

**THE IMPACT OF FEDERAL FINANCIAL AID POLICIES ON THE
FUNDING, DESIGN, OPERATION, AND MARKETING OF STATE AND
INSTITUTIONAL FINANCIAL AID POLICIES AND PRACTICES:
A REVIEW OF THE LITERATURE**

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This report was commissioned by TERI to provide a review of existing research findings, focused on the impact of student aid program design, operations, and marketing. This report was prepared under the direction of Ann Coles (Senior Vice President of TERI, coles@teri.org) and David Mundel (a consultant to TERI, david.mundel@comcast.net).

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Introduction

The vast majority of college students today rely upon financial aid to help them pay for college expenses. Prospective students must navigate through a complicated mix of federal, state, and institutional programs offering grants and loans under varying conditions and with different income, cost, and merit requirements. While this may be the reality facing students, research on higher education often ignores the complexity of the financial aid environment and treats each level of policies separately. In this way, scholars often ignore possible interactions between the financial aid policies of the federal government and those of states and colleges.

However, the degree to which federal aid policies influence the design, operation, and marketing of state and institutional programs could have important implications for the efficacy of financial aid. Moreover, whether federal policies work in conjunction with state and institutional policies or to opposing ends has a direct impact on the sum total of financial aid received by students. In summary, the influence of federal programs, the largest provider of direct student aid, on states and colleges could be important in determining the conditions under which aid is provided in the United States.

This report provides a comprehensive review of the higher education literature since 1985 to address the following question: To what extent have states and institutions considered and been impacted by federal policies when funding, designing, operationalizing, and marketing their financial aid policies and practices? Moreover, how has the design, operation, and marketing of the federal programs themselves impacted states and colleges? To address these questions, the review will identify ways in which the literature explores how state and institutional policymakers have taken into account and are influenced by federal programs when setting policy. Due to the nature of the available research, the report focuses on the actions of states and colleges rather than the decision-making process itself and often relies on statistical analyses of state and institutional tuition and financial aid data.

Federal financial aid policies might affect states and colleges in several ways. First, state governments and postsecondary institutions might choose to coordinate their own programs with those of the federal government. By working together, these groups might be able to maximize the goal of increasing college access. In contrast, states and colleges may choose to take advantage of federal money, and there has been much discussion about whether federal aid programs are used as substitutes for other potential sources of financial aid. In this report, we document and discuss examples of each type of behavior. On the other hand, states and colleges may not react to federal aid programs due to the fact that student aid works thru an intermediary (e.g. the student and their family) rather than directly with the state or institution.

The report is split into two sections. The first examines the impact of the federal government on state policy. Although there has been some research on the impact of recent policies such as the federal higher education tax credits, most of the literature only asserts the importance of having federal and state higher education finance policies in sync. Moreover, there are numerous examples of states that paid little attention to the role of the federal government when designing their own financial aid policies. Finally, scholars have failed to examine the relationship between state institutional subsidies and federal policy, a major part of the financial aid landscape.

The second part of the report focuses on the effect of federal aid policies on colleges and universities. Because states play an important role in setting tuition prices at public institutions, this section is connected to the state discussion. Unfortunately, the behavior of colleges and universities is largely ignored in the research literature, and few studies examine how federal aid programs affect postsecondary institutions. Foremost in the discussion of the interaction between policy and institutions are concerns about the Bennett Hypothesis, the assertion by former Secretary of Education William Bennett that colleges respond to financial aid programs by increasing tuition. However, there is little research evidence to support or discredit this notion, particularly in terms of federal policies. Due to the lack of research on colleges and universities, it is useful to consult research studies on the impact of state policy on institutions as several studies provide clues to how colleges might react to government policies.

There may be several reasons for the lack of research on the possible connection between federal aid policy and states and colleges. First, it is difficult to convincingly isolate the effect of federal aid from other possible catalysts. Changes in state and institutional aid policies may be related to a myriad of other factors including economic conditions or the preferences of legislative or educational leadership. Moreover, the complexities of the financial aid landscape are difficult to represent in a research design. Data are also a concern. To fully understand the impact of federal aid policies, detailed information is needed on state and/or institutional aid recipients and program features. Finally, there have been few large, recent changes in federal aid policy that could be used to examine the impact on states and colleges. The federal government raises the maximum Pell Grant award by only several hundred dollars at most, and there has not been a major change to the federal loan program for over a decade.

Impact of Federal Financial Aid Policy on State Policy

This section examines the extent to which current research and literature provide evidence about how federal student aid policies and practices effect states' considerations of policies to sustain and expand access to higher education. A discussion of state policy, however, must begin with recognition that state policy is anything but monolithic. Each of the 50 proudly independent states fashions its array of higher education finance policies within its own unique economic and social context.

Despite this fierce sense of independence between states throughout the country, virtually every state espouses a similar goal of providing broad access to high quality higher education for the state's citizens. States tend to fall into three or four camps with respect to how their policies work to accomplish these objectives. Hearn, Griswold, and Marine (1996) found that the Midwest and Northeast, for example, demonstrated much more rational economic behavior with respect to higher

education finance policies than was the case in the rest of the country, with the Southwest demonstrating the most uncoordinated policy framework. Zumeta (1996) found similar results and was able to categorize all but three states into five different categories: central planning (cp), laissez-faire (lf), market-competitive (mc), cp/mc hybrid, and lf/mc hybrid. This is important because “intentionally” dovetailing state and federal policies is only likely where “intentionality” in state policy itself is evident. Of course, it is also possible that some states intentionally chose not to coordinate federal and state policy, leaving primary responsibility in ensuring student financial access to either the federal government or to the institutions within their state.

Furthermore, the huge federal investment in financial aid, which at more than \$60 billion annually represents two-thirds of all financial aid available in the country and also represents an investment nearly equivalent to what states invest overall in higher education, would suggest that states logically would and should take these federal resources into account when fashioning their state related policies. The states actually contribute just as much student financial assistance indirectly through the state subsidies that enable low public tuitions, but this is seldom fully recognized in state policy or amongst state policy makers.

This substantial federal presence and the unique clustering of state policy environments would seem likely to provide enticing opportunities for research that examines the different ways in which states fashion their own policies in relation to federal aid. But that has not been the case. While a number of research articles and literature make reference to the relationship between federal and state access policies, there is very little actual research that examines this nexus. They lay out possible research paradigms, expound on the importance of such research, examine in depth one aspect of such research – the state policy environment, but do not focus on the federal/state interaction.

Some research does explicitly address the importance of this federal/state relationship, yet then fails to include it in the research design. Hearn, Griswold, and Marine, for example, attend well in their literature review to the evolution of student aid as an access tool, then develop a robust research design to examine the relationship between tuition and state financial aid policies and “region, resources, and reason,” but at no point do they factor into their research design how the substantial federal investment in financial aid affects state policy. Similarly, Hossler, Lund, et al.(1997) point to literature that asserts that “the lack of coordinated federal and state policies for funding student aid and institutional subsidies has accentuated the financial pressures facing college students, their families, and postsecondary educational institutions,” but then go on to define a nifty research design, which highlights the disconnect between state tuition and financial aid policies but gives no attention to the relationship between state and federal policy.

The implementation of federal tuition tax credits in 1997, however, did prompt serious research that touches on the relationship between state and federal policy. Robert Turnage (1998), in a policy research report for the California Legislative Analyst’s Office, examined the impact that changes in California policy could have if tuition tax credits were explicitly taken into account. His policy research suggested that 1997 changes in California law that reduced fees in California public higher education actually led to a reduction in the amount of tax credit otherwise available to California students and parents, thus resulting in no net benefit to the students and parents but a substantial increase in cost to the state, with a benefit equivalent to California’s loss accruing entirely to the federal government. He analyzed various ways in which California law could be adjusted to

explicitly take the new federal tax credit into account to generate from \$100 million to \$500 million per year in additional benefits to California and Californians. And he demonstrated how these savings could be used to increase need-based aid, support low-interest student loans, or fund new educational programs that demonstrated “measured improvements in educational outcomes.” There is no evidence, however, that this research was later translated into any intentional state policy.

