Bridging the Gap Between High School and College in an Appalachian State: A Near-Replication of Florida Research

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ABSTRACT

This paper reports the results of a near-replication in the Appalachian state of West Virginia of research done in the deep southern state of Florida. The Florida research focused on school-based programs designed to increase the percentage of high school graduates who enroll in a college or university. Based on a multiple regression analysis of school district-level Florida data, we concluded that the school-based programs did not work because they were "swamped" by social and economic contextual factors over which policymakers have little or no control. These findings are consistent with the more general observation that contextual factors, such as median family income and urban/rural location, are the primary determinants of high school outcomes. In replicating this research in West Virginia, we are working in a very different social and economic environment wherein school-based programs designed specifically to promote college and university enrollments are poorly developed or non-existent. Nevertheless, prominent public and private interests in the state have emphatically voiced the view that high schools must do a better job of facilitating the transition to postsecondary education. Failure to do so, they claim, will leave the state with a human capital deficit. Our analysis of West Virginia data, however, suggests that such efforts will be thwarted by the influence of social and economic contextual factors, much as was true in Florida.

INTRODUCTION

Too frequently, the results of educational research provide only a dubious basis for generalizing across a variety of circumstances (Altbach, Arnove, and Kelly, 1982). It is often not clear that even the most interesting findings are applicable to more than one particular time and place. An obvious, though often very difficult, way to try to remedy this problem is by replicating research in a variety of settings.

There are, of course, no guarantees that if such efforts are made they will be rewarded. Repeated replications of school effectiveness research, for example, have produced so many different results that they seem to defy interpretation (Bickel, 1986, 1987). Nevertheless, in the absence of efforts toward approximate replication, improved understanding of social and educational issues seems almost hopelessly elusive.

Consistent with this, this paper describes a near-replication in an Appalachian state of Florida research concerning identification of means to systematically increase the percentage of high school graduates who subsequently enroll in a college or university (Bickel, 1988). In both Florida and West Virginia, policymakers' interest in more effectively bridging the gap between high school and academic postsecondary study is premised on a commonsense analogue of economists' human capital theory (DeYoung, 1989). According to

this view, investment in education is an indispensible part of the process of promoting economic development in any complex, modern society.

Whether or not this view has merit, in both states it is coupled with the claim that substantial increases in the percentage of high school graduates who go on to a college or university can be accomplished without prohibitively costly initiatives aimed specifically at overcoming economic obstacles.

The published Florida research, however, found that, in the aggregate, high school graduates' prospects were determined largely by social and economic contextual factors, specifically median family income and the percentage of the population that was classified as rural. These, of course, are factors over which policymakers exercise little or no control. Our near-replication seeks to determine if the same kinds of factors are likely to thwart attempts to facilitate the transition between high school and academic postsecondary study in the very different state of West Virginia.

DEVELOPMENT AND HIGHER EDUCATION IN WEST VIRGINIA

In sharp contrast with contemporary views of Florida, West Virginia is probably best known as an example of Appalachian stagnation, poverty, and underdevelopment. Its per capita income is among the lowest in the U.S. Nearly 40 percent of all students drop out before reaching the eighth grade. Only 33 percent of the state's high school graduates enroll in a college or university. Ongoing out-migration of born-and-bred West Virginians in search of employment and improved prospects for themselves and their families is a source of continuing concern (DeYoung, 1988).

State policymakers, with few exceptions, express painful awareness of West Virginia's economic difficulties and the need to find effective responses. As with others in similar positions, the most frequently invoked corrective for unemployment, underemployment, and loss of traditional industries is improved education (Bickel, Milton, and Cummings, in press). As a result, for the past five years, West Virginia has spent fully two-thirds of its annual state budget on public education. Of this amount, about 20 percent has gone to higher education (Joint Commission on College Attendance, 1988).

