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ABSTRACT

Aspects of economic behavior of colleges and universities were examined empirically. Two groups of comparable, instruction-oriented institutions, one from the private sector and one from the public sector, were analyzed. Five issues were examined: resources dedicated to lower-division students, the economic impact of part-time students, the extent and nature of scale-related economies (diseconomies), the effect of management flexibility on resource allocation, and relative efficiency. Multivariate analysis was employed with data primarily from the Higher Education General Information Survey for fiscal year 1982. Findings include: the number of upper-division students is the most critical variable affecting economic behavior; undergraduate part-time students have an impact in the instructional area that is probably more than commensurate with the credit-hour demands they create at private colleges but less than commensurate at public institutions; and both types of colleges would likely experience a decrease in average expenditures per student if they could increase enrollments, provided that additional students were distributed by level in about the same way as they currently are. Appendices include information on variables used in the regression analysis and detailed results of regression analysis. (SW)

A Comparison of Expenditure Patterns in Four-Year Public and Private Colleges

by

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The economic behavior of higher education institutions has been a concern throughout this century. Particular issues and themes have taken their turns on center stage. During the late 1970s, for example, indicators of financial health received considerable attention. Currently, a number of issues are in the forefront. Questions about efficiency are being raised by funders because of heavy competition for discretionary resources. Many administrators are similarly concerned because they can no longer depend on enrollment growth to strengthen their institutions' financial situation. The rather dismal enrollment outlook for some parts of the country has also led to increased interest in scale-related economic issues, focused especially on the relative costliness of small institutions. Changes in the composition of enrollment have led to greater interest in the economic consequences of enrolling non-traditional students, many of whom enroll on a part-time basis. Institutional autonomy has long been an important issue in its own right, but recently attention has been given to the economic dimension of autonomy, on the assumption that institutions with different degrees of management flexibility may use resources differently. Another question that is just coming into prominence is whether colleges are putting adequate resources into the education of lower division students, an issue with possibly substantial economic implications.

The purpose of this paper is to enhance our empirical understanding of each of the above issues. The investigation will focus on the expenditure patterns of a sample of higher education institutions drawn from both the public and

private sectors. The contrast between behavior patterns in the two sectors is intended to help illuminate the issues in question.

Previous studies comparing the economic behavior of public and private institutions have taken two general forms. The first consists essentially of data listings accompanied by little if any analysis. These studies, which have occurred with some frequency, provide data on expenditures per student by function, or on the percentage distribution of expenditures by function (e.g., Cheit 1971; Pannell 1982; Carnegie 1972; Tuttle 1983; Millett 1955; Harris 1962, 1972; James 1978; O'Neill 1971; McCoy and Halstead 1979, 1983, 1984; White 1980). The second form consists of studies in which the comparison of public and private institutions is given an extensive analytical treatment. These studies are relatively few in number. Included among them are studies by Lanier and Anderson (1975), Smith and Henderson (1976), Columbia Research Associates (1971, 1972), Corrallo (1970), Dillon (1980), and Lewis (1980).

Several features of these previous studies make it difficult to easily summarize their results and relate them to the issues in the present study. Over the years, various institutional classification schemes have been used, with pertinent results differing materially by type of institution. The passage of time has also witnessed a gradual evolution in the accounting procedures that impact heavily on relevant data. The problem is more acute for administrative and other service areas, less so for instruction. Finally, students have been and continue to be, counted in a variety of ways. Thus the comparability of cost-per-student data is often difficult to establish.

Despite problems of comparability and interpretation, a few general conclusions can safely be made. The clearest differentiation in expenditure patterns between public and private institutions has to do with the distribution of

expenditures by function. Private institutions typically spend less of their overall budget for instruction. O'Neill's (1971) longitudinal data, which go back to 1929-30, indicate that the gap has widened over the century, to where the privates are now allocating 5 to 10 percentage points less of their resources to instruction. Correspondingly, in proportion to their overall budget public institutions devote fewer resources to administration. The difference appears to be substantial, probably on the order of about 15 percentage points. With respect to expenditures per student, the differences are apparently much smaller, although conclusions are necessarily tentative. Looking just at institutions whose primary mission is instruction, private institutions appear to spend just slightly more for educational and general purposes, and perhaps for instruction as well (see especially Carnegie 1972; James 1978; McCoy and Halstead 1984). Some authors have attributed both the distribution and expenditure-per-student differences to scale-related economies enjoyed by the public institutions (Corrallo 1970; Dillon 1980). It is useful to keep in mind, in interpreting these results, that the dispersion in expenditure figures within a group of public or private institutions will typically be much greater than the differences between the sectors at the mean or median (see especially Bowen 1980).

The Issues

Efficiency is a recurring issue in higher education. It becomes particularly important at times when prospects are dim for raising large, additional revenues. Having to make do with flat funding, or even with reduced resources, tends to focus management's attention on the efficient use of the resources that are available.

Concepts of efficiency are straightforward. Technical efficiency has to do with the relationship between inputs (physical resources consumed) and outputs (products and services produced). Price efficiecy ivolves outputs in relation to costs (usually expenditures). Although theoretically clear, these concepts can be difficult to use in practice. This is especially true in higher education, primarily because of the difficulty in quantifying output in suitable, widely acceptable ways. Enrollment is often used as a proxy for output, but large disparaties in expenditures per student among apparently similar institutions raise some question as to the validity of the measure. Even if one accepts students enrolled as an appropriate proxy for output, there is still the problem of finding the most appropriate way to count them. In the present study, alternative ways of counting students are explored, the hypothesis being that alternative weighting schemes will lead to rather different appraisals of relative efficiency.

The possibility that aspects of economic performance, particularly unit (output) costs, might be related to institutional scale, or size, has been investigated periodically in higher education since the 1930s. The topic is a lively one at the present time because of the prospect that some institutions may be getting considerably smaller over the next decade. Also, many states are reviewing their funding formulas. In searching for ways to achieve equity in funding among institutions, one of the reasons to use formulas in the first place, questions inevitably arise about the effects of scale on operating costs. When enrollment increases or declines, the proper response may be to add or withdraw funds (other things being equal) on a marginal, rather than an average cost, basis. If so, what margins are reasonable, that is, what proportion of average costs should be used in formulas based on cost? The data and relationships explored in this paper will provide an estimate for a

particular type of public institution. Estimates are provided for private institutions as well; they can use this kind of information for setting prices and estimating future resource needs.

A notable phenomenon in higher education over the past decade has been the ever-increasing number of part-time students. Much of the increase took place in two-year colleges. Now, as the serious shrinkage begins in the pool of traditional college-age students, it is possible that many more four-year institutions will turn increasingly to part-time students to maintain enrollment. What effect is this likely to have on unit expenditures that are calculated on a full-time-equivalent (FTE) basis? Previous research on two-year colleges indicates that large numbers of part-time students can be handled quite economically (Brinkman forthcoming). Apparently, institutions with large numbers of part-time students are able to provide the latter with services at relatively low cost in FTE terms. Institutions with relatively few part-time students apparently spend considerably more money for each part-time enrollee, at least at the margin. This suggests that the four-year institutions, which typically enroll fewer part-timers, may find that part-time students are less of a bargain than is true at the typical community college, and that there may be a substantial difference in the typical experience with part-timers at public versus private colleges.

The tremendous growth of public higher education during the post World War II years brought with it an increase in state-level coordination of higher education activities. The massive resources being poured into state colleges and universities called out for more accountability. States responded in a variety of ways. In a number of instances the degree of flexibility left to institutional administrators has been quite limited, in terms of reallocating

resources during a budget year, rolling forward unspent monies, and so on. Recently, some questions have been raised about the ultimate utility of restricting management's prerogatives in this manner (Mingle 1983). Volkwein (1984) has examined the issue empirically by investigating whether there is any correlation between the degree of management flexibility at public doctoral institutions and the way they allocate their resources. He found that in terms of overall efficiency, as indicated by expenditures per student for administration, there is no statistically significant correlation. He also argues, however, that institutions in highly regulated environments find it necessary to devote resources to coping with the regulation, resources which institutions in less regulated situations put to better use.

While aspects of Volkwein's approach to testing for the effects of management flexibility are incorporated in the present study, another way of addressing this question is also pursued. Although the degree of flexibility accorded to public institutions varies by state, it is reasonable to argue that on the whole they have less flexibility than do private institutions. Thus, comparing allocation patterns between public and private institutions may provide a perspective on the effects of flexibility.

In a recent report on the condition of higher education (Study Group on the Conditions of Excellence in American Higher Education 1984) concern was expressed about lower division education. The Study Group recommended that additional resources be directed toward serving first- and second-year undergraduates. The increased resources would presumably increase student involvement in those critical first years, and thereby induce more students to persist in college. The recommendation was based, it appears, on an understanding of the underlying production relationships that typically prevail

at the undergraduate level, such as large classes, the use of teaching assistants, and so on. There is also data indicating that average expenditures for upper division students are generally about 1.5 times that for lower division students (Bowen 1980). In addition, there is some data on respective marginal costs, which indicate that the difference in expenditures at the margin for lower versus upper division students might be considerably greater than it is for average expenditures (Brinkman 1981). In the analysis that follows, further evidence will be pursued as to the relative amount of resources currently being allocated to lower division education.

Sample Institutions and Preliminary Analysis

The U.S. population of higher education institutions is large and diverse. In considering the issues to be examined, it appeared that the best type of institutions to select for the study would be those whose emphasis is on undergraduate education. That emphasis is representative of the majority of all private four-year institutions, and of a substantial but smaller proportion of public four-year institutions.

Table 1 shows mean values for selected characteristics of the sample institutions. An effort was made to select fairly comparable institutions with respect to key, mission-related features such as enrollment and instructional programs. As the data show, average values for the two sample groups are indeed quite similar. The public institutions on average are somewhat larger, but there is little difference in the distribution of enrollment by status or by level of instruction, or in degrees awarded by level or by general field (academic versus professional).

The data in Table 1 show, in outline form at least, key dimensions of the role and scope of the sample institutions. This study is largely an examination of the ways in which resources are utilized in carrying out those missions. The first perspective is provided by the data on full-time faculty shown in Table 2. HEGIS, the national data base used for this study, provides information on full-time faculty only. Nonetheless, the data are revealing. The difference between the two sets of institutions with respect to the percent of faculty with the rank of professor is small; but when combined with a substantially higher tenure rate, it suggests a more mature faculty at the public institutions. One likely result is the higher average compensation provided by the publics. The difference in the two rates is nearly 14 percent, a significant amount, and one that needs to be kept in mind when considering other economic data about these institutions.

Since full-time-equivalent figures for faculty were not available, it was not possible to calculate definitive student-faculty ratios. The ratios shown in Table 2, which divide the number of full-time students by the number of full-time faculty, provide only a partial perspective on the true, underlying resource utilization patterns. On this limited basis, however, it would appear that public institutions are not using higher faculty utilization rates to recapture the economies they have given up in higher salaries, unless they are providing instructional services to part-time students in a manner that is different than at the private institutions. The available data are inadequate to address the latter possibility. However, judging by the comparison of institutional dollars devoted to full-time faculty compensation, it may well be the case. The ten percentage point difference must be due either to economies in dealing with part-time students at the public institutions, or else they simply surround their full-time faculty with far fewer support services than do

the private institutions. Some of the other cost data to be discussed below indicate that part-time students are less expensive to instruct at the public institutions.

Table 3 shows that public institutions are spending more of their resources for instruction than are the privates, using an adjusted educational and general expenditure figure as the base (see Table 3 footnote). The public institutions also spend proportionately more for academic support which includes, among other things, expenditures for academic computing, the dean's office, and the library (also shown separately). The two areas in which the privates are higher are institutional support (general administration) and student services. The need that privates have to mount substantial efforts in fund-raising and student recruiting are probable reasons for the relatively large allocation to those areas.

