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A Typology of Federal and State Programs Designed to Promote College Enrollment

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Abstract

Over the past four decades, policymakers have developed numerous policies and programs with the goal of increasing college enrollment. A simple Google search of the phrase "college access program" generates 226,000,000 hits. Entering the same terms into the search engine on the U.S. Department of Education's Web site generates 500 hits.

Despite the apparent plentitude of policies and programs, however, college access and choice for recent high school graduates remain stratified by socioeconomic status and race/ethnicity (Thomas & Perna, 2004). Young people from low-income families and whose parents have not attended college, as well as those of African American and Hispanic descent, are less likely than other young people to enroll in college. When they do enroll, these students find themselves concentrated in lower-priced institutions, such as public two-year colleges and less-selective four-year colleges and universities (Baum & Payea, 2004; Ellwood & Kane, 2000; National Center for Education Statistics [NCES], 2003, 2004; Thomas & Perna, 2004).

Comments

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Despite a dramatic expansion of higher education enrollments over the past three decades (NCES, 2004), persisting gaps in participation suggest that existing policies and programs are not accomplishing their underlying goals. Efforts to understand why policies and programs are not working are hampered by the absence of a framework for organizing the myriad efforts designed to reduce participation gaps and, by extension, for demonstrating policy blind spots and redundancies. Such a framework is necessary to assist in organizing, and thus simplifying, the complexity of the policy domain for college participation—a complexity defined in part by multiple policies and programs sponsored by multiple entities at different levels of government. By characterizing the ways that particular programs are intended to encourage enrollment, a typology provides a necessary first step in an empirical examination of the ways that programs separately and together shape higher education opportunity for different groups of students.

Hearn's (2001) assessment of federal student aid policies and programs offers three conclusions that are useful for understanding the nature of college-enrollment policies and programs more generally.¹ First, Hearn shows that federal financial aid policies and programs lack "philosophical coherence," as reflected by the wide array of distinct goals, including promoting access for low-income students, improving college affordability for middle-income students, rewarding achievement, advancing economic development, and encouraging human capital investment. Second, Hearn notes that federal student aid programs lack "well-considered patterns of policy development." In other words, over the years there has been "no systematic 'housecleaning' to reduce the policy and program contradictions, inefficiencies, and illogics accumulated in the years since the Great Society era" (p. 269). Periodic amendments to the Higher Education Act have altered only "operational details" of the programs. Third, Hearn observes that, taken together, federal student aid policies lack "programmatic clarity and distinctiveness." In other words, based on his review of the literature, Hearn concludes that, "instead of an array of clearly discrete programmatic efforts addressing in distinctive fashion a set of overarching policy objectives, constituents for the programs . . . confront an array of overlapping efforts with rather vaguely differentiated objectives" (p. 270).

The absence of philosophical coherence, systematic and intentional policy development, and program clarity and distinctiveness in federal financial aid policies and programs and, by extension, college-enrollment policies and programs more generally, necessarily complicates attempts to assess the effectiveness of these efforts and identify required improvements. As a way to inform policy, practice, and research relating

to college enrollment, this study develops a typology of college-enrollment programs to sort out the tangled web of governmental efforts in this area. Our focus is on government-sponsored programs that are designed to encourage college-going behavior and to reduce enrollment gaps among racial-ethnic and socioeconomic groups. Developed from an examination of federal and state programs in five states, the typology categorizes the approaches that policymakers are using to promote college enrollment. The typology also offers guidance for subsequent analyses that examine the ways in which policies and programs at multiple levels separately and together promote college enrollment for different groups of students. Through the development and application of this typology, we conclude that Hearn's (2001) observations about federal student aid policies and programs are generalizable to state enrollment programs. This article offers a framework for bringing order to the complexity of the college-enrollment policy domain.