Many legislators, the incumbent governor and his predecessor, and executives of West Virginia-based corporations have repeatedly expressed the view that access to colleges and universities must be improved for the state's high school graduates. It is unusual, how-

ever, for such judgements to be based on equity considerations. Instead, there is a widespread presumption that desired economic development requires a population with a comparatively high level of educational attainment. In a modern, "high-tech society," this includes a relatively large percentage of high school graduates who go on to postsecondary education in a broad range of disciplines.

COMMONSENSE HUMAN CAPITAL THEORY

In practice, West Virginia policymakers' public statements cast them in the role of unselfconscious proponents of what one might term commonsense human capital theory (DeYoung, 1989). While professional economists' technical details are missing, parallels between this lay ideology and its academic analogue are unmistakable.

Briefly, for both perspectives, the basic premise is the same: Judicious investments in education may very well be the one best means of attaining economic development in an efficient and politically workable way. (Compare, for example, the classic statements by Becker, 1962 and Schultz, 1962 with recent observations on West Virginia in Joint commission on College Attendance, 1988 and West Virginia Board of Regents, 1988). This contention is based on the following assumptions.

As individuals become better educated, they become more employable and their productivity in the workplace is enhanced (Adams, 1985). In consequence, as greater educational opportunity is provided to a larger number of a state's citizens, the productive potential of the entire state is increased. (Dennison, 1978 and 1979). Thus, investment education is an important part of the total capital accumulation process, and a significant determinant of economic development (Meier, 1984).

Education is expected to provide the knowledge base essential to an evermore complex division of labor. In addition, it also provides the organizational settings — schools — where investments in human capital can be made.

Finally, as modern social systems become more complex and intellectually demanding, the importance of facilitating the transition between high school and college becomes more salient (Hearn, 1988). Some have gone so far as to argue that, for individuals, payoffs for investments in high school education have been so sharply diminished that a high school diploma is of little value except as a means of gaining access to

a college or university (Kutscher and Personick, 1986; Yankelovich, 1985).

POSTSECONDARY ENROLLMENTS IN WEST VIRGINIA

The critical literature on both the common-sense and academic versions of human capital theory is, by now, voluminous (see, for example, Fine, 1986 and Carnoy and Levin, 1984). For policymakers, however, their appeal seems undiminished (Bickel, Milton, and Cummings, in press).

Whatever the validity of this perspective, how-ever, West Virginia policymakers' commitment to doing a better job of bridging the gap between high school and college is stronger than ever. Prescriptions as to how increases will be accomplished, however, remain vague. Given the state's financial difficulties, moreover, state-ments of this point of view are usually coupled with the expressed or implied claim that improved access can be accomplished without substantial increases in public education expenditures.

As with many current discussions of general educational improvement, there is a pervasive judge-ment that getting more high school graduates into four-year postsecondary programs can be done with a small set of commonsense reforms in public elementary and secondary schools (see, for example, Falsey and Heyns, 1984). It is assumed that these high school-based adjustments, such as hiring more guidance counselors and raising academic standards, will provide students with the skills and motivation needed to get into college and complete a degree program.

This commonplace perspective, however, does not acknowledge the possibility that students' educa-tional limitations or lack of motivation are not the primary reasons for low postsecondary enrollment rates (see Hearn, Fenske, and Curry, 1985). It ignores the real possibility that, as in Florida, social and economic circumstances, over which the state exercises little or no control, may be the most important factors in deter-mining district-to-district differences in the percentages of high school graduates who matriculate.

In an earlier school-district level analysis using Florida data, for example, we found that the primary determinants of district-to-district differences in college and university enrollment rates for the state's 67 school districts were median family income (positively related to enrollments) and the percentage of each district's population which was rural (negatively related) (Bickel, 1988). A variety of manipulable school characteristics, moreover, were not related to postsecondary enroll-ment rates. These manipulable factors included invest-ments in programs aimed specifically at promoting college and university enrollments through means such as dual enrollment in high school and college, early admission to college, and advanced placement courses.

