individual student (the funding mechanism might be thought of as based on average cost, not marginal cost). Most local administrators are unconcerned about whether or not the amount of state aid and local revenue is the exact amount needed to cover the true cost of educating each student in the system. The only administrative concern is when the product of the revenue available per pupil times the number of pupils in the school is insufficient to cover the total cost of the current and desired educational programs.

If the revenue is insufficient, the administrator is faced with the need to reduce or eliminate one or more programs, presumably based on a subjective

judgement as to its importance, quasi-political considerations (i.e. will parents object too loudly if vocational agriculture is eliminated?) and whether or not the program is part of a state-imposed mandate and is required for continued accreditation. The other alternative is to attempt to consolidate programs with a neighboring school district in order to reduce costs. Consolidation of programs is more nearly a long-run than short run alternative.

Of course, if available revenues per pupil when multiplied by the number of pupils exceeds the cost of all programs, the administrator can make plans to expand programs. However, with declining student numbers and tight state budgets, few schools in recent years have had the opportunity to expand programs.

Perhaps it is time to rethink our whole system for funding public elementary and secondary education. If schools do indeed produce education on a programmatic basis, does it continue to make sense to fund education on an average cost basis one pupil at a time using a state aid formula? Maybe it is time to begin to think about identifying the specific programs that a school system needs to offer in order to provide a quality education for all its students. Then, it should be possible to develop budgets for each school for each specific program. The total budget for the school system is the sum of the individual budgets for each program. Of course, the expected number of students to be enrolled in each program would have an impact on the size of the budget for each program, but enrollment in the program certainly would not be the only funding factor. Furthermore, such an approach would recognize that teachers skilled in certain subject matter areas are the more expensive than those in other areas, and the budget for each program could reflect these differences.

The state could then provide aid to local schools based on specific programs to be offered. The state might even be selective about which programs are fully funded, providing full funding for state-mandated programs and partial funding for other programs based on a sliding scale which takes into account the

amount of money raised locally. The state might even object to funding certain programs at all. If these optional programs are desired by the school administrator and the local residents, their costs might be funded entirely from tax revenues levied and collected locally.

One objection to a programmatic rather than per-pupil funding basis is that it would allow school districts to become less efficient as educational producers, permitting administrators to get by without making difficult decisions and allowing programs to continue even when enrollments are very low. This objection could be overcome in part by careful work on the part of the state in evaluating program funding proposals.

Another objection is that such a system would be very complicated compared with the current per-pupil system of funding, requiring huge numbers of education bureaucrats to evaluate program proposals. However, current distribution formulae for distributing state aid to local schools are no longer simple, either. Furthermore, the criteria upon which funding for most program areas is based could be quite simple.

A third objection is that the current system provides financial disincentives which act to encourage school administrators to take steps to consolidate programs and schools if enrollments decline. However, if schools were funded on a programmatic basis, the educational professionals employed by the state could become involved in assisting local districts with consolidation of program and schools, as well as develop options that might not be pursued by individual administrators without state assistance.

A central issue relating to rural/urban differences in public schools is the fact that it costs a good deal more to provide educational opportunities that meet the needs of all students in a small school located in a sparsely populated rural area that in a large-enrollment suburban school. Urban administrators frequently argue that they also have additional costs for items such as

attendance services (school police) which neither suburban nor rural schools pay. Programmatic funding could better account for these differences than does the current per-pupil system.

Impacts of Court Decisions

Probably one of the most heavily debated topics among educational policymakers has centered on the impacts of differences in educational funding levels among school districts (or corporations) and the impacts of differential funding levels between urban and rural school systems. Some educational policymakers (including those supporting plaintiffs in court cases designed to test the applicability to educational funding of the "equal protection under the laws" clause of the U.S. Constitution in the court system) argued that education would be more equal among school districts if school districts spent the same dollar amount per pupil (Greenbaum, Michaelson). The supreme court ruled in *Serrano vs. Priest* and later, the *Rodriguez* case.