Expenditure distribution can also be looked at by taking one of the other expenditure categories as the base. Table 4 shows expenditures by function as a percent of instructional expenditures. Looking at the distribution in this way highlights the difference between the two sectors in the proportion of resources going to the central administration. In addition to the matter of administrative priorities, the differential may also be due in part to scale-related economies. The privates on average are about one-third smaller than the publics. Conceivably the former could grow without having to add proportionally to their outlays for administration. The higher proportion of resources going to student services in private institutions may also be partly a function of diseconomies of scale (Pequette 1974).

The data to this point lead to few conclusions with respect to the issues to be addressed. The private institutions would seem to be more efficient with respect to full-time faculty. They pay them less for what appears to be about the same amount of effort, although they spend more in the instructional area for items other than compensation for full-time faculty. At the same time, the privates are spending much more on average for administrative purposes. As noted earlier, some of the added expense can probably be explained but there is at least a hint in the data in Tables 3 and 4 that greater flexibility in resource allocation may lead to higher "overhead" costs. Finally, it is worth keeping in mind that the respective sector means in both tables are much closer to one another than are the minimum and maximum values within either sector, suggesting that the influence of sector membership on expenditure patterns may be relatively modest.

Explanatory Analysis

To pursue these and the other issues in the study, we turn now from simple descriptive statistics to a multivariate approach. An appropriate conceptual framework is available in applied microeconomics, where the economic behavior of an organization typically is examined by means of either a production function or a cost function analysis. The former, wherein outputs are a function of inputs, is difficult to construct in higher education. The data on inputs--faculty, administrative and other staff, equipment, and so on--are not readily available for large samples. (Production function approaches have nonetheless been used on occasion; for example, see Trueheart and Weathersby 1976). A cost function approach, wherein total costs are a function of output, is easier to develop in a higher education context, at least if one is willing to overlook the hard questions about output; in theory, it will lead to the

same conclusions as a production function (Varian 1978). Examples of cost functions in higher education can be found in Maynard (1971), Brovender (1974), Buckles (1978), and Tierney (1980).

Model. Specifically, a cost function can be represented as follows:

$$C = f(Q,P,X) \qquad (1)$$

where C is total cost (in the sense of expenditures), Q is output, P is the price of inputs, and X is a vector of other intervening variables, in addition to P, that might influence the relationship between C and Q. In modeling the economic situation in this manner, we can address directly issues such as economies of scale and the influence of management flexibility on costs. In addition, we may also be able to obtain a sense of how total costs are related to the number of lower division and part-time students. Whether we are in fact able to do so is not a function of the general model. That is, for some expenditure categories, we have every reason to believe that lower division or part-time students affect expenditures differently than do upper division or full-time students. Rather, the difficulty lies in the quantitative estimation of these effects. They may be too weak to measure with much accuracy or reliability.

In order to maintain some comparability across expenditure categories, and to keep the estimation task within practical limits, the strategy adopted was to develop one basic model, and then estimate that model with only slight modifications across the various expenditure categories in the two institutional sectors. Since teaching is the primary mission of the sample institutions, the basic model was developed with the intention of explaining the variance among institutions in instructional expenditures.

Enrollment was chosen as a proxy to represent the output of the instructional process. In its own right, enrollment is perhaps best understood as an activity measure; nonetheless, it is often used to represent output. The choice is appropriate both because of the absence of widely available and acceptable alternatives, and because the funding of most higher education institutions, public and private alike, is tied to enrollment one way or another. Of course, total enrollment at most institutions is a composite of enrollment at various levels, in various programs of study, and with students having either full- or part-time status. Thus some kind of disaggregation of total enrollment is needed. For present purposes, a breakdown by full-time lower division, full-time upper division, part-time undergraduate, and full-time-equivalent graduate, had to suffice. There were data and estimation problems that made further disaggregation difficult. In any event, output so stated permitted analysis of resources devoted to lower-division students and undergraduate part-time students, two of the issues in question.

The instructional cost function was further specified by the addition of average faculty compensation as the key price variable. In addition, dummy variables for urban versus rural location and for region of the country were used to provide for some degree of control over the prices of other inputs. An admission's selectivity index controlled for differences in "raw material." Data on degrees awarded in several fields (business, education, engineering, and health) served as control variables to lessen the extent of distortion due to differences in programmatic emphases. For educational and general (E&G) and plant operation and maintenance (O&M) expenditures, the percent of students living in on-campus housing was also included among the control variables. For private institutions, two additional variables were used: a dummy variable for religious affiliation versus independent status to control for possible

influences that could take the form of constraints on the one hand, or economies through contributed services (formal or informal) on the other; and the endowment market value to control for the influence of funds (the yield on the endowment) that are not dependent on students or on the success of annual fund drives. The size of the endowment should be positively related to expenditures, ceteris paribus. As Bowen (1980) has emphasized, institutions tend to use all of the resources at their disposal, and endowment earnings provide readily accessible resources. If indeed higher levels of endowment are associated with higher levels of spending, it may be the case that some constraints on management flexibility are necessary in order to achieve maximum efficiency--assuming, of course, that any changes in the quality of output are less than commensurate with the additional spending.

In the case of public institutions, flexibility refers to the extent to which management is free to allocate resources. An index ranking the states in terms of flexibility in this sense was recently developed by Volkwein (1984). He developed the index specifically for public doctoral institutions. Thus its utility for other four-year public institutions will be modest at best. Its use in the present model is based on the assumption that, on average, the public institutions in a particular state are more likely to be subjected to roughly the same sort of management constraints and regulatory environment than are institutions in different states.

The basic explanatory model being proposed, then, is as follows:

$$TC = f(FLDX, FUDX, GFTE, PUX, FAC, URBAN, REGION, PENGIN, PBUS, PHLTH, PED, SEL, HOUS, RELIG, ENDOW, FLEX) \quad (2)$$

with the variables defined as in Table A1. If we assume that the function takes the form

$$TC = a(FLDX)^b(FUDX)^c(GFTE)^d(PUX)^f e^{h_i X_i} + u \quad (3)$$

where X is a vector of the control variables shown in Equation 2, and u is an error term, then the estimating equation can be transformed to look like

$$\log TC = \log a + b \log FLDX + c \log FUDX + d \log GFTE + f \log PUX + h_i X_i + u \quad (4)$$

In this form, the equation can be estimated by ordinary least squares regression. It has two advantages in the present context. The coefficients b, c, d, and f are elasticities, whose sum is equivalent to the ratio of marginal to average costs. When the sum is less than one, marginal costs are less than average costs, indicating that economies of scale are present. That is, enrolling an additional student (or small number thereof) will result in lower average costs. The opposite would be true, of course, should marginal costs exceed average costs.

The relationship between total costs and the respective levels of instruction may be nonlinear. The second advantage of using a logarithmic transformation is that it permits a degree of non-linearity to be reflected in the estimated coefficients, should non-linearities be present in the data. The same capability could be achieved using higher order terms for the enrollment variables in their raw form. The collinearity thereby introduced would likely be troublesome given the modest sample sizes in this analysis.

As shown in Table 3, instructional expenditures account for about one-half of all expenditures directed toward the primary mission of the institutions in the

study. The other expenditure categories, such as institutional support, libraries, and student services, are also worth examining through the lens of the cost function. As noted earlier, in order to keep the analysis within practical bounds, the strategy adopted here was to use the same explanatory model, the one developed above for instructional expenditures, for each of the other expenditure categories shown in Table 3 and for the broadest category, adjusted educational and general expenditures, as well. Given this strategy, two outcomes are likely. First, the model (equation 4) will have the best fit with respect to instructional expenditures. Second, it may not be possible to estimate the marginal effects of enrollment for each expenditure category at the same level of disaggregation. For instance, it may be necessary to lump all undergraduates together and estimate their combined impact on expenditures of a particular kind rather than to distinguish between lower and upper division students. Despite these limitations, the approach should generate useful data about expenditure behavior in relation to enrollments and the set of control variables described above.

All data are from HEGIS for fiscal year 1982, except for the following variables: HOUS, from Matheson (1982); FLEX, from Volkwein (1984); and SEL, from Barron's (1978).

Results. The results will be presented in a series of tables dealing with distinct aspects of the economic behavior being analyzed. We look first at the marginal cost estimates, as shown in Table 5. (The complete results of each of the regression analyses are provided in Appendix B.) Table 5 shows several items of information for each expenditure category. The first item is the estimated marginal effect on total expenditures of one additional FTE student ignoring level of instruction. That is, the results of estimating the equation

$$\log TC = \log a + b \log TFTE + h_i X_i + u \quad (5)$$

are shown, where the algorithm

$$(b \times TC)/TFTE$$

transforms the elasticity b into a "marginal cost." Thus, for example, the marginal cost of an additional FTE student at public institutions for educational and general purposes is $2,816. This limited information form of the explanatory model provides a common denominator estimate of marginal costs to compare across the various expenditure categories. In addition, where it was possible, that is, where plausible results could be obtained, estimates of the effect on expenditures of one or more subcomponents of enrollment are also shown. As can be seen, the complete model (equation 4) worked only for instructional expenditures and for E&G expenditures at private institutions. This is not surprising, in that we would expect expenditures in the instructional area to be the most sensitive to various levels and types of enrollment.

The data in Table 5 indicate the following about the behavior of the sample institutions. The most important finding is that, for instructional expenditures, upper division students have a far greater impact on costs than do lower division students. Surprisingly, this is apparently true to a greater extent at private institutions than at public institutions. At the margin, private institutions are estimated to be spending about one-tenth as much for instructional purposes for a full-time lower division student as compared to a full-time upper division student; even a part-time undergraduate has a larger estimated effect on instructional costs.

Overall spending related to an additional lower division student, as represented by E&G expenditures, compares somewhat more favorably with the resources associated with upper division students. Obtaining stable and plausible estimates of the coefficients in question was difficult, however, as the choice of functional form had a considerable impact on the results. In particular, taking into account interactions among the levels of enrollment makes a very substantial difference with respect to relative costs. Lower division costs are the most volatile in this respect in percentage terms, increasing dramatically when interaction terms are in the model. This is true for both sectors and in about the same proportion. Even if the results from the interaction model are used, however, the differential marginal impact of upper division versus lower division students is still higher than one might have guessed using data on average costs. After reviewing numerous studies on average costs, Bowen (1980) concluded that the ratio was about 1.5 to 1, upper to lower division, for adjusted educational costs at all types of institutions. The data presented here suggest that, on a marginal basis, the ratio may be more on the order of 2 to 1 for baccalaureate-oriented institutions in the private sector, while being just slightly lower, 1.7 to 1, in the public sector.

Studies of average costs by level of instruction suggest that the ratio of expenditures per student when comparing first-year graduate students to lower division is probably about 2.1 to 1 (Bowen 1980). The marginal cost data shown in Table 5 is somewhat ambiguous. In instruction, because so little spending is associated with lower division students, the ratio of graduate to lower division unit expenditures is very high. It is much lower for E&G expenditures, but it varies somewhat by sector and with respect to the form of the estimating equation. Interestingly, whatever the form and in both sectors,

the estimated marginal cost of an upper division student is consistently higher than that of a graduate student. Given the concentration of these institutions on graduate programs in education and business, this result would seem to be plausible.

For the other expenditure functions in Table 5, it may be inferred that the distinction between upper and lower division students is much less important than for E&G and instructional expenditures. The inference is based on the inability of the estimating routine to produce plausible estimates for lower division coefficients, plausibility being defined in terms of t-scores, signs, and the magnitude of the coefficients in relation to other estimates in the overall analysis.

It is also apparent that, as expected, the explanatory model works best for instructional and E&G expenditures. As the R^2 values indicate, the model works least well for student services. Possibly, this is due in part to variations in services offered from one institution to another, to reporting problems, and to the absence in the model of good data on input prices. (These issues and others related to an economic analysis of student services are addressed at length in Pequette 1974 .) Another interesting aspect of the distribution of R^2 values is the similar behavior of the model with respect to the two sectors. Other than for institutional support, the model does about equally well for publics and privates in predicting expenditures by category. As noted earlier, institutional support is the one area in which it is clear that the two types of institutions typically have different priorities, with fund-raising being a prime example. Otherwise, it would seem that sector does not make much difference in the way institutions operate--at least with respect to the

dimensions captured in the model--although they do spend substantially different amounts, at the margin, for some functions.