For Florida, then, it seems reasonable to argue that attempts to foster economic development by pro-moting postsecondary enrollments through conven-tional school-based means will be of little value. Even if the economic development role of increased postsecondary enrollments were more firmly estab-lished, it is not evident that school-based reforms would be able to overcome social and economic contextual factors.

DETERMINANTS OF POSTSECONDARY ENROLLMENT RATES

In the following we first apply multiple regression analysis and then principal components regression analysis to a West Virginia data set nearly identical to that used in the earlier Florida research. Our objective is to identify factors which increase or diminish college and university enrollment rates. We are especially interested in determining if enrollment rates seem to be responsive to readily manipulable school-based fac-tors, to intractable social and economic contextual factors, or to both. We are asking, in effect, whether or not West Virginia policymakers' interest in increasing the percentage of high school graduates who subse-quently enroll in a college or university is likely to be thwarted by social and economic contextual factors, as was the case in our Florida research.

Variables used in the analysis are discussed below; a complete list of variables is included in Table 1. Data used in the analysis were provided by the Education Statistics Division of the West Virginia De-partment of Education, the West Virginia Board of Regents, the Bureau of Employment Security of the West Virginia Department of Labor, and the Special Collections Section of the Morrow Library at Marshal University.

OUTCOME MEASURE AND UNIT OF ANALYSIS

The outcome measure is the percentage of each school districts' 1986-87 high school graduates who enrolled in a community college, four-year college, or a university.

The unit of analysis is the school district. School-level data or individual-level data would be preferable to

district-level data for the outcome measure and most of the other variables used in the analysis (Purkey and Smith, 1983). For most measures, however, only district-level data is available. The value of district-level data is enhanced due to the fact that West Virginia's school districts are coterminous with the state's 55 counties; the same was true of the 67 district/counties in the Florida research. In addition, some of our social and economic contextual variables and the postsecondary opportunities variables would be difficult to estimate below the district/county level.

Use of the district as the unit of analysis, moreover, does not appear to have averaged out or disguised differences in postsecondary enrollment rates from place to place. To illustrate, even with this high level of aggregation, enrollment rates have a very broad range, from 15.7 to 43.6%. Descriptive statistics for all variables are reported in Table 2.

Independent Variables

The twenty independent variables can be divided into two categories: (1) district social and economic characteristics and (2) district school characteristics Each category contains a set of substantively similar factors (see Table 1).

Table 1
Descriptions of All District-Level Variables

Outcome Measure

ENROLL   Percent of High School Graduates in 1986-87 Who Enrolled
                 in a College, Community College, or University

District Social and Economic Characteristics

BLACK	Percent of Students Who Are Black
HISP	Percent of Students Who Are Hispanic
EDAVG	Average Educational Level of All District Residents
INCOME	Median Per Capita Income
DISADVAN	Percent of Students Eligible for Free or Reduced Cost Lunch
RURAL	Percent of Population Living in Rural Areas
PRIVATE	Percent of Students Attending Private Schools
WAGE	Average Earnings Per Job for 1986-87
UNEMPLOY	Average Unemployment Rate for 1986-87
ACT	Average Composite Score on ACT Test.

District School Characteristics

SIZE	Total Number of Students in Grades K-12
RATIO	Student-Teacher Ratio (Students Measured as Full-Time Equivalents)
COUNSEL	Student-Guidance Counselor Ratio (Students Measured as Full-Time Equivalents)
EXPEND	Expenditure Per Full-Time Equivalent Student
COLLPREP	Percent of Students in College Preparatory Curriculum
SALARY	Average Teacher Salary
DEGREE	Percent of Teachers with Advanced Degrees
POSTSEC	Number of Public Community College, College, and University Enrollment Opportunities (Opportunities Measured as Enrollment Headcount)

