AN EXAMINATION OF EQUITY IN CAPITAL OUTLAY FUND-ING IN KANSAS SCHOOL DISTRICTS: CURRENT METHODS, ALTERNATIVES, AND SIMULATIONS UNDER THREE SELECTED EQUITY PRINCIPLES

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DAVID CHARLES THOMPSON

Bachelor of Arts Friends University Wichita, Kansas 1974

Master of Education Wichita State University Wichita, Kansas 1978

Education Specialist Wichita State University Wichita, Kansas 1983

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Thesis Approved:

Thesis Adviser uck Btorganto nino

Dean of the Graduate College

#### PREFACE

The purpose of the present study was to examine issues of equity in capital outlay funding, to propose several alternatives, and to project and analyze their consequences.

Five alternative methods of funding capital outlay accounts were examined and resource simulations were generated using data for the state of Kansas. The data were statistically evaluated and the results were compared using accepted equity principles. Conclusions were drawn regarding the relative merit of each alternative and recommendations for the use of the study were provided.

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# CHAPTER I

## INTRODUCTION

The issue of equity in school finance and school finance reform is not a new issue. Researchers have been wrestling with the problems surfacing in the process of providing the best and most equitable education for the citizens of the individual states within limited resources since early in this century. In recent years, an increased interest in the role of the state in the funding of school facilities has been observed, and a trend toward state involvement can be seen as beginning to develop. By 1980, about three-fourths of the states had adopted a state plan for financing capital outlay for public schools (Cross, 1983). As the role of the federal government, particularly in projects of a capital nature, has historically been relatively insignificant and narrowly defined (Thomas,(1978), it is incumbent upon the states to look to themselves for the appropriate role that each must seek in providing for school facilities while distributing the costs most equitably.

As an added incentive, a history of court cases which involve the funding of capital facilities has been developing as an indicator of the importance of the issue for the future. Such cases have tended to be turned upon the issues of equity and equal opportunity, as defined by constitutional guarantees of equal protection and the specific language of the individual states' education articles. Legal challenges

of state plans for financing education have very often focused upon the use of the property tax as the primary base for generating revenue and nowhere is the use of the property tax more evident than in the funding of capital outlay in school districts.

A review of the various methods of funding capital outlay in the 50 states was conducted by Webb (1972), which revealed a variety of methods of funding capital outlay. Webb grouped her findings into categories of full state funding, approved project cost grants, flat grants, state equalization grants, state loans, and school building authorities. Augenblick (1977) found similar results five years later. McGuffey (1978) identified eight separate plans for funding capital outlay among the states, which Cross (1983) regrouped into three basic clusters of total local support, total state support, and joint state/local support. Kansas was identified by all the studies as being one of a significant number of states which provides no state level support to capital outlay financing. The current investigation indicated that the system of zero-aid in the state of Kansas has continued to the present time. As a large proportion of the literature has indicated a positive relationship between a school district's taxable wealth and its ability to fund capital projects, it was desirable to undertake such a study in the state of Kansas, as no in-depth analysis of capital outlay funding practices currently exist.

It was theorized that a funding scheme which included the introduction of state aid for the purpose of capital outlay programs would have an equalizing effect upon the ability of school districts to finance school facilities, even when any proposed formulation

continued to be based upon traditional fiscal capacity measures of property wealth.

#### Statement of the Problem

The problem of the study was to review accepted methods of funding capital outlay accounts; specifically, to review the methods by which it occurs in Kansas, to project simulations of revenues obtainable under proposed alternative models of financing, and to evaluate those options using specific criteria available under accepted conditions and principles of equity. The specific aspects of the problem were:

1. To build the case for inclusion of capital outlay as a valid criterion of equity in school finance.

2. To identify specific criteria for school finance equity standards.

3. To identify specific criteria for school finance capital outlay funding alternatives.

4. To operationalize the specific criteria for capital outlay alternatives.

5. To formulate revenue resource simulations under each alternative scheme evaluated.

6. To evaluate the relative performance of each simulation as it relates to reducing both the disparity among school districts of available revenues and reliance upon the local tax base as the limiting factor in financing school facilities.

7. To offer substantive analysis and conclusions regarding the research and to make recommendations for future studies.

#### Importance of the Study

The past decade focused sharply in American society on issues in school finance. Many court cases were filed in the 50 states claiming violations of constitutional rights. The earliest cases tended to seek relief under the Fourteenth Amendment to the United States Constitution.

When the United States Supreme Court issued its landmark ruling in <u>Rodriquez v San Antonio Independent School District</u> (1973) denying relief for claims under the federal constitution, litigation turned to the individual state constitutions (Levin, 1977; Funk, 1980). State courts ruled separately on issues under the specific language of the various state constitutions. Rulings were sought which would establish education as a fundamental right in the various states. If so established, strict judicial scrutiny of finance schemes would consequently be required, with the result that the states would have to show cause for the existence of their formulas. The consequences of unconstitutional rulings of various finance schemes and the threat of numerous lawsuits brought on in the wake of <u>Serrano v Priest</u> (1971) and the subsequent remand in <u>Serrano v Priest</u> (1976) brought about the modification of many funding formulas throughout the nation as states anticipated challenges to their respective finance schemes.

The case of <u>Pauley et al</u>. <u>v</u> <u>Bailey et al</u>. (1984) in West Virginia has been viewed as preliminarily indicative of the developing body for the scope of equity in the future. In particular, the case offered an extensive review of the scope of quality education and capital outlay funding emerged as a substantive issue. Excessive reliance upon local

wealth has been a primary determinant of the quality of educational facilities provided and will continue to raise serious equity questions.

The issue of capital outlay sources has remained current because school districts continue to have needs for capital outlay funds. Although fewer districts are presently confronted with rapidly expanding enrollments common in the days of the so-called baby boom, there has continued to be a real need, based on shifting populations which cause some schools to close while others need to be built. The modernization of facilities and replacement of obsolete structures is a growing problem, as buildings constructed at about the same time have also aged together, causing renovation and replacement costs to soar. Other influences beyond the control of the local district, such as the demands of Title IX and provisions for handicapped accessibility have strained some school district budgets, even where enrollment has declined. Expanding curricular offerings as districts strive to keep pace with technology in preparing children for the future have required new types of facilities and equipment, just as energy cost escalations have forced reconsideration of inefficient facilities. Most generally, ordinary operating funds have not been comfortably sufficient for even the more moderate of special projects, and the schools have been forced to look outside their general operating budgets for aid, including gifts and endowments from the business sector.

As research in the area of capital outlay funding in Kansas is quite limited, this study has added to a needed body of knowledge. It was appropriate to review the relationship of district wealth to the funding of capital outlay in the state of Kansas and to provide formulations on the effects of alternative methods of providing for capital outlay revenue.

#### Limitations of the Study

The specific school finance equity standards and simulation models used in this study were appropriate for wide use in the study of school finance. Generalizations of this study were applicable only to Kansas school districts for the year of the study, except as noted in the text by direct and specific reference. This study was confined to the following limitations:

1. The public unified school districts in Kansas.

2. The official proposed budget submitted to the state of Kansas, and data obtained from the Kansas State Department of Education, Division of Financial Services.

3. An investigation of the capital outlay fund.

4. The revenue and budget information applicable to the specific year of the study, 1983-84.

5. Three school finance equity standards.

6. Selected alternative models for capital outlay.

7. No attempt was made to evaluate the need for facilities in Kansas. However, it was recognized that such information, when developed, will be extremely important in the development of a capital outlay plan for Kansas school districts.

#### Assumptions

The present study was predicated upon the following assumptions:

1. The general fund budget is the only fund in which the School District Equalization Act (SDEA) is operable in the state of Kansas.

 Revenue can be substituted for expenditures in the assessment of equity.

3. The educational need unit is measured by the pupil enrollment on September 15 in each unified school district.

4. Only funds under budgetary line items designated capital outlay are considered in this study.

# Definition of Terms

<u>Adjusted</u> (or <u>Equalized</u>) <u>Valuation</u>. The sum of assessed valuation of locally assessed real estate adjusted to a 30% assessment level as required by Kansas law and the actual assessed valuation of tangible personal property and state-assessed public service companies (railroad and utility). The adjustment of the locally assessed real property is provided by the State Department of Revenue and is based on a sales-assessment ratio study which the Property Valuation Division conducts.

<u>Assessed Valuation</u>. The measure against which a capital outlay mill rate is applied to generate tax revenue. It consists of all tangible taxable property within a district, including assessed valuation of real property, motor vehicles, and business aircraft. At present, farm machinery is excluded.

<u>Bonded Indebtedness</u>. Governed by state statute and refers to the extent to which a district has the ability to commit itself, or to which it has already committed itself. <u>Bonds</u>. Legal debt instruments of either a general revenue or general obligation type. They are instruments bearing value, interest rate, maturity, and constituting a legal contract.

<u>Budget Per Pupil</u>. The amount of revenue a district can raise during a given year. It is determined by statute, enrollment category, and median budget per pupil of the enrollment category.

<u>Budgetary Controls or Limitations</u>. The manner in which the state legislature controls the maximum budget per pupil for the general fund budget. The individual districts vary in authority within limits set by the legislature. Districts are allowed to raise their budgets each year in relation to their position relative to the median as established within an enrollment category.

<u>Capital Outlay</u>. A special fund established in each school district for the purpose of maintaining, repairing, expanding, or constructing school facilities. Capital outlay monies may also be used to purchase equipment and buses under Kansas law.

<u>Capital Outlay Reserve Fund</u>. The capital outlay account, permitted to accumulate taxing authority which may be drawn upon for distribution to taxing subunits. The concept is employed in simulation.

<u>Cash Basis</u>. A statutory provision (also referred to as "pay-asyou-go") which requires districts to fund purchases within its means and without the use of obligation of future revenues.

<u>Children's Equity</u>. A broad, educational principle of equity which focuses on the child as the object of concern for services rendered.

<u>Debt Limitations</u>. Legislatively controlled structures by which districts are limited by debt ceilings. Based on assessed valuation,

current law limits school districts to 14% of assessed valuation, beyond which appeal to the State Board of Tax Appeals must be observed before it may be exceeded in issuing bonds.

<u>Educational Need Unit</u>. The pupil count as of September 15 of each fiscal year. It is the measure by which the Kansas finance formula allocates funds in aid to local school districts.

<u>Enrollment</u> <u>Category</u>. An arbitrary classification by the legislative body of the state to school districts based on grouping or ranges of enrollment populations.

<u>Equal Opportunity</u>. A principle of equity stating that a goal of equity is that all participants have equal access to the resources of the district and state.

Equalization. A principle based on the concept of ability to pay for services by providing a scheme by which the end product of a formula places all districts equivalently in terms of financial outcome.

<u>Equity</u>. A general term in school finance which refers to the most equal and nondiscriminatory distribution of broadly-defined resources to the prospective recipients, based on specified need in relation to the range of services offered.

Ex Ante Fiscal Neutrality. A finance equity standard which states that equal local tax effort should result in equal tax revenue (Melcher, 1979).

<u>Ex Post Fiscal Neutrality</u>. An equity standard which holds that variations in actual revenue per educational need unit should not be related to variation in local fiscal capacity (Melcher, 1979).

<u>Federal Range Ratio</u>. A statistical measure in a distribution. It is a restricted range measure for establishing wealth neutrality. The per-pupil object of equity is divided into the range. <u>Fiscal Capacity</u>. A measure of available economic resources in an area. For capital outlay, the property wealth of unadjusted assessed valuation is the measure of fiscal capacity.

<u>Fiscal Neutrality</u>. A principle that holds that a student's education should not be a function of local property wealth. It should be a function of the wealth of the state as a whole.

<u>Flat Grant</u>. A revenue simulation device whereby the state assumes a less-than-full funding role and allocates an equal amount to districts for a specific purpose, based on some uniform measure, such as ADA, ADM, classroom unit, per teacher, weighted pupil, or other selected standards.

<u>Full State Funding</u>. The assumption by the state of the total responsibility for distribution and administration of a program or system of funding.

<u>General Fund Budget</u>. The only fund which utilizes the equalization formula in the state of Kansas. All operating expenses of a school district are paid from the general fund budget, except for special funds, of which capital outlay is a special fund.

<u>Gini Coefficient</u>. A statistical tool which is a measure of equity used to assess distributions. It is a tool which measures wealth concentration within a given distribution of values as a cumulative percentage to the cumulative population.

Legally Adopted Budget. The school district budget which is adopted by the governing board for the succeeding year and is subject to all controls imposed by the legislature. The legally-adopted budget is submitted annually to the State Department of Education. <u>Line Item</u>. The specific line of the budget which refers to a subcategory of the total budget. Capital outlay accounts are found in line item 1200.

Loan Program. An alternative funding method sharing the same characteristics of the state grant program, except that the district incurs a debt which must be repaid from locally-generated revenue.

Local Effort Rate. The amount of funds the individual district contributes to the total general fund budget and special funds. The local effort and the amount of state aid are equal to the total accessible revenue for the district for the given budget year.

Maximum. The largest score or value in a distribution.

<u>Mill Levy</u>. An expression of value relating to a fractional proportion of the dollar. One mill of assessed valuation where AV =is expressed as .001 and one mill assessed is equal to one dollar of revenue per \$1,000 of assessed valuation.

Minimum. The smallest score or value of a distribution.

<u>Pearson</u> <u>Product-Moment</u> <u>Correlation</u>. A statistical tool which measures the relationship of two variables. Positive or negative variance may be observed between two variables and allows for consideration of causation.

<u>Percentage</u> <u>Equalized</u> <u>Grant</u>. A funding alternative based on equity principles of aid in inverse relationship to ability to pay for services.

<u>Property Wealth Index</u>. A measure of local fiscal capacity. As defined by this study, the property wealth index means the assessed valuation multiplied by a constant mill levy as specified. <u>Range</u>. The difference between the highest value and the lowest value in a distribution of scores.

<u>Relative Means Deviation</u>. A statistical measure of equality which examines the differences between a per-pupil expenditure and the mean per-pupil expenditure and expresses the absolute value of the differences as a percentage of the total expenditures in the distribution.

<u>Resource Equity</u>. The same as resource accessibility and refers to an equity standard which states that all children within a state should have equal access to the economic resources necessary for education suited to their needs.

<u>Restricted Range Ratio</u>. The same as the 95th to 5th percentile range ratio. It is the difference between the object at the 95th and 5th percentiles of pupils when arranged in ascending order.

<u>Revenue</u>. Income to a taxing subunit derived from assessment of a mill rate to an accessible tax base. Revenue is substituted for expenditures under all simulations in this study except in calculation of a realistic mean budget per pupil, as fiscal capacity is the issue rather than actual expenditures.

<u>Simulation</u>. A projection of revenues or expenditures under specified conditions. Variables may be dependent or independent and manipulation of dependent variables while holding constant certain independent variables results in quantifiable data.

<u>Sinking Fund</u>. Similar to a capital reserve fund, except that it is specifically generic and nonspecific to a particular or intended purpose. <u>Special Fund</u>. Individual funds within the Kansas school budget accounts to which monies may be allocated.

<u>Standards of Equity</u>. Concepts which are used to assess the relative fairness of a funding scheme in reference to two broad classifications of students or taxpayers. Standards referred to in this study are the resource accessibility, <u>ex post</u> fiscal neutrality, and ex ante fiscal neutrality standards.

<u>State Aid</u>. Monies paid to local school districts by the state for local use in funding programs.

<u>Strict Judicial Scrutiny</u>. A legal concept based upon a rigorous examination of an issue where it may be possible that constitutional issues are violated and that a scheme works to the distinct disadvantage of a particular group for which the state will be required to show compelling interest if the scheme is to stand.

Sum. The total of all cases in a distribution.

<u>Taxbase Accessibility</u>. The sources of wealth which are accessible to a school district over which it may exercise taxing powers or stands to be in receipt of funds.

<u>Taxpayer Equity</u>. A concept which requires that all persons in similar circumstances will be treated alike and that any variance is not attributable to variations in local wealth.

<u>Transfer</u>. The statutory permission to reallocate funds within the various accounts of school district budgets in the state of Kansas.

Zero Aid Program. Total local support of a program where there is no state money contributed, resulting in total local responsibility for support and maintenance of a specified program or project.

#### Organization of the Study

In the study, the following organization may be observed:

Chapter I, the introduction to the study, includes a statement of the problem, justification for the study, assumptions, definitions of relevant terms, and procedures for the study.

Chapter II contains the review of selected literature and research that apply directly to the study.

Chapter III consists of a description of the research procedures used in treatment of the data with the intent to analyze capital outlay funding under the present conditions operating in the state of Kansas and states the procedures used to simulate revenue under five alternative methods of funding captial outlay. Evaluation of the simulation data was by statistical analysis with reference to conditions of equity-satisfying of the three selected equity standards of <u>ex post</u> fiscal neutrality, <u>ex ante</u> fiscal neutrality, and resource accessibility.

Chapter IV presents the findings of the study and Chapter V summarizes the research, draws conclusions, states some implications for state policy, and offers recommendations for further research.

## CHAPTER II

# REVIEW OF RELATED LITERATURE AND RESEARCH STUDIES

#### History of Equity Issues

As noted earlier, the issue of equity in school budgets is not a new phenomenon among analysts in the field of educational finance. Beginning with Cubberley's work in 1905, the development of the states' role in financial support of education began to take first form (Burrup, 1977). Prior to the present century, the financing of schools and school facilities was nearly always the exclusive domain of the local community in which the individual school was located. Certainly, no direct aid for capital outlay expenditures from any governmental unit was regularly provided. Any governmental interest in financial procedures concerning the financing of capital outlay tended to be a general concern for the protection of bond purchasers, applicable debt limitations, and the reduction of public debt (Thomas, 1978).

With the onset of the twentieth century and the inception of the foundation program approach proposed by Cubberley, issues of finance equity began to take on a new respectability. Researchers began to look at current issues in educational finance with a new perspective. Creative formulations such as Strayer and Haig's (cited in Thomas,

1978) monumental work in 1923 sparked interest and controversy among observers of educational finance. Strayer and Haig noted that taxable income distributions in counties in New York were substantially different from property valuations, indicating that assumptions regarding property wealth as a measure of ability to pay may not always accurately reflect the reality of a situation. As an alternative, Strayer and Haig proposed summing taxable income, together with 10% of the property values, as an improved measure of fiscal capacity (Thomas, 1978). The issue of the best measure of fiscal capacity was born of that controversy and remains an issue argued at great length up to the present time.

In the early 1900's, Updegraff (cited in Cross, 1983) promoted some of Cubberley's concepts with modifications of his own, in which he suggested that local effort should be rewarded by a resultant increased level of support. A few years later, Mort (cited in Melcher, 1979) criticized the Strayer-Haig proposal, stating the inappropriateness in his view of the use of a measure of wealth which was essentially inaccessible to taxation, referring to the use of income as a measure of fiscal capacity. Mort concluded that regardless of the inherent values in any criticism of a tax structure, the property valuation was the only accessible and therefore the most appropriate measure of fiscal capacity under the usual circumstance.

As a consequence of the writings of various scholars, state legislatures were brought to an awareness of the problems in the general finance of schooling. Legislatures struggled with issues of the relationship between cost and quality and subsequently developed new and novel ways of financing education in the respective states.

Specific funding formulas were developed and implemented in an attempt to provide a least a minimum foundational approach to increasing the quality of education across the nation, while still allowing for the preservation of the American ideal of local control of education. Models of state support were developed by analysts such as the one offered by Morrison (cited in Cross, 1983), who proposed, in a radical sweeping reform, the abolition of local school districts and the full assumption of the role of financing by the states. Although his words were widely noted, only Hawaii today has adopted such a system and it can clearly be observed that Morrison's ideas were not widely accepted despite the current recognition that educational quality varies widely across the nation and even across the geography of a given state.

During the ensuing decades of the 1930's and 1940's, the fiscal equalization approach gained in popularity and was adopted in many states. In 1949, 43 of the 48 states employed some type of equalization formula for the distribution of aid to local school districts (Melcher, 1979). These trends continued essentially unchanged into the decade which followed, and not until the period of social upheaval observed in the sixties did systems of finance thought to be secure begin to crumble under tremendous pressures from the heightened social consciousness which was dramatically altering the American scene. Since that time, opposition has mounted against traditional systems of educational finance, arguing that better methods must be developed than those which rely so heavily on property as the measure of wealth, and that there must be a more equitable object for equalization than the pupil measure (Melcher, 1979; Funk, 1980). Despite the arguments

against property as the wealth measure, response to alternative measures has not been widely evidenced by elected state legislatures.

## Legal Development of Equity Issues

It stands axiomatically that no systematic change is ever accomplished without a concomitant force compelling it to do so. Such reforms and interests as have occurred were not easily accomplished or engendered vacuously, either in terms of general availability of methods or by uniform consent. In the course of this century, the courts have frequently been called upon as a means to force state compliance with a developing body of general concepts governing the principles of equity and equality of educational opportunity. These principles of equity and equal opportunity had their genesis in the landmark case of Brown v Board of Education of Topeka in 1954. That case, although not specifically related to school finance in the strictest sense, was to mark the beginning of a series of litigations regarding the issue of equal educational opportunity, and it was only a matter of time until astute observers of the educational process were to observe that the financing of educational systems could be observed to have a direct effect upon the resulting quality of education available to citizens.

A review of litigation in the 50 states strikingly showed the recent and rapid increase in challenges to the states' various methods of financing education. The turbulent decade of the seventies, together with the period extending back to <u>McInness v Shapiro</u> (1969) and forward to the present with <u>Dupree v Alma School District No. 30</u> (1983), became known as the "decade of school finance reform." Financing systems were challenged in most states, with many reaching the supreme courts of the individual states, including the landmark case of <u>Rodriguez v San Antonio Independent School District</u> in Texas in 1971, which reached the Supreme Court of the United States.

The <u>Rodriguez</u> case marked one of two specific turning points in finance challenges through the courts. Until <u>Rodriguez</u>, constitutional challenges had almost invariably claimed a violation of equal protection laws under the Fourteenth Amendment to the United States Constitution and sought to establish education as a fundamental right and thereby invoke strict judicial scrutiny. The reversal by the U.S. Supreme Court of the appellants' lower court victory in <u>Rodriguez</u> established the futility of federal protection claims where no specific discrimination against a particular class of persons is found and where no fundamental right is thought to be jeopardized. Thus, the state is consequently not required to show compelling interest for the scheme to stand.

Thirteen days after the decision in <u>Rodriguez</u>, the Supreme Court of New Jersey ruled on the case of <u>Robinson v Cahill</u> (1973). The court unanimously held that the New Jersey system of public school finance was unconstitutional. As a consequence, litigants in other states who had previously sought reform under the federal constitution and the Fourteenth Amendment's equal protection clause turned to the individual state constitutions in search of substantive issues to litigate (Levin, 1977; Funk, 1980). State courts ruled separately on constitutional issues under the specific language of the various state constitutions. Hack (1978) identified two types of questions which suits stated as the basis of action. Hack indicated that claims tended to fall under the Fourteenth Amendment to the United States Constitution prior to 1971, and afterwards on "thorough and/or efficient" state clauses. Suits brought claiming the equal protection violation were patterned after <u>Serrano v Priest</u> (1971, 1976), <u>Rodriguez v San Antonio Independent School District</u> (1973), <u>Horton v</u> <u>Meskill</u> (1977), and <u>Board of Education of the City of Levittown v</u> <u>Nyquist</u> (1981). Cases pursuing the "thorough and/or efficient" method included <u>Robinson v Cahill</u> (1973, 1975), <u>Lujan v Colorado State Board</u> <u>of Education</u> (1982), and <u>Board of Education of the City of Cincinnati</u> <u>et al v Walter</u> (1977). Hack further stated that two additional areas common for claims were: expenditure variations and issues of fiscal neutrality.

Similar analysis was offered by Richman (1981), who divided the history of litigation of school finance into two phases. Phase I was identified as extending from 1965 to 1973 with the passage of the Elementary and Secondary Education Act by the U.S. Congress which focused Title I funds on the wealth disadvantaged. Phase II extended from 1973 to 1979, beginning with <u>Rodriguez</u>. The evidence indicates that significant ground was gained through the pursuit of equity in the courts, and by the present time, more than 32 major cases have been filed in the state courts in at least 26 separate states.

Decisions from these cases over the period from 1969 to 1983 have been mixed, although in recent years a discernible direction has begun to be established which may well set the tone for a new round of activity. The earliest equity cases tended to be viewed as not violative of the individual state constitutions, but beginning with <u>Serrano</u> <u>v Priest</u> (1971) and the subsequent decision in <u>Serrano v Priest</u> (1976), a flurry of activity produced a large number of interpretations of equal opportunity by state courts and ruled many finance systems unconstitutional on the specific language of education clauses. The rulings were based on several specific factors recognizable under the states' constitutions. First, it was determined that state constitutions may be more strictly construed than the federal constitution. Secondly, it was found that states may deem education to be a fundamental right which must be interpreted from the specific language of the constitution, and finally, that education was a primary responsibility of the individual states by virtue of powers left to the states by the Tenth Amendment to the federal constitution, thereby requiring an effort by the states to perform their duties. For a number of years following, the courts proved to be a fertile ground for testing concepts of equity.

## Establishment of Equity Legal Principles

The consequent state challenges of constitutionality estabished in those states the issue of the fundamental nature of education as a right or a privilege and went on to establish a number of other important principles in school finance. Among those significant principles were two issues of paramount importance. First, it was established that equity is not necessarily synonymous with equality; that is, equity is not automatically satisfied by equal inputs of dollars (Funk, 1980; Berne and Stiefel, 1984). In fact, such perception of equity may actually lead to significant inequality by the failure to recognize that equal opportunity in education cannot be achieved when inputs are equalized and special needs are thereby ignored. The

second principle developed followed the same line of logic and required that wealth could be a function of educational quality only insofar as it is the wealth of the state as a whole. This was an issue upon which many of the cases brought were keyed--that primary reliance by finance systems upon the local property tax base as the primary source of funding had created inequalities in the educational opportunities available to citizens. That is to say, it has been observed unequivocably that there is a direct relationship between the ability to generate revenues locally and the relative quality of the local educational program. Although straight dollar inputs are often seen as less than totally satisfactory as a measure of quality and although the search for rigorous definition continues, several important court cases have indicated that dollar inputs are the only substantive criterion for determining quality at the present time.

Despite that awareness, the courts, in ruling upon the constitutionality of the various finance systems, have strongly resisted becoming involved in stating the specific parameters of a quality education beyond those basic and general principles identified previously regarding wealth neutrality. Instead, the courts have deferred to the wisdom of the individual legislatures in such matters of expertise as educational design and finance formulations. A directional shift has been recently observed, however, in <u>Pauley et al. v</u> <u>Bailey et al</u>. (1984), in which the court exhaustively explored the meaning of a quality education, and made explicit a warning for future possibilities of lawsuits which will undoubtedly key upon the comparative quality of all aspects of those elements central and peripheral to the concept of educational opportunity. Those concepts seem to possess significance for states in fulfilling their responsibilities for providing thorough and efficient educations for their citizens. Specific reference has been made in several cases to the funding of capital facilities as a function of equity considerations.

A summary of recent court principles was offered by Burrup (1977):

- 1. The public education of a child shall not depend upon the wealth, other than the wealth of the state as a whole; this means that the quality of a child's education cannot be a function of the wealth of his parents, his neighbors, or the school district.
- Taxes levied for school purposes must generate the same total number of dollars per mill of tax in poor districts as in rich districts.
- Since educational needs vary from district to district, the state does not have to require all districts to spend the same amount of money or offer identical programs.
- 4. Education is considered to be a fundamental interest of the state.
- 5. Although local property taxes discriminate against the poor, state legislatures are not required to eliminate them in favor of taxes on other sources of revenue.
- 6. Additional expenditures may be made by schools for programs for exceptional children and compensatory programs for culturally disadvantaged children, and also for other educational needs of children that are significant and worthy of special treatment.
- There is an implication, although not a direct ruling, that equitability must be established in capital outlay expenditures in the same way as that required for current expenditures.
- 8. No specific plan or plans have been mandated to achieve equity in school finance formulas; states will be allowed a reasonable time to revise their laws and bring them within court guidelines (p. 191).

In summary, a number of principles are identifiable through court decisions to aid in the development of equity in educational opportunity. It is possible to relate those issues directly to general principles derived from the academic discipline of educational finance.

# Principles of Equity

As noted previously, the general direction of court decisions has not gone unnoticed by observers of the field of educational finance. A concomitant body of school finance literature has developed, attempting to identify generalizable concepts and principles within school finance issues. Many definitions and descriptions of equity have been developed (Benson, 1961; Carlton, 1980; Funk, 1980).

Issues in equity have traditionally been either student-centered or taxpayer-centered (Berne and Stiefel, 1984). Berne and Stiefel reviewed the literature centering on empirical studies and grouped them into several categories. The first layer of division was children's equity and taxpayer equity. Berne and Stiefel proposed that four major questions exist in equity which need to be considered when conducting and evaluating quantitative research. The questions included serious issues regarding for whom equity should be achieved, what should be equalized, how it should be equalized, and how equity would ultimately be measured. Berne and Stiefel then summarized the research by subgrouping it into categories based on the questions posed. They found that the majority of research conducted has focused most frequently on children's equity, and within that category, the object of equity has focused upon expenditures, revenue, and inputs, respectively. Throughout the literature, Berne and Stiefel found a lack of concern for the taxpayer, which is in their scheme a value judgment which needs to be recognized by individuals involved in any facet of research.

Berne and Stiefel (1984) suggested that an explicit framework for analysis of equity studies should be utilized by researchers in order to clearly develop and define the intended direction of proposed research. They maintained that very little in the field of quantitative research is truly objective and that unless certain values are classified and recognized, much of the research being done is biased and needlessly clouded. Berne and Stiefel argued that if the researcher specifies answers to each of the four value-laden questions, consumers of research will be better able to evaluate the perceptual base of the study and proceed to make judgments regarding both its value to the field as a whole and to the individual consumer.

In general, then, several principles of equity are evident throughout the literature which tend to be identified and defined variously, and to some extent perceptually, as they relate to the direction of the individual research.

Three broad definitions of equity frequently found in the research and restated by Carlton (1980) regarding school finance equity applicable to most issues are the principles of <u>resource equity</u> or resource accessibility, <u>ex post</u> fiscal neutrality, and <u>ex ante</u> fiscal neutrality. A number of alterations, modifications, and alternative formulations of these principles have been developed, along with cautions and guidelines regarding their use. Melcher (1979) indicated that during the 1970s, no consensus was reached concerning definition or measurement of equity or of fiscal capacity, but rather that two broad but measurable standards of resource equality and fiscal neutrality proposed in <u>Serrano</u> <u>v</u> <u>Priest</u> (1971, 1976) have been enunciated. Barro (cited in Carlton, 1980) noted:

The <u>ex post</u> interpretation is that actual development of level of educational support must not correlate with wealth . . . the <u>ex ante</u> formulation is that the ability of a district to support schools should not depend upon wealth (p. 25).

It was therefore necessary for the purposes of this research that several value judgments within resource equity, ex post fiscal neutrality and ex ante fiscal neutrality, be made in order to satisfy the reasonableness of the conceptual framework proposed by Berne and Stiefel (1984). For the purposes of this research, the following assumptions and judgments guided the study:

1. A concern was demonstrated primarily for children, and secondly, for the taxpayer. Thus, a heavy emphasis was placed upon children as the center of equity activity, essentially for the reasons proposed by Berne and Stiefel (1984). As education was accepted as an investment in a child's future and thus the goal was to best equalize opportunity for success, attention was paid to the way services are provided. Thus, a concern was demonstrated for both the present time and the future of the child.

Concern was also shown for the taxpayer, but not so much as a class as for the effect of the relationship of fiscal capacity in its bearing upon educational opportunity. If the relative position of the taxpayer is so unequal and dissimilar as to produce insurmountable shortfalls of adequate revenue from taxation, then the effects are known among issues of children's equity to an unconscionable extent. 2. A choice of objects to be equalized may be made among inputs, outputs, and outcomes (Berne and Stiefel, 1984). Issues of fiscal resources, fiscal inputs, physical inputs, outputs in terms of behavior and achievement, or outcomes such as earnings, potential, income, and satisfaction may be evaluated. No satisfactory method of analysis for this question has been developed other than for fiscal inputs, and consequently, the dollar input as a measure of equity has been selected as the object to be equalized in this study.

3. Without a means to evaluate progress, little can be learned regarding achievement of equity. Formulations of resource equity, <u>ex</u> <u>post</u> fiscal neutrality, and <u>ex</u> <u>ante</u> fiscal neutrality have been selected for this study as representative of a broad range of concerns, and these principles correlate satisfactorily across the literature.

4. To evaluate progress made under equity standards, objective measurement was required. Consideration of this issue is value-laden and statistical measures to observe equity progress were established in Chapter II under the research design.

Identification of Resource Accessibility, <u>ex post</u> Fiscal Neutrality, and <u>ex ante</u> Fiscal Neutrality Standards

The issue of resource accessibility refers to the equal access of students to adequate educational funds (Melcher, 1979; Carlton, 1980). Resource equity focuses on measurement of inputs and revenues, such as the number of teachers, courses, facilities, or dollars, rather than evaluating outputs such as test scores, job placement rates, and so forth (Funk, 1980).

Where there is significant absence of adequate tax bases under systems which rely heavily upon local effort for financing public education, a strong indication is believed to exist that wealth, or its absence, is a major determinant of the quality of educational opportunity. While court-forced and voluntary-equalization plans have had a mitigating effect upon the relative range of extremes prior to any observations of equity concerns, there has been generally less than perfect results in all three measures of resource accessibility, <u>ex post</u> fiscal neutrality, and <u>ex ante</u> fiscal neutrality in the research literature. This observation has been demonstrated specifically to be true in the state of Kansas, where the local tax base is a primary source for educational funds. Where the local effort is depended upon as a major force in available revenue, equal access has not been achieved in instances where local effort results in funding below the median budget per pupil.

The issue of  $\underline{ex post}$  fiscal neutrality refers to issues alluded to previously. The principle of  $\underline{ex post}$  fiscal neutrality states that the local resource capacity should not be tied to the local tax base. This equity standard is a restatement of the principles set out in <u>Serrano v Priest</u> (1971, 1976), in which the court stated that education is not to be a function of wealth except the wealth of the state as a whole. Reliance upon local assessed valuation as the method of financing education, even where state aid exists, has tended to violate the principle of  $\underline{ex post}$  fiscal neutrality if that reliance resulted in districts unable to fund their budgets at the average level of expenditure.

The issue of <u>ex ante</u> fiscal neutrality states that principle referred to as a "taxpayer equity standard" (Melcher, 1979; Carlton, 1980). Under the <u>ex ante</u> fiscal neutrality standard, equity is defined as a taxpayer standard when equal dollars per pupil are obtained from equal tax rates (Funk, 1980). Tax assessment practices play an important role in achieving taxpayer equity, as <u>ex ante</u> fiscal neutrality states that there should be equal yield for equal effort. Geography should not result in variations in revenue when a given mill levy is applied against properties of equal and comparable values within a state.

Studies in Kansas (Carlton, 1980; Funk, 1980) have demonstrated that the present general equalized state aid formula tends to violate all three principles to some extent. Funk (1980) argued that the <u>ex</u> <u>post</u> fiscal neutrality standard is violated when 67.24% of funds available at the district level are tied to district wealth and that local control reduces the effect of equity reform.

Carlton (1980) conducted his study of general equalized state aid in Kansas using all three measures of resource equity, <u>ex post</u> fiscal neutrality, and <u>ex ante</u> fiscal neutrality. He determined that in Kansas, for the year of the study, resource equity tended to be present to a greater degree than the other two standards by virtue of enrollment categories, which minimized variations in enrollment expenditures by partially adjusting for cost differentials, but that disparities still remained. Carlton further found that the <u>ex post</u> fiscal neutrality standard tended to be violated by the positive correlation between revenue and wealth. He additionally observed that the statutory budget limitations imposed upon school districts have had a dual impact in that budget limitations tend to lock in inequities by serving to retard movement by below-median school districts toward the median, while simultaneously preventing high spending school districts from completely outstripping lower spending districts. As a consequence of these two disparate phenomena, the distance from the median budget per pupil has tended to be preserved at both ends of the spectrum.

That equity is a valid and researchable question is a welldemonstrated observation in the body of current literature, where numerous studies have attempted to examine the effects of equalized finance formulas. Equity issues have tended to focus either upon students or taxpayers as the object of concern. Both issues have been forced by the courts in a series of lawsuits based on the concepts of equality of opportunity. Issues in equity may further be seen as issues of equal opportunity for students, also defined as "resource accessibility," horizontal equity for students, also defined as "<u>ex</u> <u>post</u> fiscal neutrality," or horizontal equity for taxpayers, also defined as "<u>ex ante</u> fiscal neutrality." Value judgments in the selection of objects of concern and objects for distributional equity must be made in order to lend both direction and objectiveness to questions in educational finance research.

# Capital Outlay History in the Literature and Courts

The issue of capital outlay equity concerns has its roots in the same general equity questions pursued in the courts over the past recent decades. No substantive issues develop either easily or in a
vacuum, and a review of the legal background of equity arguments proves to be important in establishing capital outlay as a valid equity question.

Funding for capital outlay has historically been a low priority item when compared to other educational concerns (Cross, 1983). Prior to the twentieth century, school buildings were generally local concerns, often raised by hand with volunteer labor and materials, or through other inventive local methods of raising funds for school buildings and plant needs. It was not a very complicated time and a smaller percentage of school-age children were able to attend school on a regular basis. Building costs were neither so uniform nor extravagant and educational programs were not so sophisticated as to require special facilities. Very few buildings became obsolete and the questions of municipal overburden had not yet become a great concern (Burrup, 1977). Thus, the era prior to the twentieth century was characterized by the local community's responsibility for shouldering capital outlay, often through private donations of sites, materials, and labor for the common welfare of the community.

The advent of special local property taxes marked the turning point later in the century at which it was finally realized that previous methods of construction were no longer sufficient to meet the growing need for larger and more elaborate facilities. In the latter part of the nineteenth century, the borrowing of funds for school construction became necessary, and bonding became a reality. This change marked the obvious beginning of the phenomenon of capital outlay funding practices being more closely related to the value of property than to building needs in the local community. Locations of

power plants, oil and gas facilities, railroads, and industries became critically valuable in the determination of local districts' fiscal ability to fund needed and desirable projects (Thomas, 1978; Salmon, 1981).

Shortly after the turn of the century, it was apparent that the times were becoming considerably more complex and that the needs of communities were not always being fully met. To a limited extent, some states began to recognize the problems of school plant financing and began to take some small steps to alleviate the problems. In 1901, Alabama instituted funding for rural school buildings and two years later Delaware aided the building of facilities for blacks. In 1909, South Carolina instituted a similar program and North Carolina and Virginia began offering state loans (Thomas, 1978). Georgia became the third state to offer aid to local districts in 1911 for capital outlay purposes (McGuffy, 1978). By 1972, a large number of states had made some type of provisions for assisting local districts with the cost of school facilities (Webb, 1972) and Salmon (1981) indicated that much the same pattern continued to exist. Cross (1983) reaffirmed support levels common in the current decade.

Over the years, since the inception of facilities funding, finance methods had become quite diverse and sophisticated. Salmon (1981) observed methods ranging from full-state funding in Hawaii, Florida, and Maryland, to no state assistance at the opposite end of the continuum. Finance methods which fell between the extremes tended to be either equalization schemes, percentage-matching plans, flat grants, loan programs, or local or state building authorities. Fourteen states were identified in Salmon's review as having no state participation in capital outlay funding at that time. Zero-aid states were identified as: Arizona, Colorado, Idaho, Iowa, Kansas, Louisiana, Montana, Nebraska, Oregon, Ohio, Oklahoma, South Dakota, Texas, and West Virginia.

Although the funding of capital outlay has not received the same attention in equity questions by the courts that equalization of general aid to school districts has experienced, facilities financing has been reviewed at least preliminarily by the courts. A developing body of legal statements as a part of larger decisions has indicated a growing awareness that capital outlay issues have the potential to be directly accountable in the courts under equity principles in a significant way. Since many states have relied heavily on local property taxes for financing capital outlay, many states' programs may be vulnerable if challenged (Cross, 1983).

Although no suits have initially been brought on the basis of capital outlay funding, direct reference to capital outlay over the past 15 years has been made in other equity suits. Court cases, including the <u>Serrano v Priest</u> (1971, 1976) case in California, <u>Rodriguez v San Antonio Independent School District</u> (1973) in Texas, <u>Van</u> <u>Dusartz v Hatfield et al</u>. (1971) in Minnesota, <u>Robinson v Cahill</u> (1973) in New Jersey, and <u>Shofstall v Hollins</u> (1973) in Arizona have provided principles against which the ripeness of capital outlay as an issue may be tested. The principles of wealth neutrality and equal access to resources stand to guide states in the development of finance schemes which will withstand the scrutiny of challenges (McGuffey, 1978).

As already seen, the issue of equity in school facilities has been frequently observed. Direct reference to capital outlay funding was addressed in the Arizona case of Shofstall v Hollins (1973), when the Supreme Court of Arizona stated that funds for capital improvements in school districts were more closely tied to district wealth than funds for operating expenses and that the capacity of a school district to raise money by bond issue is a function of assessed valuation. The New Jersey Supreme Court in Robinson v Cahill (1973) noted that the state's obligation also included capital expenditures, without which the required educational opportunity could not be provided. The court noted in Board of Education of the City of Cincinnati et al. v Walter (1977) that a thorough and efficient system of common schools throughout the state is not met if any number of school districts are starved for funds, or lack of teachers, buildings, or equipment. Also in 1977, the case of Diaz et al. v Colorado State Board of Education caused concern for the court when it was observed that the issue of "thorough and efficient" was present in that some districts were better able to provide facilities to their students. A further case in Colorado of Lujan v State Board of Education (1982) concluded that the fiscal capacity of school districts to raise revenue for bond redemption and capital reserve funds was directly related to the taxable property wealth.

Even more recently, the case of <u>Pauley et al. v Bailey et al.</u>, (1984) in West Virginia was indicative of the developing criteria for the scope of equity. In the most extensive and exhaustive review of the scope of quality education to date, capital outlay funding was seen as a substantive issue. If courts were previously reluctant to concern themselves with more than Fourteenth Amendment and equal protection claims in the separate states and had stated a desire to leave the control of how equality would be achieved to the legislatures, then there is at least a minimal indication shown by the interest of courts in cases beginning with <u>Serrano v Priest</u> (1971, 1976) remand and continuing to the present with the master plan required by the court in <u>Pauley v Bailey</u> (1984) that courts will become involved in the administration of justice, if necessary. The attention focused in <u>Pauley v Bailey</u> on school facilities is a significant step in the direction toward specific court cases aimed at inequality (Truby, 1983).