Plaintiffs in the *Rodriguez* case argued that a system of funding public schools making heavy use of the property tax as a source of revenue created disparities in educational opportunity between high per-pupil wealth versus low per-pupil wealth districts and thus, such systems violated the "equal protection under the laws" clause of the U.S. constitution. While the supreme court, in a 5-4 decision, ultimately threw out the plaintiff's arguments, the court cases sensitized legislatures in many states to the equity problems inherent in a system of public education that relies heavily on tax revenues generated at the local level, and moved toward plans incorporating greater statewide equalization.

Indiana was one of the first states to undertake and institute a funding formula which shifted much of the cost from local property taxes to taxes administered statewide. In Indiana for 1973, the general fund revenue mix for

education was composed of about 36 percent state funds and 64 percent local funds (Clouser). After the state instituted property tax controls and altered the school funding formula, by 1975, the revenue mix shifted to 52 percent state and 48 percent local. By 1979, Clouser estimated state revenues accounted for approximately two-thirds of education expenditures and local funds provide one-third of general fund costs.

Of course, one immediate impact of this change was the further equalization of expenditures among the school corporations, although per pupil expenditures were still not the same for all corporations. In a study of Indiana school corporations Debertin, Clouser and Pagoulatos concluded "the magnitude of the coefficient [on per pupil assessed valuation] as well as its significance [in determining per pupil expenditure and teacher salary levels] deteriorated over time." In other words, per pupil funding levels were less dependent on the property wealth than they had been in the period before the legislature revamped the funding. Of course, not all states made the shift away from the local funding base like Indiana did. According to Deaton, nationally about 50 percent of funds are still derived from taxes levied locally.

Contemporary Issues in Equalization and Equity

Data from some Florida school districts (Table 1) reveals that significant differences in funding levels still exist among urban and rural school corporations. For purposes of discussion, six of the state's smallest school corporations located in rural areas and six of its largest corporations are compared. Five of the six rural districts spend less per pupil than the state average but two of the large districts also spend less than the state average. All urban corporations are closer to the state average than the rural corporations (Table 1).

Transportation costs are often a major expenditure item for rural schools because of the sparse population density in rural areas (Table 1). In Florida the statewide cost for transportation services per pupil was $114 in 1984-85. Four of the six rural schools districts exceed the statewide average by more than 20 percent and one other district exceeds the average by 15 percent. Surprising! No, it was expected. In fact, as long as the decision makers realize situations such as this exist, it is quite easy for them to develop alternatives that do not discriminate against rural school districts (e.g., the state pays a larger proportion of transportation costs in rural areas). The U.S. Supreme court recently ruled that school districts were not constitutionally obligated to provide transportation at no cost to all students.

Finally, it is useful to note that some degree of "equalization" is built in Florida's school financing program. The urban districts highlighted in Table 1 are more dependent upon local revenue sources than are the rural districts. This does not result in complete equalization, but rather, funding levels tend to cluster.

Remember, expenditures for elementary and secondary education represent the largest single item in the budgets of most states. Every district (corporation) wants to make sure it gets its "fair" share. Not every school can get the largest share. Equality, equity and ability-to-pay remain the three primary criteria for evaluating methods of redistributing tax revenues to local schools. Economists must rely on these criteria when evaluating financing alternatives.

Implications

Before closing, it might be useful to reflect on how an economist might best be able to contribute to concerns about the educational system and its relationship to rural development. Our suggestion is that we concentrate more on

the optimal mix of inputs used in the production of quality education. In other words, we need to know more about how tax dollars are transformed into education through the educational production function. A better understanding of the transformation process will allow us to optimize *control* variables in an effort to achieve the highest quality education possible with limited available funds. Others (including Deaton; and Rosenfield) have endorsed the need for a better understanding of the educational production function. A report by the Commission on the Future of the South stated its concern in the following manner.

> *Raising levels of education, which is certainly one of the strongest public goals in the South today, will not reach fruition without looking beyond the doors of the public schools and acting on those conditions that impede the acquisition of knowledge.*

Deaton reached a similar conclusion but expressed his concerns in the forms of institutions, resource and cultural endowments, and technology.