Importance of the Study

Other researchers have developed typologies to organize policies and programs. These typologies focus on policies and programs related to such topics as teacher staffing (Rice, Roellke, & Sparks, 2005; Timar, 1989), educational monitoring systems (Richards, 1998), and state welfare policies (McKernan, Bernstein, & Fender, 2005). Most substantively relevant to this study, Gándara (2001) developed a typology for describing early-intervention programs, a subset of the population of policies and programs that are designed to promote college enrollment. Based on a review of relevant research and documents, Gándara's typology categorizes early-intervention programs along two dimensions: barriers to college enrollment and program sponsor. The ten-by-five matrix identifies ten barriers and five sponsors. The barriers are inequalities of familial cultural and social capital; inequality of resources in neighborhoods and communities; lack of peer support for academic achievement; racism; inequalities in K-12 schools including unequal distribution of well-qualified teachers; segregation of Black and Hispanic students; poor high school counseling; low expectations and aspirations; high dropout rates; and, limited financial resources. The sponsors are private nonprofit organizations; university-based or K-16 partnerships; state or federal governments; community organizations; and K-12 schools.

This study extends Gándara's (2001) work in at least two ways. First, this study examines a broader range of programs that are designed to increase college access, including not only early-intervention programs but also programs that use other approaches. Second, this study locates

programs within particular domains, focusing not on the sponsor but on the specific contexts in which programs are implemented (e.g., states, higher education institutions, schools). Framed in this way, the analysis provides a “map” of the potential influence of specific programs, as well as the combined effects of portfolios of programs, on students and families in particular school and state settings. Third, recognizing the key role of states in education policy development and implementation (Murphy, 1980), this study focuses on differences and similarities in approaches to college enrollment within and across five states.

Conceptual Framework

The conceptual model for this study draws on the multilevel model of college enrollment developed by Perna (2006) and the balanced access model developed by St. John (2003). Based on a review and synthesis of prior research, Perna’s conceptual model is designed, in part, to illustrate the multiple ways in which policymakers may intervene to promote college enrollment. Drawing on an economic approach to decision making, Perna’s model assumes that students make decisions about college enrollment based on an assessment of the benefits and costs of enrollment relative to their preferences, tastes, and uncertainty. Reflecting sociological theoretical perspectives, the model also assumes that students’ decisions are made within multiple levels of context. The four levels of the model are students and their families; K–12 schools; higher education institutions; and the broader societal, economic, and policy context.

Perna’s (2006) model assumes that public policies and programs shape students’ college-enrollment decisions directly and indirectly through these levels of context. For example, with the federal Pell Grant program, the federal government aims to influence college enrollment directly by providing grants to students that reduce college prices. The federal GEAR-UP program is designed to influence college enrollment indirectly by providing grants to states and partnerships of schools and other entities for programs that improve schools in ways that raise students’ academic preparation and achievement, thereby promoting their college enrollment.

This multilevel model, and the review of research on which the model is based, suggests that the most important student-level predictors of college enrollment are academic preparation and achievement, financial resources, knowledge and information about college, and family support (Perna, 2006). The small number of studies that examine linkages among particular contextual levels and student behavior suggest that student-level college-enrollment behavior is also influenced by these vari-

ous levels of context. For example, research shows that students' college-enrollment decisions are influenced by the quality and quantity of counseling and other resources at the high schools they attend (McDonough, 1997; Perna & Titus, 2005), passive and active efforts by higher education institutions to transmit college-related information to students (Chapman, 1981; McDonough, Antonio, & Trent, 1997), and state policies pertaining to K-12 education, higher education appropriations, and need-based financial aid (Perna & Titus, 2004).

While Perna's model (2006) provides a framework for understanding the role of multiple levels of context in shaping college-enrollment behavior and the forces that shape an individual's college-enrollment decisions, St. John's (2003) work sheds light on the ways that public policy interventions shape college-enrollment behavior. In his framework for assessing the influence of policy on educational opportunity, St. John identifies several key steps in the educational attainment process: K-12 attainment and achievement, postsecondary transitions and access, undergraduate and graduate student outcomes, and individual development and educational attainment. St. John's framework posits that K-12 policies pertaining to schooling and school reform (e.g., standards and testing) shape K-12 attainment and achievement; that policy interventions (e.g., financial aid policy, postsecondary information, and affirmative action) shape postsecondary transitions and access; and that college and university policies (e.g., financial and academic strategies) shape undergraduate and graduate student outcomes.