## Current Methods of Funding Capital Outlay

That the funding of capital outlay is an issue of significance is well established. Jolley (1983) surveyed Utah school district superintendents in order to assess the interest level in alternatives for capital outlay funding and to establish criteria for state equalization of capital outlay. He also assessed the advantages and disadvantages of alternative methods available. Jolley found that there was a high degree of belief that sharing the wealth is a desirable goal and that the criteria most frequently mentioned included equal yield for equal effort, equal opportunity, adequacy, partnership, experimentation with innovative finance plans, and efficiency in achieving desired goals.

Other research has investigated present problems existing in capital outlay funding. Keller (1981) studied 1,071 Texas school districts to determine: (1) if poor districts as defined by assessed

valuations were exerting more or less effort for maintenance and operation than wealthier districts, (2) how size was related to wealth, and (3) the number of districts levying for debt service. Keller concluded that wealthier districts were able to tax less for service and simultaneously produce more tax monies per ADA and that, on the whole, smaller districts in Texas tended to be wealthier than larger districts.

Ikoku (1983), in a study of capital outlay bonding in Oklahoma, found that significant wealth disparities existed in per pupil bond revenue available. Similar evidence was found by Darbison (1978) of the relationship of local ability to pay as it affected the quality of programs and facilities in his survey of representative Oklahoma school districts' capital outlay capacity.

As definitions of quality education and of equity have begun to emerge from the work of scholars and developing court decisions, the issue of financing capital outlay as a measure of quality seems to be omnipresent. Nowhere was the issue more concisely stated than in the words of Governor Calvin Rampton's address to the Utah Conference on School Finance in 1972 (cited in Webb, 1972, p. 1): "If we think there are inequities in the state systems for funding current expenditures of public schools, wait till we examine the way we finance school buildings!"

Numerous methods by which to fund capital outlay projects have been devised by the various states. Methods in use range from no aid or total local responsibility, as in the state of Kansas, to full state assumption. Webb (1972) identified six major methods of state assistance in funding capital outlay in those states which provide

some form of assistance. Broad categories identified included full state funding, approved project-cost grants, flat grants, state equalizing grants, state loan programs, and school building authorities.

A similar series of classifications was produced by Thomas (1978) and again by Salmon and Thomas (1981). Groupings were identified as: full state support, state/local sharing, flat grants, equalized grants, and state loans and authorities. Salmon and Thomas further identified methods of funding within the broad categories as four general options of current revenues, reserve funds, general obligation bonds, and shared facilities.

Cross (1983) accepted the six classifications of funding methods proposed by McGuffey (1978). Categories illustrated were: emergency funding, loan programs, consolidation grants with cost sharing, general aid formulas, debt service retirement, and state grants with district cost sharing. For purposes of the present study, the categories of total local support, full state funding, flat grants, equalizing grants, and state loan programs were adopted within the added characteristics of current revenues, reserve funds, and general obligation bonds as vehicles for capital accumulation.

## Current Revenues

The method of financing facilities in general can be viewed either on a cash or debt basis. As the name implies, the current revenues method is a pay-as-you-go method (Salmon, 1981). It may be observed that such an option is available only to the more affluent school district, as the proportional relationship of operating cost to budget authority is an inverse relationship. The current revenue method eliminates the attendant costs of debt instruments such as bond attorney fees, interest payments, and election costs. In most districts, however, the usefulness of such an alternative is limited by its impracticability based on insufficient revenues obtainable from low assessed valuations. Arguments which have traditionally been used to attack the use of current revenue methods in funding capital outlay include the impracticality of cash basis operation during periods of moderate to high inflation, and the inflationary benefits received from borrowed funds in times of escalating inflation.

### **Reserve Funds**

A second alternative is referred to as capital reserve funding. Reserve funds are a method by which some states allow the accumulation of unused authority in anticipation of future needs. Perceived advantages of the alternative include the elimination of bond election costs and the immediate availability of funds. Opponents argue that the benefits-received principle is a relevant concern in a mobile society and that strict monitoring is necessary to prevent pressing needs from diverting funds to more immediate projects.

### Bonded Indebtedness

A third type of finance method is by issuance of general revenue or general obligation bonds. By far the most common method of financing facilities construction, general obligation bonds have proved, in many instances, to be the only practicable way to construct facilities and to service debt obligations. To issue bonds, general or special elections must be held in which the voters of a district agree to allow funds to be raised by issuing bonds in the district's name. Bonds are merely a financial instrument issued by a corporate body to borrow money from investors who purchase the bonds. The date of issuance, interest, method of principal repayment, and the term of the debt are clearly stated (Thomas, 1978). Bonds may be term or serial and are backed by the issuer's pledge of faith, credit, and taxing power. In most states, the law regulates precisely the manner and conditions of bond issues (Salmon, 1981). Bonds are generally attractive to investors, being tax-exempt from federal income taxes and generally quite safe investments. Bonds are rated on their desirability as investments, which may attach added cost to the district. Generally, governmental entities such as school districts enjoy a higher safety rating which, in turn, is favorable to the district in market interest rate, thereby lowering the eventual total long-term cost of bonds for capital improvements projects (Thomas, 1978).

## Total Local Support

Once the decision has been made regarding cash basis or debt creation, a variety of options remain for districts within the statutes governing the respective states. The choice of alternatives is not always easy, and it is made more difficult in those states which provide no support to school districts for capital outlay funds.

Total local support refers to the absence of a state role in funding capital outlay accounts and to the absence of any dollars other than locally generated tax revenues from within the district itself. Traditionally, the method by which schools have been financed, the practice of total local support or zero aid is currently in practice in the states of Arizona, Colorado, Iowa, Kansas, Louisiana, Montana, Nebraska, Nevada, Oregon, Oklahoma, South Dakota, and Texas (Cross, 1983). Kansas is identified as one of the 12 states providing no aid to capital outlay, leaving each district to fend for itself on the basis of assessed valuation.

## Full State Funding

At the opposite end of the spectrum lie the states which purport to totally, or at least substantially, support capital outlay projects at the state level. In actual practice, a more accurate restatement of the principle may be that local districts are not required to participate in construction costs in order to receive funds (Cross, 1983). In such a scheme, the determination of need is ultimately made at the state level and the local assessed valuation is not a limiting factor in the ability to receive needed funds.

McGuffey (1978) identified seven states providing funds for capital outlay with no district cost sharing required. The states of Florida, Hawaii, Maryland, Mississippi, North Carolina, South Carolina, and West Virginia were identified as full state funding states at a significant support level. Cross (1983), in discussing McGuffey's work, indicated that Maryland has backed off the full funding scheme by requiring local districts to reshoulder a part of the burden due to revenue shortfalls experienced in the first six years of the program. In the other states identified by McGuffey, all tended to be characterized by centralized mechanisms outside the local district, and considerable state involvement has worked its way down to the local level. Florida has been financing capital outlay to a significant extent since 1973, requiring a facilities survey by the state board of education and supervision by the state commissioner of education who determines the allocations to individual districts. The state of Mississippi has been involved in capital outlay funding since 1953, and a 1975 revision called for grants, legislative funding, and state school bonds, together with allowing local districts the ability to levy for capital outlay and to issue emergency bonds. In both North and South Carolina, grants have been provided on a per pupil basis without requirement of local contribution, although local districts retain the power to levy and to supplement state grants.

In 1972, West Virginia passed a constitutional amendment requiring state bonding for financing construction of school facilities. Funds were to be distributed on the basis of a formula flat grant, combined with ability-to-pay, and local districts could exceed funds allocated by election.

It is clear from the discussion that full state funding, as conceptualized by its name, has been less pure in practice than might be supposed (Webb, 1972; Salmon, 1981). A number of features of full state funding and other types of methods of facilities funding often become combined with the critical element identified as whether or not the local school district is required to participate with local effort. A number of advantages and disadvantages such as less reliance on assessed valuation and the loss of local control where the state becomes involved have been argued eloquently with equally ineffective results, as evidenced by the continuation of traditional local funding practices.

### Flat Grants

A number of states participate in a flat grant approach to capital outlay funding. In more than one state, the use of flat grants or a specific dollar amount allocated on a uniform basis is combined with other formulations, making a sum total of 50 states within the categories inappropriate if each state is accounted for individually. The flat grant approach utilizes some objective basis for allocation such as ADA, ADM, classroom unit, or other criterion, and distributes the funds equally. A level of support is decided upon by the legislatures and also a determination is made of how the local district may use the funds and whether or not the district may elect to add local money. States identified by Salmon (1981) as utilizing the flat grant concept in some form included: Alabama, Georgia, Illinois, Indiana, Kentucky, Mississippi, Missouri, Nevada, New Jersey, and South Carolina. The advantages to flat grants have been perceived as local control remaining a reality, the use of a statewide tax base providing a greater measure of equity by virtue of less reliance on local assessed valuation, and a simpler administration than is required by more complex formulas. The disadvantages have been similarly perceived as grants tending to be merely supplementary in practice to local effort, and that districts have tended to receive funds without demonstrable need. Additionally, districts have tended to exert pressure to continue such grants once a program is in place, disregarding either need or effectiveness in the achievement of equity.

## State Loan Programs

State loan programs are often similar to flat grants, except that

the loans are not debt-free participation by the states in aid to school districts. In return for needed loans, districts pledge themselves to eventual repayment of borrowed funds, except in those instances where the funds made available are classified as loan-grants which specify that if repayment is too burdensome, the loan becomes a grant.

A number of advantages and disadvantages are seen to accrue to loan programs. Perceived advantages have included the notion that the state as a lender becomes a cheaper source of borrowed funds. In some instances, debt limitations imposed by states have not applied as a deduction and consequently the district is left free to engage in other contract practices. Similarly advantageous is that often the amount of time needed to obtain funds is much shorter than where elections must be held and that the taxbase for the loan reserve is broader than where assessed valuation is a limiting factor. Disadvantages noted have included the fact that loans have tended to serve as stop-gap measures without correction to the real issue of insufficient capacity, and that districts conceivably may not be in a position to borrow wisely.

## Equalized Grants

The principles of equalizing grants are based on the same measures which brought equalization to state general aid formulas. They are designed to supply a measure of equity to taxpayers within the state. Where equalization effort is not in place, a disparate tax rate at the local level is often necessary to generate an equal number of dollars needed to fund similar capital projects. Consequently, as

in the case of equalized general aid, equalized grants provide dollars for capital outlay purposes in an inverse relationship to local ability to pay for facilities.

Advantages perceived by the use of equalized grants are several. The unequal tax load tends to be alleviated by providing aid in inverse relation to ability. Further, the requirement of some local participation should reduce the lack of vested interest in the unwise use of money, and the reduction of dependency by the school district on the locally raised dollar should allow other governmental agencies the opportunity to have a greater share of the tax base. Disadvantages cited have included the observation that in order for such a program to be truly effective, large initial investments would probably be required to fund current needs immediately. States identified by Salmon (1981) as participating in equalizing grant programs included: Alabama, Illinois, Maine, Massachusetts, Michigan, New Jersey, New Mexico, New York, Pennsylvania, Rhode Island, Tennessee, Utah, Washington, Wisconsin, and Wyoming.

## School Building Authorities

An arrangement by which private or public capital constructs, leases, and in certain instances eventually deeds, buildings to school districts once the debt is retired, is a final alternative to capital outlay funding. State statutes must be carefully studied to determine how, if indeed at all, such arrangements may be conducted within the individual states. Advantages seen as accruing to states which allow such practices of blending private or public capital with public needs have included an avoidance of restrictive debt limitations which are a function of assessed valuation, and that building authorities have allowed for the acquisition of school facilities without the need for costly bond elections required under traditional circumstances.

Likewise, several disadvantages have been observed. In the current marketplace, interest rates have tended to be high and have lacked the very favorable state financing rates seen in state participation plans. Taxation issues also are unresolved and voter opinion is seen as being dangerously ignored. States allowing for the operation of building authorities were identified by Salmon (1981) as: California, Florida, Indiana, Illinois, Iowa, Kentucky, Massachusetts, New York, Pennsylvania, Georgia, Maine, Maryland, North Dakota, Virginia, and Wyoming. While the potential usefulness of such arrangements is significant, widespread use is not likely to become a reality except where fiscal conditions and political climates are favorable to their development (Camp, 1983).

# Capital Outlay Principles and Issues

It was evident throughout the review of relevant research that, despite the paucity of direct litigation concerning the issue of capital outlay funding, there continues to be substantial interest in the topic. There is concern about its potential effect upon schools and school budgets in the future. As educational finance continues into the present decade, an everpresent reality in the face of a popular resurgence of fiscal conservatism and shrinking school district budgets is that the needs of individuals will come into sharper focus as the reality of potential cutbacks is recognized by special interest groups who will seek to maintain or increase their level of support at the expense of less aggressive programs (Berne and Stiefel, 1984). Competition for the educational dollar will continue to grow and the resources to be distributed can at best be expected to remain static, if not to decline.

Embodied in every discipline and scholarly pursuit are philosophical underpinnings and assumptions upon which all progression of thought and critical evaluation rest. Several models for desirable capital outlay conditions have been formulated. As early as Updegraff, capital outlay concerns were evidenced by his logical extension of Cubberley's general work in equity (Cross, 1983). Updegraff called for a percentage amount to be related to actual costs and fiscal ability. Mort proposed a percentage addition to the foundation program and Morrison promoted the revolutionary idea of abolition of local school districts and advocated a plan similar to what may be found in Hawaii today (Cross, 1983).

One of the better formulations of a model for capital facilities planning was promoted by Barr and Jordan (cited in Cross, 1983) in the NEFP project. They proposed incorporation of nine concepts into any formulation for the construction and financing of school facilities:

- The primary purpose of school facility financing programs is to provide funds for housing educational programs which will meet the diverse needs of the total school population.
- 2. The state has a primary responsibility for establishing school facility standards.
- 3. Educational facility needs are derived from locallydetermined, state-approved, educational programs.
- A mixture of federal-state-local funding is necessary.

- 5. Retention of fiscal leeway is a necessary condition for the proper functioning of any school facility financing program.
- Equalization through intergovernmental grants-in-aid is an essential feature of viable capital outlay programs.
- Permissive short- and long-term borrowing from varied governmental and nongovernmental sources and appropriations from all levels of government are options which must be available to local districts.
- 8. Long range planning for construction and financing school facilities is an essential element.
- Provisions of school facility financing programs should be responsive to changing economic and sociological conditions, but should also be stable and predictable to facilitate long-range planning (pp. 71-72).

Although critics may claim that the immediate needs for the primacy of concern in capital outlay funding are less pressing in periods of enrollment decline, there is still a need for competent planning and indeed for continued construction. Nearly all states are presently experiencing population shifts and existing facilities age rapidly and must either be replaced or extensively renovated. Additionally, a number of districts are actually increasing in enrollment as the economic climate changes unpredictably, creating a need for capacity in school districts to adequately meet the demands of quality education and equal opportunity. In the formulation of alternative methods of funding capital outlay in the state of Kansas, the concepts proposed by scholars such as Barr and Jordan (cited in Cross, 1983) and Berne and Stiefel (1984), among others, need be incorporated into the evaluation of progress toward the achievement of equity.

### Capital Outlay Financing in the State of Kansas

Although the state of Kansas does not participate directly in funding capital outlay budgets and expenditures, provisions for financing capital outlay projects have been statutorily provided in the laws of the state. Kansas law does not provide for the equalization of any fund other than the general fund budget and, as a result, no deliberate attempt is made by the state at providing movement toward equity in capital outlay expenditures. Decisions regarding capital outlay are entirely an issue of local control, and subject only to fiscal capacity conditions in terms of either unadjusted assessed valuation as the maximum allowable four mill capital outlay levy will raise or the bonded indebtedness capacity will permit, which again surfaces as a function of the assessed valuation operation.

Several different methods currently exist by which Kansas school districts have created capital funds. The method under review in this study was that districts may legally impose a mill levy against the unadjusted assessed valuation of the school district in order to raise revenue for capital outlay purposes as described. Laws governing capital outlay levies provide that a school board may elect without a vote of the residents to levy up to but not exceeding four mills for capital outlay purposes for a period of up to five years, except that a budget hearing is required where a levy may be protested. Revenue from the capital outlay levy must be deposited to the capital outlay account from which it may be expended for any legal purpose, or it may be allowed to accumulate for future use. Interst monies earned on capital outlay accounts must be deposited to the same account as well. If accumulation of the capital outlay fund is permitted to occur over a period of time, the accumulated funds may be sufficient for projects of repair and upkeep of facilities and perhaps for some smaller building needs. The value of the capital outlay account continues to be, however, a function of the local assessed valuation times a locally approved mill rate plus any interest earned on the account.

An additional source of funds for the capital outlay account has been in the elective use of interest earned on the general fund budget. Districts may presently elect to deposit interest from the general fund to the capital outlay account. If cash balances are high and capital outlay contributions under levy are significant, a considerable amount of combined funds can be contributed to the fund balance.

Districts may also transfer money from the general fund to capital outlay one time per year but the district must have previously budgeted a capital outlay levy of not less than three and one-half mills for the current year. The amount of the transfer is not permitted to exceed one percent of the legally adopted general fund budget of operating expenses in the four largest enrollment districts and two percent of the budget in all other districts. No transfers from the general fund to the capital outlay fund may be made prior to June 1 of the school year. Expenditures for any purpose or program must be made from the respective special funds, with the exception that a district may make expenditures from capital outlay for the acquisition of equipment and repair to school buildings from the general fund. Thus, the only fragment of state support to capital outlay surfaces here through equipment and repair and by transfer from the general fund

budget to capital outlay. It has not been effective in equalization, however, as school districts which strain to raise money will likewise have little unused budget authority to transfer and then they must have previously levied three and one-half mills to be eligible to make such transfers.

A third method by which districts have added monies to capital outlay accounts is through motor vehicle property tax and the motor vehicle stamp tax. Such monies have not been a great source of revenue for school districts in general, as in order to be eligible for receipt of these funds the district must be already levying the four mill capital outlay levy. Where mill rates are already high due to low assessed valuation, there may be a reluctance on the part of local boards to levy the required mill rates to be eligible to receive motor vehicle tax proceeds.

A fourth method which has been used by school districts to fund capital outlay projects is through the issuance of revenue or general obligation bonds. Bonding requires voter approval of the district for proposed projects. In Kansas, such method of funding is directly related to the assessed valuation of the district, as districts are limited by the bonded indebtedness capacity of the district. Bonding has long been the predominant means of facilities financing in the state of Kansas, as it is clearly less than practical in significant projects to expend from reserves in such large amounts, even if the capacity to do so exists, making the cash basis a generally impractical alternative in most cases. In the event that bonded indebtedness capacity is found to be not sufficient to meet the need of the

district, appeal may be made to the State Board of Tax Appeals for exception.

To determine the local bonding capacity of a district requires extensive knowledge of the tax base. All tangible taxable property must be determined and summed. Tangible taxable property includes the assessed valuation upon which the school district's general fund budget is formulated, the motor vehicle assessed valuation, and the value of business aircraft within the district. Although farm machinery is not currently taxable, it is included as a measure of district wealth in assessing fiscal capacity determinations for school districts contemplating bonded indebtedness.

If the project cost is to be equal to or less than 14% of the debt limitation, all that is required of the school district is to publish by resolution the intent for the issuance of bonds as prescribed by law, to hold an election and, if approved, to proceed with the project. If the accumulated project cost exceeds 14% of local capacity, the district must petition the state for permission to hold the election. Customary practice upon appeal to the tax appeals board has been to approve requests up to 25-30%. If approval is gained, the election still must be held to determine the will of the electorate.

School bonds in the state of Kansas are classified as municipal bonds and may be either revenue or general obligation funds. General obligation bonds may be issued to purchase or improve any site needed for school district purposes, including the housing of pupils, and to construct, equip, furnish, repair, remodel, or expand buildings. Additionally, bonds may be used to acquire equipment or to purchase school buses, and may be issued without election in an amount not

exceeding \$20,000 upon securing written permission from the state board of education.

General limitations applying to bond issues other than the debt limitation described have included a variety of requirements regarding length of maturity, permissible interest rates, frequency of elections, and other concerns designed to protect the interests of the electorate.

#### Summary

The past decade has focused sharply in society on issues in school finance. Many court cases were filed around the nation claiming constitutional violations of equal protection clauses, and litigation continues to be a reality in school finance.

When the U.S. Supreme Court issued its ruling in <u>Rodriguez v San</u> <u>Antonio Independent School District</u> in 1973 denying relief under the federal constitution's equal protection clause, litigation continued in the individual states under the specific language of their separate constitutions. State courts ruled separately on issues focusing on language and reviews of framing interpretations. Decisions were sought which would affirm education as a fundamental right under the respective constitutions and thus cause finance systems to have to justify themselves under strict judicial scrutiny. The consequences of the unconstitutional ruling of various state schemes brought about the modification of numerous finance formulas based either on actual violations or anticipations of challenges in the remaining states.

Among other important reference points, the case of <u>Pauley et al</u>. <u>v</u> <u>Bailey et al</u>. (1984) in West Virginia indicated the growing concern for the scope of equity. In an extensive review of the scope of quality education, capital outlay was identified as a substantive issue of real concern. Excessive reliance upon the local wealth base of property has been the primary determinant of the quality of educational facilities provided and it is certain to continue to raise serious equity questions.

A review of major research literature in the field of equity and capital outlay financing produced mixed results. It is apparent on the one hand that the topic is ripe for a full-scale and significant legal challenge based on principles of pupil equity and taxpayer equity and yet there is a lack of related literature. Capital outlay as an equity issue is clearly in its early stages of development. Complex issues of property tax equity, property tax relief, limitations imposed on local tax revenues, the disparity of local effort rates in providing for school facilities, and issues focusing on the preservation of the American ideal of local control need immediate attention.

There has been limited research on the topic of capital outlay funding for school districts. Research and related literature are particularly sparse in the state of Kansas, which provides no direct money for facilities to local school districts. It is appropriate at the present time to review the function of district wealth as it relates to the funding of capital outlay in the state of Kansas and to propose the effects of alternative methods for providing capital outlay revenues.

## CHAPTER III

# RESEARCH DESIGN

# Introduction

To be judged successful, a reform must reduce the relationship between wealth and expenditures per pupil (Funk, 1980). The issue of equity in school finance is not a new issue among researchers in the educational field. Analysts have been struggling with the problems surfacing in the process of providing the best and most equitable education for citizens of the individual states within limited resources since early in this century when, in 1905, Cubberley first focused attention on the concept of a foundation approach as a means to alleviate capacity disparities (Burrup, 1977).

As interest in equity has gathered, finance schemes in the various states were initiated in succession as states sought during the ensuing decades to define their proper role in the financing for public education. Many formulations were offered during the early years of this century, and eventually the concepts were refined to include the equalization principles evident today in the general fund formulas governing general school finance schemes.

During the past decade, a flurry of school finance reform occurred in the wake of court decisions in the tradition of <u>Serrano v Priest</u> (1971, 1976) in California. At first, the courts were reluctant to

become involved in finance schemes beyond the determination of constitutional issues, deferring to the expertise of the legislatures and the propriety of the legislative role as in <u>McInness v Shapiro</u> (1968), <u>McInness v Ogilvie</u> (1969), and <u>Burrus v Wilkerson</u> (1970).

Courts later became involved to a greater extent in the administration of reform after it became apparent that the force of law would become necessary in some instances to affect change. Courts have also indicated a disposition to become involved if necessary, not only in the determination of issues of equity as they relate merely to economic inputs, but also as related to increasingly broader interpretations of the meaning of equal educational opportunity which may be extended to the financing of capital outlay.

Because of the potential for equity claims in capital outlay concerns and because Kansas does not participate in funding capital outlay accounts, the problem of the study was to review the prevalent alternative methods of funding capital outlay accounts, and specifically to review the practice in the state of Kansas with direct reference to accepted principles of equity. It was also accepted that the study would project revenues under simulation of alternative finance schemes by application of a hypothetical four mill capital outlay levy within five selected alternative schemes. The specific aspects of the problem were:

1. To build the case for inclusion of capital outlay as a valid object of equity.

To identify the broad major practices currently in use in the
50 states and to identify alternatives for funding capital outlay
accounts.

3. To identify specific criteria for school finance equity standards.

4. To operationalize the specific criteria for capital outlay alternatives and to generate revenue resource simulations under five alternative schemes using available data for the state of Kansas.

Three equity standards identified from the literature as resource accessibility, <u>ex post</u> fiscal neutrality, and <u>ex ante</u> fiscal neutrality were used to compare the relative degree of equity achieved under each of the simulations of revenue calculated under the five alternative schemes for funding capital outlay accounts in Kansas. When a degree of equalization in a state funding formula is achieved, then a degree of equity is also believed to be achieved (Carlton, 1980). Standards were used to assess the degree of equity achieved under: (1) total local support, (2) full state funding, (3) equalized percentage grant, (4) flat percentage grant, and (5) flat percentage loan funding alternatives. Achievement of equity was identified as the capacity to fund a calculated mean budget per pupil, which was derived from a three-year average of actual capital outlay expenditures across the state.

## Establishment of a Mean Budget Per Pupil

In setting or establishing a target level of funding as representative of perceived adequacy for educational facilities and programs for capital outlay, it may be observed that the present method of funding the equalized general state aid to individual school districts in Kansas takes into account legislatively established enrollment categories which purport to recognize differential costs of education

based on enrollment population extremes. Implicit in the scheme is an assumption that the enrollment category median represents an adequate level for quality expressed by the fact that statutory budget limitations allow school districts below the median budget per pupil of the enrollment category to raise their budgets by the maximum authority established by the legislature, expressed as percentages above a base 100. For example, a school district whose budget per pupil was below the median in 1983-84 was allowed to raise its budget by a maximum of 115%, while a district at or above the median budget per pupil was only allowed an increase of 105%. Carlton (1980) reviewed statistical procedures appropriate for analysis of Kansas school district funding formulas and found the median as more representative of equity than other measures of central tendency, given the uniqueness of the use of a median in school finance formulas.

In the present research, however, spurious results would have been obtained if enrollment category expenditures were arrayed and a median figure derived, since a considerable number of districts may not have capital outlay expenditures for a given year, while other districts may have several very large costs. The results in such a situation would be misrepresentative because of extremes. A more responsive measure of adequacy was obtained by summing the capital outlay expenditures across the state for all enrollment categories for a period of three years to reduce single-year values and then dividing by the sum of the number of pupils in the state based on full-time enrollment (FTE). The result was a mean budget per pupil, which served as a definition of adequacy against which alternative formulations or simulations could be compared. Further, the effect of

enrollment categories as a measure of cost differential or price adjustment was deemed insignificant, because an averaged dollar cost per pupil can be viewed as representative of the state as a whole. Further effects of prevailing wage laws in Kansas and recognition of the nonspecific residence of construction companies and a three percent protective bid rate tend to mitigate any significant effect of geography in capital outlay costs. The mean budget per pupil as a measure of central tendency was accepted for this study as applicable to the establishment of an adequate support level under hypothetical revenue simulation and analysis of capital outlay alternatives.

To establish a mean budget per pupil revenue support level for purposes of capital outlay equity projection where no such figure has previously been established required a method to be determined by which to calculate that figure. To arrive at a mean level of support, state department data was used to derive a total of all actual capital outlay expenditures reported for a three-year period, from 1980 to 1983, and divided by the number of pupils for the same period. Calculation of the mean budget per pupil for capital outlay was shown as a formula:

$$\overline{BPP} = \frac{\frac{COE_{80} + COE_{81} + COE_{82}}{\frac{Np_{80} + Np_{81} + Np_{82}}{3}}$$

where:

BPP = mean budget per pupil for adequacy of support for capital outlay funding

- COE = capital outlay expenditures for a given year
- Np = number of pupils defined as the FTE on September 15 of each year shown

It was noted that the establishment of a mean budget per pupil made no assumption regarding the actual needs within school districts for capital outlay funds. The purpose of establishing a mean budget per pupil for this study was to provide an objective standard against which alternative revenue simulations may be compared to determine relative satisfaction of equity conditions. The present study was limited to examination of capacity under capital outlay provisions without considerations of actual facilities needs. A discussion of this issue is undertaken in Chapter V.

The mean level of support calculated was used as a measure of adequacy against which revenue simulations under each of the five alternative capital outlay funding efforts could be assessed using the three equity standards of resource accessibility, <u>ex post</u> fiscal neutrality, and <u>ex ante</u> fiscal neutrality using selected statistical measures. Revenue resource simulations were calculated for alternatives of sufficiency of support at the mean budget per pupil by: (1) total local support, (2) full state funding, (3) percentage equalized state grants, (4) flat percentage grants, and (5) flat percentage state loan programs. Relative differences in ability of each funding alternative in relation to equity approximation as operationalized by the equity principles were observed and discussed. Application of the principles of equity against funding alternatives produced quantifiable results used the substantive considerations appropriate to the study.

## Operationalization of Equity Principles

"Inequality cannot be measured in the abstract. It must be based upon a clearly-defined philosophical position" (Grams, Guthrie, and Pierce, 1978, p. 318). Equity has been a broadly-defined term in the research literature and definitions of equity are as varied and diverse as the perspective of the researcher. A recognition of those value judgments which influence research perspectives is essential in order to allow consumers of research to properly understand the emphases being advanced by different studies (Berne and Stiefel, 1984).

The most universally and broadbased definition of equity has been that equity is the equal treatment of equals and the unequal treatment of unequals (Carlton, 1980). Equity is further assumed to distribute funds in educational finance not necessarily on an equal per dollar basis but rather on the basis of legitimate need for optimization of opportunity in the American ideal (Berne and Stiefel, 1984).

Equity has been further divided into two inclusive categories of student or pupil equity and taxpayer equity (Carlton, 1980; Funk, 1980; Berne and Stiefel, 1984). Pupil equity refers to a variety of objects which may be distributed and can cover a spectrum of inputs considering raw dollars, price-adjusted dollars or physical resources, outputs such as achievement and student behaviors, or it may consider outputs such as earnings, income potential, and pupil satisfaction. Pupil equity has arisen from a concern for students as the primary object of educational services and is ideologically premised as well on the belief that the present educational system will be a major determinant of the quality of future life (Berne and Stiefel, 1984).

The goal of pupil equity is that all students in like circumstances will be treated alike and that funds needed to provide an adequate education suited to their needs will not be unduly tied to the local district but rather to the wealth of the state as a whole. Grams, Guthrie, and Pierce (1978) stated the goals of student equity to be that: (1) local district wealth is not a significant factor, (2) different educational needs are overcome, and (3) differences in the educational costs are neutralized by the state's school finance formula. A review of the literature by Berne and Stiefel (1984) indicated that, of the two broad categories of pupil equity and taxpayer equity, pupil equity studies have predominated significantly over taxpayer studies.

Taxpayer equity studies have encompassed the remainder of equity studies. Taxpayer equity is based on the principle of equal yield for equal effort and the ability to pay for educational services. The ability to pay concept indicates that taxpayers should not be unduly taxed to the point of overburden (Carlton, 1980). Additionally, equal yield for equal effort implies that horizontal equity is present among taxing subdivisions. Thus, the <u>ex ante</u> formulation is a measure of wealth neutrality (Berne and Stiefel, 1984). If there are to be differences in expenditure, it is incumbent upon the system that such differences be a function of expressed preference rather than an expression of capacity (Berne and Stiefel, 1984). In practice, the issue of equality in school finance has become one which is based more on the formula than on what actually has been spent.

### Resource Equity Operationalized

The equal accessibility, resource accessibility, and resource equity standards are essentially the same principles by different names. Resource equity is defined by requiring that all students in a state have equal access to the economic resources needed for a program to fit their needs. Johns and Magers (1978) indicated that equity should be measured by program adequacy, but no comprehensive and mutually accepted definition of what a good program is has been developed. The assumption of the notion of a mathematically derived and reality-based mean budget per pupil for capital outlay finance is appropriate for purposes of defining program adequacy in this study.

Therefore, the operational definition of resource equity for purposes of the present research was that resource equity is achieved when all students in a school district have equal access to the economic resources of the state for purposes of capital outlay funding as defined by the mean budget per pupil established for the three-year period preceding the year of the study.

Statistical measurement was necessary to assess the degree of resource accessibility to the mean budget per pupil once resource simulations were calculated. Assessment utilized the range, the restricted range, the federal range ratio, relative mean deviation, and the Gini coefficient.

The range exhibited the value of extreme scores and the restricted range demonstrated a more representative view of the cluster of scores disregarding extremes. The federal range ratio utilized the wealth neutrality test established for receipt of federal funds. The

relative mean deviation allowed examination of the difference in each district's per pupil revenue capacity and the mean per pupil capacity for distribution. The Gini coefficient indicated the association of revenue produced to the population by giving a bivariate plot of the cumulative percentage of total school revenue to cumulative proportions of the population in the district to the state's student population, thereby yielding a degree of wealth concentration.

Examination of resource equity allowed response to substantive issues regarding capital outlay. Among the issues to be determined were questions concerning which alternative showed the greatest amount of resource accessibility under simulation in relation to funding at the mean revenue for the state, which alternative showed the least movement toward resource equity, which alternative allowed for the greatest variation in resource equity, and which alternative allowed the least variation.

# ex post Fiscal Neutrality Operationalization

The <u>ex post</u> fiscal neutrality standard refers to equity among pupils on the basis of the absence of a positive relationship between wealth and residence. The <u>ex post</u> fiscal neutrality standard represents the principle that residence should not be a factor in revenue capacity and that variations in expenditures should be a consequence of local decisions and not a result in disparities in accessible revenue tied to the tax base. It is a fiscal neutrality concept, exploring wealth attributable relationships in revenue to the aggregate wealth of the state as a whole rather than the individual district. Friedman (1977) summarized the ex post fiscal neutrality

#### standard as:

- 1. Ex post fiscal neutrality measures the degree of equity after funding choices have been made.
- <u>Ex post fiscal neutrality is violated if high wealth</u> districts tend to spend more for education than the low wealth districts.
- 3. The <u>ex post</u> fiscal neutrality test is concerned with actual expenditures not being systematically related to the wealth of the district (p. 33).

As the relationship between capacity and revenue received will vary proportionally according to the type of support scheme simulated, an either/or evaluation was needed. Therefore, the operational definition of <u>ex post</u> fiscal neutrality for purposes of the present study was that school districts receive aid in an inverse relation to the ability to raise specified revenue to fund the mean budget per pupil or that fiscal capacity not be related to aid received in order to fund the mean budget per pupil.

Statistical measurement was necessary to assess the degree of <u>ex</u> <u>post</u> equity present in each alternative funding method. Assessment utilized the range, the restricted range, the federal range ratio, relative mean deviation, Gini coefficient, and the Pearson productmoment correlation coefficient.

The range demonstrated the continuum of values existing under each alternative funding scheme and is discussed regarding the <u>ex post</u> formulation. Similar evaluation of the restricted range and federal range ratio occurs. The relative mean deviation was used to assess the position of the local districts in relation to the mean to determine ability to fund the mean value. The Gini coefficient reexamined the issue of wealth concentration and the Pearson product-moment correlation examined the relationship between the need unit and taxbase accessibility.

Examination of <u>ex post</u> fiscal neutrality allowed for responses to substantive questions, including a determination of which alternative showed the greatest reliance on local capacity to fund the mean budget per pupil, which alternatives showed the least reliance on local capacity to fund the mean, and which alternatives showed the greatest and the least variation in generated revenue available.

### ex ante Operationalization

The taxpayer equity standard is the alternative formulation to pupil equity. As with pupil equity, the concern may be for horizontal equity or for vertical equity. The vertical equity concern may be for the ability to pay principle and the horizontal concern may be for the equal yield for equal effort principle. Friedman (1977) summarized the elements of ex ante fiscal neutrality:

- 1. Equal tax effort will yield equal revenues.
- 2. Tax effort is measured by the property tax rate.
- 3. A tax rate scale should be printed that gives expenditures for each tax unit. Then a district merely chooses the expenditure level it desires and the differences is made up by the state.
- 4. The <u>ex ante</u> fiscal neutrality test is concerned with the rules of any finance plan; i.e., that equal effort yields equal expenditures. The resulting patterns of expenditures do not matter so long as the rules are fair (p. 34).

To operationalize the ex ante neutrality standard in capital outlay funding, consideration was again given to the either/or proposition considered earlier. The operationalized definition of ex ante neutrality was that school districts either receive aid which meets the mean budget per pupil irrespective of local effort, or aid is received in inverse proportion to ability to pay as measured by uniform effort rate deficiency.

Statistical measurement was necessary to assess the degree of <u>ex</u> <u>ante</u> equity present under each alternative funding method. Assessment utilized the range, the restricted range, the federal range ratio, relative means deviation, and the Pearson product-moment correlation coefficient.

Range measures assessed different aspects of the varying degree of ability of each funding alternative to fund the mean budget per pupil established for capital outlay. An additional measure of dispersion was found by examination of the relative mean deviation. Relative mean deviation assessed how different are the mill rates required in local districts to provide equal revenues and the range measures assessed the disparity of results under an equal four mill assessment. Computation of the Pearson correlation coefficient provided an assessment of the relationship between effort and revenue, or between wealth and tax rate.

Analysis of the data allowed assessment of the funding alternatives for capital outlay. Substantive questions under all three equity principles were answered regarding the relative approximation of equity provided by each alternative simulation, which alternative provided the greatest and the least variation in available revenue, and what the cost to the state would be under each alternative to fund a mean budget per pupil.
#### Resource Simulations

A total of five alternative funding simulations were run for capital outlay funding in all 304 school districts in the state of Kansas. To provide for computation of desired data, original formulas and an original computer program were designed for the purpose.

The five funding alternatives represented a reasonable crosssection of current practices which could be acceptable within the economic and political realities of modern school finance in Kansas. The alternative methods were: (1) total local support and is the current method for capital projects in the state, (2) full state funding, (3) percentage equalized grant, (4) flat percentage state loan program at a 50% cost-sharing level with the local district, and (5) flat percentage state grant program at a 50% cost-sharing level with the local district. All five alternative formulations were based upon the property wealth of the local districts, defined as the unadjusted assessed valuations of the districts upon which local boards may impose capital outlay mill levies. Each alternative was seen in its election as possessing particular advantages and disadvantages accruing to it individually. Total local support had the advantage of preserving full local decision-making autonomy and the concomitant disadvantage of a possibly severe limitation on the ability to generate revenue by virtue of being a function of a single factor of assessed valuation. Full state funding had the unique advantage of wealth-free discrimination insofar as the wealth of the state as a whole and political decisions were determinants in support levels, with the potential disadvantage that a significant decline in local

autonomy almost invariably resulted. The percentage equalized grant combined some measures in common with other alternatives explored. Particular advantages of the use of the local effort rate to establish local control and the delimiting measure of state property wealth to compensate for varying local deficiencies were powerful arguments for its use. Relatively few disadvantages in percentage equalized grants could be found, except on a strictly home rule basis. The flat percentage loan program had the advantage of favorable state financing and the simultaneous disadvantage of incurring debt in a district where property measures likely already indicate a relative inability to pay.

The alternative of a flat percentage grant program had the obvious advantage over the percentage loan program alternative by virtue of loan forgiveness, but the limiting factor may be the same as in the loan program, where even at an equal share level of 50%, local ability theoretically might not be sufficient in some cases to fund the mean budget per pupil level of adequacy.

#### Property Wealth Index

In order to have a taxable base upon which the simulations of revenue projection could be calculated, the present capacity for capital outlay funding had to be known. Since assessable property wealth as defined by assessed valuation is the only currently accessible source of tax revenue, a property wealth index for measurement of individual school district's capacity for capital outlay purposes was shown as:

where:

- PWI = property wealth index
- AV = assessed valuation of the district
- CMM = constant maximum assessable mill level, currently four mills (.004)

This measure demonstrated the local district's ability to generate revenue under a constant mill rate across the state based on uniform objects of assessed valuation. Current practice in Kansas requires that up to a four mill capital outlay levy may be applied and, if levied, brought against the actual unadjusted assessed valuation of the district, rather than against the adjusted valuation, which is a measure of wealth based upon theoretical uniform assessment statewide. In practice, assessment levels vary widely across the state, as evidenced by the sales assessment ratio study performed by the state's taxation subdivision used in general equalized fund tax rates.

A second indicator of school district capacity to fund capital outlay at the mean budget per pupil was shown as:

#### WPP = PWI/FTE

where:

WPP = wealth per pupil

PWI = property wealth index

FTE = full-time equivalency, defined as the pupil count enrollment on September 15

This measure yielded the present wealth per pupil for capital outlay in the individual districts across the state.

#### Total Local Support

Having determined a wealth base against which funding alternatives could be applied, an examination of the five alternative schemes is appropriate.

Total local support is a funding alternative which leaves each school district free to chart its own capital outlay course independently of assessed valuation as a limiting factor in the local fiscal capacity index. The theoretical capital outlay capacity of each school district disregarding current obligation was expressed as seen previously by a property wealth index of assessed valuation times a constant maximum mill rate and alternatively, by a wealth per pupil index of property wealth divided by the pupil count. The measure allowed for a direct comparison of the individual school district's ability to fund capital outlay with the mean budget per pupil established previously. When the ability of the school district is known and expressed in dollars per pupil, the value for each school district may be subtracted from the mean budget per pupil established for the state. The resulting data observes the relationship between local districts' ability to fund capital outlay expenditures at the mean. Descriptive statistics of dispersion could then be calculated.

A further measure of ability to pay was found by calculation of an effort index holding the object of the mean budget per pupil constant and finding the required mill rate needed to fund the mean. This was expressed by the formula:

 $RLMR = \frac{\overline{BPP} (FTE)}{AV}$ 

where:

FTE = number of pupils in the district

RLMR = required local mill rate

BPP = mean budget per pupil for capital outlay

AV = assessed valuation of the district

Statistical measures described earlier were applied to observe the distribution of results in disparity of local mill rates for evaluation under the stated equity principles. Additionally, the cost to the state was calculated.

### Full State Funding

The full state funding alternative for capital outlay expenditures requires the state to fund the expenditure and leaves the local district independent of the limitation of assessed valuation as a determinant of aid after a uniform statewide mill level for accumulation in a capital reserve fund. With the assessment of a four mill capital outlay levy in each school district applied to the assessed valuation available, a reserve fund was established with funds allocable to each district on a per pupil or FTE basis in Kansas, since all districts were eligible to participate. In such a scheme, negative aid resulted to some school districts. At issue was the sufficiency of the reserve fund to meet the allocation and the size of any deficit. The formula for expressing the operation of full state funding was shown as:

SAFULL = 
$$\left[ (\overline{BPP}) (FTE) \right] - \left[ (RLMR) (AV) \right]$$

where:

SAFULL = state aid available
 BPP = mean budget per pupil for capital outlay
 FTE = number of pupils in the district
 RLMR = required local mill rate at a constant .004
 AV = assessed valuation

The value produced for each district was the state aid available under the uniform four mill assessment and was summed to derive the total aid available across the state for allocation among districts based on the need formulation.