Table 2
Descriptive Statistics

	Means	Standard Deviations
	Outcome Measure	
ENROLL	33.2%	8.3
	District Social and Economic Characteristics	
BLACK	1.5%	2.1
HISP	0.8%	1.1
EDAVG	11.4%	1.6
INCOME	8,037.5	1,325.0
DISADVAN	45.3%	12.4
RURAL	79.7%	21.4
PRIVATE	0.2%	0.3
WAGE	17,046.4	3,900.7
UNEMPLOY	7.6%	2.9
ACT	17.4	1.5
	District School Characteristics	
SIZE	5,773.0	4,149.9
RATIO	18.6	1.7
COUNSEL	0.02	0.01
EXPEND	3,198.3	405.7
COLLPREP	28.2%	10.2
SALARY	22,367.6	3,862.0
DEGREE	45.3%	8.9
YEARS	9.5	1.6
POSTSEC	1028.4	1216.8

DISTRICT SOCIAL AND ECONOMIC CHARACTERISTICS

These ten variables are conventional measures of the social and economic composition of each school district. Use of these or closely related variables is commonplace in educational policy studies and the sociology of education (Bickel, 1987; Madaus, Airasian, and Kellaghan, 1980).

If district social and economic characteristics have a decisive impact on postsecondary enrollment rates, the inequity suggested by these relationships may be difficult to remedy (Bickel and Papagiannis, 1988). Such findings would be consistent with the claim that affluent and otherwise advantaged areas typically have relatively high levels of educational attainment, while less advantaged areas are deficient by comparison. This, as already noted, was the general conclusion reached in the Florida research (Bickel, 1988).

If, for example, the percentage of students who enroll in a college or university is determined by variables such as median family income, urban/rural composition, or other factors over which policymakers have little or no control, it may not be possible to formulate educational policies that will increase these rates. Instead, means of addressing this issue, insofar as they exist, may be located outside of schools.

Location of districts' average ACT composite score in this group of variables is problematic. However, one crucial distinction between district social and economic characteristics and district school characteristics is that variables in the latter group are subject to manipulation for policymaking purposes, while variables in the former group are not. According to this criterion, average ACT score seems best treated as a measure of the social and economic character of each district.

DISTRICT SCHOOL CHARACTERISTICS

The nine variables in this category are characteristics of the district school systems themselves. As with the social and economic characteristics, each variable reflects factors which are widely employed in educational research and policy studies wherein the school district is the unit of analysis (see, for example, Crain and McPartland, 1985; Bidwell and Kasarda, 1975). In contrast with social and economic characteristics, however, the school characteristics variables represent factors over which policymakers have at least some control. It is also true, however, that each of these district school characteristics may be determined, in whole or in part, by the district social and economic characteristics discussed above.

While use of variables such as these is commonplace in educational research, the impact of these factors on outcomes of interest has shown a good deal of variability from one piece of research to another (Bickel, 1986). Failure to include any of these variables, however, would constitute an open invitation to the objection that obvious controls have been omitted (see, for example, Cain and Goldberger, 1983). The entire complement of independent variables, moreover, is very similar to that employed in the Florida research.

REGRESSION RESULTS

The results of our regression analysis are presented in Table 3. While there are nineteen independent variables in the regression equation, only three have statistically significant regression coefficients: the percentage of students categorized as disadvantaged (DISADVAN), the percentage of high school students in the college preparatory curriculum (COLLPREP), and student/teacher ratio (RATIO). The coefficients corresponding to the DISADVAN and RATIO variables are both negative, meaning that as the percentage of disadvantaged students increases, postsecondary enrollment rates decrease, and as student/teacher ratios increase, enrollment rates again decrease.

The regression coefficient corresponding to COLLPREP is positive, meaning that as the percentage of students enrolled in a college preparatory program increases, college and university enrollment rates also increase.