Figure 1 shows the ways that Perna (2006) and St. John (2003) may be used together. Drawing from Perna, Figure 1 depicts the multiple layers of context that shape students' college-enrollment decisions. Drawing from St. John, Figure 1 specifies the connections between particular policies and students' college-enrollment behaviors.

Research Method

Drawing on Perna's (2006) multilevel conceptual model and St. John's (2003) specification of the linkages between policies and college-related outcomes, this study uses descriptive statistics to generate a typology of programs that are designed to promote college enrollment. The study addresses the following two sets of research questions:

1. What types of programs have the federal government and selected states adopted to encourage college enrollment? What are the similarities and differences among five states in the types of college-enrollment programs adopted?

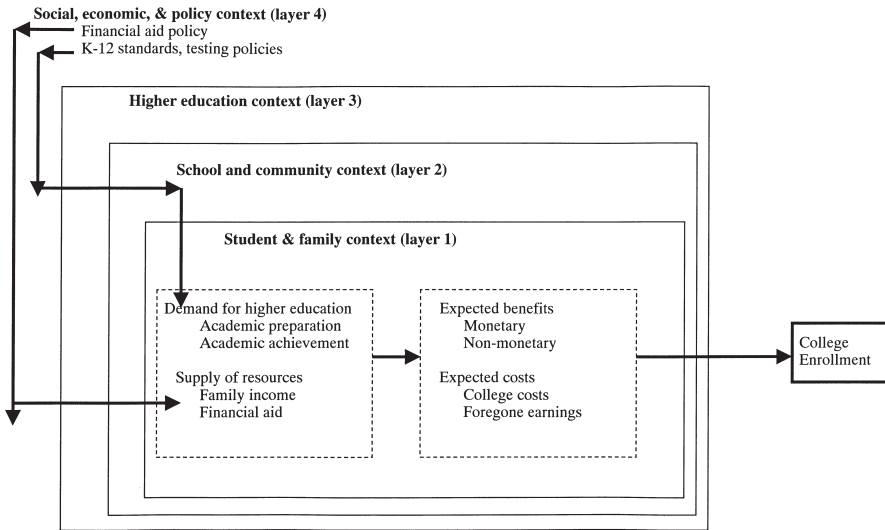


FIG. 1. Conceptual Model of Student College Enrollment with Policy Linkages
SOURCE: Adapted from Perna (2006) and St. John (2003).

2. What are the relationships among various dimensions of college-enrollment programs, including level of implementation, barriers addressed, populations targeted, and grade levels targeted?

We developed the typology based on an examination of 103 programs that are sponsored by the federal government and state government agencies in five states. The five states are California, Florida, Georgia, Maryland, and Pennsylvania.

Sample

We used a two-stage strategy to select programs for this study. First, we purposively selected the five states based on their variation in demographic, economic, political, and educational characteristics. For example, Table 1 shows that, although the five states are among the nation's most populous, each will experience a different level of growth in the college-eligible population, with projected changes in the number of high school graduates between 2001–02 and 2017–18 ranging from a 6% decline in Pennsylvania to a 30% increase in Florida and a 45% increase in Georgia (Western Interstate Commission for Higher Education [WICHE], 2003). The racial/ethnic composition of the states' college-eligible populations also varies, with Blacks representing a higher share

of high school graduates in 2001–02 in Georgia (33%) and Maryland (33%) than in Florida (20%), Pennsylvania (10%), and California (7%) (WICHE, 2003). Hispanics represent a substantially higher share of high school graduates in California (33%) and Florida (17%) than in Georgia (2%), Maryland (4%), and Pennsylvania (3%) (WICHE, 2003). Table 1 shows variations in economic conditions, as measured by both poverty rates and per-capita incomes. The political environment also varies across the five states, as suggested by differences in the strength of the governor (weak in Georgia, moderate in California and Florida, and strong in Maryland and Pennsylvania) (Gray & Hanson, 2003).