Calculation of an additional measure yielded the amount of aid needed per district and was multiplied to find the aid needed across the state. Subtraction then yielded the sufficiency of the reserve fund. Cost of excess funding to the state was found. The formula for the measure was:

 $RAFULL = (FTE) (\overline{BPP})$ 

where:

RAFULL = required aid

FTE = number of pupils in the district

 $\overline{\text{BPP}}$  = mean budget per pupil for capital outlay

Descriptive statistics were applied to assess the relative performance of funding alternatives as expressed by simulation under the stated principles of equity.

#### Percentage Equalized Grant

The percentage equalized grant alternative is a measure which

combines the benefits of power equalizing with local participation to ensure a continuation of local vested interest and a measure of local autonomy. The percentage equalized grant has a theoretical state participation range of 0 to 100% support in causing the district to fund the mean budget per pupil when all districts uniformly apply the maximum four mill capital outlay levy. Under the simulation of this alternative, districts participated in funding the mean budget per pupil according to ability based on assessed valuation as the measure of property wealth with the assurance that locally generated revenues remained in the local district, as no negative aid provision existed. The formula was expressed as a two-step process;

$$SAEQ = \left[ (BPP) (FTE) \right] - \left[ (RLMR) (AV) \right]$$

where:

SAEQ = state aid to the local district
BPP = mean budget per pupil for capital outlay
FTE = number of pupils in the district
RLMR = required local mill rate

AV = assessed valuation in the district

The first calculation provided the solution for the dollar amount of state aid required in funding the mean. Calculation of a second formula yielded the percentage of state aid given to each school district in providing funding at the mean budget per pupil when expressed as:

% SAEQ = SAEQ 
$$\int \left[ (\overline{BPP}) (FTE) \right]$$

where:

% SAEQ = percentage of state aid awarded to the district

AV = assessed valuation of the district

RLMR = required local mill rate

SAEQ = state aid entitlement

FTE = number of pupils in the district

The absence of negative aid which distinguished this alternative from full state funding was expressed by the condition:

If 
$$\overline{BPP}$$
 (FTE) < (.004) (AV) then SAEQ = 0

The resulting values for each district in relation to the mean allowed descriptive statistics to be calculated to assess the relative achievement of equity of the funding alternative. The unfunded balance beyond state aid needed to be met by the four mill capital outlay levy. It was then possible to calculate the cost of state participation.

### Flat Percentage Grant Program

The capital outlay funding alternative using a flat grant at a stated percentage as its method of state participation ensures each district that it will be treated equally on the basis of allocation per pupil in the district. It further requires the local district to participate within the four mill maximum levy in projects and thus the issue of local control is ameliorated. For purposes of simulation, state participation was set at 50% of the mean budget per pupil. The question to be answered by the applied formula then asked if the assessed valuation was sufficiently great to fund the local 50% share and was expressed as:

 $AV = \frac{(BPP) (FTE)}{.008}$ 

where:

AV = assessed valuation of the local district

BPP = mean budget per pupil for capital outlay

RLMR = required local mill rate

.008 = one-half responsibility of the local district

In order for the assessed valuation to be adequate, the statement

$$AV \geq \frac{(\overline{BPP}) (FTE)}{.008}$$

had to be satisfied.

Calculation of descriptive measures were performed in order to determine the relative achievement of equity of the funding alternative. The unfunded balance needed to be able to be met under the four mill capital outlay levy. The cost of the program of the state was calculable from the data.

### Flat Percentage State Loan Program

The flat percentage loan program, like the flat grant, contains the desirable features of both state and local participation in capital projects and the disadvantage of incurring debt which must be repaid from local revenue.

Calculation of state aid was expressed as in the flat percentage grant formula:

$$AV = \frac{(\overline{BPP}) (FTE)}{.008}$$

where:

AV = assessed valuation of the district

 $\overline{\text{BPP}}$  = mean budget per pupil for capital outlay

FTE = number of pupils in the district

The function of the four mill maximum levy for capital outlay becomes extremely important with a loan program, as its value becomes even more critical since it must be used to meet not only the unfunded 50% of the mean budget per pupil but also repayment of the loan if the debt is to be repaid from capital outlay monies rather than from special bond and interest levies. The effect is dependent upon the size of the other special assessments which make up the total district mill rate. The effect is less if the district is able to levy separately for bond and interest payments, assuming prior bonding is a reality and given that interest will be charged on the percentage loan. Given these assumptions, statistical measures were employed to observe the distribution of results for evaluation under stated equity principles. Like the flat percentage grant, the total cost to the state was calculated.

#### Hypotheses

Three hypotheses were stated for the study:

Hol. Any of the alternative funding schemes will result in greater equity than the present total local support method.

Ho2. The disparity among individual school districts' capital outlay revenue per pupil capacity to fund the mean budget per pupil will be reduced by the introduction of state aid in capital outlay.

Ho3. The disparity among individual school districts' capital outlay required local mill rate to fund the mean budget per pupil will be reduced by the introduction of state aid to capital outlay.

#### Study Population and Sources of Data

The study population included all 304 unified school districts in the state of Kansas operating in the year of the study. Data for the study was obtained from the Kansas State Department of Education, Division of Financial Services. Enrollment figures for 1983-84 were obtained from the Kansas State Department of Education (KSDE) (1984e) publication entitled 1984 Unified School District Wealth. The 1983 assessed valuation data were obtained from the KSDE (1984a) publication entitled General Fund Property Tax Rates of School Districts. Data on 1983 mill levies in Kansas school districts were obtained from the KSDE (1984d) publication entitled 1983 Mill Levies of the 304 Unified School Districts of Kansas. Data on the percentage of line items of the total budget related to capital outlay were obtained from the KSDE (1983a) publication entitled Percentage of Line Items of General Fund Budgets for USD's 1983-84. Information on enrollment categories, bonding requirements, and other legal and procedural data was obtained from the KSDE (1983b) publication entitled School Bond Guide 1983, various KSDE memoranda, the KSDE (1984c) publication entitled Guidelines for Financial Reporting: Unified School Districts 1984, and direct references to appropriate sections of the Kansas Statutes Annotated (1984). Data used in establishing the three-year average or mean budget per pupil for capital outlay was obtained from a study currently underway at the State Department of Education on building accounts and fund balances. Background and historical data on the equalized general fund budget was obtained from the KSDE (1984f) publication entitled USD Report on Enrollments and General

Fund Budget Per Pupil, 1983-1984, the KSDE (1984a) publication entitled <u>General Fund Property Tax Rates of School Districts</u>: 1983 <u>Actual and Adjusted Rates 1984</u>, and the KSDE (1984b) publication entitled <u>General State Equalization Aid for Kansas USD - 1983-84</u>.

### Summary of Research Design

The purpose of the study was to review alternative methods of funding capital outlay accounts and to project revenue resource simulations using five selected alternative methods of: (1) total local support, (2) full state funding, (3) percentage equalized grants, (4) flat percentage grants, and (5) flat percentage loans.

Revenues generated by simulation were compared to each other and to a derived level of funding adequacy as defined by a statewide three-year average capital outlay expenditure level. The alternative resource simulations were analyzed using statistical measures designed to assess relative achievement of equity as defined by three equity principles of resource accessibility, <u>ex post</u> fiscal neutrality, and <u>ex ante</u> fiscal neutrality. In each resource simulation, the cost to the state in its funding role was found.

### CHAPTER IV

## PRESENTATION OF THE FINDINGS

### Introduction

The results of the statistical analysis of the generated data are presented in Chapter IV. The results are reported under separate headings corresponding to the five alternative plans of Total Local Control, Full State Funding, Percentage Equalized Grants, and a combined Flat Percentage Grant and Loan. Statistical results are presented and discussed and are followed by a discussion of the three equity principles of <u>ex post</u> fiscal neutrality, <u>ex ante</u> fiscal neutrality, and resource accessibility.

Support financial data was generated by original microprocessor programs. Data generated for each unified school district in the state of Kansas is located in the Appendixes. The data produced was analyzed using original microprocessor programs which were constructed to utilize the statistical techniques.

Appendix A contains general data on assessed valuations (AV), full-time equivalency (FTE), property wealth index (PWI), wealth per pupil index (WPP), and the mean budget per pupil ( $\overline{\text{BPP}}$ ). The general relationship between wealth per pupil and mean budget per pupil for each district can be easily viewed in this data. Data in the general

data appendix is cross-arrayed by unified school district number (USD) and again by assessed valuation.

Appendix B contains all financial data generated by the computer programs under the total local control alternative. Information regarding the district capacity under the constant maximum four mills (CMM) is displayed, as is data on the property wealth index, assessed valuation, FTE, mean budget per pupil, and the variable required local mill rate (RLMR) to fund the mean. Data is cross-arrayed by USD number, assessed valuation, and required local mill rate. Data may thus be accessed by intended use easily.

Appendix C contains the computer-generated data on the full state funding alternative. Data on USD number, FTE, assessed valuation, and constant maximum mill rate is displayed, as is data on required aid and full state aid to each district. Data on required aid and available aid is expressed as income or as negative aid values. It may easily be seen which districts will receive aid and which districts have excess capacity. Data arrays on USD number and required aid are included.

Appendix D contains the data on percentage equalized grants. Data displayed includes the USD number, FTE, assessed valuation, constant maximum mill rate, equalized state aid in dollars, and the percentage of state aid to each individual district. Although it may be seen that the formula construction allowed for consideration of negative aid under equalization, it is important to observe that all negative numbers under the columns of SAEQ and % SAEQ must be read equal to zero, as the plan presented assumes a zero base. The data in

Appendix D is cross-arrayed by USD number and by percentage of state aid to each district.

Appendix E presents data generated under the combined flat percentage grant and flat percentage loan alternatives. Data displayed includes the USD number, FTE, assessed valuation, constant maximum mill rate, required aid for each district, and the grant/loan data on the assessed valuation sufficiency. It must be remembered that the required aid for each district is a 50% cost share, with the local district and the state responsible for equal halves. It is also imperative in examining the data to remember that the grant/loan column is a sufficiency statement which asks if the assessed valuation is adequate to fund the local share under the constant maximum mill rate. A visual comparison of each district's assessed valuation to the grant/loan column is required to test for sufficiency. Data arrays are presented in Appendix E by USD number and simultaneously by grant/loan, required aid, and FTE.

#### Hypotheses

Three hypotheses were stated for the study:

Hol. Any of the alternative funding schemes will result in greater equity than the present total local support method.

Ho2. The disparity among individual school districts' capital outlay revenue per pupil capacity to fund the mean budget per pupil will be reduced by the introduction of state aid to capital outlay.

Ho3. The disparity among individual school districts' capital outlay required local mill rate to fund the mean budget per pupil will be reduced by the introduction of state aid to capital outlay.

#### Presentation of the Data

Statistical analysis of the data indicated a strong support for the hypotheses stated. The total local control alternative consistently returned the greatest variation in receipt of per pupil revenues, and ranged the furthest from an equitable distribution of resources when compared to the remaining alternatives.

The flat percentage loan alternative provided the second least equitable arrangement for funding capital outlay. Even though only 50% of the cost had to be carried by the local district, an even greater cost was imposed on participating districts because the districts were liable not only for repayment of the loan, but also for the accompanying interest costs.

The flat percentage grant occupied the middle position in the rank of alternatives. As in the loan program, the districts were responsible for 50% of the mean budget per pupil, but a greater movement toward equity resulted as a consequence of the grant itself.

Little significant difference was found betweeen the percentage equalized grant and full state funding, except to the districts at the higher end of the capacity distribution. Either plan appeared to work equally well in achievement of equity. The state, however, tended to benefit heavily by the negative aid provisions present in full state funding, while a cost to the state may be found under the percentage equalized grant.

### Total Local Control

Data from the total local control alternative are presented in

Tables I and II. Table I presents results of statistical treatment of the data to determine the equity position; Table II presents a financial data summary.

The assessed valuations of districts ranged from a low of \$4,543,864 to a high of \$974,604,480, yielding a simple range of \$970,060,616. The property wealth index for capital outlay yielded a range from \$18,175.46 to \$3,898,417.92, or a simple range of \$3,880,242.46. The wealth per pupil index at the individual level of analysis provided the most meaningful scores because they may be compared directly to the mean budget per pupil. The wealth per pupil range was found to be from \$24.04 to \$1,625.62, for a spread of \$1,601.58. Compared to the \$54.75 mean budget per pupil calculated earlier, it may be seen that scores fluctuate widely about the mean, indicating a negative skewness to the distribution of 304 school districts where the actual mean of the distribution was found as \$195.77 and the median value was found at \$122.35.

Additional range measures also indicated the width of the capacity in the distribution. Calculation of the restricted range measure at the 95th to 5th percentile to disregard extreme scores yielded a value of \$224.31, indicating once again the negative skewness of the distribution. The federal range ratio yielded a value of 4.77, indicating a considerable degree of inequity within the distribution under the wealth neutrality measure.

Similar results were achieved with the relative mean deviation, Pearson correlation coefficient, and Gini coefficient measures. A calculated value of .72 on the relative mean deviation indicated a significant effect of the role of assessed valuation in districts'

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TOTAL	LOCAL	CONTROL,	EQUITY	POSITION
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WPP Range	R. Range	F Range Ratio	Pearson R	Gini Coeff.	RLMR Range	Rel. Mn. Dev.	# Dist. Below Mn.
24.04 1625.62	224.31	4.77	.82	.2052003	.0001 .0091	.72	29

Note: Mn. = 54.75; N = 304

# TABLE II

# TOTAL LOCAL CONTROL, FINANCIAL DATA SUMMARY

Option	Req. Aid	Avail. Aid	Deficit	Surplus	State \$	Note
Total local control	17947849	35185118	-416142		0	No state duty. The defi- cit is the sum of districts failing to meet the mean.

capacity to fund the mean budget per pupil where the closer the value approaches 1.00, the inequity increases. Similarly, the Pearson correlation coefficient, when correlating wealth per pupil to revenue per pupil, indicated a strong positive relationship of .82, observing a positive variance between wealth per pupil and revenue per pupil. The calculation of the Gini coefficient which estimates the size of the lower half of the distribution also yielded a significant value of .205200325, demonstrating the presence of the districts which were incapable of funding the mean under equal effort in the individual districts.

Twenty-nine districts of the total population of 304 were incapable of funding the mean budget per pupil at or below the four mill maximum rate when levied against the actual unadjusted assessed valuations of the districts. These districts accounted for 9.5% of the total population. The sum of unfunded revenues in those districts was totaled at \$416,142.54 for all districts to meet or exceed the mean. For all districts to meet the mean budget per pupil, the required local mill rates were calculated and ranged from .0001 to .0091 mills.

Under the local control alternative, no cost to the state could be found, as the state did not participate in the cost of capital outlay. The total local control alternative presently in place was judged to be the least equitable arrangement, resulting in significant reliance upon local wealth for the ability to fund the mean budget per pupil.

### Full State Funding

Data from the full state funding alternative are presented in

Tables III and IV. Table III presents results from the statistical treatment of the data to determine the equity position; Table IV presents a financial data summary.

The assessed valuations of districts were unaffected and ranged from \$970,060,616. The property wealth index likewise yielded the simple range of \$3,880,242.46 and the wealth per pupil index range remained at \$1,601.58. These values remained the same across all five plans, as none of the alternatives varied the valuation structure in the state. As a consequence, although the alternatives achieved significantly different results, the property tax base remained unaffected and attempts were made to release revenue from a property base relationship.

Under full state funding, all districts were funded at 100% of the mean budget per pupil. Range measures calculated demonstrated that fact uniformly and no variance related to assessed valuation could be observed. The required local mill rate to fund the mean was set at .00 and the aid range was .00 as well, since all districts levied equally and were reimbursed at the mean budget per pupil amount multiplied by the FTE. Similarly, the restricted range and the federal range ratio were calculated at zero, since all districts shared equally without exception on the per pupil basis. Range measures of equal values indicated the high degree of equity achieved.

The three remaining statistical measures likewise demonstrated the same degree of equity achieved by the full state funding alternative. The relative mean deviation was set at .00, indicating the lack of variance in aid to per pupil units and the Pearson correlation coefficient calculated on aid per pupil to wealth per pupil yielded a

# TABLE III

# FULL STATE FUNDING, EQUITY POSITION

WPP Range	R. Range	F Range Ratio	Pearson R	Gini Coeff.	RLMR Range	Rel. Mn. Dev.	# Dist. Below Mn.
24.04 1625.62	.00	.00	.00	.00	.00	.00	0

Note: Mn. = 54.75; N = 304

## TABLE IV

## FULL STATE FUNDING, FINANCIAL DATA SUMMARY

Option	Req. Aid	Avail. Aid	Deficit	Surplus	State \$	Note
Full state funding	17947849	35185118		17237268	0	Establishment of negative aid provisions yields a surplus.

value of .00, indicating the absence of any relationship between aid and wealth. The Gini coefficient similarly yielded a value of .00, demonstrating the absence of districts funded at less than the mean budget per pupil.

Negative aid provisions inherent in the full state funding concept caused districts at the higher end of the distribution to pay as much as -141.74% in reserve pool funds to the state before reallocation of the mean budget per pupil multiplied by the FTE. As a consequence, full state funding proved to be a far greater advantage to the lower end of the distribution, while disadvantaging the more populous group above the mean. This, however, was not found to be inconsistent with the focus of equity reform.

A summation of aid available under the constant maximum mill rate yielded \$435,185,118 from all districts, compared to the required aid amount of \$17,947,849.94. The state cost was calculated by subtracting the required aid from the available aid, yielding a value in this instance of zero cost to the state and netting the state a surplus of \$17,237,268.06, again due to the fact that the distribution was negatively skewed, with only 29 districts incapable of independently funding the mean.

The full state funding alternative was judged to meet the equity conditions because all districts were able to fund the mean regardless of wealth capacity and because no relationship between ability and aid was found.

### Percentage Equalized Grant

Data from the percentage equalized grant alternative are

presented in Tables V and VI. Table V presents the results of the statistical analysis of the data to determine the equity position; Table VI presents a financial data summary.

As stated earlier, no change was affected in the assessed valuations, property wealth index, and wealth per pupil measures calculated. The effect of a percentage equalized grant alternative is to impose an inverse relationship between wealth and aid per pupil. Such a relationship was present under the proposed alternative, despite the wide variation in wealth measures.

The multiple range measures found for the aid distribution indicated a strong inverse relationship to ability to pay. The restricted range and the federal range ratio were both set at .00 because all students were funded at the mean budget per pupil. The relative mean deviation value was also .00, indicating the achievement of uniformity in funding all units at the mean. Similarly, the required local mill rate range was set at .00, with all districts levying equally and receiving the mean amount per pupil.

The remaining measures of the Pearson correlation coefficient and the Gini coefficient expressed a high degree of equity. The Pearson correlation coefficient yielded a value of .00, indicating an inverse relationship between aid per pupil and wealth per pupil as seen in the aid range calculated at 0-56%. The Gini coefficient likewise yielded a value of .00, indicating that after aid, all districts were successful in funding the mean.

Percentage equalized aid ranged from 0 to 56%. Thirty districts required equalized aid out of the 304 total distribution and accounted for 9.8% of the population. The amount of aid needed in those 30

# TABLE V

WPP Range	R. Range	F Range Ratio	Pearson R	Gini Coeff.	RLMR Range	Rel. Mn. Dev.	# Dist. Below Mn.
24.04 1625.62	.00	.00	.00	.00	.00	.00	0

## PERCENTAGE EQUALIZED GRANT, EQUITY POSITION

Note: Mn. = 54.75; N = 304

## TABLE VI

# PERCENTAGE EQUALIZED GRANT, FINANCIAL DATA SUMMARY

Option	Req. Aid	Avail. Aid	Deficit	Surplus	Stat <b>e</b> \$	Note
Percent. equalized grant	17947849	35185118	-445166		445166	Absence of negative aid creates deficit to state.

districts was totaled at \$445,166.79, resulting in a cost to the state of the same amount, as the percentage equalized grant alternative disregarded excess capacity and did not allow for establishment of negative aid reserves.

The percentage equalized grant was judged to be equitable to all districts, as the state participation depended upon the inverse relationship between ability and aid and because all units were successfully funded at the mean.

### Flat Percentage Grant and Loan

Data for the flat percentage grant and flat percentage loan are reported concurrently because of the similarity of results, differing only in the eventual consequences. Data for the flat percentage grant and loan are presented in Tables VII through IX. Table VII presents the results of the statistical analysis of the data to determine the equity position and Tables VIII and IX present a financial data summary.

No change may be observed in any of the static wealth base range measures. The unique characteristic of the grant/loan alternative is that only 50% of the cost of aid per pupil has to be borne by the local district, thereby lessening or delaying the impact of the total responsibility, depending upon the alternative chosen. As a consequence, the assessed valuations, property wealth index, and wealth per pupil measures remained identical to all previous alternatives, and the grant/loan examined a 50% shared cost with the state and checked to see if the existing assessed valuation was sufficient to fund the local share. As such, it was necessary to consider the grant/loan

# TABLE VII

WPP Range	R. Range	F Range Ratio	Pearson R	Gini Coeff.	RLMR Range	Rel. Mn. Dev.	# Dist. Below Mn.
24.04 1625.62	.00	.00	.0001	.0083983	.00	001	1

# FLAT PERCENTAGE GRANT LOAN OPTION, EQUITY POSITION

Note: Mn. = 54.75; N = 304

## TABLE VIII

## FLAT PERCENTAGE GRANT LOAN OPTION, FINANCIAL DATA SUMMARY

Option	Req. Aid	Avail. Aid	Deficit	Surplus	State \$	Note
Flat percent. grant	8973924		-8073924		8973924	Fifty percent results in true state cost of defi- cit shown.

# TABLE IX

# FLAT PERCENTAGE LOAN AID DATA, FINANCIAL DATA SUMMARY

Option	Req. Aid	Avail. Aid	Deficit	Surplus	State \$	Note
Flat percent. grant	8973924		8973924		23215.54	State's cost is the grant to one district unable to fund mean. Balance is re- coverable plus interest.

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column in Appendix E as a sufficiency statement to be compared to the district's assessed valuation to determine equity.

The multiple range measures found for the aid distribution revealed almost no inequity in ability to fund the mean. The presence of a single school district which was incapable of funding its 50% share caused the less than perfect measures where indicated. The restricted range ratio was calculated at .00 and disregarded extreme scores, thereby dropping the single district, and the federal range ratio likewise disregarded the single district and was calculated at .00. Neither measure was particularly sensitive to a single score. The relative mean deviation was found at -.001, reflecting the presence of that district within the distribution, and the mill rate range was also set at .00, as all districts levied equally across the entire distribution.

The remaining measures similarly reflected the presence of a single limiting district. The Pearson correlation coefficient between aid per pupil and wealth per pupil yielded a low value of .0001, indicating the overwhelming sufficiency of the assessed valuation to fund the 50% cost share in all but one instance; likewise, the Gini coefficient reflected the single district below the mean with a value of .00839831742. The skewness of the distribution toward an adequate tax base above the mean to fund a 50% cost share was demonstrated by the statistical measures.

Of the 304 operating school districts in the year of the study, only one was unable to fund the cost of the proposed grant/loan alternative under the four mill maximum, and accounted for .003% of the distribution. That single district experienced a shortfall of

\$23,215.54. The amount of required aid was calculated by multiplying the full amount of required aid where all districts participate times one-half, yielding an aid value of \$8,973,924.97. The cost to the state of initiating these programs was equal to the required state aid, although it should be recognized that the state would recapture the investment plus interest in all but one instance under the loan alternative.

The flat percentage grant proposal was judged to be more equitable than either the flat percentage loan or the total local control alternative. The flat percentage loan alternative was judged to be less equitable than the flat grant because of the repayment feature, which would result in added cost to the district in an undesirable proportion to capacity for repayment.

Summary statistics for all five alternative methods of funding capital outlay are presented in Tables X through XIII. Table X presents a comparison of summary measures of distribution, central tendency, and variation. Table XI collects the variables and results of the Pearson correlation measures, and Table XII indicates a summary of the results of the Gini coefficient which examined the bottom half of the distribution. Finally, Table XIII compares the financial data under the individual alternatives.

#### Analysis Under Equity Principles

Three principles of equity were identified earlier to be used in assessing the relative equity condition of each of the five alternative funding schemes for capital outlay. Equity principles stated

# TABLE X

DISTRIBUTION, CENTRAL TENDENCY, AND VARIATION

Measure	Total Local	Full State	% Equal.	% Grant	% Loan
WPP Range	24.04 1625.62	24.04 1625.62	24.04 1625.62	24.04 1625.62	24.04 1625.62
Restrict Range	224.31	.00	.00	.00	.00
Federal Range R	4.77	.00	.00	.00	.00
Rel. Mean Deviation	0.72	.00	.00	001	001
Pearson R	0.82	.00	.00	.0001	.0001
Gini Coeff.	.2052003	.00	.00	.0083983	.0083983
RLMR Range	.0001 .0091	.00	.00	.00	.00
Mean BPP	54.75	54.75	54.75	54.75	54.75
# Dist. Below Mn.	29	0		1	l

# TABLE XI

# PEARSON PRODUCT-MOMENT CORRELATIONS

Option	Variables Correlated	Correlation Coeff.
Total local control	Revenue per pupil and wealth	.82
Full state funding	Aid per pupil and wealth	.00
Percent. equal. grant	Aid per pupil and wealth	.00
Flat percent. grant	Aid per pupil and wealth	.0001
Flat percent. grant	Aid per pupil and wealth	.0001

# TABLE XII

# GINI COEFFICIENT

Alternative	Coefficient
Total local control	.2052003
Full state funding	.00
Percent. equal. grant	.00
Flat percent. grant	.0083983
Flat percent. loan	.0083983

# TABLE XIII

Option	Req. Aid	Avail. Aid	Deficit	Surplus	State \$	Note
Total local control	17947849	35185118	-416142		0	No state duty. The deficit is the sum of below means.
Full state funding	17947849	35185118		17237268	0	Establishment of nega- tive aid yields surplus.
Percent. equal grant	17947849	35185118	-445166		445166	Absence of negative aid accounts for state cost.
Flat percent. grant	8973924		-8973924		8973924	Fifty percent provision results in true cost to state.
Flat percent. loan	8973924		-8973924		23215.54	State cost is the grant to one district unable to fund its share. Bal- ance is recoverable.

# COST OF STATE PARTICIPATION

were the ex post fiscal neutrality principle, the ex ante fiscal neutrality standard, and the resource accessibility principle.

The resource accessibility principle is a broad restatement of the principles laid down in <u>Serrano v</u> <u>Priest</u> (1971, 1976) and subsequent related decisions which have indicated that education is to be a function of the wealth of the state as a whole, and that each child is to have access to adequate funds to meet his educational needs.

The <u>ex post</u> fiscal neutrality standard is likewise a function of the same general equity condition and requires that variation in funds not be unduly tied to local wealth. The <u>ex ante</u> fiscal neutrality standard is a taxpayer standard which relates effort to yield. Under the conditions of this study, equity in resource accessibility and <u>ex</u> <u>post</u> fiscal neutrality would be achieved when ability to fund the mean budget per pupil is present. Equity would also be present under the <u>ex ante</u> fiscal neutrality standard when all students receive the funding of the mean budget per pupil under equal taxing conditions.

Analysis of the data indicated that the total local control alternative tended to violate all three equity principles. Under the resource accessibility standard, ability to fund the mean budget per pupil was seen to be a direct function of the adequacy of the assessed valuation, and the wealth per pupil amount as defined by the property wealth index and the wealth per pupil index. The <u>ex post</u> fiscal neutrality standard was likewise violated for the same reasons that variations in available funds were a direct product of local wealth. Similarly, the <u>ex ante</u> fiscal neutrality standard was violated when the required local mill rates to fund the mean budget per pupil ranged from .0001 to .0091. The full state funding alternative achieved a higher degree of equity because of the introduction of state aid to capital outlay financing and the absence of a positive relationship between aid received and wealth per pupil. The resource accessibility and <u>ex post</u> fiscal neutrality standards were generally satisfied by the full state funding alternative because of the guarantee that each student will receive the mean budget per pupil, regardless of the local capacity as defined by assessed valuation. Also, there was satisfaction of the ability-to-pay principle becuase the wealthier districts which had excess capacity were forced to release those funds under the negative aid provisions which, in turn, went to fund the lowest districts' shortfall. The <u>ex ante</u> fiscal neutrality taxpayer equity principle also tended to be satisfied because all districts levied the constant maximum millage equally and received funds per FTE, irrespective of local capacity.

The percentage equalizing grant likewise achieved a higher degree of equity for the same reasons, but in a different perspective. Access to funds was directly related to capacity in that the lowest districts received proportionately higher aid. The <u>ex post</u> fiscal neutrality principle was also adequately met, since aid was received inversely to capacity. The <u>ex ante</u> fiscal neutrality principle was satisfied, since all districts levying equally were able to fund the mean, either as a consequence of assessed valuation sufficiency or because of state aid making up the difference between capacity and need. The absence of negative aid in excess capacity districts created an unmet cost to the state which would have to be funded from general revenues or other alternative funding sources.

The flat percentage grant alternative achieved the middle rank of equitability among the five alternatives. Because it was a grant, the district achieved greater equity than under either total local control or the flat percentage loan. The data indicated that all districts except one had the capacity under equal effort to fund their share of the cost. Because the grant funds come from the state, the resource accessibility standard and the <u>ex post</u> fiscal neutrality standard were better satisfied. There was still a local effort required, but the introduction of state aid created more dollars at a lesser overall expense to the district.

The <u>ex ante</u> fiscal neutrality principle was similarly better met because lower districts levying equally produced a greater amount of revenue due to the function of state aid in funding the mean. No obligation was incurred from the receipt of state aid, although many districts stood to receive unneeded aid because of excess capacity, while districts with lower capacity would have to work harder in overall tax load to fund the required share.

The flat percentage loan shared the same characteristics of the flat percentage grant, except that local districts levying equally would not only occupy different actual effort levels due to relative ability, but also would incur a debt to be repaid with interest from local revenues. If districts shouldered a greater burden in funding the mean budget per pupil at the lower end of the distribution, there would remain a positive and unresolved relationship between effort and sufficiency. The three equity principles were, however, again better aided through the introduction of state aid in loan form to individual districts than they presently are under the present total local control method, but there was less equity present than under either full state assumption, percentage equalized grants, or flat percentage grant programs.

It was the conclusion, under the conditions of this research, that the hypothesis which stated that the introduction of state aid to capital outlay funding would result in greater equity had to be accepted. Similarly, the hypothesis that the disparity among individual school districts' capacity to fund the mean would be reduced by the introduction of state aid, was accepted. Finally, the hypothesis that the disparity among individual districts' required local mill rate to fund the mean budget per pupil would be reduced by the introduction of state aid, was accepted.
## CHAPTER V

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

The issue of equity in school finance is longstanding and largely unresolved. New research is frequently conducted attempting to both define and measure equity more fully. The courts have been slow to act in forcing equity definitions upon school organizations, but there are clear indications that the issue is very current and will continue to be an area of emphasis in the foreseeable future.

Proposals for increasing the equitable distribution of available resources have been frequent and numerous. As the role of agencies outside the immediate sphere of local control has increased in recent years, so has the interest and involvement of a variety of organizational observers. In recent times, the areas of equitable concern have been expanded to include capital outlay funding. Although no major studies have been conducted in the area of capital outlay resource simulations in tandem with specific equity principles and a sparsity of research at the doctoral level has been noted as well, the primary impetus for the interest in capital concerns has been in court cases where capital outlay has been mentioned as a future area of possible relief.

Thus, while the role of equity in the area of capital outlay is not, at present, fully developed, it may be observed that capital outlay will remain a current concern and will almost certainly increase as awareness grows regarding the dependence of adequacy of physical facilities upon the local capacity of school districts to fund their budgets based on traditional property values. In many instances, the fiscal capacity for capital outlay is directly related to the assessed valuation of the school district which is, in turn, a clear violation of equity principles laid down under which the condition of equity is that capacity should not be unduly tied to local ability. In instances where the link is present, there must be evidence that differences in expenditure are the result of local preference rather than capacity, and any further relationship should be to the wealth of the state as a whole.

The present study has defined the scope of equity in general and specifically as equity can be seen as relating to capital outlay in the state of Kansas. The study has proposed to examine capital outlay lay funding alternatives defined as options of total local control, full state assumption, percentage equalized grants, and 50% cost share grant and loan programs. Resource simulations for the state of Kansas were run and analyzed statistically by multiple measures and the results were examined under three selected equity principles with the goal of determining which alternatives most closely approached equity. An analysis of the results was presented in Chapter IV and the present chapter provides additional discussion with conclusions and recommendations.

The analysis of the data provided several interesting insights into the sufficiency of current practices of funding capital outlay in the state of Kansas and also allowed for a comparative evaluation of the sufficiency of the alternatives examined. The analysis of the data in general indicated that a very wide range of ability for capital outlay exists among individual school districts under the conditions of the study. The assessed valuation range exceeded \$970 million in property values and when the maximum levy allowed by law was applied and found at the per pupil level, the range of ability was from \$24.04 to \$1,625.62 per pupil for capital outlay expenditures. Such a disparity in capacity resulted in the highest school district having over 67 times the capacity of the lowest district. Current practices over a three-year period yielded a mean expenditure per pupil of \$54.75, from which the capacity found for the 304 individual school districts ranged widely.

The five alternatives examined for capital outlay planning produced widely differing results. The multiple statistical measures used to assess the equity condition consistently returned appropriate calculated values and served to indicate the reliability of the data and the methods.

The total local control option currently in place in Kansas consistently returned results by all statistical measures employed that indicate that this method is significantly less equitable in its distribution of resources. Indeed, it may be said that in fact, no distribution takes place and that capacity of individual school districts for capital outlay purposes is a function of geography rather than of design. At present, only the general fund budget is equalized

by the state aid formula and capital expenditures or capital outlay funds are not included in the general fund budget. Capital outlay accounts are special accounts governed by strict laws regarding the power to levy and the use and transfer of funds within the category.

The total local control alternative measured a high degree of variation in fiscal capacity for capital outlay, as expressed by the statistical measures employed, and the alternative resulted in the greatest inequity of the options explored. Evaluation under the equity principles indicated that total local control tended to violate all three equity principles. The <u>ex post</u> fiscal neutrality and resource accessibility standards were violated by the function of geography and the role of assessed valuation of the districts, and the <u>ex ante</u> fiscal neutrality principle was likewise violated when the range of required local mill rates spanned a wide .0001 to .0091. A range of that size is unacceptable to fund a mean amount of only \$54.75 per pupil.

The full state funding alternative was found to be highly equitable on all measures. Statistical analysis of the data indicated that where all students receive the same resources under the conditions of the study, equity is achieved to a satisfactory extent. All districts under the full state funding alternative were assured of objective receipt of funds at the mean level of support for each student in the district. As such, geography, residence, or assessed valuation was not relevant to the receipt of aid to the district, except as the wealth of the state as a whole established the reserve pool under a constant four mill levy against the cumulative assessed valuations for capital outlay purposes.

The full state funding alternative provided a very powerful resource pool for funding capital accounts. The wealth of the state is not insignificant, as was indicated by the negative skew of the distribution of wealth per pupil across the state. It may be observed that the districts at the lower end of the distribution profited greatly by full state funding, while districts at the top end experienced considerable loss of funds under the negative aid provisions inherent in the alternative. It should be realized, however, that if equity considerations are paramount in decision making, aiding the lower end of a distribution at the expense of the more wealthy districts is not inconsistent with equity principles. It may also be argued that since all districts are assured of receiving the mean, all districts benefit by being protected from changes of individual fortune.

The full state funding alternative resulted in a surplus to the state which could be used in several ways. The surplus could be used to reduce the mill rate by the proper amount to fund the mean. It could also be used to generate additional interest income which could be distributed to districts proportionately to either reduce the relative proportion of the four mill levy in relation to the district's assessed capacity, or to provide extra funds to be used for improvements beyond the base essentials. The surplus could alternatively be allowed to accumulate as a protection against future surprises. A very significant possibility for the surplus lies in the question regarding the adequacy of the mean to fund the actual need. There is no evidence that the derived mean, which is an expression of past practice, is sufficient for a small district with large capital

needs. It is likely that the per pupil cost of facilities would increase as the enrollment decreases.

Under the conditions of the study, the full state funding alternative achieved a high degree of equity, and the alternative was ranked at the top in both desirability and sufficiency. The conditions of equity expressed by the three standards of <u>ex post</u> fiscal neutrality, <u>ex ante</u> fiscal neutrality, and resource accessibility were fully satisfied.

The percentage equalized grant alternative was also found to be highly equitable on all measures. Statistical analysis of the data indicated that all students were funded at the mean according to need, which was a feature not present in the full state funding alternative where need was not a consideration. Aid to individual school districts ranged from 0-56%, with the majority of districts receiving no aid to fund the mean, demonstrating the skewness of the distribution.

The advantages inherent to the percentage equalized alternative resulted in a cost to the state because no district was required to surrender excess capacity. The deficit indicated across the state was not a large amount, which was due, in part, to the relatively low mean budget per pupil. If the mean figure was to be recalculated on a needs survey basis rather than the actual past practice average, there would be a possibility of a sizable shift in both the deficit amount and the number of districts eligible for state aid under the alternative.

The percentage equalized grant alternative was judged to be highly equitable under the conditions of the study and congruent with principles of equity. Aid under the alternative is received in an inverse relation to ability and the local effort is a reality, together with a

true need basis as a qualifier for eligibility. The principles of <u>ex</u> <u>post</u> fiscal neutrality, resource accessibility, and <u>ex</u> ante fiscal neutrality were satisfied where the wealth base as a whole is available and effort is equal to the extent that the mean is funded, regardless of local capacity.

The flat 50% grant and loan alternatives can be considered in tandem with appropriate notation regarding their differences. Both the grant and loan alternatives were judged by statistical analysis to be only slightly inequitable, although a significant difference, in effect, may be theorized. The statistical analysis indicated the effect of the presence of the single school district which was unable to meet the 50% reduced share of the mean. Measures which were adequately sensitive to the total distribution indicated an extremely small degree of inequity, nevertheless, a significant one in substantive considerations.

Two factors are important in the consideration of the flat grant and loan alternatives which likely cause the inequity demonstrated in the statistical analysis to be greater than is observed. The first factor is that the ability to fund the cost share under either the grant or the loan alternative is still a function of proportional capacity. The poorer district still exerts greater effort in funding the reduced mean, even though it levies the same as the wealthier district, simply because the equal levy consumes a greater proportion of a smaller taxbase. This consideration is, however, somewhat mitigated by the fact that the remaining taxbase for the general fund budget is equalized by the state aid formula and thereby should not

prove any more unacceptably burdensome to the poorer district than any of the other alternatives which require an equal levy.

A far more significant factor is present in the loan alternative. Under the provisions of the alternative, the state would regain a full investment plus a sizable interest cost from loans made. It is readily apparent that the districts availing themselves of the benefits of a loan program would be in inverse relationship to the ability to fund themselves. Those districts who could comfortably fund the mean would not generally apply for loans unless favorable interest costs made it profitable to do so, while as the capacity to fund the mean diminishes, the frequency of applications would increase correspondingly. The application for loans from less capable districts would also have attendant interest charges to those districts, thereby creating an even larger debt than was required for principal repayment.

There are several advantages, however, which make the grant/loan alternative a more desirable option than the total local control alternative. First, the grant is indeed a grant, and as such it does reduce by 50% the responsibility of the local district in funding the mean. Additionally, the loan alternative does have the added benefit of making available immediate funds and at a lower cost than is typically required in the open marketplace. If a district intends to borrow funds for capital outlay purposes, it should do so from the cheapest source and from the most stable lender, which is generally a governmental body such as the state. Finally, there is a forgiveness feature built into the loan alternative which requires an evaluation of the condition of the district's finances and, where the burden is too great, the loan becomes a grant. That feature accounts for the

cost to the state shown under the loan alternative in the single district which was unable to fund the reduced share.

As a consequence of the substantive considerations discussed, there appears to be a higher degree of achieved equity in both the flat percentage grant and flat percentage loan than is present in the total local control alternative, but there is significantly less equity achieved than is present under either the full state funding or percentage equalized grant alternatives. The flat percentage grant achieves a higher degree of equity than the flat percentage loan alternative for the substantive reasons discussed.

The research conducted in this project indicates that there is a need for some type of substantial participation by the state in capital costs. The research has indicated five alternative methods the state could use to participate. There are certainly other alternatives that can be constructed and there are numerous combinations possible within the alternatives presented.

The research shows a need for participation based upon both the insufficiency of the current dependence upon local assessed valuation adequacy and the possible legal ramifications which are as yet undefined. The impact of state participation is an area which needs to be explored carefully before acting, but the impact of failure to act should not be ignored. The cost to the state in lost resources as a consequence of insufficient capacity needs to be noted, but the realistic cost of state participation needs consideration as well. Each of the alternative plans projected the cost of state participation which should be considered as tentative until a comprehensive assessment of facilities needs can be made across the state. It may be expected that the true needs will be greater than first thought, but less than possible because of the fact that a number of districts already have fine facilities. In any event, very careful consideration to all aspects should be given and considerable planning and dialogue need to occur before a concerted effort to improve the equity conditions for capital outlay in Kansas is begun.

The conclusions and recommendations which follow offer some considerations to be evaluated if the state should indicate interest in a statewide capital outlay project.

#### Conclusions

It may be concluded on the basis of this research and other existing studies that research in the area of capital outlay funding is both needed and scarce. This research has indicated at least the following under the conditions set up for the study:

1. Wealth per pupil in general varies widely in the state of Kansas and, as such, wealth is a strong determinant of the quality of educational facilities available to the children of the state. Wealthy districts are able to provide high expenditures at low or moderate effort levels.

2. The equity standards of <u>ex post</u> fiscal neutrality, <u>ex ante</u> fiscal neutrality, and resource accessibility tend to be violated under the present provisions of total local control of funding for capital outlay accounts.

3. The equity standards of <u>ex post</u> fiscal neutrality, ex ante fiscal neutrality, and resource accessibility are aided greatly under the

full state funding and percentage equalized funding alternatives, and to a lesser but significantly improved extent under the flat percentage grant and flat percentage loan alternatives.

4. The introduction of state aid, regardless of the amount and type, results in a significant achievement in equity concerns.

5. A state aid system which recognizes only those variations in capacity arising from geographic location of properties and ignores the variations flowing from that distribution in fact assures the districts of the continuance of inequity in capacity and tax effort.

6. The past effort of school districts in funding capital outlay may not be an adequate or reliable estimate of school facility needs. No current data exists for assessing statewide capital outlay needs in the state of Kansas. Statewide assessment of facilities needs would be a necessary prerequisite to any aid program.