Table 6 shows the ratios of marginal to average costs derived from the regression analysis. The values shown are composite. They indicate that, with one exception (academic support at private institutions), the institutions would lower their average costs by adding a student, viewing all students equally. Of course, the data in Table 5 shows that different types of students have different impacts on at least some expenditure categories. So the most appropriate way of interpreting the data in Table 6 is that they show the impact of adding a small number of students where the proportion of students added (by level and status) is similar to the proportion already enrolled, that is, at the mean for the sample institutions. In that sense, then, the results indicate that for both sectors marginal costs are closest to average costs in the instructional area. Put another way, opportunities for economies of scale are greater in areas other than instruction (again excepting academic support at private institutions). This result conforms to those in previous studies of scale-related economies, where a variety of alternative procedures have been used (for example, Jenny and Wynn 1970; Carnegie 1971; Dukiet 1974; Mullen 1981; Dickmeyer and Cirino 1982). Also, intuitively, one would expect an area such as institutional support (general administration) to provide relatively large opportunities for economies of scale. Overall, the E&G figures suggest that both types of institutions would likely experience lower average costs per student if they were to increase in size (assuming, again, a proportional increase by type of student). Interestingly, when the proportion of E&G expenditures devoted to administration (PADME) was regressed on the basic explanatory model (Tables B30 and B31), the proportion was significantly and inversely related to total enrollment at public institutions but not at the

privates. For the latter institutions, the sign on enrollment was also negative, but the coefficient was not statistically significant.

The question of whether the degree of management flexibility makes any difference with respect to cost behavior is addressed in two ways in this study: one, by comparing the overall performance of public versus private institutions; and, two, by the use of variables related to flexibility in the regression analysis. Table 7 shows a portion of the results using the second approach. Looking first at the public institutions, we see that the variable FLEX is statistically significant ($p < .01$) only for instructional expenditures. In as much as our expectations for this variable were not high to begin with, the fact that it contributed to the model at all is of some interest. The inverse relationship estimated by the model means that the more flexibility that a state allows its public institutions the less money they spend for instruction, ceteris paribus.

In the study for which the flexibility index was developed, Volkwein (1984) examined, among other things, the connection between flexibility and administrative costs per student, and between flexibility and administrative costs as a percent of the total budget. In his model the impact of flexibility was not statistically significant in either respect, but was positively signed. As Table 7 shows, this same result occurred in the present study when total administrative expenditures (institutional support) were regressed on a rather different explanatory model. Similarly, when the proportion of E&G expenditures devoted to administration was regressed on the basic explanatory model, FLEX was once again positive in sign but not statistically significant (Table B30).

As Table 7 indicates, FLEX is inversely related to both instructional expenditures and E&G expenditures. Thus, it may be that the inverse relationship with instruction is primarily the result of institutions in high flexibility states having less money to work with generally, rather than something having to do with instruction per se. To test that possibility, the proportion of expenditures for instruction was regressed on the explanatory model with E&G expenditures held constant (Table B32). The result was a statistically significant ($p < .05$) negative coefficient on FLEX. It provides modest confirmation of the earlier result, that public institutions with more flexibility in handling monetary resources apparently spend less on instruction, ceteris paribus.

For the private institutions, the flexibility afforded by an unfettered, easy to plan for source of revenue, the endowment, was associated with statistically significant increases in four expenditure categories. This result is in keeping with Bowen's (1980) general finding that more affluent institutions generally have higher expenditures. The data in Table 7 also seem to suggest, as Bowen's did, that more affluent institutions spend proportionately more on non-instructional expenditures. However, when more direct evidence was sought by regressing PADME on the explanatory model, the amount of the endowment had no statistically significant effect (Table B29). Apparently, then, the flexibility afforded by a relatively large endowment does not lead to a reallocation of resources when compared to average behavior in the sample.

For the other control variables in Table 7, some results of interest include the following. Faculty compensation has more explanatory power, generally speaking, for expenditures at public institutions than at the privates. This may be the result of greater standardization of salary scales across

expenditure categories in the public institutions. The data do seem to suggest that in the private institutions personnel compensation in the student services and academic support areas are definitely not pegged to what the faculty receive. The admissions selectivity index was not an influential variable, especially for public institutions. A higher level of selectivity at private institutions was associated with higher expenditures for the library but less for student services, a plausible finding. By contrast, regional differences had more of an effect on expenditures at the public institutions than at the privates. In general, it appears that public institutions in the northeast region spend less for everything except operating the plant--a tribute perhaps to the nature of their winters. The program emphasis variables contributed relatively little to the explanatory power of the model, except for programs in health at the private institutions. They did have a statistically significant impact, however, when the proportion of expenditures going to instruction (PINSE) was the dependent variable (see Table B32).

If we can assume, at least for the sake of discussion, that qualitative and intangible outcomes are about the same at the public and private institutions in the sample, then the question of relative price efficiency between the two sectors may be addressed in terms of expenditures per student. Table 8 contains data pertinent to this issue. As noted at the outset, much depends presumably on how students are counted, and which type of expenditures are analyzed. In Table 8, several alternative ways of counting students are used to generate alternative measures of average expenditures for instructional and for educational and general purposes. The resulting student-unit artifacts are even less related to actual students than the conventional full-time-equivalent concept. Yet, a weighting scheme of this sort is needed if we are to represent

fairly (albeit crudely) an institution's output, and thereby have an opportunity to compare relative efficiencies.

The data in Table 8 indicate that for adjusted E&G expenditures, it is slightly more expensive at private institutions in three of the four weighting schemes used. By contrast, the private institutions spend less per student for instruction irrespective of the weights employed. In all likelihood, this combined situation is the result of much lower (14 percent) average compensation for faculty at the private institutions combined with their higher level of expenditures for administrative and (some) support services.

For comparative purposes, Table 8 also contains marginal cost data. The data shown are weighted averages derived from the cost figures provided in Table 5 in conjunction with the corresponding enrollment data in Table A1. In terms of E&G expenditures, the results indicate that it would be less expensive to educate the next student at a public than at a private institution. Focusing just on instructional expenditures, the advantage, in marginal terms, lies with the private institutions. Of course, in either case, much would depend on the type of student (level and status).

Discussion

This study set out to examine empirically a number of aspects of the economic behavior of higher education institutions. To that end, two groups of roughly comparable, instruction-oriented institutions, one from the private sector and one from the public sector, were analyzed. Differences between the two groups, while interesting in their own right, were not the sole focus of the study. Rather, the intent was to use the comparison between them to provide a richer context for the analysis.

Five issues were examined: resources dedicated to lower division students, the economic impact of part-time students, the extent and nature of scale-related economies (diseconomies), the effect of management flexibility on resource allocation, and relative efficiency. Results can be summarized as follows.

It is apparent that for the institutions analyzed the number of upper division students is the most critical variable affecting economic behavior. This is most obvious for instructional expenditures per se, but, to a lesser extent, it is true for educational and general expenditures too. Lower division students, by contrast, attract an extremely modest amount of resources for instructional purposes. Taking an average between the publics and privates, it appears that instructional expenditures for an additional lower division student are only about one-sixth that expended for an upper division student. For educational and general expenditures, the difference is much less than that, depending on the form of the estimating equation. Still, the findings with respect to instructional expenditures would seem to underscore the concern about the current approach to undergraduate education. Assuming the estimates are providing a reasonably accurate picture of resource allocation, it is hard to resist the conclusion that lower division students are being treated in a second-class fashion. The estimates in question are all the more interesting because they represent the behavior of relatively small, instruction-oriented institutions. Similar results for large research-oriented universities have been found (Brinkman 1981), but they are less surprising in view of the mission and the production possibilities (for example, the availability of teaching assistants) at these institutions.

For part-time students to have much impact on the revenue side, an institution must enroll large numbers of them. The question addressed in this study was

allow for a plausible estimate (the coefficients in a variety of models were negative and statistically insignificant). These results suggest that the number of part-time students has relatively little additional impact on overall expenditures, beyond its impact on instructional expenditures. The library, the physical plant, and the bulk of all services and functions other than instruction apparently are geared to full-time students. From the perspective of expenditure patterns, then, it would seem as though a strategy of enrolling large numbers of part-time students is economically viable. Granted the assumptions and estimation difficulties surrounding this issue, however, the findings should be taken as suggestive only.

Evidence for scale-related economies was plentiful, and it conformed rather well with previous findings. Both types of institutions would likely experience a decrease in average expenditures per student if they were to increase their enrollments, provided that the additional students were distributed by level in about the same way as they currently are. The reverse holds true for an enrollment decline.

The size of the change in average E&G expenditures per student that would accompany a change in enrollment can be estimated as follows. For public institutions, for example, the ratio of marginal to average costs was estimated to be .68. Average E&G expenditures per FTE student for these institutions is $4009 (mean total E&G expenditures, $12,403,356, divided by mean total FTE enrollment, 3094). If enrollment increased by 10 percent, or 309 students, total expenditures would increase by .68 times $4009 times 309, or $842,371. Then new total expenditures ($12,403,356 plus $842,371) divided by new enrollment (3094 plus 309) yields a new average expenditure of $3892, a decline of 2.9 percent from the previous figure. The corresponding decline in

whether expenditures associated with part-time students were more, or less, commensurate than the credit-hour demands those students place on an institution. If less, then an institutional strategy that entails enrolling large numbers of part-time students would make good sense in terms of the likely net economic impact. What has been learned in this study suggests that undergraduate part-time students have an impact in the instructional area that is probably more than commensurate with the credit-hour demands they create at private institutions but less than commensurate at public institutions. If we assume that a typical undergraduate part-time student takes one-third as many credits as the typical full-time student does, then the relevant arithmetic is as follows (using data from Table 5). In the private institutions, instructional expenditure associated with an additional part-time student is estimated to be about $700. The average expenditure for an additional full-time undergraduate is estimated to be $1745 (that is, $320 for a lower division student plus $3170 for an upper division student, divided by 2). That average is substantially less than the $2100 in expenditures needed for three part-time students. Just the reverse appears to be the case at public institutions. At the margin, instructional expenditures for three part-time students are estimated at $1410 compared to $1960 for the average full-time student. It is probably fair to assume that a greater proportion of part-time students enroll at the upper division level in private institutions than in public institutions, thereby accounting for a portion of the difference in economic impact.

Private institutions apparently do much better with part-time undergraduate students when E&G expenditures are considered instead. And the publics may be doing better still, or at least that is one way of interpreting the fact that the marginal impact of part-time students was apparently not sufficient to

percentage terms at private institutions would be slightly less, given that their marginal to average cost ratio was slightly higher. The above figures are based on the assumption that the distribution of students by level and by program is constant.

In theory, one can simply change a few signs in the arithmetic to produce an estimate of how average expenditures would be expected to increase in the event of a decline in enrollment. Of course, given what we know of structural rigidities in higher education (for example, tenured faculty), average expenditures would likely go up much faster in response to an enrollment decline. In addition, to the extent that an enrollment decline would be a function of a decrease in the pool of high school graduates, the decline would likely start at the lower division level. The net effect would be to increase the proportion of enrollment at the upper division level, thereby further driving up average expenditures, other things being equal.

The effect of management flexibility on economic behavior proved to be an elusive target. The findings of the study provide hints and suggestions rather than definitive results. It is clear, for instance, that private institutions allocate their resources differently than do the public institutions (Tables 3 and 4). Officials at the former institutions have more flexibility, which may somehow be instrumental in bringing about the difference. But they also have a somewhat different set of priorities, by virtue of their being private, which might explain some or all of the difference in their allocation pattern compared to the public institutions. Their smaller size, on average, might also contribute to their relatively high administrative costs, although no direct evidence for this possibility was found.

When the effects of flexibility within the two sectors were examined by means of a regession analysis, the results were again largely suggestive. Public institutions with greater flexibility apparently spend less money for instruction than do publics with less flexibility. It is not clear why this should happen. One possibility, of course, is that FLEX is acting as a proxy for some other variable not included in the model. No connection could be found between the proportion of resources devoted to administration and the flexibility afforded public institutions. It is clear that private institutions with relatively large amounts of endowment use this type of "flexibility" to increase expenditures generally. They do not, however, increase the proportion of resources allocated to administration, nor, unlike the publics, do they shift resources away from instruction.