Tuition tax credits have also captured the attention of the academic research community. Long (2004) from Harvard University has examined “the effect of tuition tax credits on enrollment decisions and college pricing,” showing that “some states have responded to incentives to increase the price of colleges at which student face a low marginal cost.” Long describes efforts in California, New York, Arkansas, Minnesota, North Carolina, and Washington to examine how state policy could be altered to intentionally factor tax credits into state finance policy. Interestingly, all of these states, with the exception of Arkansas, have relatively substantial state investments in need-based financial aid, and most would fit into the category that Hearn et al. refer to as states that “rationalize” state policy. Her research finds that “while some states seemed to have responded to the tax credits by shifting state appropriations at public two-year colleges in directions that would maximize the ability to capture federal funds, others who already had a proven record of supporting major aid programs for students continued to follow this mission and perhaps even bolstered it the face of the federal policy.” She found “no evidence that states altered their state support for public four-year colleges after the introduction of the tax credit.”

It is interesting that this new area for possible federal/state interaction resulting from tuition tax credits has garnered more attention than have the traditional federal student aid programs. This may be, in part, because there is relatively good data to use in examining questions about the impact of tuition tax credits, whereas there is often sparse data available to examine the relationships, intentional or not, between state and federal financial aid and financing decisions. None of the national databases maintained by the National Center for Higher Education Statistics have sampling designs that allow for state/federal comparisons. As reported in “Following the Mobile Student: Can We Develop the Capacity for a Comprehensive Database to Assess Student Progression,” a research report for Lumina Foundation for Education authored by Ewell, Schild and Paulson (2003), more than three-quarters of all states have developed state student record databases, which allow those states to track students throughout their educational careers; yet many of these unit record databases track only institutional and state data, not participation in federal programs. And blending federal and state data can often be difficult because of differences in definitions of terms and privacy concerns. Research scholars prefer to work on projects where it is likely that their research will provide solid evidence. Thus, the absence of good databases with which to work may well be as significant a barrier to good work in this area as is “lack of interest.”

Furthermore, the difficulty in assessing whether federal/state relationships are actually causal rather than incidental relationships may have impeded research in this specific area. One may find a correlation, for example, between increasing tuition levels within a state and increasing levels of federal financial aid, but other factors may have been the root cause of this correlation, not the direct interaction of the two. This difficulty in identifying the unique relationship of key variables may also contribute to the paucity of good research in this area. Gordon (2002), for example, in her 2002 dissertation demonstrated that within the elementary and secondary education arena there is strong evidence that increases in federal assistance negatively affects state support for elementary

and secondary education; but she also found that it takes a number of years to capture the effect of these changes. Delayed impacts are hard to capture in research, creating another impediment to good research in this area.

Another factor that may dissuade researchers from examining the linkages between federal and state student access policy is the point made at the beginning of this section – states often act quite independently from one another, depending upon their political culture and resource ties to the federal government. This heterogeneity can limit the applicability of research beyond the parameters of the specific states being studied and can even confound research findings if multiple states are included in an examination.

It is also possible that the problem isn't with the researchers; maybe there just is not much federal/state "interaction" to research. The pervasiveness of the federal role in assuring student financial access, combined with the lack of clear incentives or requirements for interaction may simply have led many states to leave this area of policy primarily to the feds. In many other areas where federal and state programs clearly interface, such as TANF, Medicaid, transportation, etc., states tend to have greater ownership of the federal programs, often setting the rules for participation based on federal incentives or directives. Federal student assistance goes directly to the students, not through the states. The absence of these intentional federal/state relationships may account for the less active attention to these relationships among states—that is, in the higher education arena federal/state relationships are more voluntary than they often are in other areas, which may account for why they simply do not occur. On top of this, many states had their own approach to addressing college affordability—low tuition—which preceded the federal government's entry into the college access game. Low tuition, by assisting all students, not just low-income students, garnered great political popularity, serving far more constituents than did the welfare-like financial aid programs. So, it may just be that there was not "there" there to research with regard to state/federal relationships.

Much of the literature, though not empirically based, does allude to the importance of bringing federal and state higher education finance policies into sync. Some of these references were reflected earlier in this chapter. Most of these rhetorical references attend to desired intentional attention to the relationship between federal and state financial aid policies or between federal financial aid and state tuition policies and practices. Hauptman and Rice (1997), in an article entitled "Coordinating Financial Aid with Tuition Tax Benefits," encourage federal policies to be modified to incorporate a role for states and institutions in the student aid equation. A number of articles laud Minnesota's intentional integration of federal student aid practices into the state's tuition and financial aid policies.

These aforementioned studies, however, are the exception. Most research and literature give little explicit attention to the federal/state relationship. For example, the Texas Higher Education Plan, entitled *Closing the Gap*, details one of the most ambitious efforts in the nation for expanding access to higher education for disadvantaged Americans. It includes explicit strategies that Texas intends to use to enhance participation, success, excellence, and research. Yet nowhere in the document is there any reference to intentionally interfacing Texas state policy with federal policy to enhance student access or success. The plan does express Texas's desire to increase federally funded research and development within its research universities, but seems unaware of the

possibilities of taking full advantage of federal student financial assistance to complement its efforts.

Fugitive literature from less rigorously reviewed sources includes more significant documentation of state discussions and considerations, but provides little more research-based evidence of the impact of intentionality on how policy evolves and what the impact of those changes have been toward achievement of the generally accepted public purposes of broadening access to high quality higher education. The experience of WICHE staff would reinforce these findings. Most state governments are not well informed or strategic in their considerations about the interface between federal and state financial aid policies. When people are cognizant of the strategic importance of this interface, they are generally making the case rhetorically, not proving the case through evidence-based policy research or analysis.

Equally important, very little literature and virtually no research have examined the relationship between the third rail of state higher education policy – institutional subsidies – and other finance policies. Yet to ignore state funding of institutions leaves any analysis of the integration of federal and state access policies wanting. States support broad access to higher education not only through their tuition and financial aid policies, but also through their support of institutions. Assuring educational opportunity requires that students have the wherewithal to go to college and also have a place to go. One author, Dennis Jones, in *Policies in Sync* (2003) effectively addresses the importance of relating all state higher education finance policies to each other and also points out the importance of relating these state policies to federal financial aid policies, concluding that “cost-effective state policy requires . . . careful alignment of funding policies dealing with appropriations for institutional support, tuition, and appropriations for student financial aid (recognizing the involvement of both the federal government and institutions in the latter).”

All in all, the evidence of intentional state/federal partnership in ensuring broad access to higher education through blended policies is sparse. This may be because there is very little intentional state/federal partnership or it may simply be because the research community has not found this area of inquiry intriguing, rewarding, or fruitful enough to study. The net result, however, is that we know very little from the research or literature about the extent to which the states and federal government intentionally consider each other’s policies when they act to finance expanded access to higher education. And we have even less evidence of whether such efforts, if they exist, have been successful.

Impact of Federal Financial Aid Policy on Colleges and Universities

This section of the literature review addresses two questions. The first deals with the extent of the impact of federal financial aid policies on higher education institutions. The second more specifically looks at the extent to which institutional awareness, understanding, and predictions of student aid programs have been influenced by program design, operations, and marketing activities. The research literature is thin on both questions. While there is ample reflection and conjecture by researchers, journalists, policymakers, and others on how institutions might be affected by federal student aid program resources, there is little scholarly research available. The paucity of research studies makes it difficult, if not imprudent, to answer this question. The few studies that were

located also acknowledge the lack of research (Acosta, 2001; Long, forthcoming; McPherson, Schapiro, and Winston, 1989).

The importance of good research on how institutions are influenced by federal financial aid has been recognized by McPherson, Schapiro, and Winston (1989), respected researchers on the economics of higher education: “Ignorance about colleges’ and universities’ behavioral response to changes in governmental funding policies is a major impediment to the assessment of the consequences of policy change. Our analysis of trends in higher education finance since the late 1970s strongly suggests that changes in government funding levels have significant impacts on tuitions, expenditures, and resource allocation” (p. 257).

Recognizing that there is little research now available, what should we expect to find in the literature? At the very least, we might expect to find studies on *why* institutions are influenced by federal student aid programs and *how* they have reacted to federal aid. While researchers and others who write on public policy issues have speculated on the *why* and the *how*, there is little research in the published literature that offers substantive evidence. The prevalence in the literature of thoughtful essays and general comment as opposed to substantive research underscores the value of the question for both higher education leaders and policymakers.