7. There is no provision in Kansas for equalization of capital outlay accounts. As such, any account not subject to equalization formulas appears to be open to question on equal educational opportunity grounds.

8. Considerations of the cost per pupil of facilities needs to be explored, particularly in relation to existing enrollment classification. Data on the number of students to be housed, the programs provided, and projected construction costs are required in computing aid programs. Special conditions should also be noted and accounted for in eligibility standards.

9. Districts are in need of state support to limit reliance on the traditional property tax.

10. It may be concluded that <u>ex post</u> fiscal neutrality, <u>ex ante</u> fiscal neutrality, and resource accessibility are legitimate school finance equity standards for assessing capital outlay conditions in school districts.

11. It may be concluded that the introduction of state aid to capital outlay funding significantly reduces the role of geography as a major determinant of district revenue capacity. While the capacity as defined by assessed valuation remains unaffected by the alternatives examined in this research, the aid per pupil is less related to residence than is otherwise true.

12. The percentage equalized grant and the full state funding alternatives provide the greatest equity under the conditions of the study and the cost is not inconsiderate to the state.

13. The methodology utilized in this study is widely applicable to any district and any state by substituting appropriate data for the study. Many individualized modifications are possible which allow the basic study to remain intact while emphasizing special interests or unique characteristics of a new and different project.

### Recommendations

As more states move toward an examination and an awareness of the role of capital outlay in equity considerations, several recommendations deserve attention for the state of Kansas:

1. In reviewing any plan for possible involvement in capital outlay financing, the state should undertake an assessment of what is currently being done and considered in other states.

2. In formulating a plan of action, the state should not overlook the need for a comprehensive review of current facilities needs. A study should be undertaken which determines by uniform assessment the current needs in school districts, allowing for long-range planning and evaluation of needs and costs.

3. In planning for realistic cost estimates, the assessment of needs should be used to establish an adequate funding level. The varying costs per pupil, particularly as related to enrollment size, need to be considered in estimates of the actual costs to the state.

4. The possible consolidation of extremely small enrollment districts should not be overlooked in terms of cost effectiveness and efficiency.

5. The state should recognize the need to develop a comprehensive plan for state assistance to school districts' capital needs. The state should accept the goal of fiscal neutrality in the distribution of state funds in aid.

6. The state department of education should develop uniform criteria for assessing facilities needs and should be responsible for statewide coordination.

7. Sources of revenue should be expanded not only to create a statewide taxbase for capital outlay funding, but should include broadbased measures including income as a measure of wealth.

8. The state plan should provide for stability and projection of anticipated revenues to enhance the effectiveness of long-range planning.

9. The unique features of a state's school finance formula need to be considered. The state should consider the appropriateness of

unifying capital outlay under the equalized general fund formula which takes into account a median budget figure and relates it to enrollment classification.

10. The state, in making its needs assessment, should develop a priority project schedule based on need.

11. The issue of equal yield must not be overlooked, as it is at the root of the problem. Any realistic appraisal of fiscal needs should require a recognition of the most basic inequity in the present system, which is due to the unequal assessment of property and lagging property valuations. The legislature should deal with a statewide uniform reappraisal of property before entering into any plan for aiding individual districts on more than a temporary basis.

12. The equity analysis used in this study is appropriate for use in any setting to examine both resource sufficiency and simulation. Multiple effective variations on the basic framework are possible with great utility. A wide application of the model is needed with appropriate modification to the circumstance.

Policy makers must ultimately determine the role of capital outlay funding in the state of Kansas. Some very difficult decisions must be made regarding the desirability of a funding scheme and the method of implementation. The possible effects of initiating a funding program need to be considered carefully and the consequences of failure to implement a usable plan should be considered as well.

Once the specific goals have been legislatively determined, it will be possible to develop a comprehensive plan to aid equity in the state of Kansas. A great deal of planning, organization, and further research and analysis will be needed for new programs to be successful and to benefit the children of the state.

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APPENDIXES

# APPENDIX A

# GENERAL DATA ON ASSESSED VALUATIONS

USD	FTE	AV	CMM	PWI	WPP	Ebb
101	1198.5	23865265	.904	95461.06	79.65	54.75
102	578.0	20136440	. 204	80345.76 65450 74	139.33	34.73
103	221.3	10302004	.004	45286 76	180 43	54.75
200	201.0	38064206	.004	152256.82	488.32	54.75
202	3696.5	43417439	.004	173669.76	46.98	54.75
203	840.5	8591565	.004	34366.26	40.89	54.75
204	1934.7	23938930	.004	95755.72	49.49	54.75
295	632.0	19045924	.094	/6183./0 92450 49	120.34	54 75
200	208.0	43457180	. 004	173829.72	835.72	54.75
209	143.5	58319270	.004	233277.08	1625.62	54.75
210	858.9	168394593	.004	673578.37	784.23	54.75
211	764.5	16002906	.004	64011.62 20929 52	33.73 149.04	34.73
212	203.0	6179144	.004	24716.58	151.64	54.75
214	1418.0	154530461	.004	618121.84	435.91	54.75
215	606.5	124375670	.004	497502.68	820.22	54.75
216	234.0	37960916	. 994	151843.66	648.90	54.75
217	186.0	79524751	. 994	282099.00	1315.55	04.70 54.75
210	201.0	18693393	.004	75573.57	375.99	54.75
229	274.5	40441632	. 994	161766.53	589.31	54.75
221	189.0	9405778	.004	37623.11	199.06	54.75
322	437.5	10760228	.904	43040.91	98.38	54./5
223	435.3	18/30/6/ 17030017	. 004	68129.97	369.42	54.75
225	710.5	12311312	. 994	49245.25	- 69.31	54.75
226	413.5	51922897	.004	207691.59	502.28	54.75
227	255.1	23978809	.004	95915.24	375.99	54.75
338	131.3	1343/119	. 004	353766.87	479.10	54.75
230	1199.0	11277932	.004	45111.73	37.62	54.75
231	1557.4	23018512	. 004	92074.05	59.12	54.75
232	1653.5	17428776	.004	69715.10	42.16	54.75
233	9030.9 1965 0	13/322503	.094 204	142143.16	72.34	54.75
235	521.0	11334216	. 994	45336.86	87.02	54.75
236	84.9	5797404	.004	23189.62	276.07	54.75
237	586.5	14998362	.904	59993.45	102.29	54.75
238	210.0	5359189	.004	27440.72	130.57	54.75
235	451.0	13970787	.004	55883.15	123.91	54.75
241	345.5	14949759	. 004	59799.04	173.08	54.75
242	101.0	5587308	.004	22349.23	321.33	54.75
243	340.3 795 a	10304303	.004	41217.22	1280.29	54.75
243	370.0	17462002	.004	69848.01	188.78	54.75
246	563.0	6855202	.004	27420.81	48.70	54.75
247	771.5	13880240	. 994	55520.96	71.96	54.75
248	1097.0	16030721	.004 001	94282.00 93900 99	30.33 53.77	54.75
250	2840.5	43237785	. 004	172951.14	50.89	54.75
251	671.6	18001981	.004	72007.92	107.22	54.75
252	519.9	15360383	.004	61441.53	118.18	54.75
203	4197.9	/0034/81 17726101	.994 QQ1	300333.12 190905 60	73.92	34.73
255	368.5	24670037	.004	98680.15	267.79	54.75
256	308.0	14047617	.004	56190.47	192.44	54.75
357	1820.0	32053076	.004	128212.30	,70.45	54.75
328	352.0	1/545187	.984	79180.71	12/.14	34./3

USD	FTE	AV	CMM	PWI	WPP	BFP
259	41690.4	974604480	.004	3898417.92	93.51	54.75
250	4542.3	121338628	.004	485354.51	105.83	34.73
251	2941.5	33841499	.004	143353.50	40.74	54.75
202	1000.0	16197427	.004	54542.12 64749 71	39,07	54.75
263	1007.1 955 A	36955856	.004	147823.42	172.89	54.75
265	1643.9	30437175	.004	121748.70	74.05	54.75
266	1187.8	16476383	.004	65906.33	55.49	54.75
267	1355.6	30299015	.004	121196.06	89.40	54.75
268	521.1	13052780	.004	52211.12	100.19	54.75
269	243.5	34349479	.004	137397.92	564.26	54.75
270	535.5	50331202	. 904	201324.81	3 3,36	34.73
2/1	445.8	42323933	.004	1/0103.74	389.72 106 50	54.75
272	202 2	10343341	.004	100133.70	125.54	54.75
271	499.5	28078612	. 004	112314.45	224.85	54,75
275	100.0	11089464	.004	44357.86	443.58	54.75
278	309.5	8152033	.004	32608.13	105.36	54.75
279	197.0	8062040	.004	32248.16	163.70	54.75
280	141.0	15153317	.904	50613.27	429.88	54.75
281	539.0	29630268	.994	118321.07	219.89	34.73
282	311.3	13700113	.004	19783 38	103.15	54.75
284	551.0	27913515	.004	111654.06	202.64	54.75
285	207.7	8310819	. 994	33243.23	160.05	54.75
286	507.0	17927259	.004	68109.08	134.34	54.75
287	709.5	12952211	.004	51808.84	73.02	54.75
288	525.0	9369692	.004	37478.77	71.39	54.75
289	631.2	12881427	.004	31323./1 190675-09	31.53	34.73
230	2047.4	32003444	.004	1300/0.02	151 91	54.75
221	249.5	11974885	.004	47899.54	191.98	54.75
293	322.0	14738920	.004	58955.68	183.09	54.75
294	668.2	27036102	. 994	108144.41	161.84	54.75
295	124.5	7653474	.004	30613.90	245.89	54.75
297	458.0	16256919	.004	65027.68	141.98	54.75
298	391.0	19594619	. 604	78378.48	299.45	34.73
233	130.3	19423440	.004 004	209975 41	500.30	54.75
300	199.1	22836972	.004	91347.39	912.57	54.75
302	189.5	15437442	.004	61749.77	325.86	54.75
303	337.0	27886260	.004	111545.04	330.99	54.75
304	100.5	13662009	. 304	54648.04	543.76	54.75
305	6398.4	118713707	.004	474834,83	/1.3/ 116 16	34.73 57 75
207	362.0	7990390	.004 GQA	35011.42 21961 56	113.95	54.75
308	4956.0	103800506	.004	415202.02	83.78	54.75
309	1404.5	30043016	.004	120172.06	85.56	54.75
310	513.5	21378533	.004	85514.13	166.53	54.75
311	294.5	9149487	.004	36397.95	124.27	54.75
212	1981.5	33/21249	.004	134883.00	124.72	34.73 54.75
313	164 0	43333314	.004 301	175543.85	241.52	54.75
315	104.0	34670821	.004	138683.28	118.38	54.75
316	197.0	7705578	. 004	30822.31	156.46	54.75
3i7	86.3	5765110	.004	23060.44	267.21	54.75
318	477.5	16817279	.094	57269.12	140.88	54.75
350	1053.5	18545462	.004	74181.85	/9.41	34.75
321	1961.9	195343438	.094	/813/3./3 /5096 TO	/33.83 (99.99	24,73 Ex 75
322 222	3/3.9 173 5	11433182	. ଅଷୟ ଭଭାଣ	42235.5	22,23	
222	2 · 2 · 2	233 <b>352</b> 2	. <i>⊻</i> ⊻⇔	_ ( , + J	~~.~~	

USD	FTE	AV	CMM	PWI	WPP	BPP
324	164.5	6287901	. 904	25151.60	152.90	54.75
325	710.5	26808512	.004	107234.05	150.93	54.75
325	246.0	21373530	.004	85494.12	347.34	34.73 54 75
327	713.0	20368331	.994	82273.40	113.35	54.75
328	323.4	38211207	.004	67/69 96	120 68	54.75
329	597 1	12003948	. 004	48015.79	80.41	54.75
331	1975.2	66463832	.004	265855.33	247.25	54.75
332	288.5	41711761	. 994	166847.04	578.33	54.75
333	1344.5	32006924	. 004	128027.70	95.22	54.75
334	282.0	12852650	. 004	51410.60	182.31	54.75
335	510.0	7076505	.004	28306.02	55.39	34.73
335	875.0	135/1341	. 994	34883.38 29756 11	27.30	54.75 54.75
337	117 7	7433923	.004	22165.41	53.07	54.75
230	402.5	5161234	. 004	24644.94	61.23	54.75
340	777.0	8175328	.004	32701.31	42.09	54.75
341	446.5	7929864	. 004	31719.46	71.04	54.75
342	459.5	7220404	.004	28881.62	52.85	54.75
343	775.9	12899640	. 904	51598.55	55.38	04./0 s/ 75
344	399.5	3133492	. 994	20041.37	31.42 70 99	54.75
340	3339.9	13053788	.004 004	52215.15	120.70	54.75
340	342.2	15465142	. 004	61869.57	189.77	54.75
348	358.1	12331112	. 004	49324.45	57.48	54.75
349	315.5	13392947	. 994	53571.79	169.80	54.75
350	386.5	31097889	.004	124391.56	321.84	54.75
351	277.5	44103883	.904	176415.53	500./3 100 01	34./3 54.75
332	1380.5	3/2/301/	.004	1222110.07	70.07	54.75
354	267.0	34288818	. 994	137155.27	513.69	54.75
355	192.0	37302000	. 994	149208.00	777.13	54.75
356	413.5	12201825	.004	48807.30	118.03	54.75
357	636.5	7566330	. 994	30263.32	47.33	34./3 5/ 75
338	373.V 199 5	10/00000	.094 001	42800.02 Aqqo7 qq	210.21	54.75
222	323.0	10933555	. 004	40174.82	124.38	54.75
361	1957.5	43073454	. 004	172293.82	162.93	54.75
362	793.9	104835402	.004	419341.61	528.20	54.75
363	538.5	124170559	. 994	496682.24	922.34	54.75
364	891.5	25581470	. 994	192323.88	114.78	34.73
363	1002.0	31/12230	.004	120045.00	120.30	54.75
367	1052.5	14541558	.004	58166.23	55.25	54.75
368	1399.5	29057304	.004	116229.22	83.05	<u>5</u> 4.75
369	262.0	10839228	. 994	43356.91	165.48	54,75
371	162.5	10997896	. 004	43991.58	270.72	54.75
373	629.5	8109821	.004	32439.28	31.33	04./0 54.75
373	2323.0	43538383	.004	133027.30	339.38	54.75
375	1143.0	51098895	.004	204395.58	178.82	54.75
376	491.7	15040357	.004	60151.43	122.35	54.75
377	908.0	15906185	.004	63624.74	79.07	54.75
378	501.6	9366775	.004	37467.10	(4,/0 95 97	34./3 ex 7e
373	1047.0	330/2/10 160/997/	. 994 Gol	104020,00 61100 00	- 25.33 102 81	54.75
381	265.5	9469532	.004	37878.13	142.67	54.75
382	1285.0	43192906	.004	172771.62	134.45	54.75
383	5293.1	196967623	. 994	427870.49	92.23	54.75
384	196.5	7829163	.994	31280.55	159.19	54.75
385	1332.0	21549782	.284	85199.13	63.48	34./3

USD	FTE	AV	CMM	PWI	WPP	Sbb
336	352.5	12548099	. 004	50192.40	142.39	54.75
387	376.5	11294095	.004	45176.38	119.99	54.75
388	457.4	37020651	.004	148082.60	323.75	54.75
389	618.0	26090304	.004	104361.22	168.87	54.75
390	142.5	9463880	.004	37855.52	265.65	54.75
392	431.0	16793287	.004	67173.15	139.65	54.75
393	375.5	10018679	. 004	40074.72	106.72	54.75
394	1126.5	12519857	. 004	50079.43	44.46	54.75
395	486.0	31100761	. 994	124403.04	255.97	54.75
336	561.2	12313143	. 004	49252.57	87.75	54.75
397	350.0	15195708	.004	60782.83	1/3.5/	34.73
398	411.7	13730971	.004	54923.88	133.41	34.73
399	192.0	37222920	. 994	148891.68	//3.40	34.73 Ex 75
400	811.0	28109169	.004	112430.00	100.04	34.73
401	238.0	24138287	.004	110235 02	403.03	54 75
492	1023.0	29381434	.004	75007 00	222.32	54.75
403	327.3	13021//3	.004	19831.83	232.33	54.75
404	776 7	19333213	.004	43820.03	+29 77	54.75
105	170.3	5104224	.004	21616 80	15.82	54.75
400	4/1.0	25902167	004	347608.67	246.93	54.75
100	501 5	15747478	664	62989.91	108.32	54.75
409	1590 0	30222000	. 004	120888.00	76.03	54.75
410	561.6	21029780	. 004	84119.12	149.78	54.75
411	212.5	6351536	. 994	25406.14	119.56	54.75
412	549.0	21364731	. 004	85458.92	155.66	54.75
413	2147.8	41792635	.004	167170.54	77.83	54.75
415	1952.6	26837688	.004	107350.75	101.99	54.75
416	<b>381.</b> 0	17147041	. 994	68588.16	69.92	54.75
417	352.5	27947148	.004	111788.59	117.36	54.75
413	2178.5	80120399	.094	320481.60	147.11	54.75
419	388.6	21323703	. 204	85294.81	219.49	54.75
420	604.5	11895638	. 004	47582.55	78.71	34.73
421	341.5	7119262	.004	28477.93	23.37	34.73
422	417.3	22108232	.004	000/2.33 70999 49	477 99	54.75 SA 75
423	333.9	17747335	.994	70505.42 29995 29	597 44	54.75
424	135.0	5222221	.004	20956 94	22/14	54.75
420	26.0	10092959	.004	40371.44	154.98	54.75
127	601 5	20219516	. 664	80878.06	134.46	54.75
428	3428.3	103418446	.004	413673.78	120.66	54.75
129	381.3	4724932	.004	18899.73	49.57	54.75
430	668.5	12614499	.004	50458.00	75.48	54.75
431	737.0	41786734	.304	167146.94	226.79	54.75
432	440.5	21440797	. 304	85763.19	194.70	54.75
433	231.5	6320569	.004	25282.28	109.21	54.75
434	1184.4	13934101	. 204	55736.40	47.06	54.75
435	1384.8	24565402	.004	98251.61	70.96	- 34.73
436	886.5	18673482	.994	74693.93	34.25	34.73
437	2335.0	43294193	.004	1311/5./3	295 44	54.75
438	339.3	51646734	.004	21022 20	55 05	54.75
433	202.0	15122514	.004	60494 06	94.57	54.75
440	999 A	24979739	.004	99918.95	107.67	54.75
142	454.1	11389065	. 394	45556.26	100.32	54.75
443	3873.6	89443661	.004	357774.64	92.36	54.75
444	384.0	30618950	.004	122475.80	318.95	54.75
445	2990.8	52308967	.004	209235.87	69.96	54.75
446	2403.9	46485657	. 294	185942.53	77.35	54.75
447	593.0	8943540	.004	35774.56	51.52	54.75
448	345.0	13726718	.004	54906.87	159.15	54.75

USD	FTE	AV	CMM	PWI	WPP	BPP
449	606.0	7894852	.094	31579.41	52.11	54.75
430	3165.0	46435402	.004	185821.61	58.71	54.75
431	270.0	322//13	.994	20310.00	75.94	34.73 57 75
402	462.9	52003745	.004	200414.30	54 35	54.70 57.75
454	337.0	4949982	.004	19799.93	58.75	54.75
455	178.0	7922204	.004	31688.82	178.03	54.75
456	312.5	6473694	.004	25894.42	82.85	54.75
457	4952.0	155194542	.004	620778.17	125.36	54.75
458	1048.9	13350219	.004	53400.38	50.91	54.75
459	252.0	16029499	.004	64118.00	254.44	54.75
460	742.0	25678780	.004	192715.12	138.43	24.73
461	700.9 199 g	1306/1/2	.004	50256.05 50195 19	(20.00	34.73 54.75
463	388.5	8360954	.004	33443.82	86.08	54.75
464	1171.0	14156512	.004	55626.05	48.36	54.75
465	2133.2	51497674	.004	205990.70	96.56	54.75
466	1145.4	38058411	. 994	152233.64	132.91	54.75
467	570.0	32171693	.004	128686.77	225.77	54.75
458	112.0	7333136	.004	38140.52 17599 20	340.34	34.73
405	2952 5	11035000 59927016	.004 001	235708 06	79.99	54.75
471	152.5	10200010	.004	40800.04	257.54	54.75
473	1182.3	29566173	. 094	118264.69	100.03	54.75
474	161.0	24227701	.004	96910.80	601.93	54.75
475	6379.1	52589392	.004	210357.57	32.98	54.75
475	117.0	19683833	.004	42739.41	353.31	34.73
479	273.5	9609413	.004 .004	38437.65	140 54	54.75
480	2960.5	76474634	.004	305598.54	103.33	54.75
481	404.0	11840470	. 004	47361.88	117.23	54.75
482	363.2	24540405	.004	98561.62	271.37	54.75
483	573.5	47824180	.004	191296.72	333.56	54.75
484	381.0	25171999	.004	100584.04	114.28	54.75
400	237.0 550 5	100/675	. 904 QQ4	30831.20 40194 99	1271 95	54.75
488	335.5	10318931	. 004	41275.72	123.03	54.75
489	3018.5	97711913	. 994	390847.65	129.48	54.75
490	2058.3	51516450	.004	206065.80	100.11	54.75
491	700.0	6831802	.004	27327.21	39.04	54.75
432	263.0	13613216	.994	34460.85	207.08	24.73
494	439.0	1011501E	.004	160460 06	76.30	
495	1160.1	38311959	. 394	153247.84	132,19	54.75
496	156.5	14136662	.384	59546.65	361.32	54.75
497	6816.0	171400989	.004	685603.96	100.59	54.75
498	418.5 753 A	19383779	.004	41535.08	99.25	24.75
455 500	22217.7	228108368	.004 004	19173.48	53 43	54.75
501	14174.4	295089941	.004	1180359.76	83.27	54.75
502	202.5	19429722	.004	77718.89	383.80	54.75
203	2047.7	28067543	.004	112270.17	54.83	54.75
504	501.8	9498863	.004	37995.45	75.72	54.75
203 504	313.3 (500 A	4934883	.904 601	19819.34	52.03	24,73
507	375.8	20131307 74703049	. 224 . 004	194/5/./3	50.32 795 14	34.73 54.75
508	898.0	9592981	.004	38371.92	42.73	54.75
509	194.0	8295784	.004	33183.14	180.34	54.75
511	163.5	24535010	.004	28140.04	500.24	54.75
512	29676.8	584598694	, 994	2738394.79	92.27	54.75

USD	FTE	AV	CMM	FWI	wee	SPP
499	756.0	4543864	.004	18175.46	24.04	54.75
429	381.3	4724932	.004	18899.73	49.57	54.75
283	191.8	4945846	.004	19783.38	103.15	54.75
454	337.0	4949982	.094	19799.93	58.75	54,75
505	319.5	1951935	.004	19819.34	62.03	54.75
344	399 5	5125402	224	20541.97	51.42	54.75
451	275 Å	5227715	- 00-	20910 35	75 04	54 75
105	205.0	5220224	004	20256 24	20.10	54 75
120	200.0	2227204		21022.34	55.65	54.75
435	362.9	5404004	.004	21020.00	45 00	
400	4/1.0	3404201	.004		40,02	 
220	417.7	3341333	. 994	22165.41	23.07	24.73
242	101.0	5587303	.094	22349.23	321.25	<u>34.75</u>
317	36.3	5765110	.004	23060.44	267.21	54.75
235	84.0	5737404	. 294	22189.62	275.07	54.75
249	431.5	5300247	.004	23200.39	53.77	54.75
339	402.5	5161234	.004	24644.94	61.23	54.75
213	163.0	6179144	.004	24716.58	151.64	54.75
324	164.5	6287901	. 094	25151.60	152.90	54.75
433	231.5	6320569	.004	25282.23	109.21	54.75
411	212.5	6351535	004	25406.14	119.55	54.75
156	312.5	6473604	.004	25394.43	82.85	54.75
491	700 0	5231202	001	27227 21	39 64	54 75
246	563 Å	6855202	004	27/20 31	19 70	54 75
222	210.0	2020202		27400.01	120.67	54.75 51.75
205	510.0	7076505	.004	20205 02	130.07	24.72
171	010.0 044 E		.004	20300.02	00.00	 
421	341.3	7115656	.004	25477.00	03.37	34.73
342	403.3	7220404	. 1994		52.33	34.73
33/	/30.3	7435968	. 594	23/30.11	37.27	24.72
337	535.3	1000000	.004	30253.32	47.00	34.73
295	124.5	7653474	.004	30613.90	245.89	54.75
486	239.8	7657376	.024	30631.50	127.74	54.75
316	197.0	77 <b>2557</b> 8	.904	30822.31	156.45	54.75
212	209.0	7734889	.004	30939.52	148.04	54.75
29i	204.0	7749149	.004	30996.60	151.94	54.75
384	196.5	7829163	.004	31280.65	159.19	54.75
149	606.0	7894852	. 994	31579.41	52.11	54.75
455	178.0	7922204	.004	31668.62	178.03	54.75
E41	44E.3	7929864	.204	31719.46	71.94	54.75
397	368.7	7990390	. 294	31961.55	118.95	54.75
279	197.0	3962040	.004	32248.15	163.70	54.75
372	629.5	8109821	-364	37439,28	51.53	51.75
272	309 5	2152022	204	22608 12	105 35	5/ 75
740	777 0	2175322		32701 31	12 09	54.75
=7.0	121 0	020772/		22102 11	190 37	54 75
205	207 7	0010010	.004		160.04	E1 75
123	220 4	6360454		33443 33	100.00 95 09	54.75
100	946 E	0501525	.004 GGA	2/262 26	16 99	
1.17	540.0 550 A	9051200 0949546	.004	34300.23	40.05 El 20	
311	525.0 794 F	01 10 107	. 024	32774,35		24.70
311	254.0	2143467	.294	2003/.30	124,27	24./0 Ex 75
222	172.J 574.C	222222	.024			24./3
3/0	201.5	73557/5	. 224	3/45/.18	74.70	24.73
<u> 120</u>	343.0		. 224	3/4/8.//	/1.33	<u>=4, /5</u>
==1	193.9	7403778	, 984	3/523.11	153.95	<b>24.75</b>
	142.5	9463880	- 004	3,855,52	365.65	<u>54.75</u>
381	353.3	9469532	. 994	37378.13	142.67	54.75
394	501.8	9498863	.094	E7 <b>995,45</b>	75.72	54.75
468	112.0	9535156	. 294	33140.62	340.54	54.75
508	898.0	9592961	. 994	38371.92	42.73	54.75
-73	373.5	3609413	.294	38437.65	140.54	54,75
314	164.0	9902311	.004	39509.24	241.52	54,75
393	375.5	12018679	. 294	12974.72	196.73	E4.75

UED	FTE	AV.	CMM	PWI	WPP	350
360	323.0	10043705	.004	40174.82	124.35	54.75
487	328.3	10046220	.004	40184.88	/1.30	24./3
425	250.3	10092859	. 994	40371.44	154.38	54.75
471	152.5	10200010	.004	40800.04	257.54	54.75
243	540.5	10304305	.094	41217.32	76.25	54.75
438	335.5	10316931	.004	41275.72	123.03	54.75
498	418.5	10383770	. 994	41535.08	99.25	54.75
399	198.5	10425445	.004	41701.78	210.08	54,75
476	117.5	10689853	.004	42759.41	363.91	54.75
358	393.0	10700006	.004	43200.02	108.91	54.75
222	437.5	10750228	.004	43040.91	98.33	54.75
129	262 Q	10939228	004	43355.91	165.48	54.75
104	695 5	10955213	024	13320 25	20.00	54 75
	400.5	10056000	304	43937 99	240.20	54 75
333	162 5	40007000		40004 50	270 72	54.75
275	100.0	10557055 11060AEA	004	11257 96	142 52	54.75
	100.0	11003404	.004	15/// 70		04:70 51 75
230	1133.0	112//932	. 004	43111./3	37.52	ن / 44 حود مح
35/	3/5.3	11234033	. 994	431/5.38	119.99	24.72
194	251.9	11321669	.004	43286.75	180.43	24.73
232	521.0	11334216	.004	45335.35	87.92	<u> </u>
442	454.1	11389065	.004	45556.26	100.32	54.75
332	375.0	11459182	. 394	45836.73	122.23	54.75
491	404.0	11840470	.094	47351.88	117.23	54.75
420	604.5	11895638	.004	47582.55	78.71	54.75
469	1157.9	11399800	.094	47599.20	41.11	54.75
292	249.5	11974885	.004	47899.54	191.98	54.75
330	597.1	12003948	.094	48015.79	80.41	54.75
356	413.5	12291825	.004	48807.30	118.03	54.75
225	719.5	12311312	. 994	49245.25	69.31	54.75
396	561.2	12313143	.064	49252.57	87.76	54.75
348	858.1	12331112	.004	49324.45	57.48	54.75
394	1126.5	12519857	. 994	50079.43	44.46	54.75
386	352.5	12548099	. 294	50192.40	142.39	54.75
430	668.5	12614499	. 994	50458.00	75.48	54.75
334	282.0	12352650	004	51410.60	132.31	54.75
200	631.2	12881427	004	51535.71	81.63	54.75
343	775.0	12599540	204	51508 55	55.58	54.75
207	709 5	12952211	664	51908 94	73.02	54 75
362	521 1	13053750	364	52211 12	1000	54 75
3/6	519 5	12052722	.004 001	52215 15	100.70	
192	1010.0	12250212		52/00 00		
2/0	215 5	13330213		53571 73	169,91	
100	313.J 369 A	13336347	.004	54460 06	105.00	51 75
364	100.V	13013210	.204	34400.00	517.00	
504	199.3	13556995	.004	34640.04	043.70 	
330	070.0	130/1341	.004	24000.00	150 15	U4.70 51 75
448	343.0	13/25/18	.294	34345.87	137.13	34.73
338	411.7	13/323/1	.904	34323.88	133.41	24.72
247	//1.5	13880240	.994	33329.35	/1.50	24.42
434	1184.4	13334101	. 1924	33/35.40	47.05	24.73
240	451.0	13970787	.994	22683.15	123.91	34.73
235	ුරුපු. ඒ	14047517	.994	36139.47	182.44	24.72
455	126.5	14136662	.094	36346.63	351.32	24.75
464	1171.0	14155512	-004	36626.05	48.36	54.75
357	1052.5	14541558	- 9 <b>9</b> 4	38166.23	35.26	54.75
393	322.0	14738920	. 394	58955.68	183.09	54.75
241	343.5	14949759	.004	59799.04	173.08	54.75
237	536.5	14998362	.004	59993.43	102.29	54.75
462	433.0	15033871	.004	60135.48	138.98	54.75
376	491.7	15040357	.004	60161.43	122.35	54.75
451	786.0	15067172	. 394	60268.69	75.68	54.75
110	E39.0	15123514	.004	E0494.05	94.57	54.75

USD	FTE	AV	CMM	FWI	<b>49</b>	epp
230	141.0	15153317	. 004	60613.27	429.88	54.75
397	350.0	15195708	.094	50782.83	173.57	54.75
202	199 5	10000000	.004 004	61749 77	225 24	54.75
222	131.5	15457119	. 304	61228.48	470.18	54.75
347	342.2	15465142	. 994	61860.57	180.77	54.75
477	194.0	15797681	.094	62830.72	323.87	54.75
408	581.5	15747478	.094	62989.91	198.32	54.75
377	908.0	15906185	.004	63624.74	79.07	54.75
211	764.5	16002905	.004	64011.62	83.73	54.75
205	232.9	16023433	.004	54113.00 54499 90	204.44 169 51	34.73 54.75
243	1097.0	16050721	.004	64292.28	58.53	54.75
253	1657.1	16187427	.094	54749.71	39.07	54.75
297	458.0	16256919	. 004	65027.68	141.98	54.75
103	.221.5	16362684	.004	65450.74	295.49	54.75
200	1187.8	164/6363	.004	53595.33	106 60	34.73
342	481.9	16793287	.004	67173.15	139.65	54.75
318	477.5	16817279	.004	67269.12	140.38	54.75
329	516.3	16867491	. 004	67469.96	130.68	54.75
236	507.0	17027259	.004	68109.08	134.34	54.75
224	185.0	17030017	.004	68120.07 cosoc (c	360.42	24.73
222	1653.5	17128776	.004 001	69715.10	42.16	04.70 54.75
345	370.0	17452002	.004	63848.01	188.78	54.75
424	132.5	17471407	.004	69885.63	527.44	54.75
258	552.0	17545187	.094	70180.75	127.14	54.75
423	333.0	17747355	.004	70989.42	177.92	54.75
320	1053 5	18545462	. 904 001	74181 85	79.41	34.73 54.75
436	636.5	19573482	.004	74693.93	84.25	54.75
223	436.5	18790787	.094	75163.15	172.20	54.75
219	201.0	18893393	.004	75573.57	375.99	54.75
103	327.5	19021773	.024	76087.09	232.33	54.75
500	202.0	1943324	. 994 004	77718.89	129.34	24.73
398	391.0	19594619	. 204	78378.48	200.45	54.75
392	511.5	19700119	.004	76800.48	154.06	54.75
192	578.0	20135440	.094	30545.76	139.35	54.75
427	501.5	20219516	.004	80878.06	134.45	54.75
327 119	713.0 5616	20356331	. 994 2 <b>0</b> 4	822/3.40	113.33	24./3 51 75
419	388.6	21323703	.004	85294,81	219.49	54.75
412	549.0	21364731	.004	85458.92	155.66	54,75
326	245.0	21373530	.004	85494.12	347.54	54.75
310	513.5	21378533	.994	85514.13	165.53	54.75
200	528.0	21440737	. 004 004	53/63.13 961/18 /16	194.70	34.73 54.75
385	1358.0	21549782	.004	86199.13	63.48	54.75
422	417.5	22168232	.004	88672.93	212.39	54.75
305	609.0	22252856	.004	89011.42	146.16	54.75
301	100.1	22836372	.004	91347.89 92674 AF	912.57	54.75
201	1337.4	23010012	. 994 . 904	52874.83 93192 10	33.12 179 94	34.73 54.75
352	1680.8	23735531	.004	94942.12	56.49	54.75
191	1198.5	23865265	.004	95461.06	79.65	54.75
<u> 294</u>	1934.7	23938930	.004	95755.72	49.49	54.75
327	255.1	23978809	.004	95915.24	375.99	54.75
$\frac{281}{474}$	228.0 161 0	24125255	. 984 201	75333.15 96910 60	403.55 221 03	34.73 54 75
		ter Terrer ( 1 12 k	· · · · · · · ·	그 그 그 그 것 이 것 것		and the second

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	USD	FTE	AV	CMM	PVI	WPP	8 <b>PP</b>
	511	153.5	24535010	.004	98140.04	600.24	54.75
	435	1384.8	24555402	004	98261.61	70,95	54.75
	100	262 2	24640405	004	00521 20	271 27	54 75
	406	353.2		.004	JOCO1,02		
	23D	356.3	246 /903 /	. 994	35659.13	dd ( , / 9	<b>24.</b> /2
	441	328.0	24979738	.004	99918.35	107.67	54.75
	484	381.0	25171009	.094	100684.04	114.23	54.75
	272	202 2	25176967	004	100707 87	125.54	54.75
	405		35104334	004	100705 00		51 75
	400	770.3		.004	100735.50		
	304	531.3	20081479	.064	102323.00	114.78	54.75
	493	1310.0	25643729	.094	102574.92	78.30	54.75
	460	742.0	25673780	.004	102715.12	138.43	54.75
	333	618.9	26000304	.004	104361.22	168.87	54.75
	504	1500 0	26191937	004	104767 75	25 52	54 75
	200	710 5	20131337	.004	104/07.70	453.00	
	320	/10.3	20000012	. 994	197234.00	130.33	34.73
	415	1052.5	25637666	.024	10/330./3	101.99	54./5
	294	668.2	27036102	. 004	108144.41	161.84	54.75
	366	573.0	27409925	. 004	109539.70	191.34	54.75
	202	337 0	37586260	004	111545.04	330 39	54.75
	200	551 0	27212515	001	111651 00	202.51	54 75
	204	221.8		.004		292.04	
	417	332.3	2/94/148	.994	111/88.33	11/.35	34.73
	503	2047.7	28657543	.004	112270.17	54.83	54.75
	274	499.5	29073612	.004	112314.45	224.85	54.75
	400	811.0	28109169	.004	112435.68	138.64	54.75
	368	1399.5	29057304	204	116229,22	83.05	54.75
	172	1102 2	20566177	004	11005/ 20	100.00	54 75
	100	102.3	2000173	.004		100.03	
	402	1623.9	29381434	.994	118323.82	/2.82	<u>34./3</u>
	221	233.9	23030200	.004	118521.97	319.89	34.73
	309	1404.5	30043016	.004	129172.06	85.56	54.75
	409	1590.0	30222000	.004	120888.00	76,03	54.75
	257	1355.6	30239015	. 204	121195.06	89.40	54.75
	265	16/13 9	30/37175	001	121748 70	74 05	54 75
	144	201.0	20512050		122/75 00		
	444	.304.9	36010336	. 294	122473.30	310.33	14. / J
•	533	1/33.8	36627773	. 694	123311.12	10.07	<u>24.72</u>
	350	386.5	31097889	.004	124391.56	321.84	54.75
	395	486.0	31100761	.004	124403.04	255.97	54.75
	365	1052.0	31712250	. 204	126849.00	120.58	54.75
	438	330 5	31946734	201	127206 34	385 44	54.75
	222	1011 5	220202024				E4 75
		1000 0	25550354	.004	120021.00	70,62	
	437	1956.0	32933975	. 004	128212.30	79.43	34.73
	467	570.0	32171693	.024	128686.77	225.77	34.75
	290	2047.4	32669004	. 994	130676.02	63.63	54.75
	379	1549.5	33672716	.094	134690.86	36.33	54.75
	312	1981.5	33721249	.004	134985.00	124.72	54.75
	057	267 a	3/322212	664		F/2 10	54 75
	220	242 5	24240470		10,100,00	551 05	
	203	243.3	34343473	.004			_4.70
	313	11/1.5	545/9521	.004	136663.25	118.38	24./2
	234	1965.0	35535783	. 224	142143.15	72.34	54.75
	261	2941.6	35841400	.004	143365.60	48.74	54.75
	264	855.0	36355356	. 994	147823.42	172.89	54.75
	200	457.4	37020531	00A	148082 50	323 75	54 75
	200	192 0	37222220	004	140004 20	775 10	54 75
		100 5	3722320	.004	140051.00		 
	3/4	430.3	3/2333/1	. 994	145037.45	333,38	<u>34.73</u>
	-32	1569.6	37279017	. 264	149116.07	198.01	54.75
	355	192.0	37302000	. 294	149208.00	777.13	54.75
	216	234.0	37950916	.004	151843.55	642.90	54.75
	166	1145.4	39059411	004	152233.64	192.91	54.75
	200	211 0	2002/20411	004	152252 02	100 20	
	105	1125 1	00004200	.004		400.32	44.CC
	433	1160.1	20311303	. 224	133247.84	132.10	<u>34.75</u>
	494	439.0	40115016	. 294	160460.06	363.51	54,75
	330	274.3	40441632	.994	161766.53	589.31	54.75
	332	358.5	41711761	.094	166847.04	578.33	54.75
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USD	FTE	AV	CMM	PWI	WPP	Sbb
431	737.0	41785734	.004	167146.94	225,79	54.75
413	2147.8	41732635	. 204	167179.54	77.83	54.73
271	116 9	10505005	224	170103 74	220 72	54.75
261	1057 5	40070454	.004	170000.14	462.02	54 75
201		43073434	.004		102.30	
ತರತ	1285.0	43192305	.004	1/2//1.52	134.43	24.73
250	2840.5	43237785	.004	172951.14	60.89	54.75
313	2102.5	43335914	.004	173343.66	82.45	54.75
292	3695.5	43417439	.004	173669.76	46.98	54.75
228	228.0	43457199	204	173928.72	835.77	54.75
251	277 3	44403983	004	176/15 53	635 73	54 75
100	3576 A	45704405	.004		74 44	
437	2020.0	40234130	.004	1011/0./0	(1,44 50 74	24.7E
122	3160.0	46400402	. 204	180821.61	38.71	24.73
446	2403.9	46485657	.004	185942.63	//.35	34./3
254	738.4	47725401	.004	190905.60	242.14	54.75
483	573.5	47824180	.004	191296.72	333.55	54.75
373	2929.0	49956989	.094	199827.95	68,22	54.75
270	525 5	50331202	. 004	201324.81	375.96	54.75
275	11/13 0	51000005	001	30/395 58	172 92	54 75
125	2122 2	51450050	004	205020.70		
400	2133.2	5151014	.004	200330.70		
490	೭೮೦ರ.೨	31316439	.004	236863.30	199.11	24.72
225	413.5	51922697	.094	297691.59	302.28	54.75
445	3330.3	52308967	.094	209225.37	59.96	54.75
300	419.5	52468909	.004	209875.64	500.30	54.75
475	5379.1	52589392	. 294	210357.57	32,98	54.75
218	576.1	53177704	004	212710.82	260,23	54.75
153	1090 A	5500016	004	221255 26	51 25	54 75
222	535 1	50000010	.004	222044 04	142 19	
320	410 5	500/0000	.004	222344,84	443.10	
202	143.3	20313279	.004	2002//.00		· ]···································
479	6332.3	38327916	.994	233786.86	/3.83	34.73
452	462.0	625/3746	.094	250414.98	519.53	24.72
345	3330.0	63115070	.004	250460.28	78.22	54.75
331	1075.2	66462232	.004	263855.33	247.25	54.75
217	195.0	70524751	.094	232099.00	1516.66	54.75
507	375.8	74703048	.004	296812.19	795.14	54.75
120	2960.5	76474634	.004	205898.54	103.33	54,75
353	4197.9	76534781	.094	306539.12	73.92	54.75
418	2178.5	20120222	.004	220481.E0	147.11	
407	1407 7	55902167	333		216 02	54 75
220		00302107	004	252762 07		
110			.004			
443	30/3.0	02443001	. 894	207774.64	72.30	24./2
433	3018.5	97/11913	.994	559547.53	125.48	24.73
438	3428.3	103418446	. 094	413673.78	120.65	54.75
308	4956.0	103800506	.004	415292.02	83.78	54.75
362	793.9	104335402	.994	419341.61	538.30	54.75
383	5203.1	106967623	. 384	427870.49	82,33	54.75
305	5598.4	119713707	504	474854.83	71,97	54.75
260	4542 3	121220529	0:0A	195354 51	106 05	5/ 75
222		12/170559		195292 21	000.00	
215	600.0 602 =	124275673	334			
214	1440 8	154510510	. uu⇔ ⊘Q4		175 34	27.12 61 76
214	1418.0	10400401	.204	610121.64	433.31	34.73
+2/	4332.9	100134042	.224	528775.17	140.45	24./2
<u> </u>	3330.3	13/32203	. <u>S</u> ST	<u>531550./5</u>		24.12
<b>Ξ10</b>	358.9	168334533	.984	673578.37	784.23	34.75
497	6816.0	171400989	.294	685503.96	100.59	54.75
321	1061.9	195343438	. 994	781373.75	735.83	54.75
244	795.0	254458180	.004	1017832.72	1280.29	54.75
501	14174.4	295089941	. 204	1180339.75	83.27	54.75
500	33317.7	298108368	004	1192433.47	<b>5</b> 2 <u>1</u> 2	FA 75
<b>1</b> 10	29575 8	224792294	, JAA	0750504 70		
2:2	11696 1	974624490	0.0.1	2222117 22		
			• UU+		20104	