TABLE 1
Demographic, Economic, and Educational Characteristics of Study States

Characteristics	California	Florida	Georgia	Maryland	Pennsylvania
Population rank, 2006 ^a	1	4	9	19	6
Population, 2006 ^a	36,132,147	17,798,864	9,072,576	5,600,388	12,429,616
% population up to age 4 ^a	7%	6%	8%	7%	6%
% population age 5–17 ^a	19%	17%	18%	18%	17%
% population age 65 and older ^a	11%	17%	10%	12%	15%
% high school graduates from public schools ^b	91%	86%	89%	88%	87%
Projected change high school graduates, 2001–02 to 2017–18 ^b	10%	30%	45%	13%	–6%
% public high school grads who are Black, 2001–02 ^b	7%	20%	33%	33%	10%
% public high school grads who are Hispanic, 2001–02 ^b	33%	17%	2%	4%	3%
% speak language other than English at home ^a	41%	24%	11%	13%	8%
% eligible for free- and reduced-lunch, 2003 ^c	39%	37%	38%	24%	22%
Poverty rate, 2002–03 ^a	13.1%	12.6%	11.5%	8.0%	10.0%
Per capital income, 2004 ^a	\$35,019	\$31,455	\$30,051	\$39,247	\$33,348
Strength of governor (range 2.7 to 4.1), 2005 ^d	3.2 (moderate)	3.6 (moderate)	3.2 (weak)	3.8 (strong)	3.7 (strong)
% 35–44 with BA or higher, 2003 ^a	29%	25%	26%	35%	24%
% total state expenditure to K–12, 2004 ^e	23%	21%	26%	18%	19%
% of total state expenditure to higher ed, 2004 ^e	11%	8%	14%	15%	5%
High school dropout rate, 2003 ^a	7%	8%	11%	6%	8%
% high school graduates enrolling in college, 2002 ^f	51%	55%	59%	57%	60%
Postsecondary governance structure ^h	Coordinating Board	Governing Board	Governing Board	Coordinating Board	Coordinating Board

TABLE 1 (Continued)
Demographic, Economic, and Educational Characteristics of Study States

Characteristics	California	Florida	Georgia	Maryland	Pennsylvania
# degree-granting Title IV-eligible institutions, 2003–04 ^a	401	169	126	63	262
% total institutions that are private four-year ^a	36%	31%	26%	33%	37%
% total institutions that are public four-year ^a	8%	9%	17%	22%	17%
% total institutions that are public two-year ^a	27%	15%	41%	25%	8%
% state grant aid based only on merit, 2003–04 ^g	8%	59%	68%	6%	0%
Total state grant \$ per 18–24 population, and state rank, 2003–04 ^g	\$182 (19)	\$214 (16)	\$479 (3)	\$115 (30)	\$305 (9)

^a SOURCE: Chronicle of Higher Education (2005).

^b SOURCE: Western Interstate Commission for Higher Education (2003).

^c SOURCE: National Center for Education Statistics (2006).

^d SOURCE: Gray & Hanson (2003).

^e SOURCE: National Association of State Budget Officers (2004).

^f SOURCE: National Center for Higher Education Management Systems (2006).

^g SOURCE: National Association of State Student Grant and Aid Programs (2005).

^h SOURCE: State Higher Education Executive Officers (2007).

The data in Table 1 also suggest variations across the five states in terms of the K–12 and higher education contexts. The postsecondary education governance structure varies, with coordinating boards in three states (California, Maryland, and Pennsylvania) and governing boards in two states (Florida and Georgia). Maryland is relatively low in the share of state expenditures to K–12 education (18% versus 26% in Georgia) but relatively high in the share of expenditures to higher education (15%). Following a different pattern, Pennsylvania is relatively low in the share of expenditures to both K–12 (19%) and higher education (5%) (National Association of State Budget Officers, 2004). College-enrollment rates for high school graduates range from 51% in California to 60% in Pennsylvania (National Center for Higher Education Management Systems, 2006). The composition of the states' higher education systems also varies. For example, public two-year institutions represent a substantially higher share of the total number of higher education institutions in Georgia (41%) than in Pennsylvania (8%) and Florida (15%).