The failure to find strong evidence of the effects of management flexibility on economic behavior cannot, of course, be taken to mean that there are none. Better, more disaggregated data on expenditure categories, along with better measures of flexibility itself, would be needed before a definitive analysis could be performed.

The last issue to be examined was that of relative efficiency, or more precisely, relative price efficiency. The data themselves provide several answers. In terms of adjusted educational and general expenditures per student unit, public institutions seem to have just slightly lower average costs as well as lower marginal costs. In terms of instructional expenditures, private institutions appear to be the more price efficient, both in average and marginal terms. Importantly, these results stand up reasonably well under a variety of weighting schemes that adjust the total number of student units to reflect the number of actual students at each of several levels of instruction.

How one interprets these results depends on whether the student units are considered to be equal in quality. Some economists argue that since students at private institutions are willing to pay higher tuitions, the quality of education must be higher (Olsen 1982). To the extent to which that argument is true, the privates may actually be more efficient even with respect to adjusted E&G expenditures. The argument is not without its questionable assumptions, however, such as whether students have sufficient knowledge regarding their investment and consumption options. Furthermore, the private institutions in the sample are, on average, only modestly selective. They undoubtedly depend heavily on student aid to maintain enrollments. The extent of the net price difference between the two sectors is thus not immediately obvious. The analysis, then, does not lead to a definite conclusion. It does suggest perhaps that the difference in efficiency between the sectors is likely to be modest.

Table 1. Mean Values for Sample Institutions, Descriptive Statistics on Role and Scope, 1981-82

Characteristics	Public Institutions (N=80)	Private Institutions (N=80)
Students	Mean	Mean
Number Full-time (FT)	2678	1833
Number Part-time (PT)	1249	850
Total Headcount (HC)	3927	2700
Total Full-time Equivalent (FT + PT/3)	3094	2116
Percent Part-time of HC	31.8	31.5
Percent Uper Div. of FT	38.4	42.6
Percent Graduate of HC	13.3	11.7
Degrees and Programs		
Number BA Degrees Awarded	476	412
Number MA Degrees Awarded	105	77
Percent BA Degrees	82	84
Percent Degrees in Academic Fields	34	38
Percent Degrees in Professional Fields	66	62
Number BA Programs	28	28
Number MA Programs	8	5

Table 2. Mean Values for Sample Institutions, Descriptive Statistics on Full-Time Faculty, 1981-82

	Public Institutions (N=80)	Private Institutions (N=80)
Number of Full-Time (FT) Faculty	156	100
Number with Rank of Professor	44	25
Percent Professor	28	25
Number Tenured	107	55
Percent Tenured	69	55
FT Students/FT Faculty	17.2	18.3
Average Compensation	$28,834	$25,368
Proportion of Instruction Expenditures devoted to FT Faculty Compensation	75%	65%

Table 3. Distribution of Expenditures* 1981-82

Expenditure Category	Public Institutions (N=80) Min	Mean	Max	Private Institutions (N=80) Min	Mean	Max
Instruction	25.2	49.9	72.9	25.9	45.9	64.1
Library	2.8	5.0	8.4	2.0	4.1	7.5
Academic Support (AS)	3.4	10.3	16.2	2.4	7.9	23.3
Institutional Support (IS)	3.5	14.5	26.2	8.1	21.0	39.5
Student Services	2.9	9.0	25.6	0.4	11.3	27.7
O&M	7.1	16.2	28.9	4.7	13.9	33.5

* Note: Percentages are calculated on the basis of an adjusted Educational & General (E&G) figure: Adj. E&G = E&G - (Scholarships + Mandatory Transfers + Research + Public Service)

Table 4. Selected Categories of Expenditures as a Percent of Instructional Expenditures, 1981-82

Expenditure Category	Public Institutions (N=76)* Min	Mean	Max	Private Institutions (N=76)* Min	Mean	Max
Library	6	10	15	5	9	14
Academic Support	7	21	33	6	17	39
Institutional Support	12	30	57	26	47	81
Student Services	7	18	40	8	25	52
O&M	18	33	52	17	30	53

* The two extreme values on either end of the distributions were removed, leaving a total of 76 cases in each expenditure category.

Table 5. Marginal Costs by Level of Instruction and Student Status for Selected Expenditure Categories, 1981-82

Expenditure Category	Public Institutions		Private Institutions	
Educational and General (1)				
A. Total FTE Enrollment		$2816		$3131
B. Disaggregated (2)				
FT Lower Division	$2500		$2650	
FT Upper Division	4180		5100	
FTE Graduates	3390		3440	
R2		.75	.84	.84
C. Disaggregated (3)				
FT Lower Division	1397		1392	
FT Upper Division	4920		5171	
FTE Graduates	4135		2791	
PT Undergraduates	--		865	
R2	.80		.90	
Instruction				
A. Total FTE Enrollment		1577		1359
B. Disaggregated (4)				
FT Lower Division	780		320	
FT Upper Division	3140		3170	
PT Undergraduate	470		700	
FTE Graduate	2520		2000	
R2	.78	.77	.84	.84

(1) Adjusted (see Table 3)

(2) Log-log form, with interactions

(3) Raw data form, no interactions

(4) Average results across several estimating equations

R2 values have been adjusted for degrees of freedom

Table 5 (Continued)

Expenditure Category	Public Institutions		Private Institutions	
Library				
A. Total FTE Enrollment		$128		$113
B. Disaggregated				
FTE Undergraduate	$115			
FTE Graduate	334			
R2	.48	.48		.55
Academic Support				
A. Total FTE Enrollment		297		301
B. Disaggregated				
FTE Undergraduate	219			
FTE Graduate	1334			
R2	.43	.40		.44
Student Services				
A. Total FTE Enrollment		152		354
R2		.29		.31
Institutional Support				
A. Total FTE Enrollment		191		619
B. Disaggregated				
FTE Undergraduate	184		575	
FTE Graduate	307		1019	
R2	.40	.41	.51	.52
Plant Operation and Maintenance				
A. Total FTE Enrollment		359		266
B. Disaggregated				
FTE Undergraduate	397		291	
FTE Graduate	534		543	
R2	.56	.50	.56	.56

R2 values have been adjusted for degrees of freedom

Table 6. Ratio of Marginal to Average Cost for Selected Expenditure Categories

Expenditure Category	Public Institutions	Private Institutions
Educational and General*	.68	.72
Instruction	.81	.81
Library	.66	.68
Academic Support	.63	1.02
Institutional Support	.48	.67
Student Services	.45	.83
Plant Operation and Maintenance	.62	.51

* Adjusted (see Table 3)

Table 7. T-scores* for Selected Control Variables in Regression Analysis**

A. Public Institutions

Expenditure Category	Variables FAC	FLEX	SEL	PHLTH	PENGIN	PBUS	PED	SE	GL	WSW	URBAN
E&G***	7.2	-1.2	-	-1.3	+	+	+	+	2.3	+	1.6
Instruction	6.1	-2.0	+	1.2	+	-	1.1	2.3	2.0	2.0	+
Institutional Support	5.2	+	-	-1.7	-	+	+	+	+	-2.7	1.3
Academic Support	3.6	+	+	-1.1	-1.0	+	-	1.7	2.2	+	+
Library	4.4	-1.0	-	-	-1.4	-	-	2.0	1.5	1.1	+
Student Services	2.5	-1.3	+	-1.0	-	+	+	-	2.0	-	1.3
Plant O&M	4.1	+	-1.1	-	-	+	-	-1.6	+	-1.5	+

B. Private Institutions

Category	FAC	ENDOW	SEL	PHLTH	PENGIN	PBUS	PED	SE	GL	WSW	RELIG
E&G***	2.5	3.1	-	2.2	1.0	+	+	-1.7	-	-	-2.3
Instruction	4.7	2.9	1.0	2.7	1.8	+	1.2	+	+	1.2	-1.1
Institutional Support	+	1.4	-1.7	1.0	-	+	+	-	-1.4	-	-1.5
Academic Support	-2.1	1.4	1.6	-	+	+	+	-1.3	-1.8	-	-
Library	-	2.4	3.0	-	+	+	+	-	-1.7	-1.1	+
Student Services	-	-	-1.8	+	+	+	-1.7	-	-2.0	-1.1	+
Plant O&M	2.4	2.4	-	2.8	-	+	-	-1.3	-1.7	-3.0	-

* Values for t-scores $\geq$ 1.00.
** In estimating equations where total FTE enrollment (TFTE) was the output variable.
*** ... justed (see Table 3).

Table 8. Average Expenditures Per Student Unit Based on Alternative Weighting Schemes, 1981-82

Expenditure Category	Public Institutions	Private Institutions	Private/ Public
Educational and General*			
Average Expenditures			
A	$4123	$4250	1.03
B	3246	3324	1.02
C	3430	3525	1.03
D	2066	2051	.99
Marginal Expenditures			
E	2351	2808	1.19
F	2336	2490	1.06
Instruction			
Average Expenditures			
A	2035	1944	.96
B	1601	1518	.95
G	633	574	.91
Marginal Expenditures			
H	1472	1366	.93

* Adjusted (see Table 3)

NOTE: A = all FT students (1.0), all PT students (.33)
B = FTE lower division (1.0), FTE upper division (1.5), FTE graduate (2.1)
C = FT lower division (1.0), FT upper division (1.80), Graduate FTE (1.33), PTUG (-.11)
D = FT lower division (1.0), FT upper division (3.62), Graduate FTE (2.50), PTUG (.48)
E = weighted average (from Table 5 model B)
F = weighted average (from Table 5, model C, with public PT undergraduates assigned marginal cost value of $470)
G = FT lower division (1.0), FT upper division (6.44), Graduate FTE (4.64), PTUG (1.08)
H = weighted average (from Table 5)

where B is considered to be the overall industry norm (Bowen 1980), C and F are derived from the marginal costs in Table 5, and D and G are weighted averages derived from Table 5.

Appendix A

Variables Used in Regression Analysis: Definitions, Mean Values, and Sources

Table A1. Variables Used in Regression Analysis

Dependent Variables		Mean Values Public	Private
(expenditures)			
AEG	adjusted educational & general	12.40m	8.84m
INS	instructional	6.19m	4.11m
ADM	institutional support	1.80m	1.83m
LIB	library	.62m	.36m
AS	academic support	1.31m	.71m
SS	student services	1.10m	.96m
DM	operation & maint. of plant	2.01m	1.22m
(proportionate expenditures)			
PADME	ADM/AEG	.15	.21
PADMI	ADM/INS	.30	.47
PINSE	INS/AEG	.50	.46

Independent Variables (output)			
TFTE	total full-time equivalent students	3094	2516
FLDX	full-time lower division students	1598	1019
FUDX	full-time upper division students	1003	760
GFTE	graduate FTE students	226	141
PUX	part-time undergraduates	802	591
PFLD	FLDX/TFTE	.52	.41
PFUD	FUDX/TFTE	.32	.30
PGFTE	GFTE/TFTE	.07	.06
PPUG	PUX/TFTE	.26	.23
LU	FTLDX x FTUDX	1602794	774440
LG	FTLDX x GFTE	361148	143679
UG	FTUDX x GFTE	226678	107160
LP	FTLDX x PUX	1281596	602229
UP	FTUDX x PUX	804406	449160
LDFTE	lower division FTE students	1732	1118
UDFTE	upper division FTE students	1137	859
IUG	LDFTE x UDFTE	1969284	960362
UFTE	undergraduate FTE students	2868	1976

(Note: Natural log transformations were used for many of the above variables; in such instances, the variable name is preceded by the letter L, as in LAEG, LLIB, LTFTE, and so on.)