# APPENDIX B

## TOTAL LOCAL CONTROL FINANCIAL DATA

39D 101 102 103 103	FTE 1198.5 578.0 221.5 251.0	AV 23865265 20136440 16362684 11321689	95461.06 80545.76 65450.74 45286.76	WFP 79.65 139.35 289.49 180.43	8PP 54.75 54.75 54.75 54.75	RLMR .0027 .0015 .0007 .0012	
200 202 203 204 205 205	311.8 3696.5 840.5 1934.7 632.0 540.5	38064206 43417439 8591565 23938930 19045924 23287621	152256.82 173669.76 34366.26 95755.72 76183.70 93150.48	488.32 46.98 40.89 49.49 120.54 172.34	54.75 54.75 54.75 54.75 54.75 54.75 54.75	.0004 .0047 .0054 .0044 .0018 .0013	
208 209 210 211 212	208.0 143.5 858.9 764.5 209.0	43457180 58319270 168394593 16002906 7734880 6179144	173828.72 233277.08 673578.37 64011.52 30939.52 24716.58	935.72 1625.62 784.23 83.73 148.04 151.64	54.75 54.75 54.75 54.75 54.75 54.75	.0003 .0001 .0003 .0026 .0015 .0014	
214 215 216 217 218 218	1418.0 606.5 234.0 186.0 575.1	154530461 124375670 37960916 70524751 53177704	618121.84 497502.68 151843.66 282099.00 212710.82 75573.57	435.91 820.28 648.90 1516.65 359.23	54.75 54.75 54.75 54.75 54.75 54.75	.0005 .0003 .0003 .0001 .0001 .0005	
1201 2223 2223 2224 200	274.5 189.0 437.5 436.5 189.0	40441532 9405778 10760228 18790787 17030017	161766.53 37623.11 43040.91 75163.15 68120.07 48245.25	589.31 199.06 98.38 172.20 369.42	54.75 54.75 54.75 54.75 54.75 54.75	.0004 .0011 .0022 .0013 .0005	
	413.5 255.1 131.5 3692.1 1199.0	51922897 23973809 15457119 88441718 11277932	207691.59 95915.24 61828.48 353766.87 45111.73	502.28 375.99 470.18 95.22 37.62	54.75 54.75 54.75 54.75 54.75 54.75	.0004 .0004 .0005 .0023 .0023 .0058	
	157.4 1633.5 9530.9 1965.0 521.0 	23018312 17428776 157922589 35535789 11334216 5797404	52074.05 69715.10 631690.75 142143.15 45326.86 23189.52	57.12 42.16 56.22 72.34 87.02 276.07	54.75 54.75 54.75 54.75 54.75 54.75	.9937 .9952 .9933 .9939 .9925 .9988	
238 238 244 244 244 244 244 244 244 244 244 24	586.5 210.0 588.0 451.0 345.5 101.0	14998362 6860180 21537114 13970787 14949759 5587308	59993.45 27440.72 86148.46 55893.15 59799.04 22349.23	102.29 130.67 146.51 123.91 173.08 2 <u>3</u> 1.29	54.75 54.75 54.75 54.75 54.75 54.75	.0021 .0017 .0015 .0016 .0018 .0018	
243 2445 2445 2445 2445 2445 2445 2445 2	540.5 795.0 370.0 563.0 771.5 1097.0	10304305 254458180 17462002 5855202 13880240 16050731	41217.22 1017832.72 69848.01 27420.91 55520.96 64202.88	76.26 1290.29 188.78 48.70 71.96 58.53	54.75 54.75 54.75 54.75 54.75 54.75	.0029 .0002 .0012 .0045 .0030 .0030	
99949994 99949994 99999994	431.5 2840.5 571.6 519.9 4197.9 788.4	5800247 43237785 18001981 15360383 76634781 47725401	23200.99 172951.14 720951.92 61441.53 306539.12 190905.60	53.77 50.89 107.22 118.18 73.02 242.14	54.75 54.75 54.75 54.75 54.75 54.75 54.75	.0041 .0036 .0020 .0019 .0030 .0030	
	368.5 308.0 1820.0 552.0	24670037 14047617 32053076 17545187	98580.15 56190.47 129212.30 70190.75	267.79 182.44 70.45 127.14	54.75 54.75 54.75 54.75	.0008 .0012 .0031 .0017	

USD	FTE	AV	PWI	WPP	8PP	RLMR
259	41690.4	974604480	3898417.92	.93.51	34.75	.0023
250	4542.3	121338628	485354.51	106.83	34.73	.0020
262	1690 9	22725521	143303.00	40./4 56./9	54.75	.0043
263	1657.1	16187487	64749.71	39.07	54.75	.0056
264	855.0	36955856	147823.42	172.89	54.75	.0013
265	1643.9	30437175	121748.70	74.06	54.75	.0030
266	1187.8	16476583	65906.33	55.49	54.75	.0039
267	1355.6	30299015	121196.06	29.40	54.75	.0024
268	521.1	13052780	52211.12	100.19	54.75	.0023
269	243.5	34349479	137397.92	354.25	54.75	.0004
279	333.3	30331202 43535835	291324.81	3/3.35	34.73	.0005
272	621.0	16549941	66199.76	106.E0	54.75	.0000
273	802.2	25176967	100707.87	125.54	54.75	.0017
274	499.5	28078612	112314.45	224.85	54.75	.0010
275	100.0	11089464	44357.86	443.58	54.75	.0005
279	309.5	8152033	32608.13	105.36	54.75	.0021
279	197.0	8062040	32248.16	163.70	34.73	.0013
200	141.0	13133317	50513.27 119531 07	423.88	34.73 57 75	.0003
201	333.0	19700119	79800 49	154 06	54.75	.0010
233	191.8	4945846	19783.38	103.15	54.75	.0021
284	551.0	27913515	111654.06	202.64	54.75	.0011
285	207.7	8310819	33243.28	160.05	54.75	.0014
286	507.0	17027269	63109.08	134.34	54.75	.0016
287	709.5	12952211	51808.84	73.02	54.75	.0030
288	525.0	9369692	37478.77	71.39	54.75	.0031
203	2017 1	32669001	130676 02	67 83	54.75	0027
291	204.0	7749149	30996.60	151.94	54.75	.0014
292	249.5	11974885	47899.54	191.98	54.75	.0011
293	322.0	14738920	58955.68	183.09	54.75	.0012
294	668.2	27036102	198144.41	161.84	54.73	.9014
223	124.3	16334/4	30513.30 45037 49	243.83	34.73	.0003
200	391.0	1959/619	73378.48		54.75	.0010
399	198.5	10425446	41791.78	210.08	54.75	. 3019
300	419.5	52468909	209875.64	500.30	54.75	.0004
301	100.1	22835972	91347.89	912.57	54.75	.0002
302	189.5	15437442	61749.77	325.86	54.75	.0007
303	337.0	27886260	111545.04	330.39	24.72	.0007
304 305	100.3	13002007	24840.04 474954 99	343.76	34.73 54 75	.0004 0030
305	509.0	22252855	29011.12	146.16	54.75	.0015
307	268.7	7990390	31961.56	118.95	54.75	.0018
308	4956.0	103800506	415202.02	83.78	54.75	.0025
303	1404.5	30043015	120172.06	.85.56	54.75	.0026
310	513.5	21378533	85514.13	166.33	54.75	.0013
311	234.3	3143487	36337.33 124005 AA	124.27	04.70 SA 75	.0018
313	2102.5	43335914	173343.66	124.72 82.45	54.75	.9010
314	164.0	9902311	39609.34	241.52	54.75	.0009
315	1171.5	34670821	138683.39	118.38	54.75	.0018
316	197.0	7705578	30822.31	156.46	54.75	.0014
317	,36.3	5765110	23060.44	267.21	34.73	.0008
510	477.0	1001/2/3	57253.12 74494 95	140.38 70.44	34.73 Ex 75	.0015
321	1061.9	195343438	781273 75	735.00	24.73 4 <u>4</u> .74	,0001 ,0009
322	375.0	11459182	45836.73	122.23	54.75	.9018
323	372.5	9339622	37358.49	33,26	54.75	.9934

USD	FTE	ΑV	PWI	WPP	BPP	RLMR
324	164.5	6287901	25151.60	152.90	54.75	.0014
325	710.5	25808512	107234.05	150.93	54.75	.0015
325	245.0	21373330	00494.12 99979 40	347.34	34.73	.0006
220	525.4	58211209	232844.84	443.18	54.75	.0015
329	516.3	16867491	67469.96	130.68	54.75	.0017
330	597.1	12003948	48015.79	80.41	54.75	.0027
331	1075.2	66463832	265855.33	247.25	54.75	.0009
332	288.5	41711761	156847.34	578.33	54.75	.0004
333 224	1344.3	12852650	128027.70 51110 60	182.21	54.75	.0023
335	510.0	7076505	28306.02	55.50	54.75	.0040
336	875.0	13671341	54685.36	62.50	54.73	.0035
337	798.3	7439028	29756.11	37.27	54.75	.0059
338	417.7	5541353	22165.41	23.07	34.73 54 75	.0041 3035
335	777.0	8175328	32701.31	42.09	54.75	.0052
341	445.5	7929864	31719.46	71.04	54.75	.0031
342	459.5	7220404	29881.62	62.85	54.75	.0035
343	775.0	12399640	51598.56	66.38	54.75	.0033
344 345	333.0	5133432 65115070	20341.37	78,22	34.73	.0043
346	518.5	13053788	52215.15	100.70	54.75	.0022
347	342.2	15465142	61860.57	180.77	54.75	.0012
348	858.1	12331112	49324.45	57.48	54.75	.0038
343	313.3	13392947	23271.79 124391 56	163.30	34.73	.0013
351	277.5	44103883	176415.53	635.73	54.75	.0003
352	1380.6	37279017	149116.07	108.01	54.75	.0020
353	1759.8	30827779	123311.12	70.07	54.75	.0031
334	257.0	34288818	137155.27	513.63	54.75	.9994
356	413.5	12201825	48807.30	118.03	54.75	.0003
357	636.5	7566330	30265.32	47.55	54.75	.0046
358	393.0	19799996	42800.02	108.91	54.75	.9929
333	199.5	10956998	43827.99	219.69	54.75	.0010
361	1957.5	13073454	172293.82	162.93	54.75	.0013
362	793.9	104835402	419341.61	525.20	54.75	.0004
363	538.5	124170559	496682.24	922.34	54.75	.0002
364	891.5	25581470	192325.38	114.78	34.73	.0019
365	573.0	87409985	109639.70	191.34	54.75	.0010
367	1952.5	14541558	58165.23	55.26	54.75	.0040
368	1399.5	29057304	116229.22	83.05	54.75	.0025
363	262.0	10839228	43356.91	155.48	54.75	.0013
372	629.5	3109821	32439.28	51.53	54.75	.0042
373	2929.0	49956989	199827.96	68.22	54.75	.0032
374	438.5	37259371	149037.48	339.28	54.75	.0006
375	1143.0	51098895	204395.58	178.82	54.75	.0012
377	908.0	15906185	63624.74	70.07	54.75	.0018
378	501.5	9366776	37467.10	74.70	54.75	.0029
379	1549.5	33672716	134690.86	36.93	54.75	.0025
380	625.5	16049974	64199.90 27278 12	102.64	54.75	.0021
382	1285.0	43192906	172771.62	146.07	34.73 54.75	.0015 .0016
363	5203.1	106967623	427870.49	82.23	54.75	.0027
394	196.5	7820163	31290.65	159.19	54.75	.0014
382	1358.0	21549782	86199.13	63.48	54.75	.0035

USD	FTE	AV	PWI	WPP	BPP	RLMR																										
386	352.5	12548099	50192.40	142.39	54.75	.0015																										
387	376.5	11294095	45176.38	119.99	54.75	.0018																										
388	457.4	37020651	148082.60	323.75	54.75	.0007																										
389	618.0	26090304	104361.22	168.87	54.75	.9913																										
390	142.5	9463880	37855.52	263.65	54.75	.0008																										
392	481.0	16793287	67173.15	139.65	54.75	.9915																										
393	375.5	10018679	40074.72	196.72	54.75	.9021																										
394	1126.5	12519857	50079.43	44.46	54.75	.0049																										
395	486.0	31100751	124403.04	522.37	54.75	.0005																										
396	561.2	12313143	49252.57	87.75	34.73	.0025																										
397	350.0	15195708	60782.83	1/3.5/	34.73	.9913																										
398	411.7	13730971	54923.88	133.41	34.73	.9915																										
333	192.0	37222920	148891.68	//0.40	34.73	.0003																										
400	811.9	28109169	112435.55	130.04	54.75 54.75	.0010																										
401	238.0	24138283	75333.15	400.05	54.75	.0000																										
402	1623.0	29381434	118323,02	222 22	54.75 54.75	.0000																										
403	327.3	19021773	10007.03	232.33	54.75	.0005																										
494	583.3	10333213	43020.00	139 77	54.75	0017																										
400	//0.3	5164224	199730.50	15 92	54.75	0048																										
400	4/1.0	26202167	21010.00	246,93	54.75	. 3099																										
407	1407.7	45747470	22202.01	100.20	54 75	.0020																										
400	1590 0	20222000	120828.00	76.03	54.75	.0029																										
403	561 6	21029780	84119.12	149.78	54.75	.0015																										
111	212 5	6351536	25406.14	119.56	54.75	.0018																										
412	549.0	21364731	85458,92	155.66	54.75	.0014																										
413	2147.8	41792635	167170.54	77.83	54.75	.0028																										
415	1052.6	26837688	107350.75	101.99	54.75	.0021																										
416	981.0	17147041	68588.16	69.92	54,75	.0031																										
417	952.5	27947148	111788.59	117.36	54.75	.0019																										
418	2178.5	80120399	320481.60	147.11	54.75	.0015																										
419	388.6	21323703	85294.81	219.49	54.75	.0010																										
420	604.5	11895638	47582.55	78.71	54.73	.0028																										
421	341.5	7119262	28477.95	83.39	54.75	.0026																										
122	417.5	22168232	88672.93	212.39	54.75	.0010																										
423	399.0	17747356	70989.42	1//.92	34.73	.0012																										
424	132.5	17471407	69883.63 00055 01	327.44	34.73	.0004																										
425	305.0	5239234	20935.94	53.43	34.73	.0032																										
425	250.3	10092839	40371,44 03070 AS	134.30	U4.7U E4 75	. 9914 Qair																										
427	2420 2	29215316	00070.00 119679 70	134.40 190 ee	54.75	.0018																										
423	3420.3	103416446	413073.70	120.00	54.75	. 0044																										
423	551.5	4724332	50458.00	75.48	54.75	.0029																										
131	737 0	41786734	157145.94	325.79	54.75	.0010																										
132	440.5	21440797	85763.19	194,70	54.75	.0011																										
433	231.5	6320569	25282.28	109.21	54.75	.0020																										
434	1134.4	13934101	55736.40	47.06	54.75	.0047																										
435	1384.8	24565402	98261.61	70.96	54.75	.0031																										
436	S86.5	18673482	74693.93	84.25	54.75	.0025																										
437	2536.0	45294195	181176.78	71.44	54.75	.0031																										
438	330.5	31846734	127386.94	385.44	54.75	.0005																										
439	382.0	5257291	21028.80	23.02	34.73	.9040																										
440	633.0	15123514	50474.05 990/0 95	24.5/ 107 ET	34.73 57 75	.9923																										
441	323.V 151 (	243/3/38	77710.73 ARERA 24	197.07	34.70 54.75	.0020																										
442	434.1	11305003	40000,20 257774 £4	196.95	54.75	. 0027																										
443	30/3.0	02443001 98610058	122475 80	212 25	54 75	.aaa7																										
115	2990 2	52302947	209235 87		54.75	.0031																										
116	2102 9	46485657	135942 63	77.35	54.75	.9023																										
440	2400.0	9943640	35774.3A	51.62	54.75	.0042																										
118	315.0	13726718	54906.87	:59.15	54.75	.0014																										
	24010																															
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AV 7894852 46555402 55257715	522603746 552388746 49499816 792499826 79262 79262	155194542 155194542 10069442		15067178	15033871 8360954	14100014 51497674	32052411 32171693		58927916	1000010	04227701 57589392		13/0/681 9609413	76474634	24640405	47824180 25171909	7657876	10010001	97711918 51516450		13513215 25643729		14136662		4543864	198108068 199509944		1000 / 140 9498860	4904830	16141447 74703048	100 00 00 00 00 00 00	01000010 69703010 697030010
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USD	FTE	AV	PWI	4PP	EPP	RLMR
499	756.0	4543864	18175.46	24.04	54.75	.0091
429	381.3	4724932	18899.73	49.57	54.75	.0044
203	191.3	4945846	19783.38	103.15	34.73	.9921
-24	337.9	4343366	13/33.33	30,73 47 07	34.73	.0007
244	315.0	4334663	20511.34	51 13	54.75	.99330
451	275 A	5227715	20910.35	76.04	54.75	0022
425	306.0	5239234	20956.94	68.49	54.75	.0032
439	382.0	5257201	21028.30	55.05	54.75	. 0040
406	471.8	5404201	21616.80	45.82	54.75	.0948
338	417.7	5541353	22165.41	53.07	54.75	.0941
242	101.0	5587308	22349.23	321.28	54.75	.0010
31/	35.3	5765119	23060.44	257.21	34.73	. 9995 0000
230	34.0	5757404	23183.82	2/0.0/	34.73 54 75	. 0000 0044
222	402 5	5151234	20200.00	61 23	54.75	.0041 00336
213	163.0	6179144	24716.58	151.64	54.75	.0014
324	164.5	6287991	25151.60	152.90	54.75	.0014
433	231.5	6320569	25292.28	109.21	54.75	.0020
411	212.5	6351536	25406.14	119.56	54.75	.0013
456	312.5	6473604	25894.42	62.66	54.75	.0025
491	700.0	6831802	27327.21	39.04	54.75	.0055
245	363.9	5633292	27429.31	48.79	34.73	.0040
225	510.0	7076505	27440.72	132.07	54.75	.9017 SSQQ
171	341.5	7119262	28477.05	33.39	54.75	.0026
342	459.5	7220404	28281 62	52.85	54.75	.0035
337	798.3	7439928	29755.11	37.27	54.75	.0959
357	536.5	7566339	30265.32	47.55	54.75	.0046
395	124.5	7653474	30613.90	245.89	54.75	.0009
486	239.8	7657876	30631.50	127.74	54.75	.0017
316	137.9	7721000	30821.31 30833 53	130.40	24.73 54.75	.9914
212	203.0	7749149	30333.32	143.04	04.70 54 75	.0010 2617
-84	195.5	7829163	31289.65	159.19	54.75	.0014
149	526.0	7894852	31579.41	52.11	54.75	.2042
455	178.0	7322294	31688.82	178.03	54.75	.0012
341	446.5	7929864	31719.46	71.04	54.75	.003i
307	258.7	7990390	31961.55	118.95	54.75	.0018
3/3	197.0	8052949	32243.15	163.79	54.75	.0013
372	523.3	3103521	22437.20	31,33	34.73	.0042
270 R40	303.3 777.0	8175328	32300.13	42.69	54.75	3052
329	184.0	3295784	33183.14	180.34	54.75	.0012
285	207.7	8310819	33243.28	160.03	54.75	.0014
463	388.5	8360954	33443.82	36.08	54.75	.0025
303	840.5	8591565	34366.26	40.89	54.75	.0054
447	533.0	8343649	35774.36	51.62	54.75 Ev 75	.9942
311	274.3	5145407 6339633	35357.53	124.27	04.70 54 75	.0010
378	501.5	9366776	37467.10	74.70	54.75	
388	525.0	9369692	37478.77	71.39	54.75	.0031
321	189.0	9405778	37623.11	199.06	54.75	.2011
390	142.5	9463380	37855.52	265.65	54.75	. 3998
381	265.5	9469532	37878.13	142.67	54.75	.9915
504	501.8	9498863	37995.45	75.72	54.75	.0029
458	112.0	3337135	36140.62	340.54	54.75 24.75	. 3905
170	335.9 372 F	7376701 0620449	303/1.32 39/27 65	42.75 143 =1	34.73 54.75	. 9931 384 -
4(3 314	273.0 164.0	2002413	20437.53 20437.53	241 52	04.70 5 <u>4</u> .75	.0010 .0009
	375.5	10018679	10074.72	106.72	54.75	. 2021
			-		-	

'JED	FTE	AV	PWI	wpp	856	RLMR
360	323.0	10043705	40174.82	124.38	54.75	.0918
487	558.5	10046220	40184.88	71.95	54.75	.2014
425	250.3	10052855	403/1.44	134.98	34.75	.0014
4/1	102.0	10200010	40609.04	457.34	04.70 E4.7E	. 9998 2000
100	340.3	19394393	41217.22	100.00	34./J 54.75	2000.
400	333.3	19318331	412/0,/2	123.03	34.73	2000
470	410.3	10303770	41030.08	210 02	04.70 54.75	.0022
176	117 5	10420440	42759 /1	263 91	54.75	00000
358	393.0	10700005	12200.02	108.91	54.75	.0020
222	437.5	10760228	43040.91	98.33	54.75	.0022
369	262.0	10839228	43356.91	165.48	54.75	.0013
404	665.5	10955213	43320.85	63.93	54.75	. 9034
359	199.5	10956998	43827.99	219.69	54.75	.0910
371	162.5	10997896	43991.58	270.72	54.75	.0008
275	100.0	11089464	44357.86	443.58	54.75	.0005
EE0	1199.0	11277932	45111.73	37.62	54.75	.0059
-307 1-34	3/5.3	11294095	451/6.38	119.99	<u>34.73</u>	.0013
194	201.9	11321665	43286.75	180.43	34.73	.0012
233	021.0 454 4	11334210	43355.65	106.22	34,73	0020
222	275 3	11205000	40000.20	100.35	54.75	.0010
181	404.0	11840470	47361.88	117.23	54.75	.0019
420	604.5	11895638	47582.55	78.71	54.75	.0023
469	1157.9	11899800	47599.20	41.11	54,75	.0053
292	249.5	11974885	47899.54	191.98	54.75	.0011
330	597.1	12003948	48015.79	80.41	54,75	.0027
356	413.5	12201825	48807.30	118.03	54.75	.0019
325	710.5	12311312	49245.25	69.31	54.75	.0032
335	351.2	12313143	49252.57	87.75	34.75	.9024
343	033.1	12331112	43324.43	37.43	34./3	.9935 2050
394	252 5	125/12/29	50192 40	1/2 29	54.75	.0015
430	668.5	12614499	50458.00	75.48	54.75	.0029
334	282.9	12852650	51410.60	182.31	54.75	.0012
289	631.2	12681427	51525.71	81.63	54,75	. 2027
343	775.0	12299640	51598.56	66.58	54.75	.0033
287	709.5	12952211	51808.84	73.02	54.75	.0030
358	521.1	13052780	52211.12	100.19	54.75	.9022
346	518.5	13053788	52215.15	190.70	54.75	.0022
433	1048.9	13350219	33400.33	50.91	54.75	.0943
343	313.3	13332347	33371.79 54460 86	163.60	04.70 54.75	.9913
301	100 5	13613215	54649.34	207.08 F/9 75	04.70 SA 75	.0011 0004
336	875.0	19671941	54685 26	62.50	54.75	
448	345.0	13726718	54906.87	159.15	54.75	.0014
398	411.7	13730971	54923.88	133.41	54,75	.0016
247	771.5	13880240	55520.96	71.9E	54,75	. 9930
434	1184.4	13934101	55736.40	47.05	54.75	.0047
240	451.0	13970787	55883.15	123.91	54.75	.0018
226	308.0	14047617	56190.47	182.44	54.75	.0012
420	100.0	14100002	30340.03 56206 A5	301.32	04.00 Ex 75	. 6665
227	1052 5	14100012	58444 23	43.30	54.75 EA 75	.0040 GGAG
223	200.0	14738920	59955.50	199,39	54.75	.0012
241	345.5	14949759	39799.04	173.48	54.75	.0013
237	586.5	14999362	59993.45	102.29	54.75	.0021
462	433.0	15033871	60135.48	138.88	54.75	.0016
376	491.7	15040357	60161.43	122.25	54.75	.0019
451	736.0	15067172	50258.59	75.68	54.75	.0029
440	539.0	15123514	60494.06	34.37	54.75	. 3923

-ED	FTE	₩V	FWI	WPP	EPP	RLMR
380	141.0	15153317	60613.27	429.88	54.75	.0005
397	350.9	15195708	60782.83	173.67	54.75	.0013
252	519.9	15360383	61441.53	118.18	54.75	.0019
302	189.5	15437442	61749.77	325.86	54.75	.0007
338	131.5	15457119	61828.48	470.18	54.75	.0005
347	342.2	15465142	61860.57	180.77	54,75	.0012
477	194.0	15707681	62839.72	323.87	54.75	.0007
408	581.5	15747478	62999,91	108.32	54.75	0020
377	908.0	15906185	63624.74	70.07	54.75	0031
211	764 5	16002906	64011 62	27 22	54 75	0035
150	252 0	120002300	64110 00	254 44	54 75	00000
200	225 5	10023433	5410.00	100 51	51 75	.0000
340		10043374	64133.30	192.04	04.70 51.75	.0021
343	1037.0	15050721	04202.00		24.73 E4.75	.0007
203	1637.1	1010/42/	54/43,/1	37.97	34.73	.9935
23/	438.0	16236313		141.38	34.73	.0015
193	.1.3	10302024	53439.74	233.43	34.73	.0007
250	1187.8	16476583	53906.33	.55.49	54.75	.0033
272	521.0	16549941	66199.76	106.50	54.75	.0021
335	451.0	16793287	67173.15	139.65	54.75	.0016
318	477.5	16817279	67269.12	140.88	54.75	.0016
329	516.3	16867491	67469.95	130.58	54.75	.0017
286	507.0	17027269	68109.08	134.34	54.75	.0016
224	139.0	17030017	681 <b>20.</b> 07	360.42	54.75	.9996
416	981.0	17147041	68588.16	69.92	54.75	.0031
232	1633.5	17428776	69715.10	42.16	54.75	.0052
245	379.0	17452002	69848.01	188.78	54.75	.0017
424	132.5	17471407	69665.63	527.44	54.75	.0004
253	552.0	17545187	70180.75	127.14	54.75	.0017
423	399.0	17747356	70989.42	177.92	54.75	.0012
251	671.6	18001981	72007.92	107.22	54.75	.0020
320	1053.5	18545462	74181.85	70.41	54.75	.0031
436	886.5	19573482	74693.93	84.26	54.75	.0026
223	436.5	18790787	75163.15	172.20	54.75	.0013
219	201.0	18893393	75573.57	375.99	54.75	.0006
403	327.5	19021773	76087.09	232.33	54.75	.0009
295	532.0	19945924	75183.70	129.54	54.75	.0018
302	202.5	19429722	77718.89	383.80	54.75	.0006
298	391.0	19594619	78378.48	399.46	54.75	.0011
202	511.5	19700119	73800.48	154.95	54.75	.0014
102	578.0	20136440	80545.75	139.35	54.75	.0016
127	601.5	20219516	30978.06	124.45	54.75	.0015
327	713.0	20568351	82273.40	115.39	54.75	.0019
410	561.6	21029780	84119.12	149.78	54.75	.0015
119	353.6	21222703	85794.81	219.49	54.75	0010
412	549.0	21364731	85458.92	155.66	54.75	.0014
	245.0	21373530	85494.12	347.54	54.75	. 000E
310	513.5	21378533	85514.13	166.53	54.75	.0013
132	440.5	21110797	85763.19	194.70	54.75	.0011
222	588.0	21537114	26148.46	146.51	51.75	.0015
325	1358.0	21549789	86199.13	63.19	54.75	.0035
422	417.5	22152222	38677.99	212.39	54.75	.0010
305	689.0	22222225	89011.42	146.16	54.75	.0015
201	100.1	22226972	91947.99	912 57		0007
501	1557.4	22010512	92074.35			0000
āģi	540.5	22227221	93150 49	12.31		.0007 .0019
567	1680.8	2272521	0 <u>100</u> .10		51 75	0010
191	1198.5	2222222	ASARI DE	79.25	4. 75	0000
ΞĂĂ		2222222	05755 70	19.19	54.75 57 75	, COLT GOAA
	255 (	22972966	95915 24	275 20	24.74 51.75	
121	222.3	24120200		10- CO	51 75	.0000 0005
1 <u>-</u> 1	161 0	24122233	55223,15	400.55	04.70 57 75	-999- 6864
	191.9		33318.38	301.35	14. (Q	. <u>999</u> 24

1:SD	FTE	AV	=wI	% PP	SPP	RLMR
511 135	163.5 1384.8	24535010 24565402	98140.04 98251.61	600.24 70.95	54.75 54.75	.0004 .0031
482	363.2	24640405	98561.62	271.37	54.75	.0008
255 441	368.5 928.0	24670037 24979738	98680.15 99918.95	267.79	54.75 54.75	.0008 .0020
434	881.0	25171009	100684.04	114.28	54.75	.0019
273 405	802.2 776.3	25176967 25184224	100707.87 100736.30	125.54 129.77	34.75 54.75	.0017 .0017
364	691.5	25581470	102325.88	114.78	54.75	.0019
493 460	1310.0	25643 <i>729</i> 25678780	102574.92	78.30 138.43	04.70 54.75	.0028 .0016
389 385	618.0	25090304	104361.22	168.87	54,75	.0013
325	710.5	26898512	107234.05	150.93	54.75	.0015
415 294	1052.6	26837688 279361 <i>9</i> 2	107350.75 108144.41	101.99 161.84	54,75 54,75	.0021 .0014
366	573.0	27409925	109639.70	191.34	54.75	.0011
303 384	337.0 551.0	2/966260 27913515	111545.04 111654.06	330.99 202.64	54,75	.0007 .0011
417	952.5	27947148	111788.59	117.36	54.75	.0019
274	499.5	280778612	112314.45	224.85	54.75	.0010
499	811.0 1399 5	28109169 29057204	112435.68	138.64	54.75 54.75	.0016 0026
473	1162.3	29566173	118264.69	100.03	54.75	.0022
402 381	1625.9 539.9	29581454 29630268	118325.82 118521.97	72.82 219.89	54.75 54.75	.0030 .0010
309	1404.5	30043016	120172.06	85.56	54.75	.0026
405 267	1355.6	30222000	121196.06	75.03 89.40	54.75	.0025
265 444	1643.9 384 Ø	30437175 30618950	121748.70	74.06	54.75 54.75	.9030 .0007
353	1759.8	30827779	123311.12	79.97	54.75	.0031
350 395	386.5 486.0	31097889 31100751	124391.36 124403.04	321.84 255.97	54.75 54.75	.0007 .0009
365	1052.0	31712250	125849.00	120.58	54.75	.0018
430 333	1344.5	31646734 32006924	127388.34	353,44	54.75	.0023
257 467	1829.0 570.0	32053076 32171693	128212.30	70.45 225.77	54.75 54.75	.0031 .0010
290	2947.4	32669004	130675.02	63.83	54.75	.0034
379 312	1549.5 1081.5	33672716 33721249	134699.86 134885.00	86.93 124.72	54.75 54.75	.0025 .0012
354	367.0	34288818	137155.27	513.69	54.75	.0004
267 315	243.0 1171.5	34349479 34670821	137397.92 132683.28	254.25 118.38	24,75 54,75	.0004 .0013
234	1965.0	35535789 35844400	142143.16	72.34	54.75	. 2030 0045
264	855.9	36955856	147823.42	172.89	54.75	.0013
399	457.4 192.0	37020631 37222920	148082.60 148891.68	323.75 775.48	54.75 54.75	.0007 .0003
374	438.5	37259371	149037.48	339.68	54.75	.0006
302 355	1369.6	37302000	149118.07	777.13	54.75 54.75	.0029 .0003
216 466	234.0 1145.4	37960916 38059411	151843.66 152293 54	648.90 192 91	54.75 54.75	.0003 .2015
300	311.8	38064205	152256.82	483.82	54.75	.0004
495 494	1160.1 439.0	38311959 40115015	153247.84 160460.05	132.10 365.51	54.75 54.75	.3017 .3985
200	274.3	40441632	161765.53	559.31	54.75	.3004
	200.J	+:/11; <u>⊂</u> 1	155547184	1/0.05	24,72	. 0004

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195	FTE	$\Delta U$	PWI	WPP	EEb	RLMR	
131	737.0	41786734	167146.94	226.79	54.75	.0010	
413	2147.8	41792635	167170.54	77.93	54.75	.0023	
271	446.8	12525935	170103.74	380.72	54.75	. 2005	
361	1057 5	13073454	170000 00	142,42	54.75	0013	
502	1225 6	40070404	172771 22	124 45	E1 75	0010	
202	1250.0	43156500	172771+62	134.40		.0010	
200	2340.0	43237780	1/2901.14	50.33	34.73		
313	2102.5	43335914	1/3343.66	82.45	34.73	.002/	
392	3696.5	43417439	173669.76	46.98	54.75	.2047	
398	208.0	43457180	173828.72	835.72	54.75	.0003	
351	277.5	44103883	176415.53	635.73	54.75	.0003	
137	2536.0	15294195	181176.78	71.44	54.75	.0031	
150	2165 A	15455402	195921 21		54.75	2037	
1/16	2462 0	10400402	125042 52	77 94	41 75	2028	
354	700 /	40400007	100042.00	242 44			
204	<u>/65.4</u>	47720491	120203.00	242.14	 	.0005	
433	. 2/3.3	47824189	131235.72	333.35	34.73	.9997	
373	3929.0	49956969	199827.96	-8.22	54.75	. 0032	
270	535.5	50331202	201324.81	375.96	54.75	.0096	
375	1143.0	51098895	204395.58	178.82	54.75	. 2012	
465	2133.2	51497674	205990,70	96.55	54.75	.0023	
490	2058.3	51516450	206065.30	100.11	54.75	.0022	
225	413.5	51922897	207691.59	502 22	54.75	0004	
145	2000.0	50000000	200225 07	29.94	54 75	0031	
200	119 5	52/20000	20203.07	500.00	=1 75	3004	
175	413.0	12406303		399.39		.0004	
4/3	63/3.1	12065652	210307.07	32.70	34.73	.0000	
318	3/6.1	53177704	312/19.82	353.23	<u>34./3</u>	. 3005	
453	4080.0	55335816	221355.26	54.25	54.75	. 2940	
328	525.4	58211209	232844.84	443.18	34.75	.0905	
209	143.5	58319270	233277.08	1625.62	54.75	.0001	
470	2952.5	58927016	235708.06	79.83	54.75	.0027	
177	422.0	62603746	250414.98	519.53	54.75	. 2004	~
2/5	3330 0	65115070	250460 28	72.32	54 75	0022	
221	1075 2	65163933	265055 22	247 22		.0020	
331	1973.2	70403032	200000.33			.0005	
21/	100.9	70324731	202933.00	1315.55	_4./_ 	.0001	
307	3/3.8	74703048	230012.19	(33.14	24.72	. 5553	
480	2260.5	76474634	305898.54	103.33	54.75	.0021	
353	4197.9	76634731	306539.12	73.92	54.75	.0930	
418	2178.5	80120399	320481.60	147.11	54.75	.0015	
407	1407.7	86902167	347608.67	246.93	54,75	.0003	
223	3692.1	88441718	353766.87	95,93	54.75	. 9923	
143	2072 6	39443661	357774.54	<u>ao   oz</u>	54.75	0021	
100	2010.5	9711919	2000/7 25	129 12	54 75	0017	
120	3/39 3	102412445		100 22		0019	
	3460.3 1956 g	103410440	410070.70	20.20		.0010	
200	4506.0	193099290	410202.02	53.75		.0020	
302	(23.2	194650492	412341.51	123,22	24,	. 2004	
200	3293.1	10000/023	427870.49	32.22	24, 2	.9227	
305	6398.4	118713707	474854,83	71.97	54.75	. 2030	
260	4542.3	121332628	485254.31	108.95	54.75	. 3020	
353	538.5	124170559	496682.34	922.34	54.73	. 8302	
215	606.5	124375670	497502.68	820.28	54.75	.2003	
214	1418.0	154530461	618121.34	435.91	54,75	.0005	
157	1952.0	155194542	620778.17	125.36	54.75	.0017	
222	2520 9	157922589	531690 TE		54.75	3033	
210		160001500	272572 27	794 22		,0000	
107	0-0.3 2014 0	100354355	272270.37 295200 02	104.20	 	-9995 -9965	
-2/	2010.9	1/1400707		199.33	34.73	.9922	
<u>11</u>	1961.9	133343435	/813/3./3	<u>, 23, 55</u>	34.73	. 2025	
<u> 244</u>	/32.0	204408180	1017632.72	1222.33	<b>34.75</b>	.000Z	
501	14174.4	295089941	1180359.75	93.ET	54.75	.0026	
500	22317.7	298108368	1192433,47	53,43	54.75	.9941	
513	29675.8	684598694	2732394.78	92,27	54.75	.0024	
159	41690.1	971604430	3998417.99	93.54	<u>54.75</u>	. 0023	

USD	FTE	AV	FWI	WPP	Bbb	RLMR
209	143.5	58319270	233277.08	1625.62	54.75	.0001
217	186.0	70524751	282099.00	1315.55	34./3	.0001
201	199.1	12/1170552	71347.07 496599 94	312.37	34.73	. 9992 6882
244	795.0	254458186	1017832.72	1220.29	54.75	.0002 .0002
215	606.5	124375670	497502.68	820.28	54.75	.0003
399	192.0	37222920	148891.68	775.48	54.75	.0003
210	858.9	168394593	673578.37	784.23	54.75	.0003
215	234.0	37960916	151843.65	648.90	54.75	.0003
321	1061.9	195343438	781373.75	735.83	54.75	. 2003
500	192.0	37302000	149208.00	777.13	34.75	E000.
287	3/3.8	74793943	252812.13	/33.14 235 75	04./0 54.75	. 2003.
200	208.0	43457180	173828.72	835.72	54.75	.0003 3003
300	419.5	52466909	209875.64	500.30	54.75	.0004
354	267.0	34288819	137155.27	513.69	54.75	.0004
200	311.8	38064206	152256.82	488.32	54.75	.0094
269	243.5	34349479	137397.92	564.26	54.75	.0004
452	482.0	62603746	250414.98	519.33	34.75	.0004
424 204	132.3	17471407	57563.53	327.44	04,70 54,75	
304 474	161.0	24227701	96910 90		54.75	.0004 0004
332	288.5	41711761	166847.04	578.33	54.75	.0004
511	163.5	24535010	98140.04	600.24	54.75	.0004
225	413.5	51322897	207691.59	502.28	54.75	.0994
220	274.5	40441632	161765.53	589.31	54.75	.0004
202	/93.9	104835402	419341.61	528.29	54.75	.9994
223	131.J 525 A	13437119	222944 84	470.10	34.73	.0000 0005
220	141.0	15153317	69613.27	429,88	54.75	0005
214	1418.0	154530461	618121.84	435.91	54.75	.0005
275	100.0	11089464	44357.86	443.58	54.75	.0005
401	238.0	24138289	<del>36553</del> .16	405.69	54.75	.0005
302 163	202.5	19429722	77718.89	363.69	54.75	.9995
400	112.9 499 a	7333130	163460.06	340.34	24.73	- 2000 2006
227		22272202	95915.24	375.99	54.75	0000
496	156.5	14136662	56546.65	361.32	54.75	.0006
219	201.0	18293393	75573.57	375.99	54.75	.0006
370	525.5	50331202	201324.81	375.96	54.75	. 9995
271	445.8	42525935	170103.74	380.72	54.75	.0006
475	117.5	19655633	42/39.41	553.31 347 54	34.73	. 9995
240	575 1	53177704	212710 82	347.34	34.73	. 9996 0006
438	330.3	31846734	127386.94	385.44	54.75	.0005
374	438.5	37259371	149037.48	339.38	54.75	.0005
324	189.0	17030017	68120.07	360.42	54,75	. 9996
350	386.5	31097889	124391.56	321.84	54.75	.0007
144	384.0	30618350	122475.80	318.95	54.75	.0007
103	409.5	15352564	63430.74	233.43	34./3 5/ 75	, 8997. 0007
477	194.0	15797681	62830.77	373.87	54.75	.0007 .0007
483	573.5	47824180	191296.72	333.56	54,75	.9997
303	337.0	27886269	111545.04	330.99	54.75	.9997
398	457.4	37020631	148082.60	323.75	54.75	.0007
222	368.3	24670037	38580.15	357.79	54,75 e/ 75	.0008
271	353.2 127 7	24640403 10007005	75351.52	≤/1.3/ 373 TP	34.73	8000. 2000
205	162.3 94 0	10557650	23129 23	270.72 276 a7	34.73 54.75	. 9995 . 3882
171	:52.5	10296010	10500.04	267.54	54.75	. 2003
Ξ1 <b>7</b>	35.3	5765110	23060.44	257.21	54.75	.0008