Taken together, these three variables account for nearly 41 percent of the district-to-district variation in college and university enrollment rates, with the impact of COLLPREP being substantially larger than either of the other two variables.

Our findings with respect to DISADVAN, the percentage of students categorized as disadvantaged due to their eligibility for free or reduced-cost lunch, suggest a situation similar to that which we found in Florida. In that research, academic postsecondary enrollment rates were determined largely by factors over which policymakers exercised little or no control.

Our findings with the variables COLLPREP and RATIO, however, suggest that in West Virginia, in apparent constrast with Florida, it may be possible to manipulate school factors to improve outcomes. In West Virginia, to improve the percentage of high school graduates who go on to a college or university, policymakers should increase the percentage of high school students in college preparatory programs and reduce student/teacher ratios.

There are, however, two difficulties with this prescription. First, as is evident in Table 4, when the percentage of high school students in a college preparatory curriculum is used as a dependent variable, instead of as an independent variable, it becomes clear that this factor is closely related to two social and economic characteristics of school districts: The percent of district population that is rural (RURAL, a negative relationship), and, especially, median income per capita (INCOME, a strong positive relationship). The COLLPREP variable, in other words, mediates the relationship between these two social and economic contextual factors and academic postsecondary enrollments (Alwin and Hauser, 1975). These intractable contextual factors, over which policymakers exercise little or no control, work through the COLLPREP variable to exert a substantial impact on enrollment rates. As a result, it is by no means clear that attempts to directly increase enrollment rates by increasing the percentage of students in high schools' college preparatory curriculum will not be thwarted by social and economic contextual factors.

Second, in view of the fact that the state's high school enrollments are declining due to ongoing out-migration, the mood of the legislature, echoed in the popular press, is to save money by allowing the student/ teacher ratio to rise above its reported state-wide level of 16 to 1. At least one prominent journalist has endorsed this view with the claim that "if 24 to 1 is good enough for California, it's good enough for West Virginia." A low student/teacher ratio, especially at the high school level, has been judged by many to be a luxury that this fiscally devastated state cannot afford.

Due to both contextual and practical political factors, then, it appears that West Virginia and Florida are in a similar situation: Even if it were clear that increased college and university enrollment rates among the state's high school graduates were a powerful

Table 3
Regression Analysis Results: Enroll as the Outcome Measure

Statistically Significant Regression Coefficients (p<.05)

	Unstandardized	Standardized
District Social and Economic Characteristics		
BLACK	—	—
HISP	—	—
EDAVG	—	—
INCOME	—	—
DISADVAN	-0.19	-.299
RURAL	—	—
PRIVATE	—	—
WAGE	—	—
UNEMPLOY	—	—
ACT	—	—
District School Characteristics		
SIZE	—	—
RATIO	-14.63	-.294
COUNSEL	—	—
EXPEND	—	—
COLLPREP	0.28	.348
SALARY	—	—
DEGREE	—	—
YEARS	—	—
POSTSEC	—	—
Explained Variance		
R-SQUARED	40.9%	
N	55	

Table 4
Regression Analysis Results: CollPrep as the Outcome Measure

Statistically Significant Regression Coefficients (p<.05)

	Unstandardized	Standardized
District Social and Economic Characteristics		
BLACK	—	—
HISP	—	—
EDAVG	—	—
INCOME	39.7	.519
DISADVAN	—	—
RURAL	-1.3	-.290
PRIVATE	—	—
WAGE	—	—
UNEMPLOY	—	—
ACT	—	—
District School Characteristics		
SIZE	—	—
RATIO	—	—
COUNSEL	—	—
EXPEND	—	—
COLLPREP	—	—
SALARY	—	—
DEGREE	—	—
YEARS	—	—
POSTSEC	—	—
Explained Variance		
R-SQUARED	54.0%	
N	55	