The five states also vary in terms of their orientation to student financial aid. In Florida and Georgia, about two thirds of all state grant aid are

awarded based only on merit, compared with none of the state grant aid awarded in Pennsylvania, 8% of the grant aid in California, and 6% of the grant aid in Maryland (National Association of State Student Grant and Aid Programs [NASSGAP], 2005). State grant aid is relatively more plentiful in Georgia (third highest among the 50 states in state grants per 18–24-year-old population) and relatively less plentiful in Maryland (30th of 50 states) (NASSGAP, 2005).

The second step in the sampling process involved selecting programs to review. To reduce the complexity, improve the manageability of the analyses, and maintain the focus on state government interventions, we limited the sample to programs that are funded by the federal government and selected state governments. As suggested by an insightful anonymous reviewer, we view “programs as formalized and funded extensions of policies, which are more abstract, and can even be unwritten.” In addition to programs that are sponsored by the U.S. Department of Education, we include programs that are sponsored by state departments of elementary and secondary education, state departments or commissions of postsecondary or higher education, state financial aid commissions, and state systems of higher education. We identified programs through a search and review of documents available on the Internet. In addition to reviewing readily available information on government-sponsored Web sites, we also conducted Web searches of programs that included “college” or “higher education” in the title or description. We also contacted a small number of state education officials (e.g., officials at the Board of Regents of the University System of Georgia) to learn more about some programs. The focus on “college” reflects our interest in examining efforts designed to promote greater equity in college-enrollment opportunities.

Despite their prevalence and likely impact, we do not examine the numerous nongovernmental policies and programs that are operating to increase college access. Although some of the programs are large and well recognized (e.g., Gates Millennium Scholarship Program), others are small in terms of dollars spent and numbers of students served. We also do not include attention to programs that operate within a state with the support of federal grants (e.g., from the National Science Foundation, Byrd Scholarships). Identifying the population of all programs operating in each state is beyond the scope of this study, which focuses on government approaches to college enrollment.

Analysis

Following the example of others who have conducted policy reviews to develop typologies (e.g., McKernan et al., 2005; Richards, 1998), we

used the following procedures to analyze the programs. First, we created a database that classifies each program in terms of multiple variables. These variables include measures of such characteristics as purpose, components, requirements for participation, funding level, and implementation history, as well as characteristics identified from the college-enrollment literature. More specifically, the database identifies the barrier to college enrollment that each program is designed to address, as well as the level(s) of context in which the program is implemented (e.g., states, schools, students), the demographic and academic characteristics of the population to which the program is targeted, and the grade level of students targeted. The database also includes financial support for the program in the most recent available year (i.e., 2005–06 or 2006–07). Funding information for state programs includes funding from multiple state sources (e.g., state appropriations, lottery) but not from nonstate entities (e.g., federal government, matching grants).

We then used the information in this database to develop a typology of state college-enrollment programs. A typology is “a simplification, a heuristic device, which helps us to organize important points of comparison” (Richards, 1998, p. 107). This typology, grounded in the conceptual model (Figure 1), has two dimensions: level of implementation and barrier addressed by program components. In all cases, we assumed that the program was sponsored by the federal or state government (level 4 of the model) and (ultimately) intended to shape students’ college-enrollment behavior (level 1 of the model). The level of implementation dimension specifies the extent to which programs operate directly on a student or indirectly through other layers of context, particularly higher education institutions and K–12 schools. The barriers addressed by the components describe the focus of the program (e.g., academic preparation, financial resources, knowledge about college). Next, we describe the programs in terms of other ways that the barriers to college enrollment may be addressed, including characteristics of the targeted population and the grade level at which the program is implemented. Finally, we use the typology to compare similarities and differences across the federal government and the five states in approaches to increasing college enrollment.