. <u>'90</u>	FTE	AV	PWI	wpp	Sbe	RUMR
390	142.5	9463889	37855.52	263.65	54.75	. 0008
407	1407.7	96902167	347608.67	245.93	54.75	.0009
220	436.0	31919761	124043.04	200.23	34.73	- 2003
-14	164.9	5592311	33503.24	241.32	34.73	.9999
331	1973.2	55453532	<u>250600.33</u>		34.73	. 9999
204	753.4	47725401	190903.00	242.14	34.73	. 5005
439	232.9	16023433	54118.00	234.44	34.73	- 2000 - 2000
205	327.0	13421//3	20007.03	232.33	54.75	. 6005
419	788 5	21222702	2529/ 21	219.49	54 75	0000
250	199 5	10956999	13827, 99	219,69	54.75	.0010
212	101.0	5587308	22349.23	221.33	54.75	.0010
457	570.0	32171693	128686.77	225,77	54.75	.0010
431	737.0	41785734	167146.94	225.79	54.75	.0010
281	539.0	29630268	118521.07	219.89	54.75	.0010
422	417.5	22168232	88672.93	212.39	54.75	.0010
274	499.5	28078612	112314.45	224.85	54.75	.0010
222	198.5	10425446	41791.78	210.08	54.75	.0010
	373.0 EEA 3	27405525	105535.70	191.34	34.73	.0011
284	331.0	2/913313	111634.96	202.04	24.73	.0011
122	105.0	3403778	3/823.11	153.00	34.73	.0011 0044
200	391 0	1959/619	79378 48	200 16	54.75	
192	263.0	13615216	54469.85	207.08	54.75	.0011
292	249.5	11974885	47899.54	191.98	54.75	.0011
104	251.0	11321689	45286.75	180.43	54.75	.0012
256	308.0	14047617	55190.47	182.14	54.75	.0012
503	184.0	8295784	33183.14	180.34	54.75	.0012
345	370.0	17462002	63848.01	188.78	54.75	.0012
293	322.0	14738320	58955.68	183.09	54.75	.0012
347	342.2	15465142	61869.57	180.77	54.75	.9012
433	1/8.0	/322204	31666.62	1/3.03	34.73	.9912
224	375.0	17757650	19303,42 51110 CO	177.32	34.73	.0012
275	1143 0	51098895	204395 59	178.82	54.75	0012
389	618.0	26090304	104261.22	168.87	54.75	.0013
Ξ41	345.5	14949759	59799.94	:73.08	54.75	.0013
361	1057.5	43073454	172293.82	162.93	54,75	.0013
223	435.5	18790787	75163.15	172.20	54.75	.0013
369	262.0	10839229	43356.91	163.48	54.75	.0013
206	540.5	23287521	93150.48	172.34	54.75	.0013
349	315.5	13392947	53571.79	169.80	54.75	.0013
319	313.3	213/8033	53314.13	166.33	04.70 E4.75	.0013
377	300.0	13153796	50/62.03 33349 44	1/0.0/	34./3 5/75	.0015
364	137.0	0002040	1/7223 43	103.79	04.70 51.75	.0013
202	207.7	3310219	22242,22	160.05	54.75	.0010 GØ44
294	568.2	27036102	198144.41	161.84	54.75	.0014
213	163.0	6179144	24716.38	151.64	54.75	.0014
425	260.5	10092859	40371.44	154.98	54.75	.0014
391	204.0	7749149	30 <del>996</del> .60	151.94	54.75	.0014
316	197.0	7705578	30822.31	155.46	54.75	.0014
412	549.0	21364731	85458.92	155.66	54.75	.0014
324	164.3	628/301	20101.50	132.50	34.73	.0014
	340.0 194 5	13745715	34570.07	137.13	34,/3	.9914
104	511 5	19700119	72922 42	103.15 (SA GE	04./0 5/175	3014
331	265.5	9469532	37878.13	142.67	54.75	.0014
239	588.0	21537114	86148.46	146.51	54.75	.0015
197	458.0	16256919	53027.68	141.98	54.75	. 0015
365	3 <b>39.</b> 0	32252956	55011.42	148.15	54,75	.0015

	JSD	FTE	AV	PWI	wpp	EFP	RUMR
4	118	2178.5	801203 <del>99</del>	320481.60	147.11	54.75	.0015
3	:86	352.5	1254809 <del>9</del>	50192.40	142.39	54.75	.0015
3	212	209.0	7734880	30939.52	148.04	54.75	.0015
- 4	110	561.6	21029780	24119.12	149.78	54.75	.0015
3	25	710.5	26808512	107234.05	150.93	54.75	.0015
	22	1285.0	43192906	172771.52	134.45	54.75	.0016
4	60	742 0	25578780	102715.12	138.43	54.75	0016
		501 5	20210512	20272 04	134 46	54 75	0016
		4445 4	20213010	(33333 64		54 75	0010
10		1140.4		102200.04	106.31		- 9010 - 9010
	213	477.3	1001/2/3		140.00	04.70 Ex 75	.9915
		481.9	15/9325/	6/1/3.13	133.63	34.73	.9915
-	199	411.7	13730971	74923.88	133.41	34./3	.9916
4	00	811.0	28109169	112436.68	138.64	24.75	. 9915
4	73	273.5	3609413	38437.65	140.54	54.75	.0016
4	162	433.0	15033871	60135.48	138.88	54.75	.0016
1	.02	578.0	20136440	80545.76	139.35	54.75	.0016
2	286	507.0	17027269	68109.08	134.34	54.75	.0016
4	126	239.8	7657876	30531.50	127.74	54.75	.0017
3	29	516.3	16867491	67463.36	130.68	54.75	.0017
2	73	802.2	25176967	100707.87	123.54	54.75	.0017
1	29	3018.5	97711913	392847.65	129.48	54.75	.9917
1		1160 1	32311959	152247 84	122 10	54 75	2017
1	20	210.0	6860190	27440 72	120 57	54 75	0017
	50	1957 0	155104540	E20779 17	100.07		
4		4302.0	2510124042	100776 90	120.35	54.75	.0017
4		/ 10.3	23164224	100/30.30		04.70 EA 75	.0017
1		332.0	1/343187	/0120./3	127.14	34.73	.0017
4	37	3/5.0	11294093	431/5.38	119.99	<u>34.73</u>	.9918
=	22	3/5.9	11459182	45835.73	122.23	34./3	.9918
4	83	335.5	10318931	41275.72	123.03	54.75	.0018
2	:05	632.0	19045924	76183.70	120.54	54.75	.0018
4	28	3428.3	103418446	413673.78	129.65	54.75	.0018
2	40	451.0	13979787	55883.15	123.91	54.75	.0018
3	15	1171.5	34670821	138683.23	118.35	54.75	.0018
3	65	1052.0	31712250	126849.00	120.38	54.75	.0013
ā	11	294.5	9149487	36597.95	124.27	54.75	. 9918
ā	εa	223.0	10043705	40174.82	124.28	54.75	0018
	12	1001 5	9751546	134885.00	124.72	54 75	0019
1	4.4	212.5	2351535	25406 14		54 75	0018
77	7Ē	191 7	15010357	60161 43	122 25	54 75	0010
Ĩ	707	220 7	7000007	21021 52	110 05		.0010
	01	404 0	1950350	47061.00	110.30		.0010
4		404.0	11340470	4/201.00		34./3	-10015
4		532.3	2/34/148	111/00.05	117.30	34.73	.9913
4		CO1.V	20171007		114.20	34.73	.9912
	22	212.2	13369363	61441.33	118.18	24./2	.0913
3	25	413.3	12201020	42697.39	118.03	34.73	.8913
Ĩ	154 167	331.3	20081479	102325.88	114.78	34.73	.0019
	27	713.0	20066351	82273.40	115.39	34.73	.0019
3	29	353.9	10700006	42800.02	108.91	34.75	. 2020
4	33	231.5	6320569	25282.28	109.21	54.75	.9929
3	52	1380.6	37279017	149116.07	108.01	54.75	.3929
	.08	581.5	15747478	62989.91	198.32	54.75	.0020
. 3	59	4542.3	121338628	425354.51	106.85	54.75	. 3929
4	41	928.0	24979738	<b>399</b> 18.95	107.67	54.75	.0029
3	51	671.6	18001981	72007.92	107.22	54.75	. 3920
3	80	625.5	16049974	64199.99	192.64	54.75	.0021
3	<b>S</b> 3	191.8	4945846	19783.38	193.15	54.75	, 2021
	37	596.5	14998962	59963 15	102.29	54.75	5671
-	15	1057 6	26227662	107250 75	101 22	54 75	0001 0021
1	ēā	SOLA S	75474694	205202 44			0001 00021
3	-	320 4	21 = 2022	222.00.12	105.00		2021 19021
=		297.J	10010030	32295.13	190.30	34.73	, 6721 550 (
=	<b>2</b> 2	2:3,3	14616675	400 / 4 , <u>4</u>	185./d	34,/3	92 <u>-</u> 1

LSD	FTE	AV	PWI	WPP	EPP	RLMR
272	621.0	16549941	66199.76	105.60	54.75	.0021
497	6816.0	171400989	685603.96	100.59	54.75	.0022
490	2058.3	51516450	206065.80	109.11	54.75	.0022
346	518.5	13053788	52215.15	109.70	54.75	. 9922
222	437.5	10760228	43040.91	98.38	54.75	.0022
442	454.1	11389065	45556.26	109.32	54.75	. 9022
473	1182.3	29566173	118264.69	100.03	54.75	.9922
268	521.1	13052780	52211.12	100.19	54.75	.0022
498	418.5	10083770	41535.08	99.25	54.75	.0022
333	1344.5	32996924	128027.70	95.22	54.75	.0023
463	2133.2	51497674	205990.70	96.56	54.75	.0023
333	3692.1	82.41213	353766.87	95.82	54.75	.0023
440	639.0	15123514	60494.06	94.67	54.75	.0023
259	41690.4	974604480	3898417.92	93.51	54.75	.0023
512	29676.8	684598694	2738394.78	92.27	54.75	.0024
267	1355.6	30299015	121196.06	<b>39.</b> 40	54.75	.0024
443	3673.6	89443661	357774.64	92.35	54.75	.0024
336	561.2	12313143	49252.57	87.76	54.75	.0025
235	521.0	11334216	45336.86	87.02	54.75	.0025
379	1549.5	33672716	134590.85	25.93	54.75	.0025
463	388.5	8360954	33443.82	36.08	54.75	.0025
421	341.5	7119252	28477.05	83.39	54.75	.0026
501	14174.4	295089941	1180359.76	8 <b>2.</b> 27	54.75	.0025
436	886.5	18673482	74693.93	84.26	54.75	.0025
456	312.5	6473604	25394.42	82.86	54.75	.0025
308	4956.0	103800506	415202.02	83.78	54.75	. 9925
211	764.5	16002906	64011.62	83.73	54.75	.0025
368	1399.5	29057304	116229.22	83.05	54.75	.0026
309	1404.5	30043016	120172.05	85.56	54.75	.0025
289.	631.2	12381427	51525.71	81.63	54.75	.0027
323	5203.1	106967523	427870.49	S2.23	54.75	.0027
470	2952.5	58927916	235708.05	79.83	54.75	.0027
101	1198.5	23865265	95461.05	79.65	54.75	.0027
313	2102.5	43335914	173343.65	82.45	54.75	.0027
330	597.1	12003343	48015.73	80.41	54.75	.0027
446	2403.9	46485657	185942.63	77.35	54.75	.0028
429	604.5	11895538	47582.55	78.71	54.75	.0028
493	1310.0	25643729	102574.92	78.30	54.75	.0028
345	3330.0	65115070	250460.33	78.32	54.75	. 3028
413	2147.8	41792535	167170.54	77.83	54.75	.9928
430	668.5	12514499	50458.00	75.48	54.75	.0029
461	786.0	15067172	60268.69	75.68	54.75	.0029
378	501.6	9366776	37467.10	74.70	54.75	.0029
304	301.3	9492863	37995.45	75.72	54.75	.0029
401	275.0	5227715	20910.86	/5.04	54.75	. 9023
403	1390.0	39222999	120565.00	75.93	34.73	. 9923
243	340.3	10304303	41217.22		34.73	.0027
224	1363.9	33333783	142143.16	72.34	34.73	.0630
487	338.3	10046220	49184.88	71.93	34.73	.9999
203	4137.3	70034731	345333.12	73.92	34.73	.9959
402	1623.0	27381434	116523.62	74.55	24,73 54,75	.9939
253	1043.3	3043/1/3	121748.70	74.05	34.73	. 9030 0000
40 / 265	703.3 1500 1	12332211	J1000.04 171051 02	/3.02 71 97	34,73 Ex 75	. 9939 0000
200	0030.4 774 s	138889349	55520 02	71.27	04.70 5/75	.9030 6030
_+/ ∆45	2220 2	13869240 53268827	300225.27	20.00	24,73	. 9030 6624
125	1201 0	24565402	29723J.0/ 29724 24	78.50	04.70 Sa 75	.0901 3001
-30	1364.0	15072105	30201.01 20204 74	0.50 70.07	J4,/J 5/ 75	.9931
2/1	1920.0	10500100	128242.74	70.07	24.73 Ex 75	. 9931 
127	1029.9	229239/D	125212.39	70.43	34./3	.2031 0004
122	323.V 9592 A	1500000		41.57	34./3	.9931
437	233 <b>5</b> .9	43234133	1011/5./8	- <u>1</u> ,44	34.73	. 2051

USD	FTE	AV	FWI	a, pp	866	RLYR	
320	1053.5	18545462	74181.85	70.41	54.75	.0031	
341	446.5	7929864	31719.46	71.04	54.75	.0031	
353	17 <b>59</b> .8	30827779	123311.12	70.07	54.75	.0031	
415	981.0	17147041	68588.16	69.92	54.75	.0031	
373	2929.0	49956989	199827.96	68.22	54.75	.0032	
425	306.0	5239234	20955.94	68.49	54.75	.0032	
335	710.5	12311312	49245.25	69.31	54.75	.0032	
343	775.0	12899640	51598.56	66.58	54,75	. 0033	
233	9533.9	157922689	631690.76	66.28	54.75	.0033	
506	1599.0	26191937	104767.75	65.52	54.75	.0033	
404	685.5	10955213	43820.85	63.93	54.75	.0034	
290	2047,4	32669004	130576.02	63.83	54.75	.0034	
323	572.5	9339522	37358.49	65.26	54.75	. 2034	
335	375.0	13671341	54685.36	62.50	54.75	.0035	
505	319.5	4954835	19819.34	62.03	54.75	.0035	
385	1358.0	21549782	36199.13	63.48	54,75	.0035	
342	459.5	7220404	22281.62	62.85	54.75	.0035	
350	2849.5	43237785	172951.14	60.89	54.75	.0036	
339	402.5	6161234	34544.34	61.23	54.75	.0036	
231	1557.4	23018512	92074.05	59.12	54.75	.0037	
154	337.0	4949982	19799.93	58.75	54.75	.0037	
243	1097.0	16050721	64202.33	58.53	54, 75	.0037	
450	3165.0	46455402	185821.61	59.71	51.75	. 2037	
343	353.1	12331112	49324.45	57.43	54.75	. 2233	
	1197.8	16476593	22022 33	55.49	54.75	2233	
262	1690 3	22725521	94942 12	55.49	54 75	0033	
139	382.0	525001	21028 50	55.25	54 75	2010	
327	1052.5	14541558	59166.29	45, 32	54.75	2040	
502	2647 7	22067543	112270 17	54.00	54 75	0040	
150	1080 0	55322216	221255 26	54 25	54 75	- 00-0 0010	
225	4000.0 510 0	7075505	39366 03	55 50	SA 75	3040	
500	222177	2021/00000	1102/22 17	53.13	54 75	6040	
220	A17 7	5541252	22165 11	52.40	54.75	0041	
249	121 5	5500247	22200.00	53.07		.0041	
119		7994957	21579 41	53.11			
4.17	200.0 200 A	22/72/0	25778 56	51 23	E4 75	0042	
270	230.5 230 5	2100221	20/14.00		54.75	.004C	
1=0	1010 0	12250210	53463 69	50.51		0013	
214	1040.5	3405402	20511 97	51 12			
201	199/ 7	22222222		19 19		3044	
129	391 3	4794969			54.75	.0044 0044	
2/6	753.0	6855202	27120 21	19 70	54 75	0015	
361	2941 6	35841400	117765 60	48.74	54 75	0045	
154	1171.0	14156512	-2222 AR	10 22	54.75	3045	
	292 5	7522300	20223 22			32.1E	
174	1194.4	13994161	55756.10	17.65	54.75	0947	
222	3595.5	43417439	172629,76	16,98	51.75		
168	171.8	5404301	21414,90	15, 32	<b>4</b> .75		
394	1126.5	12519857	52079.13	44.15	54.75	.0049	
508	358.0	9592981	33371.92	42.73	54.75	.0051	
222	1653.5	17429776	69715.10	43.16	F4.75	0050	
340	777.0	8175328	32701.31	12,09	54.75	3052	
169	1157.9	11899800	47599.20	41.11	54.75	2059	
223	840.5	8591565	34365.25	40.89	<b>F</b> <u>1</u> 75	. 2054	
491	769.9	-331802	27327.21	39.04	54.75	.0075	
363	1657.1	16187427	64749.71	39.07	Ē4.75	.0056	
230	1199.0	11277932	45111.73	37.42	54.75	0055	
337	798.3	7439028	29756.11	37.97	54.75		
475	5379.1	52539392	210357.57	32.39	31.75		
199	EQE. 9	7394352	21579.41	53.11	E4.75	2291	

## APPENDIX C

## FULL STATE FUNDING ALTERNATIVE DATA

_ SD	FTE	AV	CMM	SAFULL	RAFULL
101	1198.5	23865265	.004	-29843.19	63517.88
102	578.0	20136440	.004	-48909.25	31543.30
193	221.3	10302004	.004	-31544 51	13742.25
194	201.0	2006/206	.004	-135185.77	17071.05
200	3696.5	43417439	. 004	28713.62	202383.38
203	840.5	8591565	. 004	11651.12	46017.38
204	1934.7	23938930	.004	10169.11	105924.83
205	632.0	19045924	.004	-41581.70	34602.00
206	540.5	23287621	. 004	-63558.11	29592.38
208	208.0	43457180	.004	-162440.72	11388.00
503	143.5	38313270	. 994	-620420.40	47024.78
210	838.3 764 5	168354353	.004	-22155.25	41856.38
211	209.0	7734880	.004	-19496.77	11442.75
213	163.0	6179144	.004	-15792.33	8924.25
214	1418.0	154530461	.004	-540486.34	77635.50
215	606.5	124375670	. 004	-464296.81	33205.88
216	234.0	37960916	.004	-139032.16	12811.50
217	186.0	70524751	. 994	-2/1913.30	19183.30
218	3/5.1	33177704	. 994	-131103.34	1004.75
220	201.0	10053353	004	-146737.65	15028.88
221	189.0	9405778	.004	-27275.36	10347.75
322	437.5	10750228	.004	-19087.79	23953.13
223	436.5	18790787	. 994	-51264.77	23898.38
224	199.0	17030017	. 994	-37772.32	10347.75
225	710.5	12311312	. 004	-10345.37	38899.88
326	413.5	51922897	.004		12033.13
227	200.1	233/0003	.004	-54628 85	7199.63
220	3692 (	88441718	. 004	-151624.40	202142.48
230	1199.0	11277932	. 004	20533.52	65645.25
231	1557.4	23018512	.004	-6806.40	85267.65
232	1653.5	17428776	.004	20814.02	90529.13
233	9530.9	157922689	.004	-109873.98	521816.78
234	1965.0	35535789	. 994	-34559.41	10/083.70
235	521.9	11334216	.994	-10012.11	20024.70 1599 00
230	54.0	1/3/404	. 904 001	-27882.57	32110.38
230	210.0	6860180	. 004	-15943.22	11497.50
239	588.0	21537114	. 004	-53955.46	32193.00
240	451.0	13970787	. 994	-31190.90	34692.25
241	345.5	14949759	.004	-40882.91	18916.13
242	101.0	5587308	.004	-16819.48	2223.72
243	340.3	10304303	.004	-11624.00	23032.30
244	753.0	17463002	.004	-49590.51	20257.50
240 246	563.0	6855202	.004	3403.44	30824.25
247	771.5	13880240	.004	-13281.34	42239.63
248	1097.0	16050721	.004	-4142.13	60060.75
249	431.5	5800247	. 004	423.64	23524.63
250	2840.5	43237785	. 994	-1/433.//	133317.30
201 250	5/1.5	13991331	.004 201	-33237.32 -32977 01	28454.53
242	4197.9	76634781	.004	-76704.19	229835.03
254	788.4	47726401	.004	-147740.70	43164.99
255	368.5	24679037	. 004	-78504.77	20175.38
255	308.0	14047617	. 994	-39327.47	16863.00
257	1829.0	32053075	. 994	-28567.30	99645.00
258	552.0	17545187	.004	-39958.75	30222.00

	USD	FTE	AV	CMM	SAFULL	RAFULL
	259	41690.4	974604480	.004	-1615868.52	2282549.40
	260	4542.3	121338628	.004	-236663.33	248630.33
	221	1680 8	22725521	.004	-2918.32	92023.80
	263	1657.1	16187427	.004	25976.52	90726.23
	264	855.0	36955856	.004	-101012.17	46811.25
	265	1643.9	30437175	.004	-31745.18	90003.53
	266	1187.8	16476583	.994	-46976.96	74219.10
	269	521.1	13052780	.004	-23680.90	28530.23
	269	243.5	34349479	.004	-124066.29	13331.63
	270	535.5	50331202	.004	-172006.13	29318.63
	271	446.8	42525935	.004	-145641.44	24452.30
	2/2	802 2	25176967	.004	-56787.42	43920.45
	274	499.5	28078612	. 004	-84966.82	27347.63
	275	100.0	11089464	. 994	-38882.86	5475.00
	278	309.5	8152033	. 994	-15663.01	16943.13
	279	197.0	15153317	.004	-52893.52	7719.75
	281	539.0	29630268	.004	-89010.82	29510.25
	282	511.5	19700119	.004	-50795.85	28004.63
	283	191.8	4945846	.004	-9282.33	19501.05
	284	551.9	27913515	.004	-81486.81	30167.20
	286	507.0	17027269	.004	-40350.83	27758.25
	287	709.5	12952211	.004	-12963.72	38845.13
	288	525.0	9369692	.004	-8735.02	28743.75
	289	631.2	12881427	.004	-16967.51	34558.20
	230	2047.4 201 0	32003004	.024	-19827.60	11169.00
•	292	249.5	11974885	.004	-34239.42	13660.13
	293	322.0	14738920	. 004	-41326.18	17529.50
	294	668.2	27036102	.004	-71560.46	36583.95
	293	124.5	1633474	.004	-39952.18	25075.50
	298	391.0	19594619	. 994	-56971.23	21407.25
	299	198.5	10425446	. 994	-30833.91	10867.88
	300	419.5	52468909	.004	-186908.01	22967.63
	301	100.1	228369/2	.994	-51374.64	10375.13
	302	185.J 337.Ø	27886260	.004	-93094.29	18450.75
	304	100.5	13662009	. 004	-49145.66	5502.38
	305	6598.4	118713707	. 994	-113592.43	361252.40
	306	609.0 969 7	22232835	.994 001	-17250.24	14711.33
	308	4956.0	103800506	. 004	-143861.02	271341.00
	309	1404.5	30043016	.004	-43275.69	76896.38
	310	513.5	21378533	.004	-57400.01	28114.13
	311	294.0	9149487	.004 001	-29474.07	10123.00
	313	2102.5	43335914	.004	-58231.78	115111.98
	314	164.0	9902311	.004	-30630.24	8979.00
	315	1171.5	34670821	.004	-74543.56	64139.63 10795 75
	315	197.0	7765110	.004 .004	-18235.32	10/83./3
	318	477.5	16817279	.004	-41125.99	25143.13
	320	1053.5	18545462	.004	-16502.72	57679.13
	321	1061.9	195343438	.004	-723234.73	38139.03
	322 777	373.9 570 5	11433182	. 884 . 994	-5011.11	20001.20

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.

USD	FTE	AV	CMM	SAFULL	RAFULL
324	164.5	6287901	.004	-16145.23	9006.38
325	710.5	26808512	.004	-68334.17	38899.88
326	246.0	21373530	.004	-72025.62	13468.30
327	713.0	20568351	.004	-43235.65	39036.73
328	525.4	58211209	. 004	-204079.19	28/63.63
329	516.3	16867491	.004	-39202.54	28257.43
330	597.1	12003948	.004	-15324.57	32631.23
331	1075.2	66463832	. 994	-206988.13	38867.29
332	288.5	41711761	.004	-131031.67	
333	1344.5	32006924	.094	-34410.32	/3011.30
334	292.0	12832630	.004	-333/1.19	13437.30
333	319.0	1976383	.004	-303.JZ -6779.11	17006 25
335	073.0 700 7	130/1341	.004	13950 91	19706 99
220	117 7	(437960 55/1952	004	703.66	22869.08
220	417.7	6161234	. 004	-2508.06	22036.38
310	777.0	8175328	.004	9839.44	42540.75
341	446.5	7929864	.004	-7273.58	24445.88
342	459.5	7220404	. 994	-3723.99	25157.63
343	775.0	12899640	. 994	-9167.31	42431.25
344	399.5	5135492	.004	1330.66	21872.63
345	3330.0	65115070	.004	-78142.78	182317.50
346	518.5	13053788	. 004	-23827.28	28387.88
347	342.2	15465142	.004	-43125.12	13735.45
348	858.1	12331112	. 004	-2343.47	46980.98
349	315.5	13392947	. 004	-36298.16	17273.63
350	386.5	31097889	.004	-103230.68	21160.88
351	277.5	44103883	.004	-161222.41	13133.13
352	1380.6	37279017	.994	-/3328.22	/338/.63
353	1/39.8	3082///9	. 994	-100502.07	14240 25
334	207.9	34288818	. 004	-122337.02	14610.20
333	176.0	12201025	.004	-130050.00	22629 13
330	413.3	7566990	004	4583.06	34848.38
350	293.0	10700006	004	-21283.27	21516.75
359	199.5	10956998	. 004	-32905.37	10922.63
360	323.0	10043705	. 994	-22490.57	17684.25
361	1057.5	43073454	.004	-114395.69	57898.13
362	793.9	104835402	. 004	-375875.58	43466.03
363	538.5	124170559	.004	-467199.36	29482.88
364	891.5	25581470	.004	-53516.26	48809.63
365	1052.0	31712250	.004	-69252.00	57597.00
366	573.0	27409925	.004	-78267.95	31371.75
367	1052.5	14541558	.004	-341.86	3/624.38
368	1399.5	2903/304	.004	-33606.33	10022.00
363	202.9	19839228	.004	-23012.41	2002 00
3/1	152.3	1933/030	.004	-33054.71	24465 13
372	2222 0	19956989	004	-39465.21	160362.75
374	438.5	37259371	. 004	-125029.61	24007.88
375	1143.0	51098895	.004	-141816.33	62579.25
376	491.7	15040357	.004	-33240.85	26920.58
377	308.0	15906185	.004	-13911.74	49713.00
378	501.5	9366776	.004	-10004.50	27462.60
379	1549.5	33672716	.004	-49855.74	84835.13
380 88	625.5	16049974	. 904	-29953.77	34246.13
331	265.5	9469532	.004	-23342.00	14536.13
382	1285.0	43192906	.004	-102417.87	70353.75
383	5203. <u>1</u>	106967623	.004	-143000.77	284869.73
384	195.5	7820153	.004	-20522.28	10758.35
335	1338.0	21549782	.004	-11348.63	74350.50

.'SD	FTE	AV	CMM	SAFULL	RAFULL
386	352.5	12548099	.004	-30893.02	19299.38
387	376.5	11294095	.004	-24563.01	20613.38
388	457.4	37020651	.004	-123039.95	25042.65
389	618.0	26090304	.004	-70525.72	33835.50
390	142.5	9463880	.004	-30053.65	7801.88
392	481.0	16793287	. 004	-40838.40	26334.75
393	375.5	10018679	. 994	-19516.09	20558.63
394	1126.5	12519857	.004	11596.45	61675.88
395	486.0	31100761	.004	-97794.54	26608.50
396	561.2	12313143	. 004	-18526.87	30725.70
397	350.0	15195708	. 004	-41620.33	19162.50
299	411.7	13730971	. 004	-32383.31	22540.58
399	192.0	37222920	.004	-138379.68	10512.00
100	811.0	23109169	. 004	-68034.43	44402.25
101	238.0	24138289	. 994	-83522.66	13030.50
102	1625.0	29581454	.004	-29357.07	88968.75
103	327.5	19021773	. 994	-58156.47	17930.63
101	685.5	10955213	. 004	-6289.73	37531.13
405	776.3	25184224	. 004	-58234.47	42502.43
106	471.8	5404201	. 004	4214.25	25831.05
497	1407.7	86902167	. 994	-270537.09	77071.58
108	581.5	15747478	.004	-31152.79	31837.13
109	1590.0	30222000	. 204	-33835.50	87052.50
410	561.6	21029780	. 394	-53371.52	30747.60
411	212.5	6351536	. 994	-13771.77	11634.38
412	549.0	21364731	. 994	-55401.17	30057.75
413	2147.8	41792635	.004	-49578.49	117592.05
415	1052.6	26837688	.004	-49720.90	57629.85
416	981.0	17147941	. 004	-14878.41	53709.75
417	952.5	27947148	.004	-59639.22	52149.38
418	2178.5	80120399	. 994	-201208.72	119272.88
419	388.6	21323703	.004	-64018.96	21275.85
420	604.5	11895638	.004	-14486.18	33096.38
421	341.5	7119262	.004	-9779.92	18697.13
422	417.5	22168232	.004	-65814.80	22858.13
423	399.0	17747356	.004	-49144.17	21845.25
424	132.5	17471407	.004	-62631.25	7254.38
425	306.0	5239234	. 994	-4203.44	16753.50
425	260.5	10092859	.004	-26109.06	14262.38
427	501.5	20219516	.004	-47945.94	32932.13
128	3428.3	193418446	. 004	-225974.36	187699.43
429	381.3	4724932	.004	1976.45	20876.18
430	668.5	12614499	.004	-13857.62	36600.38
431	737.0	41786734	.004	-126796.19	40350.75
432	440.5	21440797	.004	-61645.81	24117.38
433	231.5	6320569	.004	-12607.55	12674.63
134	1184.4	13934101	.004	9109.50	64845.90
435	1384.8	24565402	. 394	-22443.81	75817.80
436	886.5	18673482	.004	-26158.05	48535.88
437	2536.0	45294195	.004	-42330.78	138846.00
438	330.5	31846734	.004	-109292.06	18094.88
439	382.0	5257201	.004	-114.30	20914.50
440	639.0	15123514	.004	-25508.81	34985.25
441	928.0	24979738	. 994	-43110.33	30808.00
442	454.1	11389063	.004	-20634.23	24861.98
43	3873.6	89443661	.904	-143693.04	212973.30
444	384.0	30618950	.004	-101431.80	21924.99
442	2990.8	52308967	.004	-43489.37	163746.30
446	2403.9	46485657	.004	-34329.10	
147	693.0	8943640	.004	2167.19	3/941.75
148	345.0	13725718	. 904	-36018.12	13888.75

USD	FTE	AV	CMM	SAFULL	RAFULL
449	506.0	7894852	.004	1599.09	33178.50
450	3165.0	46455402	.004	-12537.86	173283.75
451	275.0	5227715	.004	-5854.61	15056.25
452	482.0	62603746	.004	-324025.48	26389.50
453	4080.0	55338816	. 004	2024.74	223380.00
454	337 0	4949982	004	-1349,18	18450.75
455	178 0	7922204	.004	-21943.32	9745.50
455	212 5	6173601	004	-8785 04	17109 28
457	1952 0	455104540	004	-2/0656 17	271122 00
450	1042 9	100174042	.004		57427 28
400	252 0	10000010	.004	-50221 30	(2797 00
153	232.0	10023433	.004	-20021.00	10691 50
→00 151	742.0	200/0/00	.004	-17005 10	12625 50
491	100.0	1300/1/2	.904	-17233.13	43033.30 22786 75
402	433.9	13033671	.004	-30420./3	23/90.73
403	330.3	0000704	. 984	-12173.44	21270.30
464	11/1.0	14136312	.094	7486.20	54112.23
460	2133.2	31497674	.004	-89198.00	115/32.70
466	1145.4	38058411	.904	-83222.33	62/10.63
467	570.0	32171693	.004	-97479.27	31207.30
168	112.0	9535156	. 994	-32008.62	6132.00
169	1157.9	11399800	. 994	15795.83	63395.03
470	2952.5	58927016	.004	-74058.63	161649.38
471	152.5	10200010	.004	-32450.67	8349.38
473	1182.3	29566173	.004	-33533.77	64730.93
474	161.0	24227701	.004	-88096.05	8814.75
475	6379.1	52589392	. 994	138898.16	349255.73
476	117.5	10689853	.004	-36326.29	6433.13
477	194.0	15707681	. 004	-52209.22	10621.50
479	273.5	9609413	.004	-23463.53	14974.13
480	2960.5	76474634	.004	-143811.16	162087.38
481	404.0	11840470	.004	-25242.88	22119.00
482	363.2	24640405	.004	-78676.42	19885.20
483	573.5	47824180	.004	-159897.60	31399.13
484	881.0	25171009	.004	-52449.29	48234.75
486	239.8	7657876	.004	-17502.45	13129.05
487	558.5	10046220	.004	-9607.01	30577.88
488	335.5	10316931	.004	-22907.10	18368.63
489	3018.5	97711913	.004	-225584.78	165262.88
490	2058.3	51516450	.004	-93373.88	112691.93
491	700.0	6831802	.004	10997.79	38325.00
492	263.0	13615216	.004	-40051.61	14399.25
493	1310.0	25643729	. 994	-30852.42	71722.50
494	439.0	40115016	.004	-136424.81	24035.25
195	1160.1	38311959	. 994	-89732.36	63515.48
496	156.5	14136662	. 004	-47978.27	8368.38
497	6816.0	171400989	. 004	-312427.96	373176.00
498	418.5	10383770	.004	-18622.21	22912.88
499	756.0	4543864	.004	23215.54	41391.00
500	22317.7	298108368	.004	29460.60	1221894.08
501	14174.4	295089941	.004	-404311.36	775048.40
502	202.5	19429722	. 994	-66632.01	11086.88
503	2947.7	28067543	. 004	-158.60	113111.58
504	501.8	9498863	.004	-10521.90	27473.55
505	319.5	4954835	. 204	-2326.78	17492.63
506	1599.0	25191937	. 994	-17222.50	87545.25
507	375.8	74703048	.004	-278237.14	20575.05
509	898.0	9592981	.004	10793.58	19165.50
Ęãã	184.0	8295784	.004	-23109.14	10071.00
<b>E</b> 11	169 9	24525616	. 994		2951 22
<u> </u>	39676.8	584598694	. 004	-1112509.98	162 <u>1801</u> .30

USD	FTE	ΑV	CMM	SAFULL	RAFULL
236	84.0	5797404	.004	-18590.62	4599.00
317	86.3	5765110	. 004	-18335.52	. 4724.93
275	100.0	11089454	.004	-38882.86	5475.00
301	100.1	22836972	.004	-85867.41	5480.48
304	100.5	13662009	.004	-49145.66	3342.38
242	101.0	5587308	.004	-16819.48	3323./3
468	112.0	9535156	.004	-32008.52	6132.VV 6432.43
4/5		19683833	.004	-30320.23	2012 20
223	174.0	15157119	.004	-54628 85	7199.63
121	132.5	17471407	004	-62631.35	7254.38
224	141.0	15153317	.004	-52893.52	7719.75
390	142.5	9453880	.004	-30053.65	7801.38
209	143.5	58319270	.004	-225420.46	7856.63
471	152.5	10200010	.004	-32450.67	8349.38
496	156.5	14136662	.004	-47978.27	8568.38
474	161.0	24227701	.004	-88096.05	8814.75
371	162.5	10997896	.004	-35094.71	8896.88
213	163.0	6179144	.004	-15792.33	8924.20
511	163.5	2453510	.004	-89188.42	8931.63
314	164.9	9902311	.994	-30630.24	07/7.09 0006 90
324	154.5	528/391	.004	-10140.65	2000.30 9745 50
433	10.0	7522204	.004	-23109 14	10074.00
217	194.0	70524751	004	-271915.50	10183.50
224	199 0	9405778	004	-27275.36	10347.75
224	139.0	17930017	. 994	-57772.32	10347.75
302	189.5	15437442	.004	-51374.64	10375.13
283	191.8	4945845	. 004	-9282.33	10501.05
355	192.0	37302000	.004	-138696.00	10512.00
399	192.0	37222920	.004	-138379.68	10512.00
477	194.0	15707681	.004	-52209.22	19621.59
384	196.5	7820163	. 994	-20322.28	19738.38
279	197.0	3062040	. 994	-21462.41	10/03./3
315	197.9	1793378	.004	-20038.38	10/03.73
222	130.5	10423448	.004	-32905.37	10922.63
219	201.0	18893393	.004	-64568.82	11004.75
302	202.5	19429722	.004	-66632.91	11086.38
291	204.0	7749149	. 004	-19827.60	11169.00
285	207.7	8310819	.094	-21871.70	11371.58
208	208.0	43457180	.004	-162440.72	11388.00
212	209.0	7734880	. 004	-19496.77	11442.75
238	210.0	6860180	.004	-15943.22	11497.30
411	212.5	6331336	.994	-13//1.//	11634.30
193	221.0	10302064	.004	-13667 65	12127113
212	231.J 224 A	37962916	.994 QQA	-139032.16	12811.50
101	238.0	24138289	. 004	-83522.66	13030.50
136	239.8	7657876	.004	-17502.45	13129.05
269	243.5	34349479	. 904	-124065.29	13331.63
326	246.0	21373530	. 994	-72025.62	13468.50
292	249.5	11974885	.004	-34239.42	13660.13
194	251.0	11321689	.004	-31544.51	13742.25
455	252.0	16029499	.004	-30321.00	13777.00
11/ 195	200.1	12003050	.004	-01540.01 L96400 06	10700./0
425	288.3 269.3	10025002	.994 004	-20102.00	14202.30 11344 50
192	262.9 262 a	10035220	.004	-40061.51	1299,25
	200.0	9469532	.004	-23342.00	14536.13
354	367.3	34298618	.204	-122537.02	14619.25

13D	FTE	AV	CMM	SAFULL	RAFULL
307	268.7	7990390	.004	-17250.24	14711.33
479	273.5	9609413	.004	-23463.53	14974.13
220	274.0	40441632	.004	-146/3/.00	13028.88
251	273.8	11103883	004	-161222 /1	15193.13
334	282.0	12852650	.001	-35971.10	15439.50
332	288.5	41711761	.004	-151051.67	15795.38
211	294.5	9149487	.004	-20474.07	16123.88
425	306.0	5239234	.004	-4203.44	16753.50
256	308.9	14047617	.004	-39327.47	16863.00
273 200	345.3	8132033 39054305	.004	-13863.01	15743.13
456	312.5	6473604	.004	-8785.04	17109.38
349	315.5	13392947	.004	-36298.16	17273.63
505	319.5	4954835	. 994	-2326.72	17492.63
293	322.9	14/38920	.004	-41325.18	1/529.30
100 103	323.0	19021773	.004	-58156.47	17930.63
438	330.5	31846734	.004	-109292.06	18094.38
488	335.5	10318931	.004	-22907.10	18368.63
303	337.0	27886260	.994	-93094.29	18450.75
454	337.0	4949982	.004	-1349.18	18450.75
421 347	341.3	15465142	.004	-13135 13	1003/.13
448	345.0	13726718	.004	-36018.12	18888.75
241	345.5	14949759	.004	-40882.91	18916.13
397	350.0	15195708	.004	-41620.33	19162.50
386	352.5	12548099	.004	-30893.02	19299.38
255	368.5	24640403	.004	-78504.77	20175.38
245	370.0	17462002	.004	-49590.51	20257.50
322	375.0	11459182	.004	-25305.48	20531.25
393	375.5	10018679	.004	-19516.09	20558.63
707	375.8	/4/03048	.004	-2/823/.14	205/5.05
129	381.3	4724932	. 994	1976.45	20876.18
439	382.0	5257201	.004	-114.30	20914.50
444	384.0	30618950	.004	-101451.80	21024.00
330	386.5	31097889	.004	-103230.58	21160.88
403	388.3	21222702	.094 004	-121/3.44 -64049 96	21279,38
298	391.0	19594619	.004	-56971.23	21407.25
358	393.0	10700006	.004	-21283.27	21516.75
423	399.0	17747356	.004	-49144.17	21845.25
344	399.3	5135492	.004	1339.00	218/2.03
181	402.3	11840470	.994 .994	-25242.88	22038.88
398	411.7	13730971	.004	-32383.31	22540.58
356	413.5	12201825	.004	-26168.18	32639.13
226	413.5	51922997	.004	-185052.46	32639.13
229	417.3	5541353	.004	703.45	22222.13
498	418.5	10383770	.004	-18622.21	22912.88
300	419.5	52468909	.004	-186908.01	22967.63
249	431.5	5800247	.004	423.64	23624.63
452	433.9 194 5	13033871 18790797	.004 QQ1	-35423./3 -51961 77	23705.73
222	435.5	10760229	.004	-19087.79	23020.30
374	438.5	37259371	.004	-125029.61	24007.88
494	439.0	40115016	. 004	-136424.81	24035.25
432	440.5	21440797	.904	-61645.21	24117.38

USD	FTE	AV	CMM	SAFULL	RAFULL	
341	446.5	7929864	.004	-7273.58	24445.88	
271	446.8	42525935	.004	-145641.44	24462.30	
240 1 4 0	431.0	13379787	.004	-31130.30	24072,27 74024 90	
242	434.1	11383963	.004	-122024.23	24001.30	
300	407.4 150 A	12752011	.004	-123033.33	25042.00	
212	400.0	10230313	.004	-35502.10	254/57 63	
100	433.3	5404201	.004	1211 25	25021 05	
312	471.0	16817279	004	-41125,99	26143.13	
202	481.0	16793287	.004	-40838.40	26234.75	
452	482.0	62603746	.004	-224025.48	26389.50	
395	486.0	31100761	.004	-97794.54	26608.50	
376	491.7	15040357	.004	-33240.85	25920.58	
274	499.5	28078612	.004	-84966.82	27347.63	
378	501.6	9366776	.004	-10004.50	27462.60	
504	501.8	9498863	.004	-10521.90	27473.55	
286	507.0	17027269	. 004	-40350.83	27758.25	
335	510.0	/0/6303	.994	-383.32	27922.30	
595	511.3	19/00119	.004	-30/93.83	28094.53	
310	010.0	213/0333 42057404	.994	-37400.01	20114.13	
345	510.0	19053799	.994 201	-332027.34	20207.43	
252	519.9	15360383	. 884	-92977.01	29464.53	
235	521.0	11334216	.004	-15812.11	28524.75	
268	521.1	13052780	. 204	-23680.90	28530.23	
288	525.0	9369692	.004	-8735.02	28743.75	
328	525.4	58211209	. 004	-204079.19	28765.65	
270	535.5	50331202	.004	-172006.18	29318.63	
363	538.5	124170559	.004	-467199.36	29482.88	
281	539.0	29630258	.004	-89010.82	29510.25	
206	540.5	23287621	.004	-63558.11	29592.38	
243	240.3	10304303	. 004	-11624.83	29392.38	
412	343.0	21364/31	.984	-33401.17	30037.73	•
250	552 0	17515010	.004	-39950 75	30107.23	
197	552.5	10046770	.004 001	-33300.70	30577 82	
pag	561.2	12313143	.004	-18525.87	30725.70	
410	361.6	21029780	. 201	-53371.52	30747.60	
246	563.0	6855202	.004	3403.44	30824.25	
467	570.0	32171693	.004	-97479.27	31207.50	
323	572.5	9339622	. 004	-6014.11	31344.38	
366	573.0	27409925	.004	-78267.95	31371.75	
483	573.5	47824180	.004	-159897.60	31399.13	
218	576.1	53177704	.904	-131169.34	21341.48	
192	378.0	20136440	.994	-48399.25	31543.30	
490	381.3	13/4/4/8	.004 034	-31132.73	3100//10	
234	598.0	21537114	.004	-53955.46	32193.00	
330	397.1	12003948	. 004	-15324.57	32691.23	
427	601.5	20219516	. 994	-47945.94	32932.13	
420	604.5	11895638	. 004	-14486.18	33096.38	
449	606.0	7894852	.904	1599.09	33178.50	
215	606.5	124375670	.004	-464296.81	33205.88	
306	609.0	22252856	.004	-33668.67	33342.75	
323	618.0 594 A	20030304	.004	-79323.72	33833.30 33860 75	
272	021.V 295 5	10345741 16049974	.994	-32200.01	00777./0 0/0/6 /0	
300	220 S	10043374	.904	22223.//	34243.13 RAA65 12	
202	631.7	12881427	.⊽⊽4 .⊘04	L020.04 L12027 51	24558 20	
205	632.2	19045924	.001	-41581.70	3460P.20	
357	336.S	7566339	ତ୍ତ୍ୟ	4583.06	34848.39	