Table A1. Variables Used in Regression Analysis (Continued)

Independent Variables (controls)		Mean Values Public	Private
FAC	average faculty compensation	$28834	$25318
URBAN	urban location (1=yes, 0=no)	.58	.89
GL	great lakes & plains (1=yes, 0=no)	.20	.28
SE	southeast (1=yes, 0=no)	.35	.21
WSW	west & southwest (1=yes, 0=no)	.21	.19
PBUS	percent business degrees	23.62	31.78
PED	percent education degrees	28.23	13.93
PENGIN	percent engineering degrees	1.05	.45
PHLTH	percent health degrees	3.62	6.85
SEL	Barron's selectivity rating	1.40	1.85
FLEX	state flexibility index	40.81	--
RELIG	religious affiliation (1=yes, 0=no)	--	.68
ENDOW*	end year endowment market value	--	6.1m
HOUS	percent students living on campus	44.45	66.46

* ENDOW listed as C789 in regression output.

Appendix B

Detailed Results of Regression Analysis

Table B1

Public Institutions

DEPENDENT VARIABLE.. LAEG

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	-.45710E-03	.00126	-.03312	-.363	.7182
GL	.21483	.08096	.21758	2.654	.0103
PENGIN	.00602	.00871	.04200	.691	.4923
LGFTE	.54492	.28638	2.89864	1.903	.0621
SEL	-.03026	.05232	-.04444	-.578	.5653
LFLDX	.99226	1.39676	.98621	.710	.4804
PHLTH	-.00635	.00592	-.06846	-1.073	.2879
FLEX	-.00307	.00253	-.08412	-1.213	.2302
FAC	.04918	.00799	.46611	6.159	.0000
PBUS	.00104	.00322	.02601	.322	.7486
URBAN	.12395	.05987	.15405	2.070	.0430
SE	.07234	.07397	.08646	.978	.3322
WSW	-.02274	.08667	-.02355	-.262	.7939
LPUX	1.42074	.82460	2.52489	1.723	.0903
PED	.00232	.00281	.08098	.826	.4120
LFUDX	-1.22813	1.67893	-1.20616	-.731	.4675
NLLG	-.16907	.05882	-6.69183	-2.874	.0057
LPU	-.02761	.14673	-.42149	-.188	.8514
NLUG	.10463	.06043	3.96984	1.731	.0888
LLU	.17523	.17940	2.26627	.977	.3328
LPL	-.17251	.15984	-2.71221	-1.079	.2850
(CONSTANT)	7.26381	9.41345		.772	.4435

FOR BLOCK NUMBER 1 ALL REQUESTED VARIABLES ENTERED.

MULTIPLE R	.91234
R SQUARE	.83237
ADJUSTED R SQUARE	.77061
STANDARD ERROR	.19127

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	21	10.35386
RESIDUAL	57	2.08520

F = 13.47753 SIGNIF F = .0000

Table B2

Private Institutions

DEPENDENT VARIABLE.. LAEG

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	.27939E-03	.00110	.01569	.255	.7998
WSW	-.04049	.06404	-.03974	-.632	.5297
FAC	.01960	.00884	.15459	2.218	.0306
PENGIN	.00873	.01755	.03074	.497	.6208
RELIG	-.13659	.04675	-.16087	-2.922	.0050
C789	.99248E-08	.3037E-08	.17612	3.268	.0018
PBUS	.00147	.00144	.06195	1.021	.3116
GL	-.04780	.05665	-.05367	-.844	.4023
URBAN	.02171	.07442	.01725	.292	.7715
SEL	-.02858	.04961	-.03428	-.576	.5668
PHLTH	.00479	.00261	.10525	1.834	.0718
LFLDX	1.26033	.95655	1.30265	1.318	.1929
LGFTE	.20311	.21852	1.18224	.952	.3449
LPUX	.14012	.58194	.29281	.241	.8106
PED	-.00125	.00273	-.03243	-.459	.6483
SE	-.11606	.06753	-.11939	-1.719	.0911
LFUDX	-.41812	.79960	-.44471	-.523	.6031
NLUG	-.02247	.04567	-.87541	-.492	.6245
LPU	.14649	.10200	2.50340	1.436	.1564
LLU	.00657	.09972	.08730	.066	.9477
LPL	-.16072	.11560	-2.79801	-1.390	.1698
NLLG	-.00663	.05017	-.26691	-.132	.8953
(CONSTANT)	9.21832	4.97063		1.855	.0688

MULTIPLE R	.94031	ANALYSIS OF VARIANCE		
R SQUARE	.88418		DF	SUM OF SQUARE
ADJUSTED R SQUARE	.83948	REGRESSION	22	11.186
STANDARD ERROR	.16034	RESIDUAL	57	1.465
		F = 19.77901	SIGNIF F =	.000

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Table B3

Public Institutions

DEPENDENT VARIABLE.. LAEG

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	-.28130E-03	.00122	-.02054	-.230	.8186
SEL	-.05192	.04931	-.07780	-1.053	.2966
SE	.02976	.06858	.03640	.434	.6659
PENGIN	.44474E-03	.00820	.00319	.054	.9569
LFLDX	.17945	.10164	.18319	1.766	.0825
FLEX	-.00212	.00241	-.05962	-.878	.3836
PHLTH	-.00783	.00562	-.08658	-1.393	.1688
LGFTE	.02469	.01384	.13445	1.784	.0794
GL	.11405	.07867	.11578	1.450	.1524
URBAN	.08224	.05767	.10389	1.426	.1590
PBUS	.00238	.00317	.06117	.752	.4551
FAC	.05711	.00771	.55437	7.412	.0000
WSW	-.03350	.08579	-.03775	-.414	.6805
LPUX	-.03536	.05070	-.06343	-.697	.4882
PED	-.31445E-03	.00266	-.01124	-.118	.9064
LFUDX	.47562	.10930	.47896	4.352	.0001
(CONSTANT)	10.23850	.55528		18.438	.0000

MULTIPLE R	.90515
R SQUARE	.81930
ADJUSTED R SQUARE	.77111
STANDARD ERROR	.18787

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	16	9.60097
RESIDUAL	60	2.11760

F = 17.00209 SIGNIF F = .0000

Table B4

Private Institutions

DEPENDENT VARIABLE.. LAEG

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	.66282E-03	.00104	.03723	.639	.5253
WSW	-.02866	.06190	-.02813	-.463	.6449
FAC	.01796	.00842	.14163	2.133	.0369
PENGIN	.02127	.01507	.07487	1.411	.1632
RELIG	-.13526	.04485	-.15931	-3.016	.0037
C789	.90317E-08	.2942E-08	.16027	3.070	.0032
PBUS	.00143	.00135	.06002	1.056	.2951
GL	-.02753	.05289	-.03091	-.521	.6045
URBAN	.03628	.06609	.02882	.549	.5850
SEL	-.01536	.04692	-.01842	-.327	.7446
PHLTH	.00463	.00245	.10182	1.893	.0631
LFLDX	.27874	.07806	.28810	3.571	.0007
LGFTE	.01731	.01027	.09835	1.685	.0969
LFUX	.01188	.02989	.02482	.397	.6924
PED	.70416E-04	.00247	.00183	.028	.9774
SE	-.09459	.06318	-.09730	-1.497	.1394
LFUDX	.41608	.08136	.44254	5.114	.0000
(CONSTANT)	10.62761	.38941		27.291	.0000

MULTIPLE R	.93677
R SQUARE	.87754
ADJUSTED R SQUARE	.84396
STANDARD ERROR	.15808

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	17	11.10254
RESIDUAL	62	1.54941

F = 26.13365 SIGNIF F = .0000

46

Table B5

Public Institutions

DEPENDENT VARIABLE.. LAEG

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	.00109	.9984E-03	.07923	1.095	.2774
GL	.17737	.07865	.17964	2.255	.0275
PENGIN	.00155	.00874	.01081	.177	.8600
LTFTE	.71693	.06823	.65913	10.507	.0000
SEL	-.04026	.04897	-.05914	-.822	.4140
WSW	.01685	.07833	.01745	.215	.8303
PHLTH	-.00758	.00585	-.08168	-1.296	.1995
PBUS	.00149	.00329	.03728	.452	.6525
FLEX	-.00284	.00240	-.07793	-1.187	.2397
FAC	.05611	.00781	.53179	7.188	.0000
URBAN	.09687	.05993	.12040	1.616	.1109
SE	.06589	.07160	.07876	.920	.3608
PED	.00255	.00274	.08912	.932	.3550
(CONSTANT)	8.83740	.59840		14.768	.0000

MULTIPLE R	.88765
R SQUARE	.78792
ADJUSTED R SQUARE	.74550
STANDARD ERROR	.20146

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	13	9.80093
RESIDUAL	65	2.63813

F = 18.57552 SIGNIF F = .0000

Table B6

Private Institutions

DEPENDENT VARIABLE.. LAEG

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	.00162	.9520E-03	.09078	1.698	.0943
WSW	-.05943	.05994	-.05833	-.992	.3251
FAC	.02092	.00841	.16499	2.488	.0154
PENGIN	.01519	.01479	.05347	1.027	.3084
RELIG	-.10035	.04297	-.11818	-2.335	.0226
C789	.91193E-08	.2963E-08	.16183	3.078	.0031
PBUS	.92493E-03	.00129	.03890	.718	.4753
GL	-.04189	.05386	-.04703	-.778	.4396
URBAN	.02539	.06732	.02017	.377	.7073
SEL	-.01821	.04618	-.02184	-.394	.6946
PHLTH	.00525	.00242	.11544	2.171	.0336
PED	.00151	.00246	.03924	.615	.5406
LTFTE	.75058	.06699	.73854	11.204	.0000
SE	-.10946	.06460	-.11260	-1.695	.0950
(CONSTANT)	9.56366	.44830		21.333	.0000

		ANALYSIS OF VARIANCE		
MULTIPLE R	.93016		DF	SUM OF SQUAR
R SQUARE	.86519	REGRESSION	14	10.9463
ADJUSTED R SQUARE	.83615	RESIDUAL	65	1.70563
STANDARD ERROR	.16199			

F = 29.79677 SIGNIF F = .0000

48

Table B7

Public Institutions

DEPENDENT VARIABLE.. LINS

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	.81699E-06	.00129	.568E-04	.001	.9995
SEL	-.03612	.05297	-.05114	-.682	.4981
LFLDX	-1.12550	1.36075	-1.10986	-.827	.4116
PENGIN	.00890	.00884	.05986	1.007	.3183
SE	.16228	.07677	.18857	2.114	.0389
FLEX	-.00374	.00252	-.09921	-1.485	.1429
PHLTH	.00625	.00588	.06705	1.063	.2925
LGFTE	.18827	.29104	.96426	.647	.5203
GL	.13224	.08253	.12911	1.602	.1146
PBUS	-.67200E-03	.00327	-.01614	-.205	.8381
FAC	.04029	.00823	.36953	4.895	.0000
URBAN	.08620	.06217	.10369	1.387	.1709
WSW	.08820	.08899	.08806	.991	.3258
LPUX	.08314	.83283	.14267	.100	.9208
PED	.91154E-03	.00279	.03069	.326	.7453
LFUDX	-1.06175	1.69689	-1.00340	-.626	.5340
NLLG	-.11810	.05978	-4.50467	-1.975	.0531
LPU	-.07058	.14555	-1.04026	-.485	.6296
NLUG	.10457	.06137	3.81883	1.704	.0939
LLU	.21351	.18187	2.69649	1.174	.2453
LPL	.06036	.15689	.92435	.385	.7019
(CONSTANT)	18.74315	9.47146		1.979	.0527

MULTIPLE R	.91617
R SQUARE	.83937
ADJUSTED R SQUARE	.78018
STANDARD ERROR	.19423

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARE
REGRESSION	21	11.2357
RESIDUAL	57	2.1502