Regarding the question of *why* institutions respond to federal financial aid policies, researchers might explore financial motivations. Higher tuition usually means that more students qualify for federal assistance and that individual students would qualify for more federal aid. Thus, one might expect to find research studies that have examined whether institutions increased tuition in order to take advantage of increases in federal aid.

On the question of *how* institutions respond to federal aid policy, one might expect to see studies that examine whether institutions raise tuition levels or modify their institutional aid award. Again turning to McPherson, Schapiro, and Winston (1989), they state that the lack of attention to the effect of government subsidies on colleges and universities is unfortunate. “First, the net effect of federal policy changes on demanders of higher education may well be influenced by these supply responses. If, for example, universities systematically raised their prices when student aid subsidies increase (as former Secretary of Education William Bennett (1987) has alleged), then the impact of the subsidies on student enrollments may be substantially reduced. Second and more generally, if changes in the form and level of external support modify universities’ own resource allocation decisions, assessment of all such policies becomes a more complicated matter” (p. 253).

The information synthesized in the following pages is organized into two sections. The first examines a central question raised around the potential impact of federal aid policies on institutions: What happens to tuition levels and institutional aid? Because these issues have been the focus of most of the research that was uncovered for this review, those questions are considered first and separately from other issues. The second section considers other questions that might be raised when investigating the impact of federal aid policies on institutions.

Impact of federal aid policy on institutional tuition and financial aid policy

Some of the research that sheds light on the impact of federal aid policies on institutional action focuses on the questions of *why* and *how*. Since the mid-1980s, apprehension with institutional motives for pursuing federal dollars through financial aid has prompted a modicum of public response and a limited amount of research. Two prominent instances of this concern are mentioned here. The first challenge was raised by Chambers in *Higher Education: Who Pays? Who Gains?* (1968). Chambers posited that federal direct student aid policies would act as fiscal incentives for institutions to become more dependent on tuition. Nearly 20 years later, former Secretary of Education William Bennett posited in a *New York Times* editorial entitled “Our Greedy Colleges” (1987) that institutions might raise their tuition prices to take advantage of students’ ability to pay more for college as a result of federal financial aid policies.

These statements, especially Bennett’s, resulted in a wealth of comment but little research. Moreover, the research on the topic often fails to prove that federal policies have *caused* an institutional reaction rather than just noting that two trends are correlated. For example, research by McPherson, Schapiro, and Winston (1989) examines financial data for the years 1978-79, 1983-84, and 1985-86 to look at whether changes in federal subsidy policies produced changes in the way public and private universities allocated funds. They concluded that “changes in levels of federal student aid grant funding make the ‘Bennett hypothesis’ that aid increases feed tuition increases appear implausible.” Among elite private colleges and universities “where prices are highest and have risen most rapidly, federal student grant aid is an unimportant revenue source” (p. 253). The authors further suggested that their research raised the possibility that “the predominant relation between governmental funding and tuition rates may be inverse to that proposed by Bennett.” They suggest that “colleges and universities respond to reductions in rates of growth of government support in part by slowing their rates of growth of spending (and presumably service provision), and in part by increasing the share of costs borne by students and their families through tuition” (p. 253). One again, it is important to note that this research finds correlation but not causation, and methodological problems may cast doubt on their results.

In a separate study, McPherson and Schapiro (1991) use annual institutional data to relate changes in federal aid such as the Pell Grant to institutional behavior. That study reports findings that do not support Bennett’s statement: increases in government aid were accompanied by increases in institutional scholarship spending at private colleges. Li (1999) also focuses on the effects of the federal Pell Grant, using the master files of the Pell Grant Information System to track Pell recipients and the tuition levels of their respective colleges. In contrast, she lends some support for the Bennett hypothesis by finding that increases in Pell resulted in increases in tuition. Kane (1999) and Hauptman and Krop (1997) also provide further discussion, but no new research-based evidence, on the possible price effects of Pell.

As observed by Long (forthcoming), conflicting results may arise from the difficulty in isolating the effect of government aid on tuition pricing from other factors. Long notes that it is unclear whether changes in tuition are due to changes in the Pell or other general trends in higher education. “For example, during the past twenty years, colleges have increasingly participated in tuition discounting which raises the list price of college while varying the actual price individual students pay. Additionally, colleges have experienced large increases in expenditures on student services and

technology. Furthermore, the nature of the Pell Grant makes it a difficult program to study in terms of determining the impact on institutional behavior. First, there have not been large, discrete changes in the Pell since its creation, and therefore, it is difficult to perform a clear before-and-after analysis of its effect on colleges. At most, the maximum Pell Grant amount has only increased by \$300 since 1975. Second, since it is a federal program, it is difficult to determine a comparable control group. Institutions with and without many Pell recipients are different in ways likely to affect tuition pricing and trends” (pp. 2-3).

A different research approach was taken by Alexander (1998). Examining several databases, Alexander analyzed how public and private institutions had been “advantaged” by Title IV federal grant and loan program resources. He claims that his work verifies predictions by earlier researchers, most notably those put forth by Chambers, that forecast “detrimental effects of federal direct student aid policy” (p. 414). Alexander concluded that “the ultimate effect of the direct student aid policy was to give institutions incentive to escalate costs rather than containing them” (p. 414).

A question often examined in conjunction with tuition levels is whether institutions reallocate their institutional aid as a result of federal aid policies. In a working paper, Acosta builds on the McPherson, Schapiro, and Winston (1989) work and directly addresses institutional responses to changes in federal financial aid. She reported that private institutions increase the amount of both institutional aid and tuition revenues in response to increases in both federal grant and federal loan aid. Public institutions may raise tuition revenues and decrease institutional aid in response to federal grant aid but have no significant reaction to federal loan aid. It is important to note that this is a working paper and not a peer-reviewed and -vetted research paper, but it does reflect continuing interest in this research topic. Her findings, if finalized and published, may begin to provide an understanding of whether and how federal aid policies influence institutional tuition and aid policies.

Another study looking specifically at financial aid but at the graduate level reported a different response. Ehrenberg, Rees, and Brewer (1993) found that doctorate-producing universities respond to changes in the number of full-time science and engineering students supported on external funds by altering the number of students that they support on institutional funds. The authors also reflect on the importance of federal policy on institutional action: “Lost in the policy debate...has been any concern for the possibility that changes in federal support, or other external support to the institution, for graduate education may simply induce an academic institution to redirect its own financial resources in a way that at least partially frustrates the intent of such a policy” (p. 672). The authors conclude that “in the aggregate, increases in external support for full-time science and engineering graduate students would lead to much smaller decreases in institutional support for graduate students” (p. 681). Institutions with graduate programs manage their financial aid resources for those students differently than they manage aid for their undergraduate students. Additional research is needed on both the undergraduate and graduate levels to determine whether institutional reaction to federal aid policy differs by level.

Other research is emerging that may help us understand the impact of government aid on institutional tuition and financial aid policies. For example, studies of statewide financial aid programs and policies and their impact on institutional policy may provide useful clues in

understanding the federal policy question. Long (forthcoming) also considered the Bennett hypothesis but used a major state financial aid program instead of federal programs. She examined the effect of the Georgia HOPE Scholarship on college pricing, institutional aid, expenditures, and state appropriations. Her findings suggest that four-year colleges in the state, particularly private institutions, did respond by increasing student charges. Her study also found that at private colleges HOPE created incentives to reduce institutional aid. The institutional responses reduced the intended benefit of the scholarship and increased the cost of college for nonrecipients. In total, private colleges, particularly those with greater numbers of HOPE recipients, are estimated to have recouped 30 percent of the scholarship by raising prices and reducing institutional aid. The author does not speculate on the cause of the institutions' actions. While the purpose of this section of the literature review is to look at research studies that examine the impact of *federal* aid policies on higher education institutions, it may be that major *state* programs such as HOPE have similar effects on institutional behavior in relation to tuition and financial aid.

Other responses to government financial aid programs

The primary interest among researchers since 1985 has been the impact of federal aid policies on institutional policies related to tuition and financial aid. Yet there are several other areas that have generated some study or comment and are worth exploring. These areas are mentioned briefly here with references to any research that was located.

Most of the additional areas of research potential relate to how federal aid policies influence how institutions recruit and retain students. McPherson and Shapiro (2003) have noted that "individual colleges and universities have come increasingly to see financial aid awards as strategic tools to get the students they want while maximizing their net tuition revenues" (p. 1). This raises several questions related to both the *why* and the *how* relationship between federal aid and institutional responses. At least two questions focusing on student recruitment and retention are plausible when investigating the influence of federal aid policy on institutional policy.