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USC	) FTE	AV	CMM	SAFULL	RAFULL
448	639.0	15123514	. 994	-25508.81	34985.25
224		27935192	.004	-/1050.45	35383.33
43%	671.6	18001981	. 004	-35237.82	36770.10
402	685.5	10955213	. 004	-6289.73	37531.13
447	7 693.0	8943640	.004	2167.19	37941.75
491	700.0	6831802	. 994	10997.79	38325.00
28.	7 709.5	12952211	. 904	-12963.72	38843.13
323	D /19.3 5 710 5	12211212	.004	-10334.17	30077.00
321	713.0	20568351	.004	-43236.65	39036.75
431	737.0	41786734	.004	-126796.19	40350.75
469	ð 742.0	25678780	.004	-62090.62	40624.50
499	756.0	4543864	.004	23215.54	41391.00
211	7 77 5	15002305	.004	-22100.20	41835.38
343	//1.J P 775.0	12299640	.004	-9167.31	42235.03
105	776.3	25184224	.004	-58234.47	42502.43
340	777.9	8175328	.004	9839.44	42540.75
461	786.0	15067172	.004	-17235.19	43033.50
254	1 788.4	47725401	.004	-147740.70	43164.99
362	2 793.9 1 705 A	104835402	.994	-3/38/3.38	43466,03
247	7 798.3	7439028	.004	13950.81	43706.93
273	8 802.2	25176967	.004	-56787.42	43920.45
400	) 811.0	28109169	.004	-68034.43	44402.25
203	840.5	8591565	.004	11651.12	46017.38
264	855.9	36955856	. 604	-101012.17	46811.25
240		12331112	. 994	-626553.60	40200.20
336	875.0	13671341	.004	-5779.11	47906.25
484	881.0	25171009	. 094	-52449.29	48234.75
436	886.5	18673482	. 004	-26158.05	48535.88
364	891.5	25581479	. 994	-33516.26	48809.63
385 277	5 576.9 1 909 0	7372781	.004	10/93.38	43153.30
141	928.0	24979738	.004	-49110.95	30808.00
417	952.5	27947148	. 994	-59639.22	52149.38
416	981.0	17147041	. 994	-14878.41	33709.75
459	1948.9	13350219	. 904	4026.40	57427.28
363 727	1052.0	31712250	.004	-53232.00	37337.90
	1002.0	26837688	.004	-49720,90	57629,85
320	1953.5	18545462	. 004	-16302.72	57679.13
361	1057.5	43073454	.004	-114395.69	57898.13
321	1061.9	195343438	.004	-723234.73	58139.03
331	1975.2	66463832	.004	-206988.13	58867.20
212	1001.3	16050721	.004 004	-4142 13	05212,10 Agara,75
394	1126.5	12519857	. 004	11596.45	61675.88
375	1143,70	51098895	. 004	-141816.33	62579.25
466	1145.4	38058411	.004	-39522.99	62710.65
163	1157.9	11899800	. 994	15795.83	63395.03
453 184	1160,1	14156512	. 994 . 004	7486 20	20010.40
315	1171.5	34679821	.904	-74543.66	64139.83
473	1182.3	29566173	. 994	-53533.77	64730.93
134	1184.4	13934101	.004	9109.50	64845.90
355	1187.8	16476583	.904	-974.29	65032.05
191 202	1178.3	23863263 (1977999	.004 301	-27843.19	53517.55 25215 95
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຺຺ຆຌຎຓຒຓຌຒຆຌຓຓຓຌຒຌຓຓຓຓຓຓຓຓຏຌຒຌຌຌຌຌຌຎຒຏຌ຺ຌຌຌຌຒຌຒຎຌຌຒຎຌຓຒຌຓຒຨຓຏຒຏຒຏ ຓຓຎຆໞຒຎຏຒຬຬຌຎ຺ຎຬຬຬຬຒຒຒຒຎຏຬຒຬຬຬຬຌຌຌຌຌຒຎຏຌ຺ຌຌຌຌຒຬຎຏຌຌຒຏຌຒຬຬຬຬຬຬຬຬຬ ຬຓຎຆ⊱ຎຑຎຒຎຬຌຎຌຎຠຒຒຒຒຒຎຬຌຌຬຬຬຬຎຎຬຬຎຎຬຬຎຒຬຎຒຎຎຎຬຬຬຬຬຎຎຬຬຬຎ APPENDIX D

PERCENTAGE EQUALIZED GRANTS DATA

USD	FTE	AV	CMM	SAEQ	%SAEQ
101	1198.5	23865265	.094	-29843.19	-0.45
102	578.0	20136440	.004	-40300.20	-1.00
103	251.0	11321689	. 004	-31544.51	-2.30
200	311.8	38064206	.004	-135185.77	-7.92
202	3696.5	43417439	.004	28713.62	. 14
203	840.5	8591565	.004	11651.12	.25
204	1934.7	23938930	.004	10169.11	.10
205	632.0	19043924	.004	-41301.70	-2.15
200	208.0	43457180	. 004	-162440.72	-14.26
209	143.5	58319270	.004	-225420.46	-28.69
210	858.9	168394593	.004	-626553.60	-13.32
211	764.5	16002906	.004	-22155.25	-0.53
212	209.0	7734880	.004	-13436.77	-1.75
213	1418.0	154530461	.004	-540486.34	-6.96
215	606.5	124375670	.004	-464296.81	-13.98
216	234.0	37960916	.004	-139032.16	-10.85
217	186.0	70524751	.004	-271915.50	-26.70
218	576.1	531///04	.994	-181169.34	-5.87
213	201.0	40441632	. 994	-146737.65	-9.76
221	189.0	9405778	.004	-27275.36	-2.64
222	437.5	10760228	.004	-19087.79	-0.80
223	436.5	18790787	.004	-51264.77	-2.15
224	189.0	17030017	.004	-10215 27	-3.38
223	/10.3	51922897	.004	-185052.46	-8.17
227	255.1	23978809	.004	-81948.51	-5.87
228	131.5	15457119	.004	-54628.85	-7.59
229	3692.1	88441718	.004	-151624.40	-0.75
230	1199.0	11277932	.004	20533.52	-0.09
231	1007.4	17428776	.004	20814.02	.23
232	9530.9	157922689	.004	-109873.98	-0.21
234	1965.0	35535789	.004	-34559.41	-0.32
235	521.0	11334216	.004	-16812.11	-0.59
236	84.0	5797404	.994	-18390.62	-4.94
23/	266.3	6860120	.004	-15943.22	-1.39
239	588.0	21537114	.004	-53955.46	-1.68
240	451.0	13970787	.004	-31190.90	-1.26
241	345.5	14949759	.004	-40882.91	-2.15
242	101.0	1020/308	.004	-116012.40	-0.39
243	795.0	254458180	.004	-974306.47	-22.38
245	370.0	17462002	.004	-49590.51	-2.45
246	563.0	6855202	.004	3403.44	. 11
247	771.5	13880240	.004	-13281.34	-9.31
248	1097.0	16030721	.994 001	4142.13	-9.97 .02
250	2840.5	43237785	.004	-17433.77	-0.11
251	671.6	18001981	.004	-35237.82	-0.96
252	519.9	15360383	.004	-32977.01	-1.16
253	4197.9	76634781	.004	-/6/04.10	-0.33
234	788.4 349 5	47720491 24670037	.004 .001	-78504.77	-3.89
256	308.0	14047617	.004	-39327.47	-2.33
257	1820.0	32053076	.004	-28567.30	-0.29
258	552.0	17545187	.004	-39958.75	-1.32

USD	FTE	ΑV	CMM	SAEQ	%SAEQ
259	41690.4	974604480	.004	-1615868.52	-0.71
251	2941.6	35841400	.004	17687.00	-0.50
262	1680.8	23735531	.004	-2918.32	-0.03
263	1657.1	16187427	.004	25976.52	. 29
264	855.0	36955856	.004	-101012.17	-2.16
265	1643.9	30437175	.004	-31745.18	-0.35
267	1187.8	104/0303	.004	-16976 96	-0.01
268	521.1	13052780	.004	-23680.90	-0.33
269	243.5	34349479	.004	-124066.29	-9.31
270	535.5	50331202	.004	-172006.18	-5.87
271	446.8	42525935	.004	-145641.44	-5.95
272	802 2	16343341	. 994	-32200.01 -56787 42	-0.53
274	499.5	28078612	.004	-84966.82	-3.11
275	100.0	11089464	. 204	-38882.86	-7.10
278	309.5	8152033	.004	-15663.01	-0.92
279	197.0	8062040	.004	-21462.41	-1.99
281	539.0	29630268	.004	-89010.82	-3.02
282	511.5	19700119	. 004	-50795.85	-1.31
283	191.8	4945846	.004	-9282.33	-0.88
284	551.0	27913515	. 994	-81486.81	-2.70
285	207.7 507 0	17027269	.004	-40350 83	-1.32
287	709.5	12952211	.004	-12963.72	-0.33
288	525.0	9369692	.004	-8735.02	-0.30
289	631.2	12881427	.004	-16967.51	-9.49
224	2047.4	32663994	.004	-18380.87	-0.17
232	249.5	11974885	.004	-34239.42	-2.51
293	322.0	14738920	.004	-41326.18	-2.34
294	668.2	27036102	.004	-71560.46	-1.96
295	124.5	7653474	.994	-23/9/.52	-3.49
298	391.0	19594619	.004 .004	-56971.23	-2.66
299	198.5	10425446	.004	-30833.91	-2.84
300	419.5	52468909	.004	-186908.01	-8.14
301	190.1	22836972	.004	-85867.41	-15.67
202	183.3	13437442	.004	-313/4.64 -9309/ 29	-4.33
304	100.5	13662009	.004	-49145.66	-8.93
305	6598.4	118713707	.994	-113592.43	-0.31
306	60 <b>9.0</b>	22252856	.004	-55668.67	-1.67
202	1956.0	193809506	.004 .004	-1/200.24	-0.53
309	1404.5	30043016	.004	-43275.69	-0.56
310	513.5	21378533	.004	-57400.01	-2.04
311	294.5	9149487	.004	-20474.07	-1.27
312	2102.5	43335914	.004	-58231.78	-0.51
314	164.0	9902311	. 004	-30630.24	-3.41
315	1171.5	34670821	.004	-74543.66	-1.16
316	197.0	7705578	.004	-20036.56	-1.86
317	477 5	16817279	.004 .001	-10333.32 -11125 99	-3.00 -1 57
320	1053.5	18545462	.004	-16502.72	-0.29
321	1061.9	195343438	.004	-723234.73	-12.44
322	375.0	11459182	.004	-25305.48	-1.23
323	572.5	9339622	.004	-6014.11	-0.19

USD	FTE	AV	CMM	SAEQ	%SAEQ
324	164.5	6287901	.004	-16145.23	-1.79
325	710.5	26808512	.004	-68334.17	-1.75
320	240.0 713 0	20568351	.004	-43236 65	-1.11
328	525.4	58211209	.004	-204079.19	-7.09
329	516.3	16867491	.004	-39202.54	-1.39
330	597.1	12003948	.004	-15324.57	-0.47
331	1075.2	66463832	.004	-206988.13	-3.52
332	200.0	41/11/61	.004	-101001.67 -54446 32	-9.30
334	282.0	12852650	.004	-35971.10	-2.33
335	510.0	7076505	.004	-383.52	-0.01
336	875.0	13671341	.004	-6779.11	-0.14
337	/98.3	7439028	.004	13330.81	.32
339	402.5	6161234	.004	-2608.06	-0.12
340	777.0	8175328	.004	9839.44	.23
341	446.5	7929864	.004	-7273.58	-0.30
342	459.5	7220404	.904	-3723.99	-0.15
343	773.0	12899640	.004	-9167.31	-9.22
345	3330.0	65115070	.004	-78142.78	-0.43
346	518.5	13053788	.004	-23827.28	-0.84
347	342.2	15465142	.004	-43125.12	-2.30
348	858.1	12331112	.004	-2343.47	-0.05
343	313.3	13392947	.004	-103230.68	-4.88
351	277.5	44103883	.004	-161222.41	-10.61
352	1380.6	37279017	.004	-73528.22	-0.97
353	1759.8	30827779	.004	-26962.07	-0.28
334	267.0	34288818	.004	-122537.92	-8.38
356	413.5	12201825	.004	-26168.18	-1.16
357	636.5	7566330	.004	4583.06	.13
358	393.0	10700006	.004	-21283.27	-0.99
359	199.5	10956998	.004	-32905.37	-3.01
361	1057.5	43073454	.004 .004	-114395.69	-1.98
362	793.9	104835402	.004	-375875.58	-8.65
363	538.5	124170559	.004	-467199.36	-15.85
364	.891.5	25581470	.004	-53516.26	-1.10
363	1052.0	31/12230	.004	-69232.00	-1.20
367	1952.5	14541558	.004	-541.86	-0.01
368	1399.5	29057304	.004	-39606.59	-0.52
369	262.0	10839228	.004	-29012.41	-2.02
371	162.5	10997896	.094	-35034.71	-3.94
373	2929.0	49956989	.004 .004	-39465.21	-0.25
374	438.5	37259371	. 904	-125029.61	-5.21
375	1143.0	51098895	.004	-141816.33	-2.27
376	491.7	15040357	.004	-33240.85	-1.23
378	500.0 501.6	9366776	.004 .004	-10004.50	-0.36
379	1549.5	33672716	.004	-49855.74	-0.59
380	625.5	16049974	.004	-29953.77	-0.87
381 202	263.3	9469532	.004	-23342.00	-1.51
383	5203.1	106967623	.004 .004	-102417.07	-1.40 -0.50
384	196.5	7820163	.004	-20522.28	-1.91
385	1358.0	21549782	.004	-11848.63	-0.16

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	USD	FTE	AV	CMM	SAEQ	%SAEQ
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	386	352.5	12548099	.004	-30893.02	-1.50
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	387	376.5	11294095	.004	-24353.01	-1.15
333     513.0     2333     235.1     -46.1     -35.1     -46.1     -46.1     -35.1     -46.1     -46.1     -35.1     -46.1     -46.1     -35.1     -46.1     -46.1     -46.1     -46.1     -46.1     -46.1     -46.1     -46.1     -46.1     -4	388	437.4	37020031	.004	-70525 72	-2.08
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	207	1/2 5	20050304	.004	-30053.65	-3,85
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	222	491 0	16793287	. 004	-40838.40	-1.55
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		375.5	10018679	.004	-19516.09	-0.95
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	394	1126.5	12519857	.004	11596.45	.19
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	395	486.0	31109761	.004	-97794.54	-3.68
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	396	561.2	12313143	.004	-18526.87	-0.50
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	397	350.0	15195708	.004	-41629.33	-2.1/
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	338	411.7	13/309/1	.004	-120270 20	-12 16
101 $233.0$ $24138289$ $.004$ $-83522.65$ $-6.41$ $402$ $1625.0$ $29531454$ $.004$ $-22337.07$ $-9.33$ $403$ $327.5$ $1992773$ $.004$ $-5815.47$ $-3.24$ $404$ $685.5$ $10955213$ $.004$ $-58234.47$ $-1.37$ $405$ $775.3$ $25184224$ $.004$ $4214.25$ $1.57$ $406$ $471.8$ $5404201$ $.004$ $4214.25$ $1.6$ $407$ $1407.7$ $86902167$ $.904$ $-270537.99$ $-3.51$ $408$ $581.5$ $15747478$ $.004$ $-33835.50$ $-0.39$ $409$ $1590.0$ $30222000$ $.004$ $-33871.52$ $-1.74$ $411$ $212.5$ $6351536$ $.004$ $-43771.77$ $-1.84$ $412$ $549.0$ $21364731$ $.004$ $-55401.17$ $-1.84$ $413$ $2147.8$ $41792655$ $.004$ $-49720.90$ $-0.42$ $415$ $1052.6$ $2637688$ $.004$ $-49720.90$ $-0.42$ $415$ $1052.6$ $263763703$ $.004$ $-241208.72$ $-1.69$ $416$ $981.0$ $17147041$ $.004$ $-14873.41$ $-9.25$ $417$ $9386.6$ $2132703$ $.004$ $-241208.72$ $-1.69$ $419$ $388.6$ $2132703$ $.004$ $-241208.72$ $-1.69$ $419$ $388.6$ $2132703$ $.004$ $-241208.72$ $-1.69$ $419$ $388.6$ $21327762$ $.004$ $-264$	333	192.0	37225320	.004	-68034.43	-1.53
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	400	238.0	24138289	.004	-83522.66	-6.41
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	402	1625.0	29581454	.004	-29357.07	-0.33
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	403	327.5	19021773	.004	-58156.47	-3.24
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	404	685.5	10955213	.004	-6289.73	-0.17
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	405	776.3	25184224	.004	-58234.47	-1.37
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	406	471.8	5404201	.004	4214.25	.15
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	407	1407.7	86902167	.004	-2/033/.03	-3.31
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	408	381.3	13/4/4/8	.004	-31132.77	-0.30
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	403	1330.0	21029780	.004	-53371.52	-1.74
11211411510521054 $-55401.17$ $-1.64$ 1132147.8417926355.004 $-49578.49$ $-0.42$ 4151052.626837688.004 $-49720.90$ $-0.86$ 417952.527947148.004 $-14878.41$ $-0.28$ 417952.527947148.004 $-201208.72$ $-1.69$ 419388.621323703.004 $-64018.95$ $-3.01$ 420604.511895638.004 $-14486.18$ $-0.44$ 421341.57119262.004 $-9779.92$ $-0.52$ 422417.522168232.004 $-45814.60$ $-2.88$ 423399.017747356.004 $-4203.44$ $-0.253$ 424132.517471407.004 $-62631.25$ $-9.652$ 425305.05239234.004 $-4203.44$ $-0.255$ 426260.510092859.004 $-4203.44$ $-0.255$ 427601.520212516.004 $-12857.62$ $-0.38$ 430668.512614499.004 $-12857.62$ $-0.38$ 431737.041786734.004 $-12857.62$ $-0.38$ 433231.56320569.004 $-12857.62$ $-0.30$ 433231.56320569.004 $-12857.62$ $-0.30$ 433231.56320569.004 $-12857.62$ $-0.30$ 433231.56320569.004 $-126796.19$ $-3.114$ 435	A11	212 5	6351536	.004	-13771.77	-1.18
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	412	549.0	21364731	.004	-55401.17	-1.84
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	413	2147.8	41792635	.004	-49578.49	-0.42
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	415	1052.6	26837688	.004	-49720.90	-0.86
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	416	981.0	17147041	.004	-14878.41	-0.28
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	417	952.5	27947148	.004	-59639.22	-1.14
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	418	2178.5	80120339	.004	-201208.72	-1.03
421341.57119252 $004$ $-9779.92$ $-0.52$ 422417.522168232 $004$ $-65814.80$ $-2.88$ 423399.017747356 $004$ $-49144.17$ $-2.25$ 424132.517471407 $004$ $-62631.25$ $-8.63$ 425305.05239234 $004$ $-4203.44$ $-0.25$ 426260.510092859 $004$ $-4203.44$ $-0.25$ 427601.520219516 $004$ $-47945.94$ $-1.46$ 4283428.3103418446 $004$ $-125974.36$ $-1.20$ 429381.34724932 $004$ $-13857.62$ $-0.38$ 431737.041786734 $004$ $-12607.65$ $-0.99$ 4341184.413934101 $004$ $-12607.65$ $-0.99$ 433231.56320569 $004$ $-12607.65$ $-0.99$ 4341184.413934101 $004$ $9109.50$ $.14$ 4351384.824565402 $004$ $-22443.81$ $-0.30$ 436886.518673482 $004$ $-12697.65$ $-0.39$ 438330531846734 $004$ $-12697.65$ $-0.30$ 438330531846734 $004$ $-22598.81$ $-0.73$ 441928.02479738 $004$ $-114.30$ $-0.01$ 440639.015123514 $004$ $-109292.06$ $-6.04$ 440639.015123514 $004$ $-109292.06$ $-6.04$ <	419	388.8	11223783	.004	-14486.18	-0.44
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	420	341 5	7119252	.004	-9779.92	-0.52
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	422	417.5	22168232	. 004	-65814.80	-2.88
424 $132.5$ $17471407$ $.004$ $-62631.25$ $-8.63$ $425$ $305.0$ $5239234$ $.004$ $-4203.44$ $-9.25$ $426$ $260.5$ $10092859$ $.004$ $-26109.06$ $-1.83$ $427$ $601.5$ $20219516$ $.004$ $-47945.94$ $-1.46$ $428$ $3428.3$ $103418446$ $.004$ $-225974.36$ $-1.29$ $429$ $381.3$ $4724932$ $.004$ $1976.45$ $.09$ $430$ $668.5$ $12614499$ $.004$ $-13857.62$ $-0.38$ $431$ $737.0$ $41786734$ $.004$ $-126796.19$ $-3.14$ $432$ $440.5$ $21440797$ $.004$ $-61645.81$ $-2.56$ $433$ $231.5$ $6320569$ $.004$ $-12607.65$ $-0.99$ $434$ $1184.4$ $13934101$ $.004$ $9109.50$ $.14$ $435$ $1384.8$ $24555402$ $.004$ $-22443.81$ $-0.30$ $436$ $886.5$ $18673482$ $.004$ $-12697.65$ $-0.94$ $437$ $2536.0$ $45294195$ $.004$ $-12929.06$ $-6.04$ $439$ $382.0$ $5257201$ $.004$ $-14330$ $-0.01$ $440$ $639.0$ $15123514$ $.004$ $-25508.81$ $-0.73$ $441$ $928.0$ $24979738$ $.004$ $-101451.80$ $-4.83$ $443$ $3873.6$ $89443661$ $.004$ $-101451.80$ $-4.83$ $444$ $324.0$ $30618950$ $.004$ $-101451.$	423	399.0	17747356	.004	-49144.17	-2.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	424	132.5	17471407	.004	-62631.25	-8.63
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	425	305.0	5239234	. 204	-4203.44	-0.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	426	260.5	10092859	.004	-26103.06	-1.03
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	427	501.5	20219516	.004	-4/343.34	-1.40
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	428	3428.3	193410440	.004	1976.45	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	429	668.5	12614499	.004	-13857.62	-0.38
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	431	737.0	41786734	.004	-126796.19	-3.14
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	432	440.5	21440797	.004	-61645.81	-2.56
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	433	231.5	6320569	.004	-12607.65	-0.99
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	434	1184.4	13934101	.004	9109.50	.14
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	435	1384.8	24565402	.004	-22443.01	-0.30
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	430	335.J 2524 A	135/3482	.004	-42320.73	-0.04
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	437	2330.0	31846734	.004	-109292.06	-6.04
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	439	382.0	5257201	.004	-114.30	-0.01
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	440	639.0	15123514	.004	-25508.81	-0.73
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	441	928.0	24979738	.004	-49110.95	-0.97
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	442	454.1	11389065	.004	-20694.29	-0.33
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	443	3873.6	89443661	.004	-145695.04	-0.59
445     2550.5     52506567     .004     -43465.37     -0.26       446     2403.9     46485657     .004     -54329.10     -0.41       447     693.0     8943640     .004     2167.19     .06       148     345.0     13726718     .004     -36018.12     -1.91	444	384.0	30618330 53200067	.004	-101431.80 -/9/00 97	-4.00
117     693.0     8943640     .004     2167.19     .06       148     345.0     13725718     .004     -36018.12     -1.91	440	2779.0 9403 9	JEBV050/ AEA85E57	.004 001	-40405.07 -54329.10	-0.11
148 345.0 13725718 .004 -36018.12 -1.91	440	693.0	8943640	.004	2167.19	.06
	148	345.0	13726718	.004	-36018.12	-1.91

USD	FTE	AV	CMM	SAEQ	%SAEQ	
449	606.0	7894852	.004	1599.09	-0.05	
450	3163.0	46433402	.004	-12007.00	-0.07	
401	273.0 192 a	62603746	.004 004	-224025.48	-8.49	
453	402.0	55338816	.004	2024.74	.01	
454	337.0	4949982	.004	-1349.18	-0.07	
455	178.0	7922204	.004	-21943.32	-2.25	
456	312.5	6473604	.004	-8785.94	-0.51	
457	4952.0	155194542	.004	-349636.17	-1.23	
438	1040.5	13330213	.004	-50321.00	-3.65	
460	742.0	25678780	.004	-62090.62	-1.53	
461	786.0	15067172	.004	-17235.19	-0.40	
462	433.0	15033871	.004	-36428.73	-1.54	
463	388.5	8360954	.004	-121/3.44	-0.37	
464	11/1.0	14136312	.004	-89198.00	-0.75	
465	1145.4	38058411	.004	-89522.99	-1.43	
467	570.0	32171693	.004	-97479.27	-3.12	
468	112.0	9535156	.304	-32008.62	-5.22	
469	1157.9	11899800	.004	15795.83	.25	
470	2952.5	58927016	.004	-74038.63	-9.46	
471	102.0	29566173	.004	-53533.77	-0.83	
474	161.0	24227701	.004	-88096.05	-9.99	
475	6379.1	52589392	.004	138898.16	. 40	
476	117.5	10689853	.004	-36326.29	-5.65	
477	194.0	15707681	.004	-52209.22	-4.92	
479	273.3	75474634	.004	-143811.16	-0.89	
481	404.0	11840470	.004	-25242.68	-1.14	
482	363.2	24640405	.004	-78676.42	-3.96	
483	573.5	47824180	.004	-159897.60	-5.09	
484	881.0	25171009	.004	-52449,29	-1.09	
486	237.8	1001875	.004	-1/302.43 -9607 01	-0.31	
487	335.5	10318931	.004	-22907.10	-1.25	
489	3018.5	97711913	.004	-225584.78	-1.37	
490	2058.3	51516450	.004	-93373.88	-0.83	
491	700.0	6831802	.004	10997.79	-2.23	
492	1210 0	13613216	.004	-30852 42	-0.43	
493	439.0	40115016	.004	-136424.81	-5.68	
495	1150.1	38311959	.004	-89732.36	-1.41	
496	156.5	14136662	.004	-47978.27	-5.60	
497	6816.9	171400989	.004	-312427.96	-0.84	
498	410.0 756 0	10303770 4543964	.004 001	23215.54	-0.01	
500	22317.7	298108368	.004	29460.60	.0ž	
501	14174.4	295089941	.004	-404311.36	-0.52	
502	202.5	19429722	.004	-66632.01	-6.01	
503	2047.7	28067543	.004	-138.50 -10521 90	-0.00	
504 505	201.8	7470003	.004 004	-2226.72	-0.38	
506	1599.0	26191937	.004	-17222.50	-0.20	
507	375.8	74703048	.004	-278237.14	-13.52	
508	898.0	9592981	.004	10793.58	.22	
309	184.9	8295784	.004	-23109.14	-2.23	
511	163.3 29676 8	24333010 684598694	.004 001	-1113589.99	-9.89	
	ليا • ليا / لي لي لي					

153   4080.0   5533816   .004   2024.7.4   .01     249   431.5   58002247   .004   423.54   .02     349   606.0   7994852   .004   1599.99   .05     447   693.0   8943540   .004   1599.99   .05     3447   693.0   8943540   .004   1292.584   .06     344   399.5   5135492   .004   1205.84   .06     344   399.5   5135492   .004   1055.11   .10     264   1934.7   23938930   .004   10159.11   .10     264   1934.7   23938930   .004   17687.00   .11     244   1934.7   23938930   .004   17687.00   .11     246   3541400   .004   7485.20   .12   .12     257   636.5   756630   .004   4583.06   .13     264   174.1   1394401   .004   9195.50   .14     454   1184.4   1394401   .004   113956.45   .16  <	USD	FTE	AV	CMM	SAEQ	%SAEQ
500     22317.7     298108368     .004     29460.60     .02       338     417.7     5541353     .004     703.65     .03       447     693.0     9794562     .004     1399.09     .05       447     693.0     9794562     .004     1330.66     .06       372     629.5     810921     .004     2025.84     .06       413     399.5     5135492     .004     1330.66     .06       418     399.5     5135492     .004     14055.11     .09       2041     1934.7     23398330     .004     14657.00     .11       2161     2941.6     55312     .004     14657.00     .11       2162     3696.5     7566330     .004     4583.06     .13       202     3696.5     7566330     .004     4261.25     .19       203     898.0     3592811     .004     9273.35     .22       3123     .004     10793.35     .22     .14       434	453	4080.0	55338816	.004	2024.74	.01
249     431.5     5500247     .004     423.54     .002       449     606.0     7694552     .004     1599.09     .05       447     693.0     89435640     .004     2025.84     .06       372     629.5     8109821     .004     2025.84     .06       344     399.5     5135492     .004     1930.66     .06       204     1934.7     23938930     .004     1075.45     .09       204     1934.7     23938930     .004     1075.45     .09       204     1934.7     23938930     .004     1465.20     .12       216     294.4     .11     .04     .11     .14       244     1934.7     .004     4833.06     .12       257     536.5     7566330     .004     .1376.45     .14       242     1434.1     1994.01     .004     .1414.25     .16       257     536.5     1217757     .004     12793.52     .22       340	500	22317.7	298108368	.004	29460.60	.02
338   417.7   3541353   .004   793.65   .03     447   695.0   7894252   .004   2167.19   .06     372   629.5   8109621   .004   2025.64   .06     344   399.5   5135492   .004   1330.66   .07     443   399.5   5135492   .004   10169.11   .10     264   1394.7   2398930   .004   10169.11   .10     264   563.0   6853202   .004   14667.00   .11     262   3265.5   7366330   .004   4583.06   .13     262   3265.5   43417439   .004   4583.06   .13     262   3655.5   12519857   .004   11395.45   .19     508   899.0   3592361   .004   121735.83   .25     2340   777.0   8175322   .004   16297.53   .25     238   840.5   8591565   .004   11551.12   .25     230   144.6   .004   23215.54   .56   .25 <tr< td=""><td>249</td><td>431.5</td><td>5800247</td><td>.004</td><td>423.64</td><td>. 02</td></tr<>	249	431.5	5800247	.004	423.64	. 02
1447   606.0   //94452   .004   1599.09   02     372   629.5   8109821   .004   2025.84   06     381   399.5   513542   .004   1330.65   .06     429   381.3   472432   .004   1930.65   .06     429   381.3   472432   .004   1976.45   .07     429   381.3   472432   .004   1976.45   .07     429   381.3   472432   .004   1976.45   .07     429   366.5   .32417439   .004   1978.04   .11     144   1171.0   14155512   .004   .2713.62   .14     434   1184.4   1934101   .004   .2713.62   .14     434   1184.4   19329.02   .004   10793.58   .22     340   777.0   8173222   .004   10795.83   .25     263   6457.1   16187427   .004   10997.79   .29     491   700.0   6831802   .004   13950.81   .32   .31	338	417.7	5541353	.004	703.66	.03
447   653.0   8943640   .004   2167.19   .06     314   399.5   5135492   .004   1330.66   .06     344   399.5   5135492   .004   1976.45   .09     2241   638.13   4724932   .004   1976.45   .09     204   1934.7   23938930   .004   10169.11   .10     246   553.0   6855202   .004   3403.44   .11     246   553.0   6855202   .004   .4583.06   .13     202   366.5   7566330   .004   .4583.06   .13     202   366.5   7566330   .004   .2197.3.62   .14     434   1126.5   12519857   .004   .1295.45   .19     594   928.0   9532981   .004   10735.58   .22     2340   77.0   8173523   .004   20817.02   .23     2453   157.1   16187427   .004   2097.52   .29     237   798.3   7439023   .004   -13859.60   .00	449	606.0	7894852	.004	1599.09	.05
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	44 /	693.0	8943640	.994	2167.19	. 96
344     339.3     3132492     .004     1330.66     .00       129     381.3     4724932     .004     1976.45     .09       224     1934.7     23938930     .004     10169.11     .10       246     563.0     6853202     .004     3403.40     .11       246     563.0     6853202     .004     4583.06     .13       202     366.5     7566330     .004     4583.06     .13       202     366.5     7566320     .004     4214.25     .14       434     1134.4     13934101     .004     9109.50     .14       406     471.8     5404201     .004     10793.58     .22       340     777.0     8173328     .004     10793.58     .22       2340     1577.5     11439960     .004     115795.83     .25       203     840.5     8591565     .004     11651.12     .25       2363     1577.1     16197427     .004     20535.52     .29	3/2	623.3	8109821	.004	2023.84	. 05
128   1283.20113   .004   1026.40   .00     129   381.3   472432   .004   10169.11   .10     264   1334.7   23938930   .004   10169.11   .10     264   553.0   6855202   .004   3403.44   .11     464   1171.0   14156512   .004   7486.20   .12     257   536.5   7566330   .004   428713.62   .14     434   1194.4   13934101   .004   28713.62   .14     406   471.8   5404201   .004   4214.25   .16     394   1126.5   12519857   .004   10795.83   .22     2153.5   17428775   .004   16551.81   .25     203   840.5   11899800   .004   1555.83   .22     3163   1657.1   16187427   .004   25976.52   .29     417   700.0   6831802   .004   13950.81   .22     1137.7   798.3   7439023   .004   -135.60   -0.00     230	344	399.3	0130492	.004	1330.66	. 95
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	438	1040.9	13339215	.004	4020.40	.07
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	201	1991 7	33936930	.004	1370.40	.03
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	261	2941.6	35841400	.004	17687 00	.10
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	24Ê	563.0	6855202	. 001	3403.44	. 11
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	464	1171.0	14156512	. 004	7486.20	.12
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	357	636.5	7566330	.004	4583,06	.13
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	202	3696.5	43417439	.004	28713.62	. 14
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	434	1184.4	13934101	.004	9109.50	.14
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	406	471.8	5404201	.004	4214.25	.16
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	394	1126.5	12519857	.004	11596.45	. 19
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	508	898.0	9592981	.004	10793.58	. 22
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	340	777.0	8175328	.004	9839.44	.23
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	232	1653.5	17428776	. 994	20814.02	. 23
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	469	1157.9	11899800	.004	15795.83	.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	203	840.5	8091060	.004	11651.12	.20
431 $(90, 0)$ $1037(92, 0)$ $1037(73, 2)$ $2004$ $20533, 52$ $31$ $337$ $798, 3$ $7439028$ $004$ $13950, 81$ $32$ $475$ $6379, 1$ $52539392$ $004$ $13898, 16$ $400$ $499$ $756, 0$ $4543864$ $004$ $23215, 54$ $56$ $503$ $2047, 7$ $28067543$ $004$ $-158, 60$ $-0, 00$ $439$ $382, 0$ $5257201$ $004$ $-118, 60$ $-0, 01$ $355$ $510, 0$ $7076505$ $004$ $-383, 52$ $-0, 01$ $256$ $1197, 8$ $16476583$ $004$ $-874, 28$ $-0, 01$ $255$ $1187, 8$ $16476583$ $004$ $-2918, 32$ $-0, 03$ $248$ $1097, 0$ $16050721$ $004$ $-2342, 47$ $-0, 05$ $248$ $1097, 0$ $16050721$ $004$ $-1349, 18$ $-0, 07$ $450$ $3165, 0$ $4545402$ $004$ $-1349, 18$ $-0, 07$ $450$ $3165, 0$ $4545402$ $004$ $-1349, 18$ $-0, 07$ $454$ $337, 0$ $4949982$ $004$ $-1349, 18$ $-0, 07$ $454$ $337, 0$ $4949982$ $004$ $-1349, 18$ $-0, 07$ $250$ $2840, 5$ $43237785$ $004$ $-1349, 18$ $-0, 07$ $250$ $2840, 5$ $43237782$ $004$ $-1349, 18$ $-0, 12$ $250$ $2840, 5$ $10955213$ $004$ $-6289, 73$ $-0, 17$ $290$ $2047, 4$ $32659$	203	1657.1	1518/42/	. 994	233/6.32	. 23
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	220	1499.0	11277922	.004	20522 52	. 27
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	230	1133.0	7/29029	.004	13950 91	.31
100100100100100100139382.05257201.004-158.60-0.00335510.07076505.004-114.30-0.01335510.07076505.004-383.52-0.012671052.514541558.004-541.86-0.012551187.816476583.004-2918.32-0.03348558.112331112.004-2943.47-0.052481097.016050721.004-4142.13-0.074503165.046455402.004-12537.86-0.07454337.04949982.004-12537.86-0.072502840.543237785.004-12688.06-0.122502840.543237785.004-2608.06-0.122502840.543237785.004-2608.06-0.12250319.54954835.004-2608.06-0.122551358.021549782.004-11848.63-0.16404685.510955213.004-18580.87-0.17252572.59339622.004-10973.98-0.202539530.915792689.004-10935.37-0.27445306.05239234.004-10345.37-0.27445290.852308967.004-10345.37-0.27445290.852308967.004-14376.41-0.2837312899640	475	6379.1	525293920	. 004	132898 16	.02
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	199	756.0	4543864	. 004	23215.54	.55
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	503	2047.7	28067543	.004	-158.60	-0.00
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	439	382.0	5257201	.004	-114.30	-9.01
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	335	510.0	7076505	.004	-383.52	-0.01
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	367	1052.5	14541558	.004	-541.86	-0.01
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	266	1187.8	16476583	.004	-874.28	-0.01
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	252	1680.8	23735531	.004	-2918.32	-0.03
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	348	858.1	12331112	.004	-2343.47	-0.05
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	248	1097.0	16050721	.004	-4142.13	-0.07
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	430	3165.0	46455402	.004	-12537.86	-9.97
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	404	337.0	4949982	.994	-1349.18	-0.07
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	231	1007.4	23010312	.004	-0000,40	-0.08
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	220	2040.0	43237783	.004	-17433.77	-0.17
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-25	319.5	4954835	.004 004	-2326 72	-0.12
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	336	875.0	13671341	.004	-6779.11	-0.14
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	342	459.5	7220404	.004	-3723.99	-0.15
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	385	1358.0	21549782	. 004	-11848.63	-0.16
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	404	685.5	10955213	. 994	-6289.73	-0.17
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	290	2047.4	32669004	.004	-18580.87	-0.17
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	323	572.5	9339622	.004	-6014.11	-0.19
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	506	1599.0	26191937	.004	-17222.50	-0.20
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	233	9530.9	157922689	. 204	-109873.98	-0.21
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	243	775.0	12899640	.004	-9167.31	-0.22
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	423	306.0	3239234	.994	-4203.44	-0.25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	ୁ / ଅ ଜ <b>ଅ</b> କ	2323.9 710 5	47736767	.004	-37463.21 -10245 97	-0.20
353     1759.8     30827779     .004     -26962.07     -0.28       416     981.0     17147041     .004     -14878.41     -0.28       377     908.0     15906185     .004     -13911.74     -0.28       320     1052.5     18545462     .004     -16502.72     -0.29	.45	2000 2	52302947	.004 001	-1540.57	-0.27
416 981.0 17147041 .004 -14878.41 -0.28 377 908.0 15906185 .004 -13911.74 -0.28 320 1052.5 18545462 .004 -16502.72 -0.29	953	1759.8	30827779	.004	-26962.07	-0.20 -0.20
377 908.0 15906185 .004 -13911.74 -0.28 320 1052.5 18545462 .004 -16502.72 -0.29	416	981.0	17147041	.004	-14878.41	-0.23
320 1053.5 18545462 .004 -16502.72 -0.29	377	908.0	15906185	.004	-13911.74	-0.28
	320	1053.5	18545462	.004	-16502.72	-0.29

USD	FTE	AV	CMM	SAEQ	%SAEQ
257	1820.0	32053076	.004	-28567.30	-9.29
437	2536.0	45294195	.004	-42330.78	-0.30
288	525.0	7367676	.004	-3733.02	-0.30
433 944	1304.0	7929864	.004	-7273.58	-0.30
247	771.5	13880240	.004	-13281.34	-0.31
305	6598.4	118713707	.004	-143592.43	-0.31
487	558.5	10046220	.004	-9607.01	-0.31
234	1965.0	35535789	.004	-34559.41	-0.32
237	709.5	12952211	. 204	-12963.72	-9.33
492	1625.0	29581454	. 994	-29337.07	-0.33
203	4197.9	75534761	.004 004	-31745 18	-0.35
200	501.6	9366776	.004	-10004.50	-0.36
594	501.8	9498863	.004	-10521.90	-0.38
430	668.5	12614499	.004	-13857.62	-0.38
409	1590.0	30222000	.994	-33835.50	-0.39
451	275.0	5227715	.004	-5854.61	-9.33
243	340.3 706 A	19304393	.994	-17235 19	-0.35
401 446	2403.9	46485657	.004	-54329.10	-9.41
413	2147.8	41792635	.004	-49578.49	-0.42
345	3330.0	65115070	.004	-78142.78	-9.43
493	1310.0	25643729	.004	-30852.42	-0.43
420	1198 5	22265265	.004 001	-29843.19	-0.44
170	2952.5	58927016	.004	-74058.69	-0.46
330	597.1	12003948	.004	-15324.57	-0.47
289	631.2	12881427	.004	-16967.51	-0.49
383	5203.1	106967623	.004	-143000.77	-0.00
313	2102.5	43333314	.004	-8785.04	-0.51
501	14174.4	295089941	.004	-404311.36	-0.52
368	1399.5	29057304	.004	-39606.59	-0.52
421	341.5	7119262	.004	-9779.92	-0.52
308	4956.0	103800506	.004	-143861.02	-8.33 -0.59
211 194	754.0	19673482	.004 004	-26158.05	-0.54
309	1404.5	30043016	.004	-43275.69	-0.56
463	388.5	8360954	.004	-12173.44	-0.57
379	1549.5	33672716	.004	-49855.74	-9.59
235	521.0	11334216	. 994	-15812.11	-9.33
370	1255 6	12313143	.004 .004	-46976.96	-0.63
443	3873.6	89443661	.004	-145695.04	-0.69
512	29676.8	684598694	.004	-1113589.98	-0.69
239	41690.4	974604480	.004	-1615868.52	-0.71
440	637.V 1944 5	10123014	.004 QQ1	-54416.32	-0.74
554	3692.1	88441718	.004	-151624.40	-9.75
465	2133.2	51497674	.004	-89198.00	-0.76
222	437.5	10760228	.004	-19087.79	-0.80
498	418.5	10383770	.004	-18622.21	-0.81
4/3 960	1132.3	13052780	.204 .004	-23680.90	-0.83
490	2058.3	51516450	.004	-93373.88	-0.83
442	454.1	11389065	.004	-20694.29	-0.83
346	518.5	13053788	.004	-23827.28	-0.84
497	5815.0 1052 4	1/1400383	.004 QQ1	-312427.35 -49790 90	-0.04 -0.86
380	625.5	16049974	.004	-29953.77	-0.87