F = 14.18300 SIGNIF F = .0000

49

Table B8

Public Institutions

DEPENDENT VARIABLE.. LINS

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
FLEX	-.00407	.00224	-.10782	-1.816	.0742
LFUDX	.50237	.10108	.47564	4.970	.0000
URBAN	.11092	.05217	.13239	2.126	.0376
PENGIN	.00562	.00760	.03796	.740	.4621
WSW	.11081	.07974	.11085	1.390	.1697
SEL	-.05211	.04469	-.07315	-1.166	.2481
PHLTH	-.81407E-03	.00521	-.00846	-.156	.8763
GL	.12417	.07274	.12151	1.707	.0929
PBUS	-.00396	.00321	-.09213	-1.233	.2222
FAC	.04204	.00748	.38527	5.620	.0000
LPUX	.04946	.03674	.08430	1.346	.1832
LGFTE	.03532	.01286	.18144	2.747	.0079
SE	.12462	.06496	.14343	1.918	.0598
PED	-.60837E-03	.00252	-.02046	-.242	.8099
LFLDX	.21710	.09718	.20839	2.234	.0292
(CONSTANT)	9.04860	.52512		17.231	.0000

MULTIPLE R	.92678
R SQUARE	.85893
ADJUSTED R SQUARE	.82424
STANDARD ERROR	.17496

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARE
REGRESSION	15	11.3682
RESIDUAL	61	1.8671

F = 24.75971 SIGNIF F = .0000

50

Table B9

Public Institutions

DEPENDENT VARIABLE.. LINS

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
FLEX	-.00464	.00237	-.12306	-1.960	.0542
PED	.00293	.00263	.09854	1.112	.2700
SE	.16489	.07245	.19161	2.276	.0261
PHLTH	.00672	.00543	.07214	1.238	.2199
PENGIN	.00644	.00868	.04335	.742	.4604
LTFTE	.79567	.06685	.71827	11.903	.0000
GL	.15545	.07857	.15177	1.978	.0520
SEL	.00121	.04833	.00171	.025	.9801
URBAN	.01863	.05550	.02241	.336	.7382
FAC	.04742	.00779	.43488	6.085	.0000
WSW	.15392	.07659	.15366	2.010	.0486
PBUS	-.00126	.00327	-.03017	-.384	.7021
(CONSTANT)	7.82250	.58460		13.381	.0000

MULTIPLE R	.89524
R SQUARE	.80145
ADJUSTED R SQUARE	.76536
STANDARD ERROR	.20067

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	12	10.72830
RESIDUAL	66	2.65773

F = 22.20152 SIGNIF F = .0000

Table B10

Private Institutions

DEPENDENT VARIABLE.. LINS

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
C789	.93615E-08	.3422E-08	.14328	2.736	.0082
SEL	.00645	.05643	.00677	.114	.9093
PBUS	-.51633E-03	.00164	-.01899	-.315	.7541
RELIG	-.08549	.05266	-.08805	-1.623	.1099
WSW	.13681	.07289	.11743	1.877	.0656
LFLDX	.90551	1.06507	.81849	.850	.3937
PENGIN	.01921	.02002	.05914	.960	.3413
URBAN	.01282	.08470	.00891	.151	.8802
GL	.06969	.06410	.06843	1.087	.2813
PHLTH	.00474	.00293	.09107	1.618	.1110
LGFTE	-.06764	.24955	-.33606	-.271	.7873
LPUX	.63276	.66339	1.15639	.954	.3441
PED	.00159	.00310	.03595	.511	.6112
FAC	.03858	.00995	.26608	3.876	.0003
SE	.00716	.07711	.00644	.093	.9263
LFUDX	.73289	.91138	.68169	.804	.4246
NLUG	-.01097	.05193	-.37357	-.211	.8335
LPU	.03191	.11457	.47692	.279	.7816
LLU	-.03959	.11335	-.45992	-.349	.7282
LPL	-.11100	.12906	-1.68988	-.860	.3933
NLLG	.02309	.05705	.81284	.405	.6871
(CONSTANT)	4.25334	5.63839		.754	.4537

MULTIPLE R	.93939
R SQUARE	.88244
ADJUSTED R SQUARE	.83988
STANDARD ERROR	.18311

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARE
REGRESSION	21	14.59860
RESIDUAL	58	1.9447

F = 20.73254 SIGNIF F = .0000

Table B11

Private Institutions

DEPENDENT VARIABLE.. LINS

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
C789	.10191E-07	.3512E-08	.15816	2.902	.0050
SEL	.05477	.05446	.05745	1.006	.3182
PBUS	.49811E-03	.00153	.01832	.327	.7450
RELIG	-.05932	.05114	-.06109	-1.160	.2503
WSW	.08704	.07131	.07471	1.221	.2265
PENGIN	.03097	.01753	.09536	1.767	.0818
URBAN	.04665	.07952	.03241	.587	.5594
GL	.06058	.06380	.05949	.950	.3458
PHLTH	.00757	.00284	.14551	2.662	.0097
LTFTE	.71880	.07531	.61853	9.544	.0000
PED	.00350	.00287	.07946	1.223	.2258
FAC	.04639	.00982	.31995	4.725	.0000
SE	.00789	.07654	.00710	.103	.9182
(CONSTANT)	8.16799	.48701		16.772	.0000

MULTIPLE R	.92279
R SQUARE	.85153
ADJUSTED R SQUARE	.82229
STANDARD ERROR	.19291

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARE
REGRESSION	13	14.0867
RESIDUAL	66	2.4560

F = 29.11897 SIGNIF F = .0000

Table B12

Public Institutions

DEPENDENT VARIABLE.. LLIB

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
FLEX	-.00551	.00391	-.13203	-1.410	.1632
PED	-.00576	.00440	-.17524	-1.310	.1949
SE	.24743	.12282	.26036	2.015	.0481
PHLTH	-.00478	.00885	-.04644	-.540	.5912
LUFTE	.88394	.34296	.70524	2.577	.0122
PENGIN	-.02048	.01421	-.12447	-1.442	.1542
GL	.20224	.13457	.17847	1.503	.1377
SEL	-.08566	.08055	-.11020	-1.064	.2915
URBAN	.02084	.08939	.02273	.233	.8164
FAC	.05755	.01261	.47726	4.563	.0000
LGFTE	.63707	.52714	2.94851	1.209	.2312
PBUS	-.25102E-03	.00544	-.00547	-.046	.9634
WSW	.09823	.13398	.08865	.733	.4661
LIUG	-.07424	.06721	-2.78719	-1.105	.2734
(CONSTANT)	4.77889	2.73717		1.746	.0855

MULTIPLE R	.75865
R SQUARE	.57555
ADJUSTED R SQUARE	.48413
STANDARD ERROR	.32762

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	14	9.46021
RESIDUAL	65	6.97662

F = 6.29566 SIGNIF F = .0000

Public Institutions

DEPENDENT VARIABLE.. LLIB

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
FLEX	-.00404	.00367	-.09691	-1.046	.2994
PED	-.00405	.00429	-.12319	-.945	.3483
SE	.22875	.11640	.24071	1.965	.0535
PHLTH	-.00439	.00884	-.04271	-.497	.6208
PENGIN	-.01932	.01418	-.11742	-1.362	.1777
LTFTE	.66165	.10922	.53942	6.058	.0000
GL	.19502	.12762	.17210	1.528	.1312
SEL	-.04983	.07838	-.06410	-.636	.5272
URBAN	.02167	.08923	.02363	.243	.8089
FAC	.05541	.01257	.45947	4.408	.0000
WSN	.14000	.12413	.12635	1.128	.2634
PBUS	-.00224	.00534	-.04877	-.419	.6765
(CONSTANT)	6.64061	.95236		6.973	.0000

MULTIPLE R	.74931
R SQUARE	.56147
ADJUSTED R SQUARE	.48292
STANDARD ERROR	.32800

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	12	9.22877
RESIDUAL	67	7.20814

F = 7.14849 SIGNIF F = .0000

Private Institutions

DEPENDENT VARIABLE.. LLIB

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
C789	.13099E-07	.5439E-08	.20857	2.408	.0188
SEL	.25041	.08435	.26950	2.969	.0042
PBUS	.81500E-03	.00236	.03076	.345	.7312
RELIG	.00459	.07921	.00485	.058	.9540
WSW	-.12382	.11044	-.10905	-1.121	.2663
PENGIN	.02436	.02715	.07696	.897	.3728
URBAN	.07248	.12316	.05168	.588	.5582
GL	-.17164	.09882	-.17293	-1.737	.0871
PHLTH	-.00427	.00440	-.08429	-.970	.3354
LTFTE	.68376	.11665	.60370	5.862	.0000
PED	.00370	.00444	.08606	.833	.4077
FAC	-.01337	.01521	-.09462	-.879	.3825
SE	-.01603	.11854	-.01479	-.135	.8929
(CONSTANT)	7.24518	.75430		9.605	.0000

		ANALYSIS OF VARIANCE		
			DF	SUM OF SQUARES
MULTIPLE R	.79060	REGRESSION	13	9.82151
R SQUARE	.62505	RESIDUAL	66	5.89177
ADJUSTED R SQUARE	.55119			
STANDARD ERROR	.29878			

F = 8.46318 SIGNIF F = .0000

Table B15

Public Institutions

DEPENDENT VARIABLE.. LAS

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
FLEX	.00140	.00519	.02656	.270	.7883
PED	-.00556	.00584	-.13383	-.950	.3454
SE	.20911	.16317	.17429	1.282	.2046
PHLTH	-.01368	.01176	-.10536	-1.164	.2488
LUFTE	.37693	.45565	.23821	.827	.4111
PENGIN	-.02368	.01888	-.11399	-1.254	.2142
GL	.29456	.17878	.20590	1.648	.1043
SEL	-.02358	.10701	-.02402	-.220	.8263
URBAN	.04815	.11876	.04159	.405	.6865
FAC	.06064	.01676	.39835	3.619	.0006
LGFTE	-.16312	.70035	-.59801	-.233	.8166
PBUS	.00445	.00723	.07695	.616	.5401
WSW	-.01602	.17800	-.01146	-.090	.9285
LIUG	.03347	.08929	.99533	.375	.7090
(CONSTANT)	8.69088	3.63652		2.390	.0198

MULTIPLE R	.72796
R SQUARE	.52993
ADJUSTED R SQUARE	.42868
STANDARD ERROR	.43526

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	14	13.88252
RESIDUAL	65	12.31443

F = 5.23407 SIGNIF F = .0000

Public Institutions

DEPENDENT VARIABLE.. LAS

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
FLEX	.00279	.00527	.05297	.529	.5984
PED	-.00185	.00585	-.04453	-.316	.7529
SE	.27123	.15871	.22607	1.709	.0921
PHLTH	-.01399	.01205	-.10778	-1.161	.2497
PENGIN	-.02004	.01934	-.09649	-1.036	.3037
LTFTE	.76982	.14893	.49713	5.169	.0000
GL	.38559	.17401	.26953	2.216	.0301
SEL	.04251	.10688	.04331	.398	.6921
URBAN	.03357	.12167	.02900	.276	.7834
FAC	.06098	.01714	.40056	3.558	.0007
WSW	.11648	.16925	.08327	.688	.4937
PBUS	.52770E-03	.00728	.00912	.073	.9424
(CONSTANT)	5.75550	1.29855		4.432	.0000

MULTIPLE R	.69890
R SQUARE	.48846
ADJUSTED R SQUARE	.39684
STANDARD ERROR	.44723

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	12	12.79621
RESIDUAL	67	13.40074

F = 5.33146 SIGNIF F = .0000

Table B17

Private Institutions

DEPENDENT VARIABLE.. LAS

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
C789	.12543E-07	.8964E-08	.13559	1.399	.1664
SEL	.22612	.13902	.16522	1.627	.1086
PBUS	.00304	.00389	.07781	.780	.4382
RELIG	-.11945	.13056	-.08571	-.915	.3636
WSW	-.11274	.18203	-.06741	-.619	.5378
PENGIN	.02667	.04474	.05721	.596	.5531
URBAN	.22968	.20299	.11118	1.132	.2619
GL	-.29062	.16287	-.19879	-1.784	.0790
PHLTH	-.00672	.00726	-.08996	-.925	.3581
LTFTE	1.01891	.19225	.61078	5.300	.0000
PED	.00135	.00732	.02138	.185	.8538
FAC	-.05312	.02506	-.25526	-2.120	.0378
SE	-.25861	.19538	-.16206	-1.324	.1902
(CONSTANT)	6.35080	1.24322		5.108	.0000