Do federal financial aid policies encourage institutions to increase their recruitment of out-of-state students? The allure of nonresident students rests in their potential contribution to the academic reputation of the institution and their actual contribution to the financial resources of the institution. Once again, the scholarly research on this question is scarce. One study by Hoxby (1997) suggests that federal policies may be responsible, in part, for increasing numbers of students willing to go to institutions out of their home state. In turn, many institutions actively recruit nonresident students.

As federal loans have become the major source of aid and continue to increase faster than other federal student aid programs, are institutional packaging policies encouraging students to seek loans? The shift from grants to loans has been well documented in recent years, most notably by the College Board's publication *Trends in Student Aid*. Alexander (1998) points out that "the ratio of federal loan aid to grant aid has dramatically changed since the mid-1970s. Loans have become much easier to obtain and substantial student debt has been the product of these more lenient policies" (p. 404). What has been less well researched is why and how institutional financial aid packaging policies have changed. The increase in eligibility has clearly driven more students toward more and larger loans to finance their education. King (2003) reports that federal education loan programs are the single largest source of college financial assistance in the United States,

accounting for three-quarters of all federal student aid and more than half of aid from all sources in 2001-02 academic year. What research has not told us is whether institutional policies have encouraged financial aid officers at the institutional level to reduce other grant aid and guide students toward loan aid.

Once again, these additional research areas yield little substantive investigative study to help policymakers and educators.

The Influence of Program Design

This literature review is also interested in determining the extent to which institutional awareness, understanding, and predictions of student aid programs have been influenced by program design, operations, and marketing activities. While this is an important part of the overriding question of the influence of federal aid programs on institutions, no research studies were identified that relate to this issue. A news article in *The Chronicle of Higher Education*, while not a research study, does reflect public interest and activity on a range of issues. An article that appeared soon after the passage of the Clinton Administration's Hope Scholarship tax credit (Burd, 1998) provides a glimpse into how some institutions reacted then to the new federal policy. The news item reports that a few private colleges were considering lowering the amount of financial aid given to students who receive the tax credit. Unfortunately, nothing in the research literature tests this assertion.

The Pell Grant is perhaps the preeminent federal financial aid program that might logically spawn research related to the interests of this review. Are there research studies that examine whether features in the design, operation, or marketing activities associated with the Pell Grant have influenced institutional awareness and understanding of the program? For example, enabling legislation for Pell considered additional institutional subsidies that would help cover the cost of educating low-income students. According to McPherson and Shapiro (2003), "recognizing that educating disadvantaged students would add to college costs, the original authorizing legislation for these grants envisioned direct institutional grants to colleges that would accompany Pell grants and help institutions absorb these costs." Did this feature of the early Pell attract institutions to participate? This review of the literature found no published research on this question for the Pell or other federal financial aid programs, such as the work/study program, that are important to institutions.

Suggestions for Future Research

Before we can expect academic researchers and others to devote substantial attention to the relationship between states and the federal government on issues of financing student access and financial aid, we must assure that databases exist to support such research. It would help greatly if federal databases, such as the National Postsecondary Student Aid Study, were expanded to provide state-level samples robust enough to support federal/state interactions. It would also be helpful, as recommended in "Following the Mobile Student" (Ewell, Schild and Paulson), for states and the federal government to work together to establish common reporting standards for key data elements, to establish acceptable protocols for sharing data while protecting individual students' privacy, and to establish a preferred architecture for sharing data across state lines.

Yet good data alone would not be enough. We need to find ways to encourage exploration of these important federal/state relationships by both new and established researchers in the various disciplines. Today, too few social scientists find higher education research a rewarding area of intellectual inquiry. Yet there are few areas where the impact of good research could have a more significant impact, presuming the research is shared and understood by the policy community.

This leads to a third recommendation, which is to find more effective strategies for sharing knowledge obtained through rigorous research with the various policymakers. Good information does not assure good policy. But good policy is more likely if informed than if not.

It is worth noting, as well, that good research is most effective in informing policy if it not only describes federal/state relationships but also informs about how state and federal governments can intentionally work together to complement each other's goals. For example, past research has demonstrated how the original State Student Incentive Grant (SSIG) Program, now known as Leveraging Educational Assistance Partnership (LEAP), provided an intentional and highly successful federal intervention to encourage states to establish need-based state financial aid programs; but such research also showed that after maturing the program was not designed in a fashion to sustain an increased commitment by the states to such aid. More research is needed, both from the federal and state level to inform us about how their mutual efforts can be more supportive.

In terms of the interaction between federal policy and institutions, scholars are encouraged to examine whether the reactions of institutions differ by sector, level, or student population. The dearth of scholarly research on the impact of federal financial aid policies on institutional policies leads one to consider what kind of research is needed on the larger topics or themes, and how the influence of federal aid might be studied. There may be several approaches to assess this differentiated impact that are worth exploring.

One approach, and the only one where some quantitative work is currently available, is to look at the various sectors in higher education. Because public, private, and proprietary institutions are managed differently, as are public two-year and public four-year institutions, their reactions to important federal aid programs may also differ.

As reviewed above, a few researchers have begun to examine whether private four-year institutions have been more directly influenced by federal policies than have public institutions. Notwithstanding the few research articles that look at both public and private institutions, research related to private institutions seems to outpace that for public institutions. Research identified for this literature review has an indirect bearing on this in that the researchers looked at state, not federal, policy. Zumeta (1992) and Thompson and Zumeta (2001) studied private higher education and state policy. In an examination of the relationship between selected state policy variables and the competitive position of private colleges and universities, they suggest that state policies during a period of strong demand for higher education and constrained public sector capacity should use price signals to encourage students to consider seriously whether private higher education might serve their needs as well as or better than public institutions. McPherson and Schapiro have produced some of the most compelling studies on the influence of federal financial aid policies on public and private institutions. In *The Student Aid Game* (1998), for example, they examine how

student aid fits into college budgets and how aid and pricing decisions are shaped by government higher education policies.

No research was located on the influence of federal aid on two-year institutions or the for-profit sector. Nonetheless, these sectors may respond very differently than the public four-year sector to federal aid policies. Ehrenberg (2001) indicates that the proprietary sector “received a major boost when students enrolling in proprietary school programs were made eligible for federal financial aid programs including the Basic Educational Opportunity Grant (BEOG), or Pell Grant, program and the Stafford subsidized loan program.” Students enrolled in for-profit schools received increasingly higher proportions of these program funds, with the support level peaking in 1987. “That academic year, proprietary school students received almost 27 percent of all BEOG funds and that fiscal year they received almost 35 percent of all Stafford loan funds. Since that date, proprietary schools’ shares of these programs’ funds have declined” (pp. 11-12).

A second approach would involve the colleges and universities that are not historically white institutions – those designated Historically Black Colleges and Universities (HBCUs) and Hispanic Serving Institutions (HSIs). These institutions tend to serve larger proportions of students qualifying for need-based aid than do historically white institutions. That would suggest that their reaction to federal financial aid might be different from other institutions’ reactions.

A third approach would look at the distribution of benefits. Ehrenberg (2001) suggests that “a host of ... distributional issues arise when one considers state support of public and private higher education. Differences in the types of institutions that students from different socioeconomic, ethnic and racial groups attend within a state lead to the need for research relating distribution of benefits from state support of public and private higher education” (p. 11).

Another approach might explore how other federal programs that have significant financial aid components influence institutional policies. A plausible example is the GEAR UP program, with its early promise of financial aid. Have institutions engaged in programs like GEAR UP because of financial aid opportunities that would supplant institutional aid? The Department of Education attempted to prevent colleges from reallocating their own aid funds away from students who received awards under GEAR UP. The presumption was that colleges would divert the released resources toward unworthy purposes, rather than leveraging these resources to enable more disadvantaged students to get to college (McPherson and Shapiro, 2003).

Although these suggested ways of examining the central issue of institutional reaction to federal financial aid may be useful, they contain few examples of scholarly research.

Conclusion

In summary, the literature has failed to adequately provide answers to the research question of this study. It is unclear to what extent states and institutions have considered federal policies when determining their financial aid policies and practices. While there are numerous essays that reflect on how federal policies *might* interact with state and institutional programs, there is little scholarly research to confirm this possibility.