USD	FTE	AV		CMM	SAEQ	%SAEQ
237	586.5		14998362	.004	-27882.57	-9.87
283	191.8		4945846	.004	-14282.33	-0.00
489	2960.3		/64/4634 0/50000	.004	-143011.10	-0.92
278	303.3		8102030	.004	-32200 01	-0.95
2/2	621.0 AE43 3		10343341	.004	-236663 59	-0.95
202	4342.3		10019579	004	-19516.09	-0.95
373	573.5		120010075	004	-35237.82	-0.96
A 4 4	929 0		24979738	. 994	-49110.95	-0.97
252	1380 6		37279917	.004	-73528.22	-0.97
198	581.5		15747478	.004	-31152.79	-0.98
358	393.0		10700006	.004	-21283.27	-0.99
433	231.5		6320569	.004	-12607.65	-0.99
484	381.0		25171009	.004	-52449.29	-1.09
364	891.5		25581470	.004	-53516.26	-1.10
327	713.0		20568351	.004	-43236.65	-1.11
417	952.5		27947148	.004	-59639.22	-1.14
481	404.0		11840470	. 994	-25242.88	-1.14
315	1171.5		346/0821	.004	-74343.00	-1.10
336	413.5		12201020	.004	-20100.10	-1.10
202	013.3 060 7		13300303	.004	-17250 24	-1.17
397	200./		6351536	004	-13771.77	-1.18
227	276 5		11294095	. 004	-24563.01	-1.19
365	1052.0		31712250	.004	-69252.00	-1.20
428	3428.3		103418446	. 994	-225974.36	-1.20
205	632.0		19045924	. 004	-41581.70	-1.20
376	491.7		15040357	.004	-33240.85	-1.23
322	375.0		11459182	.004	-25305.48	-1.23
488	335.5		10318931	.004	-22907.10	-1.25
240	451.0		13970787	.004	-31190.90	-1.25
360	323.0		10043705	. 994	-22490.57	-1.2/
311	294.5		9149487	. 994	-204/4.0/	-1 29
312	1081.3		33/21247	.004	-249656 17	-1 29
437	4702.0		25176967	.004 001	-56787.42	-1.29
273	552 A		17545187	. 004	-39958.75	-1.32
186	22 <b>0</b> 8		7657876	.004	-17502.45	-1.33
189	3018.5		97711913	.004	-225584.78	-1.37
405	776.3		25184224	. 004	-58234.47	-1.37
329	516.3		16867491	.004	-39202.54	-1.39
238	210.0		6860180	.994	-15943.22	-1.39
495	1160.1		38311959	. 004	-89732.36	-1.41
466	1145.4		38058411	.004	-89522.99	-1.43
398	411.7		13730971	.004	-32383.31	-1,44
286	507.0		1/02/269	.904	-40330.03	-1.40
382	1200.9		43176700	.004	-17945 94	-1.46
421	041.J		20215510	.004	-68034.43	-1.53
460	742 0		25678780	.004	-62090.62	-1.53
462	433.0		15033871	.004	-36428.73	-1.54
392	481.0		16793287	.004	-40838.40	-1.55
02	578.0		20136440	.004	-48900.26	-1.55
318	477.5		16817279	.004	-41125.99	-1.57
479	273.5		9609413	.004	-23463.53	-1.57
297	458.0		16256919	.004	-39952.18	-1.59
386	352.5		12548099	. 004	-30893.02	-1.60
381	265.5		9469032	.994	-23342.00	-1.51
305	60 <b>9</b> .0		22232835	.004	-33666.67	-1.67
239	388.0		2103/114	.004	-33333.46	-1.00
418	21/8.5		20150223	.994	-201200./2	-1.03

USD	FTE	AV		CMM	SAEQ	%SAEQ
212	209.0		7734880	.004	-19496.77	-1.70
410	561.6		21029780	.004	-53371.52	-1.74
325	710.5		26808512	.004	-68334.17	-1./5
213	163.0		6179144	.004	-15/92.33	-1.//
291	204.0		7749149	.004	-19827.60	-1.78
324	164.3		6287901	.004	-10143.23	-1.75
202	311.3		19/00119	.004	-36109 05	-1 83
420	200.J 549 g		21264721	.004	-55/01 17	-1.84
316	197 A		7705578	.004	-20036.56	-1.86
384	196.5		7820163	. 004	-20522.28	-1.91
448	345.0		13726718	.004	-36018.12	-1.91
285	207.7		8310819	.004	-21871.70	-1.92
294	668.2		27036102	.004	-71560.46	-1.96
361	1057.5		43073454	.004	-114395.69	-1.98
279	197.0		8062040	.004	-21462.41	-1.99
369	262.0		10839228	.904	-29012.41	-2.02
310	513.5		21378533	. 994	-3/400.01	-2.04
383	518.0		25030304	.004		-2.00
343	513.3		13332347	004	-63558 11	-2.15
222	196 5		18790787	004	-51264.77	-2.15
241	345.5		14949759	. 004	-40882.91	-2.16
264	855.0		36955856	.004	-101012.17	-2.16
397	350.0		15195708	.004	-41620.33	-2.17
423	399.0		17747356	.004	-49144.17	-2.25
455	178.0		7922204	. 004	-21943.32	-2.25
375	1143.0		51098895	.004	-141816.33	-2.27
509	184.0		8295784	.004	-23109.14	-2.23
194	201.0		11321689	.994	-121244.31	-2.30
347	342.2		12952650	.004	-35971.10	-2.33
255	308 0		14047517	. 004	-39327.47	-2.33
293	322.0		14738920	.004	-41326.18	-2.34
245	370.0		17462002	.004	-49590.51	-2.45
366	573.0		27409925	.004	-78267.95	-2.49
292	249.5		11974885	.004	-34239.42	-2.51
432	440.5		21440797	.004	-61645.81	-2.56
221	189.0		9405778	.004	-2/2/3.36	-2.64
238	331.0		13334013	.004	-01/86 01	-2.00
204	1625 0		29581454	004	-29357.07	-0.33
299	198.5		10425446	. 004	-30833.91	-2.84
422	417.5		22168232	.004	-65814.80	-2.88
419	388.6		21323703	.004	-64018.96	-3.01
359	199.5		10956998	. 904	-32905.37	-3.01
281	539.0		29630268	.004	-89010.82	-3.02
242	101.0		5587308	.004	-16819.48	-3.04
274	499.5		280/8612	. 994	-84366.82	-3.11
467	579.9 797 0		36101033	.004	-126796 19	-3.12
431	227 5		19021773	.004	-58156.47	-3.24
314	164.0		9902311	.004	-30630.24	-3.41
254	788.4		47725401	.004	-147740.70	-3.42
295	124.5		7653474	.004	-23797.52	-3.49
407	1407.7		86902167	.004	-270537.09	-3.51
331	1075.2		66463832	.004	-206988.13	-3.52
439	252.0		16923433	.004	-30321.00 _3794 S4	-3.53
223	485.V 112 5		31100/01	.004 001	-30053 65	-7.00
350	86.3		5765110	.004	-18335.52	-3.88

USD	FTE	AV	CMM	SAEQ	%SAEQ
471	152.5	10200010	.004	-32450.67	-3.89
255	368.5	24670037	.004	-78504.77	-3.89
182	363.3	24640405	.004	-78676 42	-3,96
236	84.0	5797404	.004	-18590.62	-4.04
103	221.5	16362684	.004	-53323.61	-4.40
444	384.0	30618950	.004	-101451.80	-4.83
360	323.0	10043705	. 904	-22490.57	-1.27
338	437.4	37020531	.004	-123039.93	-4.91
302	189.5	15437442	.004	-51374.64	-4.95
303	337.0	27886260	.004	-93094.29	-5.05
483	573.5	47824180	.004	-159897.60	-5.09
374	438.5	37259371	.904	-125029.61	-5.21
468	112.0	21222125	.004	-32008.52	-0.22
224	189.0	17030017	.004	-57772.32	-5.58
496	156.5	14136652	.004	-47978.27	-5.60
476	117.5	10689853	.004	-36326.29	-5.65
494	439.0	40115016	.004	-136424.81	-5.68
218	375.1	33177704	.004	-181169.34	-3.74
270	535.5	50331202	.004	-172005.18	-5.87
227	255.1	23978809	.004	-81948.51	-5.87
271	446.3	42525935	.004	-145641.44	-5.95
502	202.5	19429722	.004	-66632.01	-6.01
438	330.3	31846734 24138289	.004 004	-103232.06	-6.04
280	141.0	15153317	.004	-52893.52	-6.85
214	1418.0	154530461	.004	-540486.34	-6.96
328	525.4	58211209	.004	-204079.19	-7.09
275	100.0	11089464	.004	-38882.86	-7.10
200	311.8	38064206	.004	-135185.77	-7.92
300	419.5	52468909	.004	-186908.01	-8.14
226	413.5	51922897	.004	-185052.46	-8.17
354	267.0	34288818	.004	-122537.02	-8.38
402 121	482.9	62603746 17471407	.004	-224023.48	-8.49
362	793.9	104835402	.004	-375875.58	-8.65
304	100.5	13662009	.004	-49145.66	-8.93
269	243.5	34349479	.004	-124066.29	-9.31
332	288.3	41/11/61	.004	-151051.67	-9.06
511	163.5	24535010	.004 .004	-89188.42	-9.96
474	161.0	24227701	.004	-88096.05	-9.99
351	277.5	44103883	.004	-161222.41	-10.61
216	234.9	37960916	.004	-139032.16	-10.85
399	192.0	150343438	.004 .004	-138379.68	-13.16
355	192.0	37302000	.004	-138695.00	-13.19
210	858.9	168394593	.004	-626553.60	-13.32
507	375.8	74703048	.004	-278237.14	-13.52
210	505.3 209 A	124373670	.094 DG1	-454235.31 -169440 79	-13.98
301	100.1	22836972	.004	-85867.41	-15.67
363	538.5	124170559	.004	-467199.36	-15.85
244	795.0	254458180	.004	-974306.47	-22.38
21/ 209	186.9 (17 5	70524751 50016970	.004 004	-2/1915.30	-26.70
<u>_</u> U2	143.0	100172/V	1004	-1112007,70	7141+(4

## APPENDIX E

## FLAT PERCENTAGE GRANT AND FLAT PERCENTAGE ALTERNATIVES DATA

USD	FTE	AV	CMM	RAFULL	GRANT/LOAN
101	1198.5	23865265	. 004	65617.88	8202234.38
102	578.0	20136440	.004	31645.50	3955687.50
103	221.5	16362664	.004	12127.13	1010690.63
104	201.0	11321689	.004	13742.25	1/1//81.25
200	311.8	38064206	.004	1/0/1.05	2133661.25
202	3696.5	43417439	.004	202383.38	25297921.88
203	840.5	8591565	.004	46017.38	5/521/1.88
204	1934.7	23338330	.004	105924.83	13240503.13
200	532.17	19040924	.004	34502.00	4323230.00
200	349.3	2328/521	.004	27372.33 	30337/40.00
208	200.0	4343/189	.004	11366.00	1423000.00
240	143,7	100319270	.004	200.00 47624 PD	5020/0.10
210	000.5	100374373	.004	47924.70	20/0220.00
212	704.0	7724990	.004	41000.00	1/202/2 75
212	167 0	6179144	.004	000/05	1115521 25
210	1/19 0	151500161	.004 004	77625 50	9764497 50
215	606 5	124375670	004	33205 88	4150734 38
216	234.0	37960916	. 004	12811.50	1601437.50
217	186.0	70524751	.004	10183.50	1272937.50
218	576.1	53177704	.004	31541.48	3942684.38
219	201.0	18893393	. 004	11004.75	1375593.75
220	274.5	40441632	.004	15028.88	1878509.38
221	189.0	9405778	.004	10347.75	1293468.75
222	437.5	10760228	.004	23953.13	2394140.63
223	436.5	18790787	. 994	23898.38	2987296.88
224	189.0	17030017	.004	10347.75	1293468.75
225	710.5	12311312	.004	38899.88	4862484.38
226	413.5	51922897	.004	22639.13	2829899.63
227	255.1	23978809	.004	13966.73	1745840.63
228	131.5	15457119	.004	7199.63	899953.13
	3632.1	88441718	.004	202142.48	2326/203.30
234	1133.0	112//332	.004	03043.23	0203030.23
231	1007.4	47420775	.004	00207.00	10000400.20
222	1500.0	157922699	004	521816 78	65027096 88
230	1965 0	35535739		107583 75	13447958 75
235	521.0	11334216	.004	28524.75	3565593.75
236	84.0	5797404	. 004	4599.00	574875.00
237	586.5	14998362	.004	32110.88	4013859.38
238	210.0	6860180	.004	11497,50	1437187.50
239	588.0	21537114	.004	32193.00	4024125.00
E40	451.0	13970787	.004	24692.25	3086531.25
241	345.5	14949759	.004	18916.13	2364515.63
242	101.0	5587308	.004	5529.75	691218.75
243	540.5	10304305	.004	29592.38	3699046.88
244	795.0	254458180	.994	43526.25	3440781.25
240	3/0.0	1/452002	.004	2023/.30	202187.00
240	303.0	10000240	.004	30824.23	3633831.23
247 249	1097.0	13009249	.004	46233.03 60060 75	02/3303.10 7507 <b>592</b> 75
240	1037.0	5900947	004	3969.70 39634 63	2952078 13
250	2840.5	43237785	004	155517 33	19/139671 88
251	671.6	18001981	.004	36770.10	4596262.50
252	519.9	15360383	.004	23464.53	3558065.63
253	4197.9	76634781	004	229835.03	28729378.13
254	788.4	47726401	. 004	43164.90	5395612.50
255	368.5	24670037	.004	20175.38	2521921.88
256	308.0	14047617	, 994	16863.00	2107875.00
E57	1820.0	32053076	.004	99645.00	12455625.00
258	552.0	17545187	.004	30222.00	3777750.00

USD	FTE	AV	CMM	RAFULL	GRANT/LOAN	
259	41690.4	974604480	.004	2282549.40	285318675.00	
260	4542.3	121338628	.004	248690.93	31086365.63	
261	2941.6	35841400	.004	161052.60	20131575.00	
202	1689.8	23/35531	.004	92023.80	11502975.00	
263	1657.1	16187427	.004	90726.23	11340778.13	
364	855.0	36955856	.004	46811.25	5851406.25	
203	1643.9	30437175	. 994	30003.33	11230440.63	
200	1187.8	164/6583	. 904	53032.03	8129006.20	
25.	1333.6	30233013	.004	74219.19	3277387.39	
208	321.1	13032/80	.004	28339.23	33662/8.13	
253	243.3	34343473	.004		1666433.13	
272	232.3	30331202	.004	23310.03	3004325.13	
271	440.0 201 0	42323533	.004	24402.30	2007707.30 1010000 75	
272	902 2	10343341	.004	42220.10	4243300,73 5490052 35	
273	199.5	20170507	.004 GQ1	27247 62	2450000.20	
275	100 0	11089464	004 001	5475 22	68/375 00	
272	309.5	2152023	004	16945 13	21121/0 63	
279	197 0	2052040	004	10785.75	1348218.75	
230	141.0	15153317	.004	7719.75	964968.75	
291	539.0	29630268	.004	29510.25	3689781.25	
382	511.5	19700119	.004	28004.63	3500578.13	
283	191.8	4945846	.004	10501.05	1312531.25	
284	551.0	27913515	.004	30167.25	3770906.25	
285	207.7	8310819	. 994	11371.58	1421446.88	
286	507.0	17027269	.004	27758.25	3469781.25	
237	709.5	12952211	.004	38845.13	4855640.63	
288	525.0	9369692	.004	28743.75	3592968.75	
289	631.2	12881427	.004	34558.20	4319775.00	
290	2047.4	32669004	.004	112095.15	14011893.75	
291	204.0	7749149	.004	11169.00	1396125.00	
292	249.5	11974885	.004	13660.13	1707515.63	
233	322.0	14/36529	.994	1/623.30	2203687.30	
234	500.2	27035102	.004	35353.33	43/2993./3	
222	124.3	16034/4	.994	25075 50	012040.00 · 2121127 EQ	
220	221 0	19594619	.004	21407 25	3134437.UV 2675906 25	
220	198 5	10/25//6	204	10867 88	1358484 38	
363	119.5	52/689/9	204	22957.53	2270953.13	
301	100.1	22222222	.004	5480.48	685059.38	
302	189.5	15437442	.004	10375.13	1296890.63	
303	337.0	27886269	.004	18450.75	2306343.75	
304	100.5	13662009	.004	5502.38	687796.88	
395	6598.4	118713707	.004	361262.40	45157800.00	
306	609.0	22252856	.004	33342.75	4167843.75	
307	268.7	7990390	.004	14711.33	1838915.63	
308	4956.0	103800506	.004	271341.00	33917625.00	
309	1404.5	30043016	.004	76836.38	9612046.88	
319	513.5	213/8533	.004	28114.13	3514265.63	
511	234.3 1001 5	9149487	.094	16123.88	2913484.38	
212	1001.3	33/21243	.004	07616.10	/401010.55 4/200004 00	
313	151 0	433333714	.004	113111.88	14303304.30	
215	104.0	3/57/2211	.004 004	64199 69	9017153 13	
316	197 0	7705579	. 004 . 004	10785 75	1949218 75	
317	86.3	5765110	.004	4724.93	590615.63	
318	477.5	16817279	.004	26143.13	3267899.63	
320	1053.5	18545462	.004	57679.13	7209890.63	
321	1061.9	195343438	.004	58139.03	7267378.13	
322	375.0	11459182	.004	20531.25	2566406.25	
323	572.5	9339622	.004	31344.38	3918046.88	
130	FTE	AV	CMM	RAFULL	GRANT/LOAN	
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324	164.5	6287901	.004	9006.38	1125796.88	
325	710.5	26808512	.004	38899.88	4862484.38	
326	246.0	21373530	.004	13468.30	1663562.50	
327	713.0	29568351	.004	39036.75	4879593.75	
328	525.4	58211209	.004	28765.65	3595706.25	
329	516.3	16867491	.004	28267.43	3523428.13	
330	597.1	12003948	.004	32691.23	4086403.13	
331	1075.2	66463832	.004	58867.29	7358400.00	
332	288.5	41711761	.004	15795.38	1974421.88	
333	1344.5	32006924	.004	73611.38	9201421.88	
334	282.0	12852650	.004	15439.50	1929937.50	
335	510.0	7076505	.004	27922.50	3490312.50	
336	875.0	13671341	.004	47906.25	5988281.25	
337	798.3	7439028	.004	43706.93	5463365.63	
338	417.7	5541353	.004	22869.08	2858634.38	
339	402.5	6161234	. 304	22036.38	2754609.38	
340	777.0	8175328	.004	42540.75	5317593.75	
341	446.5	7929864	.004	24445,88	3055734.38	
342	459.5	7220404	.004	25157.63	3144703.13	
343	775.0	12899640	.004	42431.25	5303906.25	
344	399.5	5135492	.004	21872.63	2734078,13	
345	3330.0	65115970	.004	182317.50	22789687.50	
346	518.5	13053788	.004	28387.88	3548484.38	
347	342.2	15465142	.004	18735.45	2341931.25	
348	858.1	12331112	.004	46980.98	5872521.88	
349	315.5	13392947	.004	17273.63	2159203.13	
350	386.5	31097889	. 004	21160.38	2645109.38	
351	277.5	44103383	.004	15193.13	1899140.63	
352	1380.5	37279017	. 004	75587.85	9448481.25	
353	1759.8	39827773	.004	36349.05	12943631.25	
354	267.0	34288813	.004	14518.25	1827281.25	
355	192.0	37302000	.004	10512.00	1314000.00	
356	413.5	12201825	.004	22639.13	2829890.53	
357	636.5	7566330	. 204	34848.38	4356046.88	
358	393.0	10700005	.004	21516.75	2689593.75	
359	199.5	10956998	.004	10922.63	1365328.13	
360	323.0	10043705	.004	17684.25	2210531.25	
361	1057.5	43073454	.004	57898.13	7237265.63	
362	793.9	104835402	. 994	43466.03	5433253.13	
363	538.5	124170559	.004	29482.88	3685359.38	
364	891.5	25581479	. 004	48809.63	6101203.13	
365	1052.0	31712250	.004	57597.00	7199625.00	
366	573.0	27409925	.004	31371.75	3921468.75	
367	1052.5	14541559	.004	57624.38	7203045.88	
368	1399.5	29057304	.004	76622.63	9577828.13	
369	262.0	10839228	.004	14344.50	1793062.50	
371	162.5	10997896	.004	8896.88	1112109.38	
372	629.5	8109821	.004	34465.13	4308140.53	
373	2929.0	49956989	.004	160362.75	20045343.75	
374	438.5	37259371	.004	24007.88	3000984.38	
375	1143.0	51098835	.004	62579.25	7822406.25	
376	491.7	15040357	.004	26920.58	3365071.88	
377	908.0	15906185	.004	49713.00	6214125.00	
378	501.6	9366776	.004	27462.60	3432825.00	
379	1549.5	33672716	.004	84835.13	10604390.63	
330	625.5	16049974	.004	34246.13	4280765.63	
381	265.5	9469532	.004	14536.13	1817015.63	
382	1285.0	43192906	.004	70353.75	8794218.75	
383	5203.1	106967623	.004	284869.73	35608715.63	
384	196.5	7820163	.004	10758.38	1344796.88	
385	1359.0	21549782	. 204	74350.50	9293812.50	

SD	FTE	AV	C).M	RAFULL	GRANT/LOAN
385	352.5	12548099	.004	19299.38	2412421.88
397	376.5	11294095	.004	20613.38	2576671.88
388	457.4	37020651	.004	25042.65	3130331.25
389	518.0	26090304	.004	33835.50	4229437.50
390	142.5	9463880	.004	7801.88	975234.38
392	481.0	16793287	.004	26334.75	3291843.75
393	375.5	10018679	.004	20558.63	2569828.13
394	1126.5	12519857	.004	61675.88	7709484.38
395	486.0	31100761	.004	26608.50	3326062.50
396	561.2	12313143	.004	30725.70	3840712.50
397	350.0	15195708	.004	19162.50	2395312.50
338	411.7	13730971	.004	22540.58	2817571.88
333	192.0	37222920	.004	10512.00	1314000.00
409	811.0	28109169	.004	44402.25	5550281.25
401	238.0	24138289	.004	13030.50	1525812.50
402	1625.0	23581454	.994	23358.73	11121093.75
403	327.5	19921773	.004	1/330.53	2241328.13
404	585.5	1030213	.904	37531.13	4631330.63
400	//6.3	20184224	.004	42392.43	3312803.13
406	4/1.8	0404201	.004	20831.00	3220061.20
407	1407.7	0050216/	.004	//0/1.38	3533346.00
403	381.3	13/4/4/8	.004	31837.13	3373540.53
409	1339.0	30222000	.004	87032.30	10881362.30
410		21023780	.004	30747.60	3843430.00
411		0301030	.884	11034.30	1434250.88
412	343.0	21304731 A1709695	.004	117502.05	3/3/210./3
413	1057 6	41/22020	004	57629.95	14033000.20
410	1002.0 904 A	17117000	.004	57769.75	(203(31,23 6719719 75
417	952.5	27947148	. 204	52149 38	6519671 88
418	2178.5	80120399	.004	119272.88	14909109.38
419	388.6	21323703	.004	21275.85	2659481.25
420	604.5	11895638	.004	33096.38	4137046.88
421	341.5	7119262	.004	18697.13	2337140.63
422	417.5	22168232	.004	22858.13	2857265.63
423	399.0	17747356	.004	21845.25	2730656.25
424	132.5	17471407	.004	7254.38	906796.88
425	306.0	5239234	.004	16753.50	2094187.50
426	260.5	10092859	.004	14252.38	1782796.88
427	601.5	20219516	.004	32932.13	4116515.63
428	3428.3	103418446	.004	187699.43	23462423.13
429	381.3	4724932	.004	20876.18	2609521.88
430	668.5	12614499	.004	36600.38	4575046.88
431	737.0	41786734	.004	40350.75	5043843.75
432	440.5	21440797	. 994	24117.38	3014671.88
433	231.5	6320569	.004	12674.63	1584328.13
434	1184.4	13934101	.004	64845.90	8105737.50
435	1384.8	24565402	.004	75817.80	9477225.00
435	886.5	18673482	.004	48535.88	6066384.38
437	2536.0	45294195	. 994	138846.00	17355750.00
458	330.5	31846734	.004	18094.88	2261859.38
439	362.0	5257291	.004	20914.50	2614312.59
140	633.0	10123014	.004	34563.23	43/3135.23
441	720.0	243/3/38 11000025	.994	24843.90	5331999.99
442	434.1	11363603	.984 264	24001.70 242079.60	3197745.08 3650058 00
443	20/3.0	07443001 30210050	. 994 004	212073.00	00.00550055 00 0000550
144	304.0 2007 0	50010500 50000007	.004	21024.00 1 <b>237</b> 16 30	2020000.00
440 AAE	2339.0 3402 q	JEJU0507 16195657	004 004	191619 59	120400207.JU 12151200 20
447	693.0	9949640 8949640	.004	37944 75	10401050.00 A7A9749 75
148	345.0	19726718	.004 .004	18828.75	2261023.75
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USD	FTE	AV	RAFULL	GRANT/LOAN
236	84.0	5797404	4599.00	590415 43
317	86.3 100 0	0760110	5475.00	684375.00
301	100.0	22836972	5480.48	685059.38
304	100.5	13662009	5502.38	687796.88
242	101.0	5587308	5529.75	691218.75
468	112.0	9535156	6132.00	756500.00
476	117.5	10689833	5433.13 2012 39	852046 88
220	124.3	15457119	7199.63	899953.13
424	132.5	17471407	7254.38	906796.88
280	141.0	15153317	7719.75	964968.75
390	142.5	9463880	7801.88	975234.38
209	143.5	58319270	/836.83	1043671.88
471	132.3	14136662	8568.38	1071046.88
474	161.0	24227701	8814.75	1101843.75
371	162.5	10997896	8896.88	1112109.38
213	163.0	6179144	8924.25	1115531.25
511	163.5	24030919	8731.83 9979 00	1122375.00
324	164.5	6287901	9005.38	1125796.88
455	178.0	7922204	9745.50	1218187.50
509	184.0	8295784	10074.00	1259250.00
217	186.0	70524751	10183.30	1272937.30
224	189.0	9405778	10347.75	1293468.75
302	189.5	15437442	10375.13	1296890.63
283	191.8	4945846	10501.05	1312631.25
399	192.0	37222920	10512.00	1314000.00
333	192.0	15707681	10521.50	1327687.50
384	196.5	7820163	10758.38	1344796.88
316	197.0	7705578	10785.75	1348218.75
279	197.0	8062040	10785.75	1348218.75
299	198.3	10420446	10007.00	1365328.13
219	201.0	18893393	11004.75	1375593.75
502	202.5	19429722	11086.88	1385859.38
291	204.0	7749149	11169.00	1396125.00
285	207.7	8310819	11371.38	1421445.80
208	208.0	43437180	11366.00	1423300.00
238	210.0	6860180	11497.50	1437187.50
411	212.5	6351536	11634.38	1454296.88
103	221.5	16362684	12127.13	1010890.63
433	231.3	5329367 37960916	12811.50	1601437.50
401	238.0	24138289	13030.50	1628812.50
486	239.8	7657876	13129.05	1641131.25
269	243.5	34349479	13331.63	1666403.13
325	246.0	11974885	13660.13	1707515.63
104	251.0	11321689	13742.25	1717781.25
459	252.0	16029499	13797.00	1724625.00
227	255.1	23978809	13966.73	1/45840.63
425	260.3	10839228	14202.30	1793062.50
492	263.0	13615216	14399.25	1799906.25
381	265.5	9469532	14536.13	1817015.63
354	267.0	34288818	14618.25	1827281.25

USD	FTE	AV	RAFULL	GRANT/LOAN
307	268.7	7990390	14711.33	1838916.25
479	273.5	9609413	14974.13	1871766.25
220	274.5	40441632	15028.88	1878610.00
451	275.0	5227715	15056.25	1882031.25
351	277.5	44103883	15193.13	1899141.25
334	282.0	12852650	15439.50	1929937.50
335	288.5	41711761	15795.38	1974422.50
311	294.5	9149487	16123.88	2015485.00
425	305.0	5239234	16/53.50	2094187.50
235	308.0	1404/51/	16863.00	210/8/3.00
2/0	309.3	8132033	15943.13	2118141.23
200 A56	311.0	20004200	17071.03	2133001.23 2120272 50
3/3	315 5	13392947	17273 63	2159203 75
505	319.5	4954835	17492.63	2186578.75
293	322.0	14738920	17629.50	2203687.50
360	323.0	10043705	17684.25	2210531.25
403	327.5	19021773	17930.63	2241328.75
438	330.5	31846734	18094.88	2261860.00
488	335.5	10318931	18368.63	2296078.75
454	337.0	4949982	18450.75	2306343.75
303	337.0	27886260	18450.75	2306343.75
421	341.5	7119262	18697.13	2337141.25
347	342.2	15465142	18735.45	2341931.25
448	345.0	13726718	18888.75	2361093.75
241	345.5	14949759	18916.13	2364516.25
337	330.0	13193708	19162.00	2395312.50
400	332.3	12048033	17277.30	2412422.JV
	303.2	24640403	12003.20	240J0J0,00 252(922 50
245	370 0	17/62002	20257 50	2522122.50
322	375.0	11459182	20531.25	2566406.25
393	375.5	10018679	20558.63	2569828.75
507	375.8	74703048	20575.05	2571881.25
387	376.5	11294095	20613.38	2576672.50
429	381.3	4724932	20876.13	2609522.50
439	382.0	5257201	20914.50	2514312.50
444	384.0	30618950	21024.00	2628000.00
350	386.5	31097889	21160.88	2645110.00
463	388.5	8360954	21270.38	2658797.50
419	388.5	21323703	21275.85	2659481.25
270	391.0	19094619	21407.23	25/3995.23
422	373.0	10700006	21315.73	2003233./3
344	333.0	5135/92	21843.23	2724079.75
339	402.5	6161234	22036.38	2754610 00
481	404.0	11840470	22119.00	2764875.00
398	411.7	13730971	22540.58	2817572.50
226	413.5	51922897	22639.13	2829891.25
356	413.5	12201825	22639.13	2829891.25
422	417.5	22168232	22858.13	2857266.25
338	417.7	5541353	22869.08	2858635.00
498	418.5	10383770	22912.88	2864110.00
300	419.5	52468909	22967.63	2870953.75
243 169	431.3	15022271	23024.03 22702 75	23330/8./3
222	400.0	10033071 19790797	22000.73	2703343./0 0907007 90
222	430.3	10750707	22050.30	2987237.30 299 <u>7</u> 171 25
374	438.5	37259271	24007 98	2000985 00
494	439.0	40115016	24035.25	3004406.25
432	440.5	21440797	24117.38	3014672.50

USD	FTE	AV	RAFULL	GRANT/LOAN
341	446.5	7929864	24445.88	3055735.00
2/1	446.8	42020930	24462.39	303/787.30
240 449	431.0	13370787	24032.23	2405331,23
388	434.1 157 1	37020651	25042 65	2120221 25
297	457.4	16256919	25042.00	3134437 50
342	459.5	7220404	25157.63	3144703 75
406	471.8	5404201	25831.05	3228881.25
318	477.5	16817279	26143.13	3267891.25
392	481.0	16793287	26334.75	3291843.75
452	482.0	62603746	26389.50	3298687.50
395	486.0	31100761	26608.50	3326062.50
376	491.7	15040357	26920.58	3365072.50
274	499.5	28078612	27347.63	3418453.75
3/8	301.5	7366//6	27462.60	3432823.00
285	507 0	17027269	27758 25	3434153.73
335	510.0	7076505	27922.50	3490312.50
282	511.5	19700119	28004.63	3500578.75
310	513.5	21378533	28114.13	3514266.25
329	516.3	16867491	28267.43	3533428.75
346	518.5	13053788	28387.88	3548485.00
252	519.9	15360383	28464.53	3558066.25
235	521.0	11334216	28524.75	3565593.75
200	521.1	13032780	28330.23	33552/8./3
220	525 /	5307074	20743.73	3372700./3
270	535.5	50331202	29318.63	3664828.75
363	538.5	124170559	29482.88	3685360.00
281	539.0	29630268	29510.25	3688781.25
206	540.5	23287621	29592.38	3699047.50
243	540.5	10304305	29592.38	3699047.50
412	549.0	21364731	30057.75	3757218.75
284	551.0	27913515	30167.25	3770906.25
200	JJZ.V 550 5	1/343187	30222.90	3////30.00
292	561 9	12212142	30377.00	3822233.00
410	561.6	21029780	30747.60	3843450.00
246	563.0	6855202	30824.25	3853031.25
467	570.0	32171693	31207.50	3900937.50
323	572.5	9339622	31344.38	3918047.50
366	573.0	27409925	31371.75	3921468.75
483	5/3.5	47824180	31399.13	3924891.25
102	578 0	201367704	31341.40	3742003.00
108	581.5	15747478	31837.13	3979641.25
237	586.5	14998362	32110.88	4013860.00
239	588.0	21537114	32193.00	4024125.00
330	597.1	12003948	32691.23	4086403.75
427	601.5	20219516	32932.13	4116516.25
420	604.5	11895638	33096.38	4137047.50
245	505.0 Cac 5	124832	33178.30	414/312.00
306	608.J 609 0	22252856	33203.00	4130733.00
389	618.0	26090304	33835.50	4229437.50
272	621.0	16549941	33999.75	4249968.75
380	625.5	16049974	34246.13	4280766.25
372	629.5	8109821	34465.13	4308141.25
289	631.2	12881427	34558.20	4319775.00
205	632.0	19045924	34602.00	4325250.00
37	636.5	7566330	34248.38	4356047.50

USD FTE AV RAFULL GRANT/LOAN	
440 639.0 15123514 34985.25 4373156.25 294 669.2 27036402 26592.95 4572992.75	
430 668.5 12614499 36600.38 4575047.50	
251 671.6 18001981 36770.10 4596262.50	
404 685.5 10955213 37531.13 4691391.25	
447 693.0 8943640 37941.75 4742718.75	
451 700.0 6831802 36323.00 4790623.00 287 709.5 12952211 38845.13 4855641.25	
325 710.5 26808512 38899.88 4862485.00	
225 710.5 12311312 38899.88 4862485.00	
327 713.0 20568351 39036.75 4879593.75	
431 /37.0 41/66/34 40330.73 7043843.73 460 742 0 25678780 40624 50 5078062 50	
499 756.0 4543864 41391.00 5173875.00	
211 754.5 16002906 41856.38 5232047.50	
247 771.5 13880240 42239.63 5279953.75	
405 776.3 25184224 42592.43 5312803.75	
340 777.0 8175328 42540.75 5317593.75	
461 786.0 15067172 43033.50 5379187.50	
234 /88.4 4//26401 43164.90 3393612.30	
244 795.0 254458180 43525.25 5440781.25	
337 798.3 7439028 43706.93 5463366.25	
273 802.2 25176967 43920.45 5490056.25	
203 840.5 8591565 46017.38 5752172.50	
264 855.0 36955856 46811.25 5851406.25	
348 858.1 12331112 46980.98 5872622.50	
210 838.9 168394393 47024.78 3878097.30 336 875.0 13671341 47906.25 5988281.25	
484 881.0 25171009 48234.75 6029343.75	
436 886.5 18673482 48535.88 6066985.00	
364 891.3 23381470 48809.63 6101203.73 508 898.0 9599981 49165.50 6145687.50	
377 908.0 15906185 49713.00 6214125.00	
441 928.0 24979738 50808.00 6351000.00	
417 952.5 27947148 52149.38 6518672.50	
416 961.0 17147041 33703.73 8713718.73 458 1048.9 13350219 57427.28 7178410.00	
365 1052.0 31712250 57597.00 7199625.00	
367 1052.5 14541558 57624.38 7203047.50	
413 1032.6 2683/688 3/629.83 /203/31.23 320 1053.5 18545462 57679.13 7209891.25	
361 1057.5 43073454 57898.13 7237266.25	
321 1061.9 195343438 58139.03 7267378.75	
331 1075.2 66463832 38867.20 7338400.00 312 1081.5 33721249 59212.13 7401516.25	
248 1097.0 16050721 60060.75 7507593.75	
394 1126.5 12519857 61675.88 7709485.00	
370 1143.0 01098890 62079.20 7822406.20 466 1145.4 99059411 69710.65 7999991.25	
469 1157.9 11899800 63395.03 7924378.75	
495 1160.1 38311959 63515.48 7939435.00	
454 1171.0 14135512 54112.25 8014031.25 315 1171.5 94570821 54129.59 9047452.75	
473 1182.3 29566173 64730.93 8091366.25	
434 1184.4 13934101 64845.90 8105737.50	
255 1187.8 16476583 65032.05 8129006.25	
230 1199.0 11277932 65645.25 8205656.25	

USD	FTE	AV 42122866	RAFULL	GRANT/LOAN
493	1310.0	25643729	71722.50	8965312.50
333 267	1344.5 1355.6	32006524 30299015	73611.38 74219.10	9277387.50
385 352	1358.0 1380.5	21549782 37279017	74350.50 75587.85	9293812.50 9448481.25
435	1384.8	24565402	75817.80	9477225.00
309	1404.5	30043015	76825.38	9612047.50
407 214	1407.7 1418.0	86902167 154530461	77635.50	9633947.50 9704437.50
379 231	1549.5 1557.4	33672716 23018512	84875.13 85267.65	10604391.25 10658456.25
409	1590.0	30222000	87052.50	10881562.50
402	1625.0	29581454	88968.75	11121093.75
265 232	1643.9 1653.5	30437175 17428775	90529.13	11250441.25 11316141.25
263 262	1657.1 1680.8	16187427 23735531	90726.23 92023.80	11340778.75 11502975.00
353 257	1759.8 1820 0	30827779 32053076	96349.05 99645 00	12043631.25 12455625 00
204	1934.7	23938930	105924.83	13240603.75
290	2047.4	32669004	112095.15	13447968.75
503 490	2047.7 2058.3	28067543 51516450	112111.58 112691.93	14013947.50 14086491.25
313 465	2102.5 2133.2	43335914 51497674	115111.88 116792.70	14388985.00 14599087.50
413	2147.8	41792635	117592.05	14699006.25
446	2403.9	46485657	131613.53	16451691.25
437 250	2840.5	43237785	136846.00	19439672.50
373 261	2929.0 2941.6	49956989 35841400	160362.75 161052.60	20045343.75 20131575.00
470 489	2952.5 2960.5	58927016 76474634	161649.38 162087.38	20206172.50 20260922.50
445	2990.8	52308967	163746.30	20468287.50
485	3165.0	46455402	173283.75	20657880.00
345 428	3330.0 3428.3	65115070 103418446	182317.50 1876 <b>99.</b> 43	22789687.30 23462428.75
229 202	3692.1 3696.5	88441718 43417439	202142.48 202383.38	25267810.00 25297922.50
443	3873.6 4080 0	89443661	212079.60	26509950.00 27922500 00
253	4197.9	76634781	229835.03	28729378.75
457	4952.0	155194542	240650.53	33890250.00
383 383	4956.0 5203.1	103800505 106967623	271341.00 284869.73	33917625.00 35608716.25
475 305	6379.1 6598.4	52589392 118713707	349255.73 361262.40	43656966.25 45157800.00
497 233	6816.0 9530.9	171400989 157922689	373176.00 521816.78	46647000.00 65227097 50
501	14174.4	295089941	776048.40	97006050.00
512	29676.8	684598694	1624804.80	203100600.00
259	41690.4	974604480	2282549.40	285318675.00

## VITA 2

David Charles Thompson

Candidate for the Degree of

Doctor of Education

Thesis: AN EXAMINATION OF EQUITY IN CAPITAL OUTLAY FUNDING IN KANSAS SCHOOL DISTRICTS: CURRENT METHODS, ALTERNATIVES, AND SIMU-LATIONS UNDER THREE SELECTED EQUITY PRINCIPLES

Major Field: Educational Administration

Biographical:

- Personal Data: Born in Wichita, Kansas, December 12, 1951, the son of Charles E. and Irene Thompson. Married to Diane L. Thompson on December 17, 1971. Son Kevin born November 21, 1983.
- Education: Graduated from Wichita High School North, Wichita, Kansas, in May, 1969; received Bachelor of Arts degree in Modern Language and Language Arts Education from Friends University in August, 1974; received Master of Education degree in Curriculum and Instruction from Wichita State University in July, 1978; received Education Specialist degree in Educational Administration and Supervision from Wichita State University in December, 1983; completed requirements for the Doctor of Education degree at Oklahoma State University in May, 1985.
- Professional Experience: Instructional Assistant, Department of Modern Language, Friends University, August, 1973 to May, 1974; Instructor of English, Spanish, and German in Unified School District 206, Whitewater, Kansas, August, 1974 to May, 1980; Senior High School Principal, Unified School District 286, Sedan, Kansas, August, 1980, to July, 1985; concurrently Adjunct Instructor of German, Independence Community College, Independence, Kansas, August, 1983 to August, 1984; Superintendent-Elect, Unified School District 381, Spearville, Kansas, beginning July, 1985.