Debertin's research in the 1970s tried to explain how schools influence student performance. Debertin's conclusion based on Indiana and North Dakota data was that "[f]indings from both studies provided only minimal evidence to support the belief that standardized test scores might be increased or performance of students might be improved through increased funding of schools." Repeat that statement today and shock waves of horror will ripple through teacher associations throughout the country because it will be viewed as anti-teacher. But it is not. Rather it points out the complex nature of the educational production function and suggests that putting all our eggs in one basket (increased school funds) might not be a logical approach to improve educational performance.

Deaton's suggestion concerning culture leads one to ask: "What good is it to spend more dollars per pupil if the cultural resources of the area imply that education is not important?" Of course, many other interesting issues can be raised. However, is it surprising to read reports in the popular press about a

University of Iowa study (Woman's Day Magazine, November 24, 1987) that suggests that students who have lower abilities who do three to five hours of homework a week get higher grades than students with more abilities that do no homework. What type of resources were required to accomplish this? An environment conducive to learning--this includes parents who were concerned, a desk, good lighting and a quiet area to study. Of course, other examples that point out factors of importance to educational achievement are easily found (e.g., IBM's Writing to Read Program, the concept of Learning Styles, Peer Counseling, etc.).

Conclusion

The question that remains open to debate is, "Are we as individuals and our profession committed to undertaking the necessary research and extension efforts required to improve the educational system and at the same time enhance rural development?" Professionally we have a core group of individuals who have, or still are contributing to this issue (such as Kohlmeyer, Debertin, Deaton and Tweeten). Only a handful. If prior history is any indication of future trends we won't be contributing much to the issue. If this happens, the possibility of educational reform and educational enhancement for rural development will be a false hope for rural communities.

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Table 1. Selected Financial and Enrollment Data for Florida School Corporations (Districts).

District	% State Revenue		% Local Revenue		Expenditures /FTE		Unweighted FTE		Transportation Service (TS)	TS/FTE
	1974-75	1984-85	1974-75	1984-85	1974-75	1984-85	1974-75	1984-85	1984-85	1984-85
Bay	62.5	67.3	23.5	22.6	$ 1,040	$ 2,763 (1,510)[a]	20,791	21,527	$ 2,887,998	$ 134.16
Calhoun	66.1	66.7	21.4	23.3	997	2,568 (1,403)	2,177	2,052	339,873	165.63
Franklin	61.9	70.2	25.9	20.8	1,104	2,923 (1,597)	1,842	1,587	161,472	101.75
Madison	64.8	74.9	17.7	12.4	1,175	2,807 (1,534)	3,459	3,172	665,641	206.70
Taylor	67.0	65.5	22.5	26.0	1,203	2,838 (1,551)	3,845	3,577	670,799	187.52
Washington	68.1	78.2	12.1	10.2	1,540	3,171 (1,733)	3,998	3,656	785,299	214.80
Florida	54.4	53.0	35.6	39.5	1,172	2,964 (1,620)	1,601,201	1,652,858	188,865,674	114.27
Broward	48.2	42.7	45.1	51.8	1,202	3,020 (1,650)	142,508	140,798	10,888,253	77.33
Dade	50.4	50.5	37.9	41.9	1,235	3,124 (1,707)	268,991	267,664	16,642,202	62.18
Hillsborough	61.9	62.3	26.2	29.0	1,181	2,926 (1,599)	116,318	120,361	15,853,390	131.72
Orange	51.4	57.4	40.9	35.8	1,111	2,897 (1,583)	87,264	90,882	9,197,390	101.20
Palm Beach	45.5	28.5	46.1	65.7	1,244	3,150 (1,721)	79,511	83,568	9,740,370	116.56
Pinellas	56.6	49.8	37.1	44.6	1,176	2,917 (1,594)	95,795	94,637	9,515,640	100.55

[a]Real 1975 $ Expenditures/FTE (deflated by GNP price deflator).