Unfortunately, there is little research or literature that examines the nature and extent to which federal and state financing policies work intentionally or unintentionally to expand educational access. While some research and literature asserts the importance of federal/state interactions, very little (with the exception of recent efforts to assess the impact of federal tax credits on state policy) has critically examined such relationships. This does not necessarily mean that there are no such efforts, just that there is no substantial body of research or literature that examines such relationships. Yet evidence does suggest that intentional relationships are probably the exception rather than the norm. There is, indeed, research suggesting that relatively few states actually pursue their own state policies in this arena in an organized, rational way. And if they don't rationalize their own policies, it is highly unlikely that they are rationalizing those irrational state activities with federal policy. All of which suggests a future course of action that calls both for more research on these relationships and a more intentional strategy for getting the results of this research into the hands of federal and state policymakers, so that they can increase the efficacy of both of their efforts to expand access to high-quality higher education for the citizens of this country.

From the perspective of institutional response to federal financial aid policy, the literature is limited to very isolated examples, most of which provide useful insights but may not directly address the questions in this review. While tuition and financial aid – critical factors in student access and success – have been the subject of much scholarly study, it is surprising and disappointing that so little has been done to explain how and why institutions react to federal financial aid policies.

References (Annotated Bibliography)

Acosta, R. J. (2001). "How Do Colleges Respond to Changes in Federal Student Aid?" University of California, Los Angeles, Department of Economics Working Paper 808.

The author examines variation in federal student aid caused by the Higher Education Amendments of 1992 to identify institutional responses to changes in federal financial aid. The paper also investigates whether institutions react differently to changes in grant aid vs. loan aid and whether public four-year institutions behave differently than private four-year institutions. Private institutions are found to increase the amount of both institutional aid and tuition revenues in response to increases in both federal grant and federal loan aid. Public institutions may raise tuition revenues and decrease institutional aid in response to federal grant aid but have no significant reaction to federal loan aid.

Alexander, F. K. (1998). "Private Institutions and Public Dollars: An Analysis of the Effects of Federal Direct Student Aid on Public and Private Institutions of Higher Education." *Journal of Education Finance* 23(3): 390-416.

Determines comparative benefits to public and private institutions as derived from Title IV federal direct student aid policy. Postsecondary entrance rates for students of all income levels have improved, but the goal of expanding educational opportunities for lower-income students has not been achieved.

Alexander, F. K. (1999). "Direct Student Aid and College Tuition: Assessing the Relationship." University of Illinois, Institute of Government and Public Affairs, Policy Forum 12(2).

Alexander describes the task of the National Commission on the Cost of Higher Education, an independent advisory body, to analyze the issue of college costs and prices. Eleven specific factors relating to college costs were identified and examined by the commission including: increases in tuition compared with other commodities and services, methods of reducing or stabilizing tuition, trends in administrative costs, facility construction and renovation, faculty productivity, and state fiscal policies. A primary issue that received much attention throughout the inquiry concerned the role that federal direct student aid has played in contributing to increases in college tuition. Despite the significance of other factors affecting college costs, the effects of direct student aid emerged as the most difficult for the commission to address.

Alexander, F. K. (2003) "Comparative Study of State Tax Effort and the Role of Federal Government Policy in Shaping Revenue Reliance Patterns." *New Directions for Institutional Research*, no. 119: 13-25.

This study raises concerns regarding state and federal funding strategies and fiscal inequalities that exist in higher education in the United States. Alexander argues that federal finance policies for higher education ignore disparities in state fiscal capacity and effort. The study includes comparisons of the tax efforts of states.

Baum, S. (2003). "The Financial Aid Partnership: Strengthening the Federal Government's Leadership Role." *National Dialogue on Student Financial Aid* series. Washington, D.C.: College Board.

Baum's essay calls for the federal government to refocus the national financial aid agenda on providing access to higher education for all qualified students. Because the various other partners in the financial aid system – state governments, nonprofits, and for-profits – necessarily base their policies on narrower agendas, the federal government must be the entity responsible for creating incentives for all partners to act in accordance with a clearly articulated national agenda focused on college access for all students.

Bennett, W. J. (1987). "Our Greedy Colleges." *New York Times*: A31.

Former Secretary of Education William Bennett puts forth his view that the expansion of federal educational loans has allowed college to "blithely" raise their tuition.

Bennett, W. J. (November 26, 1986). "Text of Secretary Bennett's Speech on College Costs and U.S. Student Aid." *Chronicle of Higher Education*: 20.

This article details Secretary of Education William Bennett's speech challenging colleges to curb rising costs. He also suggests that federal policy for student aid should be linked to school cost containment.

Burd, S. (January 9, 1998). "Some Private Colleges May Cut Awards to Students Receiving HOPE Scholarships." *Chronicle of Higher Education*: A48.

This article reports how many institutions plan to incorporate the new federal HOPE Scholarship tax credit of \$1,500 into their institutional aid packaging. Some private colleges were considering lowering the amount of financial aid given to students who also receive HOPE Scholarships.

Burd, S. (2004). "Plan to Punish Big Increases in Tuition Is Dropped." *Chronicle of Higher Education* 50(23): A20.

This article discusses how U.S. Congressman Howard P. "Buck" McKeon abandoned a proposal that would have punished colleges for big tuition increases. However, the article also provides a summary of the proposal and the debate surrounding his idea.

Chambers, M.M. (1968). *Higher Education: Who Pays? Who Gains?* Danville, IL: The Interstate Printers.

Clotfelter, C. T. (1996). *Buying the Best: Cost Escalation in Elite Higher Education*. Princeton, NJ: Princeton University Press.

This book investigates the rising cost of education at American colleges and universities and possible causes by intensively studying the experiences of typical departments in the humanities, social sciences, and sciences at three leading research universities – Duke University, Harvard

University, and the University of Chicago – as well as the contrasting experiences of Carleton College, a leading liberal arts college. Clotfelter focuses on changes within each institution over a 15-year period from 1976-77 to 1991-92. He discusses the university as an organizational form and developments over the study period that might have had an effect on the expenditures of colleges and universities.

Culclasure, B. T. (2001). *State Tuition Policy Decisions in Response to the Taxpayer Relief Act of 1997: The Case of California*. Doctoral dissertation, University of Virginia: 206 pages.

This study investigated, through a case study analysis, how the state of California responded to the Taxpayer Relief Act of 1997 (TRA 1997). Findings indicated that TRA 1997 worked in the way that was intended by federal policymakers and did not have a significant impact on price setting in California's public higher education institutions. This finding is contrary to the predictions of numerous social scientists. That is, the students who were eligible and took advantage of the tax credits found their education more affordable. Thus, a significant conclusion of this study is that TRA 1997 is in fact directly flowing to students in California, consistent with the goal of TRA 1997 to increase affordability to higher education for middle-income students. Price increases clearly are not undermining this goal in California.

Davis, J. S. (1994). "The Continuing Incentives in the Federal State Student Incentive Grant Program: An Assessment of the Effects of SSIG Allocations on the Creation, Maintenance, and Expansion of State Student Grant Programs, 1974-75 to 1992-93." Washington, D. C.: National Association of State Scholarship and Grant Programs.

This report describes how federal State Student Incentive Grant (SSIG) allocations have affected state expenditures on student grant programs. Additionally, the author documents what state grant program directors believe would happen to their programs if SSIG funds were cut. The report shows that the creation of the SSIG program in 1972 led to the establishment of need-based grant programs for postsecondary education in 22 states that did not previously have such programs. Increasing annual federal funding levels for SSIG contributed to statistically significant increased state expenditures on grant programs. Among the 26 states with the smallest programs, grant expenditures increased much more frequently when SSIG allocations grew than when they did not. A NASSGP survey of grant program directors found that 86 percent of states would have to reduce grants awards if they lost SSIG funding.

Dynarski, S. (2000). "Hope for Whom? Financial Aid for the Middle Class and its Impact on College Attendance." *National Tax Journal*, 53, 629–661.