Table 5
Correlation Matrix

	BLACK	HISP	EDAVG	INCOME	DISADVAN	RURAL	PRIVATE	WAGE	UNEMPLOY
BLACK									
HISP	.57								
EDAVG	.15	.11							
INCOME	.49	.45	.34						
DISADVAN	-.29	-.19	-.52	-.57					
RURAL	-.33	-.45	-.52	-.49	.52				
PRIVATE	.19	.37	.15	.34	-.43	-.43			
WAGE	.25	.25	.45	.47	-.55	-.46	.42		
UNEMPLOY	-.26	-.15	-.26	-.28	.41	.27	-.21	-.48	
SIZE	.44	.40	.16	.54	-.42	-.52	.21	.34	-.13
ACT	.16	.22	.50	.17	-.52	-.35	.30	.45	-.37
RATIO	-.10	-.12	-.09	-.07	.09	.22	-.17	-.15	.16
COUNSEL	-.01	-.21	.23	.10	-.22	-.05	-.01	.26	-.13
EXPEND	-.11	.02	.04	.24	-.31	-.04	.21	.06	.04
COLLPREP	.16	.20	.47	.46	-.68	-.64	.45	.47	-.21
SALARY	.28	.34	.08	.42	-.22	-.33	.39	.23	.15
DEGREE	.11	.14	.21	.33	-.30	-.30	.26	.14	-.14
YEARS	.19	.33	.18	.06	-.21	-.32	.17	.22	-.14
POSTSEC	.44	.24	.19	.30	-.34	-.34	.26	.28	.05
MATRIC	.27	.37	.26	.45	-.56	-.64	.29	.28	-.25

	SIZE	ACT	RATIO	COUNSEL	EXPEND	COLLPREP	SALARY	DEGREE	YEARS
SIZE									
ACT	.12								
RATIO	-.21	-.07							
COUNSEL	.11	.10	.02						
EXPEND	.06	.16	-.10	.11					
COLLPREP	.39	.37	-.13	.20	.27				
SALARY	.22	.29	.21	.03	.23	.29			
DEGREE	.19	.09	-.23	.07	.24	.39	.10		
YEARS	.03	.30	-.15	-.01	.12	.07	.29	.03	
POSTSEC	.60	.30	-.10	.07	.03	.38	.25	.17	.02
MATRIC	.27	.30	-.37	.09	.28	.59	.26	.33	.12

	POSTSEC	MATRIC
POSTSEC		
MATRIC	.19	

means of promoting economic development, it is not evident that either state has the policymaking wherewithal to increase these rates.

Multicollinearity and Principal Components Regression

One of the limitations of the foregoing analysis is that some of the independent variables, especially social and economic contextual factors, are highly intercorrelated (see Table 5). Moreover, with the school district as the unit of analysis, we have a comparatively small number of observations. Both these factors, multicollinearity and a small set of cases, tend to inflate the standard errors of regression coefficients (Fox, 1984). As a result, the likelihood of statistically significant findings may be unduly diminished.

One means of dealing with multicollinearity and a limited number of cases suggested by Dutta (1976) and numerous others is use of principal components analysis to linearly transform the original set of independent variables into a smaller set of variables. The new variables (the principal components) are then used as predictors in a regression equation with the original dependent variable. If the principal components are

substantively interpretable, the new equation may provide most of the informaton we had hoped to get from the original equation (Dunteman, 1989).

Kennedy (1989, pp.146-156) has recommended that when independent variables can be divided into substantively distinct groups, principal components analysis should be applied separately to each group. The first principal component from each group is then used as the new independent variable representing that group. In our analysis, the substantively distinct groups are, of course, district social and economic characteristics and district school characteristics.

The results of a principal components analysis conducted according to this procedure are reported in Table 6. Each of the independent variables representing district social and economic characteristics loads heavily on its principal component. The results for variables representing manipulable district school characteristics are interpretable but less clear-cut. This is consistent with our observation that multicollinearity is less evident in the bivariate correlations for the district school characteristics (see Table 6).