MULTIPLE R	.72835
R SQUARE	.53050
ADJUSTED R SQUARE	.43802
STANDARD ERROR	.49244

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	13	18.08410
RESIDUAL	66	16.00493

F = 5.73646 SIGNIF F = .0000

Table B18

Public Institutions

DEPENDENT VARIABLE.. LADM

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
FLEX	.79964E-03	.00517	.01575	.155	.8775
PED	-.24273E-03	.00583	-.00607	-.042	.9669
SE	.13730	.16578	.11841	.828	.4106
PHLTH	-.02006	.01175	-.15975	-1.707	.0927
LUFTE	.76531	.45514	.50172	1.681	.0975
PENGIN	-.00419	.01881	-.02090	-.223	.8245
GL	.14712	.17961	.10660	.819	.4158
SEL	-.06447	.10731	-.06775	-.601	.5501
URBAN	.14942	.12040	.13338	1.241	.2191
LGFTE	.81518	.69903	3.09863	1.166	.2479
FAC	.08934	.01693	.60810	5.276	.0000
PBUS	.00121	.00722	.02155	.168	.8675
WSW	-.45424	.17900	-.33656	-2.538	.0136
LIUG	-.10112	.08913	-3.11759	-1.135	.2608
(CONSTANT)	5.63480	3.63822		1.549	.1264

MULTIPLE R	.71062
R SQUARE	.50497
ADJUSTED R SQUARE	.39669
STANDARD ERROR	.43357

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	14	12.27253
RESIDUAL	64	12.03082

F = 4.66330 SIGNIF F = .0000

60

Table B19

Public Institutions

DEPENDENT VARIABLE.. LADM

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
FLEX	.00186	.00506	.03671	.369	.7136
PED	.23366E-03	.00562	.00584	.042	.9670
SE	.09258	.15486	.07984	.598	.5520
PHLTH	-.01948	.01161	-.15512	-1.679	.0979
PENGIN	-.00430	.01855	-.02145	-.232	.8176
LTFTE	.35542	.14289	.23811	2.487	.0154
GL	.10318	.16795	.07476	.614	.5411
SEL	-.04905	.10331	-.05154	-.475	.6365
URBAN	.15683	.11863	.14000	1.322	.1907
FAC	.08664	.01665	.58976	5.202	.0000
WSW	-.44901	.16371	-.33268	-2.743	.0078
PBUS	.45013E-03	.00699	.00802	.064	.9489
(CONSTANT)	8.93064	1.24959		7.147	.0000

MULTIPLE R	.70736
R SQUARE	.50035
ADJUSTED R SQUARE	.40951
STANDARD ERROR	.42694

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	12	12.16027
RESIDUAL	66	12.14314

F = 5.50776 SIGNIF F = .0000

61

Table B20

Private Institutions

DEPENDENT VARIABLE.. LADM

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
C789	.84569E-08	.5910E-08	.13178	1.431	.1574
SEL	-.14411	.09286	-.14929	-1.552	.1258
PBUS	.75563E-03	.00259	.02791	.292	.7716
RELIG	-.13408	.09255	-.13554	-1.449	.1525
WSW	.11855E-03	.12493	.102E-03	.001	.9992
URBAN	.04023	.14496	.02519	.278	.7823
PENGIN	-.00789	.03168	-.02303	-.249	.8040
GL	-.14274	.10907	-.13868	-1.309	.1955
PHLTH	.00423	.00481	.08145	.880	.3825
LUFTE	.43788	.28560	.37166	1.533	.1303
LGFTE	-.41105	.41607	-2.05220	-.988	.3270
PED	-.53213E-03	.00500	-.01185	-.106	.9157
FAC	.00638	.01686	.04423	.378	.7064
SE	-.09469	.12956	-.08563	-.731	.4676
LIUG	.05787	.05600	2.24925	1.033	.3054
(CONSTANT)	11.03144	2.12582		5.189	.0000

MULTIPLE R	.77681
R SQUARE	.60344
ADJUSTED R SQUARE	.50749
STANDARD ERROR	.32247

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	15	9.81050
RESIDUAL	62	6.44722

F = 6.28954 SIGNIF F = .0000

Table B21

Private Institutions

DEPENDENT VARIABLE.. LADN

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
C789	.83610E-08	.5799E-08	.13029	1.442	.1543
SEL	-.15524	.09177	-.16082	-1.692	.0956
PBUS	.54635E-03	.00252	.02018	.217	.8288
RELIG	-.13013	.08616	-.13156	-1.510	.1359
WSW	-.02592	.11830	-.02237	-.219	.8273
URBAN	.03870	.14306	.02423	.271	.7876
PENGIN	-.01971	.03029	-.05752	-.651	.5175
GL	-.14948	.10704	-.14523	-1.397	.1674
PHLTH	.00485	.00473	.09339	1.026	.3089
LTFTE	.74706	.12433	.64425	6.008	.0000
PED	.35355E-03	.00484	.00787	.073	.9420
FAC	.01082	.01620	.07502	.668	.5065
SE	-.10570	.12726	-.09559	-.831	.4093
(CONSTANT)	8.67489	.81380		10.660	.0000

MULTIPLE R	.77562
R SQUARE	.60158
ADJUSTED R SQUARE	.52065
STANDARD ERROR	.31813

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	13	9.78033
RESIDUAL	64	6.47735

F = 7.43345 SIGNIF F = .0000

Table B22

Public Institutions

DEPENDENT VARIABLE.. LSS

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	.00319	.00206	.18609	1.552	.1256
SEL	.03331	.10106	.03958	.330	.7428
SE	-.09195	.14898	-.08967	-.617	.5393
PENGIN	-.00397	.01805	-.02239	-.220	.8268
FLEX	-.00620	.00491	-.13787	-1.261	.2119
LTFTE	.44923	.13855	.34049	3.242	.0019
PHLTH	-.01153	.01149	-.10380	-1.003	.3195
PBUS	.00632	.00679	.12823	.931	.3553
GL	.32831	.16302	.26900	2.014	.0482
FAC	.03953	.01608	.30364	2.458	.0166
URBAN	.16060	.12381	.16149	1.297	.1991
WSW	-.07069	.16354	-.05922	-.432	.6670
PED	.00198	.00561	.05611	.353	.7249
(CONSTANT)	8.87325	1.20703		7.351	.0000

MULTIPLE R	.63975
R SQUARE	.40928
ADJUSTED R SQUARE	.29114
STANDARD ERROR	.41560

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	13	7.77858
RESIDUAL	65	11.22698

F = 3.46424 SIGNIF F = .0004

Table B23

Private Institutions

DEPENDENT VARIABLE.. LSS

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	.00349	.00301	.12734	1.158	.2511
WSW	-.21049	.18950	-.13439	-1.111	.2708
FAC	-.01167	.02658	-.05985	-.439	.6622
PENGIN	-.03574	.04677	-.08186	-.764	.4475
RELIG	.08228	.13585	.06304	.606	.5468
C789	-.81408E-09	.9368E-08	-.00940	-.087	.9310
PBUS	.00191	.00407	.05236	.470	.6400
GL	-.33852	.17028	-.24725	-1.988	.0510
URBAN	.41225	.21283	.21308	1.937	.0571
SEL	-.26406	.14599	-.20602	-1.809	.0751
PHLTH	.00211	.00765	.03016	.276	.7835
PED	-.01315	.00778	-.22172	-1.690	.0957
LTFTE	.82751	.21179	.52966	3.907	.0002
SE	-.08839	.20423	-.05915	-.433	.6666
(CONSTANT)	7.77852	1.41732		5.488	.0000

MULTIPLE R	.65561
R SQUARE	.42982
ADJUSTED R SQUARE	.30701
STANDARD ERROR	.51213

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	14	12.85140
RESIDUAL	65	17.04815

F = 3.49992 SIGNIF F = .0003

Table B24

Public Institutions

DEPENDENT VARIABLE.. LOM

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	.00374	.00156	.23043	2.406	.0191
GL	.06123	.12796	.05267	.479	.6339
PENGIN	-.00446	.01356	-.02643	-.329	.7434
LUFTE	.89090	.32748	.67677	2.720	.0084
SEL	-.09414	.07746	-.11788	-1.215	.2288
PBUS	.00294	.00518	.06241	.567	.5725
PHLTH	-.00665	.00864	-.06284	-.769	.4445
FLEX	-.00187	.00374	-.04369	-.501	.6181
FAC	.05617	.01204	.45423	4.664	.0000
WSW	-.21522	.13106	-.18514	-1.642	.1055
URBAN	.09384	.09271	.09906	1.012	.3154
LGFTE	.54427	.50738	2.45527	1.073	.2875
SE	-.12499	.11683	-.12798	-1.070	.2888
PED	-.00184	.00430	-.05395	-.428	.6704
LIUG	-.06568	.06465	-2.40653	-1.016	.3135
(CONSTANT)	5.71754	2.60986		2.191	.0322

MULTIPLE R	.80374
R SQUARE	.64599
ADJUSTED R SQUARE	.56170
STANDARD ERROR	.31127

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	15	11.13886
RESIDUAL	63	6.10421

F = 7.66411 SIGNIF F = .0000

66

Table B25

Public Institutions

DEPENDENT VARIABLE.. LOM

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	.00398	.00164	.24413	2.431	.0178
GL	.01310	.12880	.01124	.102	.9193
PENGIN	-.00675	.01436	-.03986	-.470	.6399
LTFTE	.57532	.11018	.45596	5.221	.0000
SEL	-.08953	.08025	-.11196	-1.116	.2686
WSW	-.18705	.12864	-.16410	-1.454	.1507
PHLTH	-.00769	.00911	-.07268	-.844	.4019
PBUS	.00155	.00539	.03281	.287	.7748
FLEX	.42443E-03	.00391	.00989	.109	.9139
FAC	.05168	.01272	.41663	4.063	.0001
URBAN	.09076	.09744	.09622	.931	.3550
SE	-.18281	.11741	-.18700	-1.557	.1242
PED	-.00125	.00447	-.03708	-.281	.7798
(CONSTANT)	8.34550	.96082		8.686	.0000

MULTIPLE R	.76463
R SQUARE	.58466
ADJUSTED R SQUARE	.50285
STANDARD ERROR	.33084

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	13	10.16917
RESIDUAL	66	7.22418

F = 7.14657 SIGNIF F = .0000

Private Institutions

DEPENDENT VARIABLE.. LOM

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	.00134	.00183	.06686	.733	.4663
FAC	.03532	.01613	.24907	2.190	.0324
WSW	-.33504	.11649	-.29407	-2.876	.0055
PENGIN	-.00658	.02830	-.02075	-.233	.8169
RELIG	-.02628	.08675	-.02731	-.303	.7630
C789	.13510E-07	.5540E-08	.21396	2.439	.0177
PBUS	.00215	.00243	.08061	.883	.3808
URBAN	.22468	.12976	.15181	1.732	.0884
GL	-.18452	.10314	-.17944	-1.789	.0786
SEL	-.02292	.08616	-.02463	-.266	.7911
PHLTH	.01294	.00462	.24855	2.804	.0068
LGFTE	.32277	.38856	1.63917	.831	.4094
PED	-.62659E-03	.00477	-.01425	-.131	.8959
LUFTE	.63901	.26994	.54769	2.367	.0211
SE	-.17113	.12094	-.15735	-1.415	.1621
LIUG	-.04041	.05227	-1.59808	-.773	.4424
(CONSTANT)	7.83314	2.00528		3.906	.0002

MULTIPLE R	.80472
R SQUARE	.64758
ADJUSTED R SQUARE	.55514
STANDARD ERROR	.30143

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	16	10.18415
RESIDUAL	61	5.54235