The federal government and the states have recently enacted a slew of aid policies aimed at college students from middle- and high-income families. The author estimates the impact of aid on the college attendance of middle- and upper-income youth by evaluating Georgia's HOPE Scholarship, the inspiration of the new federal HOPE Scholarship. The results suggest that Georgia's program has had a surprisingly large impact on the college attendance rate of middle- and high-income youth. Using a set of nearby states as a control group, the author finds that Georgia's program has likely increased the college attendance rate of all 18- to 19-year-olds by 7.0 to 7.9 percentage points. The results suggest that each \$1,000 in aid (1998 \$) increased the college attendance rate in

Georgia by 3.7 to 4.2 percentage points. Due to key differences between the federal and Georgia programs, these estimates should be treated as a generous upper bound on the predicted effect of the federal HOPE Scholarship. Further, the evidence suggests that Georgia's program has widened the gap in college attendance between blacks and whites and between those from low- and high-income families. The federal HOPE Scholarship, should it have its intended effect on middle- and upper-income attendance, will also widen already large racial and income gaps in college attendance in the US.

Dynarski, S. (2004). "The Consequences of Merit Aid." In Hoxby, C. (ed.), *College Choices: The Economics of Which College, When College, and How to Pay For It*. Chicago: University of Chicago Press.

Since the early 1990s, a dozen states have established broad-based merit aid programs. The typical program waives tuition and fees at public colleges and universities in one's home state. Unlike traditional merit programs, such as the National Merit Scholarship, this aid requires relatively modest academic performance and provides scholarships to hundreds of thousands of students. This paper examines how merit aid programs in seven states have affected an array of schooling decisions, paying particular attention to how the effects have varied by race and ethnicity. The author finds that the new programs typically increase the attendance probability of college-age youth by 5 to 7 percentage points. The merit programs also shift students toward four-year schools and away from two-year schools. The Georgia HOPE Scholarship, which has been found to widen racial gaps in college attendance (Dynarski, 2000) is atypical in its distributional impact, with the other state's programs tending to have a more positive effect on the college attendance rate of Blacks and Hispanics. The author attributes HOPE's unique distributional effect to its relatively stringent academic requirements and a recently eliminated provision that channeled the most generous scholarships to higher-income students.

Ehrenberg, R. G. (2000). *Tuition Rising: Why College Costs So Much*. Cambridge: Harvard University Press.

Ehrenberg explores the causes of tuition inflation, drawing on his many years as a researcher of the economics of higher education and as a senior administrator at Cornell University. Using incidents and examples from his own experience, he discusses a wide range of topics, including endowment policies, admissions and financial aid policies, the funding of research, tenure and the end of mandatory retirement, information technology, libraries and distance learning, student housing, and intercollegiate athletics. Ehrenberg shows that elite colleges and universities, having multiple, relatively independent constituencies, suffer from ineffective central control of their costs.

Ehrenberg, R. G. (2001). "The Supply of American Higher Education Institutions." M. S. Ford *Policy Forum 2001: Exploring the Economics of Higher Education*. McPherson and M. O. Schapiro, eds. Cambridge, MA: Forum for the Future of Higher Education.

Ehrenberg notes the diversity of the types of institutions within American higher education and the lack of understanding about how they grow, change, and make decisions. He outlines a series of research questions and puzzles concerning this often-ignored part of postsecondary education.

Ehrenberg, R. G., D. Rees, D. J. Brewer. (1993). "Institutional Responses to External Support for Graduate Students." *Review of Economics and Statistics* 75: 671-682.

This paper uses institutionally based data to estimate how universities would respond to increased federal support for graduate students. It demonstrates that doctorate-producing universities do respond to changes in the number of full-time science and engineering students supported on external funds by altering the number of students that they support on institutional funds. Institutional adjustment to changes in external support levels appears to be quite rapid. However, in the aggregate, the magnitude of these responses is quite small.

Ewell, P. T., P. R. Schild, and K. Paulson. (2003). "Following the Mobile Student: Can We Develop the Capacity for a Comprehensive Database to Assess Student Progression?" Indianapolis, IN: Lumina Foundation for Education.

Researchers from the National Center for Education Management Systems (NCHEMS) examined several state databases to test the feasibility of linking them to create a voluntary 50-state network for following student progress. Among the findings were (1) state-level databases contain information on 69 percent of the nation's full-time enrollment and 73 percent of its headcount enrollment; (2) multiple databases located within the same state are usually compatible and virtually all have been in place long enough to generate six-year enrollment records; and (3) very few states link with databases across state lines.

Gordon, N. E. (2002). *Essays in the Economics of Education*. Doctoral dissertation, Harvard University: 149 pages.

In the first part of this dissertation, Gordon considers how local and state revenue respond to federal Title I revenue for compensatory education. She finds that education revenue efforts at the state and local levels are initially unaffected so that instructional spending changes dollar for dollar to reflect changes in Title I revenue. After several years, however, local school districts and the municipal and county governments that help them have offset changes in Title I, so that the federal spending has only small and statistically insignificant effects on schools.

Hauptman, A., and C. S. Krop (1998). *Federal Student Aid and Tuition Growth: Examining the Relationship*. New York, Council for Aid to Education.

The authors examine the Bennett hypothesis and suggest that the availability of financial aid is not the principal reason for the increase in tuition costs. However, they do note that the tremendous growth in federal loans has made it easier for institutions to raise tuition without experiencing decreases in enrollment; because of their smaller, relatively stable share, federal grants have had less impact on college pricing decisions. To moderate tuition increases without impinging on colleges' autonomy, Hauptman and Krop suggest that the federal government should determine student eligibility for loan subsidies based on partial costs, create an annual limit on federal aid, or establish performance-based regulatory relief.

Hauptman, A., and L.D. Rice (1997). "Coordinating Financial Aid with Tuition Tax Benefits." Washington, D.C.: Brookings Institute, Policy Brief 28.

The authors discuss the how President Clinton proposed and the Congress enacted the most extensive use ever of the tax code to help families pay for college. While students in the two top income quartiles are thought to be the principal beneficiaries of the new education tax provisions, low- and moderate-income students – the traditional focus of federal student-aid efforts – are likely to receive little tax relief. The authors suggest that policymakers now turn to the scheduled reauthorization of the Higher Education Act, which includes grants, loans, and work-study programs. Enactment of the education tax provisions provides an unusual opportunity to reconfigure federal student-aid programs in ways to mesh them with the new tax provisions and to enhance the historic federal goal of equalizing educational opportunities for the neediest students.

Hearn, J. C., and M. S. Anderson (1989). "Integrating Postsecondary Education Financing Policies: The Minnesota Model." *New Directions for Institutional Research* 16(2): 55-73.

When Minnesota conducted its experiment on countering rising tuition by increasing aid to needy students, the necessary research involved institutional researchers and student aid officers at both the campus and state levels. The approach appears to have had largely favorable consequences.

Hearn, J. C., C. Griswold, G. Marine. (1996). "Region, Resources, and Reason: A Contextual Analysis of State Tuition and Student aid Policies." *Research in Higher Education* 37(3): 241-278.

The authors report on an investigation of differences and similarities across the 50 states in terms of approaches to the pricing and discounting, via student aid, of undergraduate education. The article outlines the philosophical origins of public tuition and aid policies, a theoretical framework, and state tuition pricing policies.

Hearn, J. C., H. Sano, and S. Urahn (1985). "Targeted Subsidization of Postsecondary Education Enrollment in Minnesota: A Policy Evaluation." University of Minnesota, Center for Urban and Regional Affairs, CURA 85-9.

Minnesota's policy in the early 1980s of raising tuition for postsecondary education while increasing the money available for need-based student financial aid is examined. Did the policy affect high school students' expectations and plans for further education? Did it affect their access to education? The study looks at the whole picture of equity in financing postsecondary education. The study utilized data gathered about high school juniors in 1979, 1981, and 1983 via the Students Plans and Background Survey of the Minnesota Post-High School Planning Program (the base number for each cohort was 1,000 students). Follow-up data were obtained from 400 students per cohort via questionnaire/telephone survey. Results include the following: (1) financial factors appeared to negligibly influence the college plans and expectations of high school students; (2) high school achievements and previous expectations for college attendance were the most influential enrollment influences; (3) while financial issues did influence college choice, academic factors were primary influences; and (4) the adequacy of aid packages for independent students declined.

Hossler, D., J. P. Lund, J. Ramin, S. Westfall, S. Irish. (1997). "State Funding for Higher Education: The Sisyphean Task." *Journal of Higher Education* 68(2): 160-190.