Table 6
Principal Components

Component 1: District Social and Economic Characteristics

BLACK	.542
HISP	.556
EDAVG	.580
INCOME	.718
DISADVAN	-.792
RURAL	-.738
PRIVATE	.616
WAGE	.753
UNEMPLOY	-.558
ACT	.617

Percent Variance Explained = 42.7

Component 2: District School Characteristics

SIZE	.715
RATIO	-.278
COUNSEL	.256
EXPEND	.406
COLLPREP	.763
SALARY	.489
DEGREE	.539
YEARS	.208

Percent Variance Explained = 27.2

The results of using the two principal components corresponding to district social and economic characteristics and district school characteristics in a regression equation predicting college enrollment rates are reported in Table 7. In line with the previous analysis, only the district social and economic charac-teristics variable has a statistically significant regres-sion coefficient. As before, variables which are subject to purposeful manipulation by educational policymakers are unrelated to postsecondary enrollment rates. Measures of school districts' comparative social and economic advantage, however, have a positive impact.

Table 7
Principal Components Regression Analysis Results:
Enroll as the Outcome Measure

	Statistically Significant Regression Coefficients (p<.05)	
	Unstandardized	*Standardized*
Component 1	4.54	.549
Component 2	——	——
	Explained Variance	
R-Squared	30.1%	
N	55	

One consequence of our principal components analysis, however, is that the COLLPREP variable, which had a statistically significant regression coeffi-cient in the original analysis, is now a constituent of the district school characteristics principal component. This component has a regression coefficient which is not statistically significant. This finding seems less para-doxical when we recall that COLLPREP itself was found to be a consequence of HOUSEINC and RURAL, both of which are constituents of the district social and eco-nomic characteristics component.

Another consequence of the principal compo-nents analysis is that the RATIO variable, which also had a statistically significant coefficient in the original analysis, is now also a constituent of the district school characteristics principal component. In the original analysis, this variable differed from COLLPREP in that RATIO could not be interpreted as mediating the rela-tionship between our outcome measure and one or more district social and economic characteristics. In short, the importance of RATIO could not be "explained away" by casting it in the role of an intervening variable

(Davis, 1985). Because of the practical political con-straints which prevail in West Virginia, however, we concluded that policymakers would not use a reduced student/teacher ratio as a means of increasing postsecondary enrollments. Instead, student/teacher ratios will continue to rise.

It seems clear, however, that the importance of the RATIO variable is not captured by our district school characteristics principal component. It is also useful to recognize that, while the negative sign of the RATIO variable is what we would expect, it does not load as heavily on district school characteristics as most of the other variables which constitute this component. It may be that limitations of data, statistical technique, and conceptual understanding have led us to misconstrue the nature and role of the RATIO variable.

Nevertheless, comparison of the original re-gression results with the principal components regres-sion reveals a good deal of consistency. Both indicate that contextual factors over which policymakers exer-cise little or no control have a substantial impact on postsecondary enrollment rates, while manipulable characteristics of schools and school districts hold little

promise as policymaking tools for increasing such rates.

CONCLUSIONS

It is by no means evident that increased enrollment of high school graduates in colleges and universities would have the kind of payoffs that many West Virginia (and Florida) policymakers' commonsense human capital theory leads them to expect. It is evident, however, that comparatively inexpensive, commonsense prescriptions as to how to increase enrollment rates are unlikely to work. As with the earlier Florida research, it seems that district-to-district differences in postsecondary enrollment rates in West Virginia are due largely to the direct and indirect effects of social and economic contextual factors over which policymakers exercise little or no control.

Whether or not these findings can be generalized beyond West Virginia and Florida remains to be seen. With similar results in such dramatically different states, however, the results are not easily dismissed as isolated idiosyncracies. This enhanced confidence, of course, is one consequence of attempting to accomplish near-replications of previous research in a variety of settings with very different characteristics.

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