F = 7.00552 SIGNIF F = .0000

68

Private Institutions

DEPENDENT VARIABLE.. LOM

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	.95683E-03	.00177	.04770	.539	.5916
FAC	.03702	.01564	.26106	2.368	.0210
WSW	-.33495	.11161	-.29399	-3.001	.0039
PENGIN	-.00710	.02752	-.02239	-.258	.7973
RELIG	-.02987	.08138	-.03104	-.367	.7148
C789	.13496E-07	.5516E-08	.21374	2.446	.0173
PBUS	.00205	.00240	.07716	.855	.3960
URBAN	.21663	.12981	.14637	1.669	.1001
GL	-.17832	.10247	-.17341	-1.740	.0867
SEL	-.03003	.08642	-.03226	-.347	.7294
PHLTH	.01292	.00461	.24811	2.805	.0067
PED	-.10566E-03	.00466	-.00240	-.023	.9820
LTFTE	.48193	.12508	.41996	3.853	.0003
SE	-.16706	.12026	-.15361	-1.389	.1697
(CONSTANT)	9.03769	.83594		10.811	.0000

MULTIPLE R	.79786
R SQUARE	.63658
ADJUSTED R SQUARE	.55582
STANDARD ERROR	.30120

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	14	10.01120
RESIDUAL	63	5.71531

F = 7.88241 SIGNIF F = .0000

69

Table B28

Public Institutions

DEPENDENT VARIABLE.. PADNE

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
FLEX	.47683E-03	.5184E-03	.11412	.920	.3613
PED	-.22336E-03	.5672E-03	-.06782	-.394	.6951
PFLD	.12923	.11722	.25075	1.102	.2745
TFTE2	-.90471E-08	.5425E-08	-1.34674	-1.668	.1004
PENGIN	-.79230E-03	.00182	-.04807	-.436	.6646
GL	-.00468	.01704	-.04118	-.274	.7846
PHLTH	-.00181	.00118	-.17520	-1.538	.1292
PFUD	-.02193	.13112	-.02375	-.167	.8677
PAC	.00478	.00166	.39560	2.880	.0054
SEL	-.00610	.01033	-.07783	-.590	.5574
SE	.00228	.01503	.02385	.151	.8801
URBAN	.87321E-03	.01260	.00947	.069	.9450
PBUS	.23363E-03	.6775E-03	.05059	.345	.7314
WSW	-.05468	.01878	-.49227	-2.912	.0050
PGFTE	.23784	.16938	.29641	1.404	.1653
TFTE	.40987E-04	.3453E-04	.96144	1.187	.2398
(CONSTANT)	-.09186	.12865		-.714	.4779

MULTIPLE R	.60792
R SQUARE	.36957
ADJUSTED R SQUARE	.20688
STANDARD ERROR	.04091

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	16	.06064
RESIDUAL	62	.10379

F = 2.27162 SIGNIF F = .0111

Table B29

Private Institutions

DEPENDENT VARIABLE.. PADNE

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
CT89	.14262E-10	.9853E-09	.00179	.014	.9885
PFUD	.22033	.13567	.23904	1.624	.1094
PBUS	.22187E-03	.4697E-03	.06586	.472	.6383
GL	-.00183	.01822	-.01452	-.101	.9203
URBAN	-.03129	.02247	-.17546	-1.393	.1686
PENGIN	-.25516E-03	.00499	-.00634	-.051	.9593
SEL	-.02868	.01590	-.24274	-1.803	.0761
WSW	-.00450	.02193	-.03117	-.205	.8381
RELIG	-.01959	.01536	-.16288	-1.275	.2068
PHLTH	-.23451E-03	.8267E-03	-.03639	-.284	.7776
TFTE	-.12885E-05	.9507E-05	-.02067	-.136	.8926
PGFTE	.25915	.19148	.28332	1.353	.1808
PED	-.44748E-03	.8264E-03	-.08189	-.542	.5901
FAC	-.00320	.00276	-.17825	-1.161	.2499
SE	-.01483	.02155	-.10764	-.688	.4940
PFLD	.27953	.14573	.40541	1.918	.0596
(CONSTANT)	.16266	.14232		1.143	.2574

MULTIPLE R	.52835
R SQUARE	.27916
ADJUSTED R SQUARE	.09608
STANDARD ERROR	.05391

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	16	.07090
RESIDUAL	63	.18308

F = 1.52484 SIGNIF F = .1191

Public Institutions

DEPENDENT VARIABLE.. PADNI

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
FLEN	.00176	.00135	.15989	1.304	.1970
PED	-.53359E-03	.00148	-.06152	-.361	.7196
PFLD	.39486	.30289	.29093	1.304	.1971
TFTE	-.45396E-04	.1286E-04	-.40435	-3.531	.0009
PENGIN	-.63700E-03	.00463	-.01467	-.138	.8909
GL	-.01672	.04349	-.05589	-.384	.7020
PHLTH	-.00531	.00303	-.19522	-1.755	.0842
PFUD	.07291	.33441	.02998	.218	.8281
FAC	.00952	.00431	.29904	2.210	.0308
SEL	-.01686	.02697	-.08174	-.625	.5341
SE	-.04199	.03803	-.16707	-1.081	.2837
URBAN	.02689	.03246	.11073	.828	.4106
PBUS	.00151	.00177	.12417	.854	.3963
WSW	-.14679	.04895	-.50181	-2.999	.0039
PGFTE	.60135	.44094	.28458	1.364	.1775
(CONSTANT)	-.12074	.27987		-.431	.6676

MULTIPLE R	.60900
R SQUARE	.37088
ADJUSTED R SQUARE	.22109
STANDARD ERROR	.10678

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	15	.42344
RESIDUAL	63	.71827

F = 2.47603 SIGNIF F = .0054

Private Institutions

DEPENDENT VARIABLE.. PADNI

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
C789	-.22236E-09	.3457E-08	-.00737	-.064	.9493
PFUD	.58805	.47608	.16889	1.235	.2213
PBUS	.00209	.00165	.16409	1.267	.2098
GL	-.04732	.06395	-.09926	-.740	.4621
URBAN	-.12241	.07883	-.18173	-1.553	.1255
PENGIN	.00610	.01749	.04010	.348	.7287
SEL	-.05442	.05580	-.12194	-.975	.3332
WSW	-.09585	.07695	-.17576	-1.246	.2175
RELIG	-.08704	.05391	-.19153	-1.615	.1114
PHLTH	-.81057E-03	.00290	-.03329	-.279	.7808
TFTE	-.26205E-04	.3336E-04	-.11129	-.786	.4351
PGFTE	1.05527	.67191	.30540	1.571	.1213
PED	-.00110	.00290	-.05310	-.378	.7067
PAC	-.01571	.00968	-.23156	-1.624	.1094
SE	-.09199	.07563	-.17680	-1.216	.2284
PFLD	1.46700	.51136	.56321	2.869	.0056
(CONSTANT)	.22195	.49941		.444	.6583

MULTIPLE R	.61481
R SQUARE	.37799
ADJUSTED R SQUARE	.22002
STANDARD ERROR	.18916

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	16	1.36993
RESIDUAL	63	2.25431

F = 2.39280 SIGNIF F = .0073

Table B32

Public Institutions

DEPENDENT VARIABLE.. PINSE

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
AEG	-.76648E-08	.2563E-08	-.57200	-2.990	.0040
PENGIN	.00270	.00221	.11228	1.221	.2269
WSW	.08920	.02372	.55129	3.761	.0004
HOUS	.66055E-04	.3231E-03	.02841	.204	.8387
SEL	.00205	.01332	.01797	.154	.8782
FLEX	-.00134	.6462E-03	-.21946	-2.067	.0430
PHLTH	.00433	.00149	.28732	2.908	.0051
PBUS	-.62984E-03	.8401E-03	-.09363	-.750	.4563
GL	.01303	.02101	.07876	.620	.5374
PFUD	-.16114	.20402	-.11979	-.790	.4327
URBAN	-.01150	.01606	-.08562	-.716	.4768
PGFTE	-.34851	.23131	-.29817	-1.507	.1371
SE	.05191	.01850	.3733[illegible]	[illegible].806	.0067
TFTE	.46395E-04	.9074E-05	.7470[illegible]	[illegible].13	.0000
PED	.94528E-03	.7049E-03	.19704	[illegible].341	.1849
FAC	.00298	.00268	.16[illegible]	[illegible].113	.2701
PFLD	-.22910	.17130	-.30[illegible]7	-[illegible].337	.1861
(CONSTANT)	.54863	.16674		[illegible].290	.0017

MULTIPLE R	.74245
R SQUARE	.55124
ADJUSTED R SQUARE	.42617
STANDARD ERROR	.05069

ANALYSIS OF VARI[illegible]

	DF	SUM OF SQUARES
REGRESSION	17	.19256
RESIDUAL	61	.15676

F = 4.40763 SIGNIF F = .0000

74

Public Institutions

DEPENDENT VARIABLE.. AEG

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	1167.31746	13418.79598	.00688	.087	.9310
SEL	-.60947E+06	.5451E+06	-.07372	-1.118	.2680
SE	326925.78566	.7835E+06	.03228	.417	.6780
PENGIN	-23483.82938	94701.77380	-.01360	-.248	.8050
FLDX	1396.75554	742.38672	.17696	1.881	.0648
FLEX	-19411.80872	27770.65364	-.04414	-.699	.4873
PHLTH	-.12036E+06	64032.75080	-.10742	-1.880	.0650
GFTE	4135.31854	1961.43398	.17586	2.108	.0392
GL	910168.91146	.9056E+06	.07459	1.005	.3189
PBUS	20782.06837	36126.83912	.04309	.575	.5673
URBAN	636217.14621	.6774E+06	.06488	.939	.3514
FAC	784151.27337	87246.11706	.61442	8.988	.0000
WSW	-.94066E+06	.9617E+06	-.08073	-.978	.3319
PUX	-542.32569	741.64751	-.06079	-.731	.4675
PED	-9253.93017	30894.15606	-.02670	-.300	.7656
FUDX	4920.13425	1426.99278	.39443	3.448	.0010
(CONSTANT)	-.16631E+08	.3406E+07		-4.883	.0000

FOR BLOCK NUMBER 1 ALL REQUESTED VARIABLES ENTERED.

MULTIPLE R	.91868
R SQUARE	.84396
ADJUSTED R SQUARE	.80236
STANDARD ERROR	.21627E+07

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARES
REGRESSION	16	.15179E+16
RESIDUAL	60	.28063E+15

F = 20.28306 SIGNIF F = .0000

Private Institutions

DEPENDENT VARIABLE.. AEG

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
HOUS	6363.75078	7588.23574	.05168	1.102	.2749
SEL	-.83972E+06	.3575E+06	-.10926	-2.349	.0222
WSW	-.10796E+07	.5186E+06	-.11061	-2.082	.0417
PENGIN	90480.74408	.1159E+06	.03528	.781	.4380
PBUS	14544.91701	10713.06322	.06731	1.358	.1797
RELIG	-.14776E+07	.3464E+06	-.18923	-4.266	.0001
URBAN	-.33722E+06	.5116E+06	-.02814	-.659	.5125
C789	.10460	.02263	.20403	4.623	.0000
GL	-76689.64414	.4011E+06	-.00948	-.191	.8490
FLDX	1391.56605	546.82629	.17184	2.545	.0136
PHLTH	69530.84683	18831.27068	.16731	3.692	.0005
PED	13385.97599	18306.17184	.03814	.731	.4675
FAC	215862.17393	63966.47006	.18793	3.375	.0013
PUX	864.55133	437.22319	.10741	1.977	.0527
SE	-.51764E+06	.4923E+06	-.05744	-1.051	.2973
GFTE	2790.58476	1461.80554	.11587	1.909	.0611
FUDX	5170.96092	835.37675	.47322	6.190	.0000
(CONSTANT)	-.21178E+07	.1713E+07		-1.236	.2212

FOR BLOCK NUMBER 1 ALL REQUESTED VARIABLES ENTERED.

MULTIPLE R	.96001
R SQUARE	.92162
ADJUSTED R SQUARE	.89904
STANDARD ERROR	.11694E+07

ANALYSIS OF VARIANCE

	DF	SUM OF SQUARE
REGRESSION	17	.94872E+1
RESIDUAL	59	.80685E+1

F = 40.80826 SIGNIF F = .000

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