Using multivariate statistical techniques and selected interviews, this study explores relationships between tuition levels at public institutions, state subsidies for public institutions, and state financial aid programs. The results indicate that few states are systematically addressing issues of affordability. There were no statistically significant relationships between these key variables. Several possible explanations are explored.

Hoxby, C. M. (2000). "Benevolent Colluders? The Effects of Antitrust Actions on College Financial Aid and Tuition." National Bureau of Economic Research Working Paper 7754.

The Department of Justice's (DOJ's) investigation of private colleges for price-fixing caused the Overlap Group of colleges to discontinue their meetings. The DOJ alleged that the meetings enabled the colleges to collude on higher tuition and increase their tuition revenue. The colleges claimed that they needed the meeting to implement their policies of basing aid on need and fully covering need. This paper investigates whether the cessation of the meeting caused a breakdown of need-based aid policies or whether, as DOJ argued, the meeting was unnecessary for such policies. Hoxby also attempts to determine whether the cessation of the meeting affected tuition or tuition revenue. The results suggest that the discontinuation of the meetings resulted in less financial aid to needy students.

Hoxby, C. M. (1997). "How the Changing Market Structure of U.S. Higher Education Explains College Tuition," National Bureau of Economic Research Working Paper No. W6323.

Jones, D. P. (2002) *Financing in Sync: Aligning Fiscal Policy with State Objectives*. Boulder: National Center for Higher Education Management Systems, December.

Jones notes that while financing policy is potentially the most powerful policy tool states can utilize to influence how institutions, students, and employers behave in ways consistent with broader public purposes, it is often not wielded effectively. After identifying the elements of financing policy and major issues that relate to those elements, he looks at decision points for state policymakers and suggests some approaches to enhance the decision-making process and its results.

Kane, T. J. (1999). *The Price of Admission*. Washington D.C.:Brookings Institution Press.

Kane begins with an overview of the many indirect ways in which Americans pay for college – as taxpayers, students, and parents – and describes the sometimes perverse ways in which state and federal financial aid policies interact. He evaluates alternative explanations for the rise in public and private college costs – weighing the role of federal financial aid policy, higher input costs, and competitive pressures on individual colleges. He analyzes how far we have come in ensuring access to all. Evidence suggests that large differences in college enrollment remain between high and low income students, even those with similar test scores and attending the same high schools. Kane promotes a package of reforms intended to squeeze more social bang from the many public bucks devoted to higher education.

King, J. E. (2003). "2003 Status Report on the Federal Education Loan Programs." Washington, D.C.: American Council on Education, Center for Policy Analysis.

This report details the history and current status of the Pell Grant program using data from multiple federal sources.

Klein, S. P., et al. (1995). "The Policy Implications of Interactions Among Financial Aid Programs." *Journal of Student Financial Aid* 25(2): 5-12.

Various gift-aid, loan, and work-study programs help college students fill the gap between educational costs and their financial resources. This article draws on research conducted on colleges in Indiana to describe how federal, state, private, and college-based financial aid programs and practices interact with each other to determine the total amount of gift-aid a student receives. It discusses how these relationships can dilute or enhance a program's implicit targeting policies.

Li, J. (1999). "Estimating the Effect of Federal Financial Aid on College Tuitions: A Study of Pell Grants." Harvard University mimeo.

Li attempts to test the Bennett hypothesis by linking changes in the Pell Grant to changes in student enrollment. She uses variation in the number of Pell Grant recipients at each institution in the analysis.

Long, B. T. (2004). "The Impact of Federal Tax Credits for Higher Education Expenses." *College Choices: The Economics of Which College, When College, and How to Pay For It*. C. M. Hoxby, ed. Chicago: University of Chicago Press.

The 1997 creation of the HOPE and Lifetime Learning Tax Credits marked a dramatic shift in the way in which federal support for college expenses is distributed to students and their families. However, unlike other aid programs, the tax credits have exceptionally broad eligibility requirements, and there is a significant delay between when a recipient enrolls in college and when they receive the benefit. This study examines the impact of the tax credits on students, families, colleges, and states. Using several data sources, the author analyzes the distribution of the benefits and the effect on enrollment decisions and college pricing. She finds some suggestive evidence that states did take the new policy into account when setting tuition prices.

Long, B. T. (forthcoming). "How Do Financial Aid Policies Affect Colleges? The Institutional Impact of the Georgia HOPE Scholarship Program." *Journal of Human Resources*.

This paper examines the effects of financial aid policies on the behavior of postsecondary institutions. Using the introduction of the Georgia HOPE Scholarship as a natural experiment, it investigates the impact of the policy on college pricing, institution aid, expenditures, and state appropriations. The results suggest that four-year colleges in Georgia, particularly private institutions, did respond by increasing student charges. In the most extreme case, colleges recouped approximately 30 percent of the scholarship award. As a result, the institutional responses reduced the intended benefit of the scholarship and increased the cost of college for nonrecipients. However, even at the most extreme, the response of colleges did not approach the behavior described in

Bennett's "Our Greedy Colleges" article. Moreover, due the magnitude and transparency of the HOPE Scholarship, the reaction to this policy is likely to be much larger than any response to federal aid policies.

Masten, S. E. (1995) "Old School Ties: Financial Aid Coordination and the Governance of Higher Education." *Journal of Economic Behavior & Organization* 28(1): 23-47.

This paper analyzes the role of financial aid coordination among the group of top Northeastern colleges and universities known as the Overlap Group. Members of the Overlap Group met annually to tailor financial aid packages so that the out-of-the pocket contribution of parents to their children's education was the same regardless of the school the students chose to attend. The author argues that the practices and stability of the Overlap Group are difficult to reconcile with traditional cartel theory and that financial aid coordination was a solution to organizational problems encountered in the education industry, particularly, to matching and externality problems arising in the allocation of elite students among educational institutions.

McLendon, M. K. (2003). "Setting the Governmental Agenda for State Decentralization of Higher Education." *Journal of Higher Education*, 74(5), 1-37.

State decentralization of higher education emerged as a significant governance trend of the 1980s to 1990s. Yet little is known about how or why decentralization first became an issue to which state governments paid serious attention. This study employs multiple theories to analyze the agenda-setting stage of policy formation in three states that enacted decentralization legislation.

McLendon, M.K., D.E. Heller, and S. Young. (forthcoming). "State Postsecondary Education Policy Innovation: Politics, Competition, and the Interstate Migration of Policy Ideas." *Journal of Higher Education*.

McPherson, M. S., and M. O. Schapiro (1991) *Keeping College Affordable: Government and Educational Opportunities*. Washington, D.C.: Brookings Institution.

This book assesses the role of government subsidies for higher education in keeping college affordable for Americans of all economic and social backgrounds. The authors examine the effects of student aid policies of the last 20 years. They address several vital questions, including whether increases in federal student aid encouraged schools try to capture the revenue. Building upon their conclusion that student aid works, they propose reforms that would bolster the role of income-tested aid in the overall student-financing picture. McPherson and Schapiro recommend a number of incremental reforms that could improve the effectiveness of existing federal aid programs and present a proposal to replace a substantial fraction of state-operating subsidies to colleges and universities with expanded federal aid.

McPherson, M. S., and M. O. Schapiro (1998). *The Student Aid Game*. Princeton, NJ: Princeton University Press.

McPherson and Schapiro offer a detailed look at how undergraduate education is financed in the United States, highlighting differences across sectors and for students of differing family

backgrounds. They review the implications of recent financing trends for access to and choice of undergraduate college and gauge the implications of these national trends for the future of college opportunity. The authors examine how student aid fits into college budgets, how aid and pricing decisions are shaped by government higher education policies, and how competition has radically reshaped the way colleges think about the strategic role of student aid. Of particular interest is the issue of merit aid. McPherson and Schapiro consider the attractions and pitfalls of merit aid from the viewpoint of students, institutions, and society. The book concludes with an examination of policy options for both government and individual institutions. McPherson and Schapiro argue that the federal government needs to keep its attention focused on providing access to college for needy students, while colleges themselves need to constrain their search for strategic advantage by sticking to aid and admission policies they are willing to articulate and defend publicly.

McPherson, M. S., and M. O. Schapiro (2003). "Getting the Most out of Federal Student Aid Spending - Encouraging Colleges and Universities to Promote the Common Good." *National Dialogue on Student Financial Aid* series. Washington, D.C.: College Board.

McPherson, M. S., M. O. Schapiro, G.C. Winston, (1989). "Recent Trends in U.S. Higher Education Costs and Prices: The Role of Government Financing." *American Economic Review* 79(2): 253-257.

The authors review recent trends in college affordability and the role of federal aid policy.

McPherson, M. S., M. O. Schapiro, et al. (1994). *Paying the Piper: Productivity, Incentives and Financing in U.S. Higher Education*. Ann Arbor, MI: University of Michigan Press.

Mumper, Michael (2003) "Does Policy Design Matter? Comparing Universal and Targeted Approaches to Encouraging College Participation." *Educational Policy* 17(1): 38-59.

This article compares universal and targeted program designs in the federal and state programs to encourage participation in higher education. It begins by reviewing the policy design literature in political science. Then, using that literature, it compares the experiences of universally designed state policies (subsidies for low tuition) and targeted state policies (high-tuition/high-aid funding). It also compares the experience of a universally designed federal program (Pell Grants) with a targeted program (Stafford Loans). The analysis concludes that design had only a limited impact on program sustainability. However the federal loan programs seemed more sustainable than the Pell Grant. Finally, the article notes the rise of a new design strategy, reverse targeting, evident in the state merit scholarship and federal tax credit programs. This design seems more politically popular than either of the conventional designs.

New York State Higher Education Services Corporation. 1998. "Preliminary Report on the Restructuring of New York's Grant and Scholarship Programs, Including the Tuition Assistance Program. Albany."

This report outlines New York State's options in coordinating its grant program with the federal Higher Education Tax Credits introduced in 1997.

Sridhar, D. J. (2001). Postsecondary Enrollment Effects of Merit-based Financial Aid: Evidence from Georgia's HOPE Scholarship Program. Doctoral dissertation, University of Georgia: 115 pages.

Traditionally, state and federal postsecondary student financial aid programs have been need-based. On the other hand, large-scale, government-sponsored, merit aid programs are a recent phenomenon. A prominent example is Georgia's HOPE (Helping Outstanding Pupils Educationally) Scholarship Program initiated in 1993, funded by a state lottery. This study analyzes the policy shift from need-based to merit based aid, as exemplified by the HOPE Scholarship, and its effects on college attendance.

St. John, E. P. (1994). "Prices, Productivity, and Investment: Assessing Financial Strategies in Higher Education." *ERIC Digest*. Washington, D. C., ERIC Clearinghouse on Higher Education.

This digest of a full report of the same title critically examines the cost controversy in higher education to better understand the types of financial strategies that can help resolve the crisis in college costs. A look at why these costs are so controversial finds that rapid rise in tuition, public debate about educational expenditures and real or alleged waste, and concerns over access have increased debate about public funding of college costs and weakened public confidence in higher education institutions. In exploring the role of federal and state policies contributing to the controversy, the analysis finds changes in federal policy influenced the overall pattern of enrollment redistribution and indirectly influenced price increases in private colleges. At the state level the analysis finds that declines in state support have led to increases in tuition at public institutions and that decreased appropriations by states usually lead to increased tuition charges, decreased grants, and reduced minority participation. A look at institutional policies and their contribution to the controversy examines why prices increased, changes in productivity, and the quality of investment in higher education. Final sections explore whether the negative effects of cost increase can be reduced, improving productivity, and improving returns on education.

St. John, Edward P. (2003). *Refinancing the College Dream: Access, Equal Opportunity, and Justice for Taxpayers*. Baltimore, MD: John Hopkins Press.

St. John proposes to raise the maximum Pell Grant and encourage states to coordinate their public finance strategies for tuition and grants in a way that ensures financial access for low-income students. States would receive some federal matching grants to help with the new investment in need-based grants.

Texas Higher Education Coordinating Board (2000) *Closing the Gaps by 2015*. Texas Higher Education Coordinating Board. Available online from <<http://www.thecb.state.tx.us/ClosingTheGaps/>>. Cited April 12, 2004.

Adopted in October 2000 by the Texas Higher Education Coordinating Board with strong support of the state's educational, business, and political communities, the plan is directed at closing educational gaps within Texas, as well as between Texas and other states. It has four goals: to close the gaps in student participation, student success, excellence, and research. The plan includes

strategies for reaching each of the goals and an annual performance measuring system. However, there is no mention of coordinating state and institutional aid programs with federal policies. The only mention of the federal government involves federal research grants for universities.

The College Board. (2003). *Trends in College Pricing, 2003*. Washington, D.C.: The College Board.

Thompson, F., and W. Zumeta (2001). "Effects of Key State Policies on Private Colleges and Universities: Sustaining Private-Sector Capacity in the Face of the Higher Education Access Challenge." *Economics of Education Review* 20(6): 517-531.

The authors examine the relationship between key state policy variables and the competitive position of private colleges and universities. The findings suggest state policies in this era of strong demand for higher education and constrained public sector capacity should use price signals to encourage students to consider seriously whether private higher education might serve their needs as well as or better than public institutions.

Turnage, R. (1998). Taking Advantage of New Federal Higher Education Tax Credits [online]. Sacramento: California Legislative Analyst's Office]. Available online from <http://www.lao.ca.gov/0298_highered_tax_credits.html>. Cited June 10, 2002.

This report outlines California's options in coordinating its grant program with the Federal Higher Education Tax Credits introduced in 1997. Legislators suggest that California will be shortchanged in getting federal support because their public tuition levels are so low. Some suggest that tuition prices should be raised to take advantage of the federal funds.

Viau, T. B. (2002). *An Analysis of Policymaking: Financial Aid, Tuition and Access for Low-Income Students at Michigan Public Universities*. Doctoral dissertation, Michigan State University: 127 pages.

The purpose of this study was to determine the extent to which coordinated efforts in providing financial aid to low-income students exist at the university level. Specifically, this study seeks to determine the extent to which institutional policymakers at Michigan public universities link decisions related to need-based financial aid and tuition pricing, and to determine if these policies support institutional goals related to access and affordability. The research strategy for this study was a case study of policymaking at the 15 public universities in Michigan. The study included the use of qualitative and quantitative research methods and data was collected from three primary sources: state and university documents, archival reports and records and a survey of financial aid and budget officers at Michigan's 15 public universities. The results indicate that policy decisions related to funding for institutional need-based aid and tuition pricing are coordinated at Michigan public universities and indicate that the extent to which the policies are linked may be based, in part, on university type and the university's mission and goals related to access and affordability. The results of the survey also reveal that a growing share of institutional financial aid funding is being allocated to merit-based scholarships; at most of the institutions responding to the survey questionnaire, the share of institutional aid allocated to merit-based scholarship exceeds the share allocated to need-based grant.

Wellman, J. (2002). *Accounting for State Student Aid: How State Policy and Student Aid Connect*. Washington, D.C.: Institute for Higher Education Policy.

Authored by Senior Associate Jane Wellman, this report focuses on state funding for student aid, examining the evolving policy strategies in the eleven states that are making some of the biggest investments in state aid – California, Florida, Illinois, Minnesota, New Jersey, New York, Ohio, Pennsylvania, Vermont, Virginia, and Texas. Based on reviews of national literature on funding in higher education, individual states are portrayed through analytical profiles compiled from published and unpublished documents obtained directly from the states and supplemented by in-depth interviews of individuals at the state level.

Zumeta, W. (1992). “State Policies and Private Higher Education: Policies, Correlates, and Linkages.” *The Journal of Higher Education* 63(4): 363-417.

Data on key state policies affecting private higher education are presented. Analyses show these policies tend to be linked within states and are associated with certain state-level variables, notably private sector state relations efforts, state governance structures and (inversely) with state higher education spending. Given growing demands and limited tax resources, states are urged to utilize their private sectors more fully.

Zumeta, W. (1996). “Meeting the Demand for Higher Education Without Breaking the Bank: A Framework for the Design of State Higher Education Policies for an Era of Increasing Demand.” *The Journal of Higher Education* 67(4): 367-425.

This article offers a model of state policymaking as it affects private higher education. It advances three constructs of policy postures: laissez-faire, central-planning, market-competitive. It explores empirically the relationships of the policies and postures to state characteristics and policy outcome proxies and draws policy implications. The analysis suggests that market-competitive-oriented policies are likely to be cost-effective for most states.