The analyses reflect a weighting of programs based on their relative funding level. The weight is the percentage of the total funding for college-enrollment programs that is allocated to a particular program, multiplied by the number of programs sponsored by that government.

Limitations

The analyses have several limitations. First, in addition to excluding nongovernment programs, the analyses also exclude some state

programs that may indirectly shape college enrollment. Federal and state policymakers shape college enrollment through policies and programs other than those with college-enrollment-related labels. For example, federal and state efforts to improve K–12 teacher quality and state efforts to reduce tuition through appropriations to public colleges and universities impact college enrollment. Nonetheless, as these efforts are designed to achieve multiple goals, we do not include these programs in this analysis. We also exclude programs that are sponsored by public colleges and universities even though these efforts are likely supported in part by state funds (e.g., University of California Regents Scholarship).

Second, weighting programs by relative financial support has several implications for this consideration of programs. For example, although the federal or state government may offer several variations of a particular program (e.g., Cal-Grant A, B, C, T), funding data are often available only for the program in the aggregate. Other programs, like Florida's Talented Twenty, which gives priority for Florida Student Assistance Grants to public high school graduates in the top 20% of their class but provides no additional financial award, are also not reflected in the analyses. A second implication is that state budgets and other documents do not specify funding levels for a small number of particular programs (e.g., some P–16 initiatives) or for various information-related activities (e.g., publications, financial aid workshops, counselor training, websites). In addition, funding levels for some college-enrollment programs are not available in state appropriations documents because the programs are funded through other sources or are unfunded mandates. For example, the Maryland Tuition Waiver for Foster Care Recipients is funded not through appropriations but through a reduction in higher education revenues. Federal and state funds for college tax credits are not included in appropriations documents, although in some instances (e.g., Maryland and Pennsylvania) state appropriations cover administrative and advertising/promotional costs. California requires school districts to notify students about coursework required to be admitted to a California public university, but the state provides no funds specifically for these efforts.

Third, while the weighting of programs by relative funding provides an indicator of program reach, this indicator is imperfect. For example, weighting by funding level ignores potential differences in numbers of students served by different programs. This procedure also does not recognize that some federal and state programs are not equally available to all students but are limited to entities that successfully compete for participation in these programs (e.g., Project 720 serves up to 80 of the state's 501 school districts).

Finally, the analyses reflect the programs that were in place at one point in time in only five states. Although varying in multiple dimensions, the five states are not representative of all 50 states. Therefore, the generalizability of the findings to other times and states may be limited.

Findings

Types of College-Enrollment Programs Adopted

The majority of college-enrollment policies and programs are implemented directly from the government to the student. Table 2 shows that, after weighting the programs by their relative level of funding, 88% of the 103 college programs in the analyses emanate from state or federal governments and are designed to benefit students directly, 8% are delivered to students through schools, 3% are designed to benefit students indirectly through colleges and universities, and 2% reach students through colleges and universities as well as schools.

The pattern of implementation varies somewhat across the five states and the federal government. Table 2 shows the emphasis on programs that are implemented directly from the government to students in all five states and the federal government. However, California and Florida also have notable shares of programs that are implemented from the government through schools to students (20% and 17%, respectively). In California, 7% of all programs (weighted by funding) involve a state government agency, higher education institutions, schools, and students. The federal government places a greater emphasis on the role of higher education institutions than the states, as 15% of federal programs but only 3% all programs reviewed for this study are implemented from the government to higher education institutions to students.

The most common component of these college-enrollment programs is financial. About 90% of the 103 programs reviewed offer participating students (only) some type of financial award. About 6% of the programs focus only on academic preparation, 3% on academic preparation and knowledge about college, and 1% on knowledge about college only. Less than 1% of all programs include both academic preparation and financial resources or both financial resources and knowledge about college; no program included all three components (academic preparation, financial resources, and knowledge about college).

Program components vary somewhat across the states and federal government. Table 2 shows that, when weighted by their relative level of funding, all of the programs sponsored by the federal government and the state of Maryland include only a financial component. In Georgia and Pennsylvania, more than 90% of programs include only a financial

TABLE 2

Characteristics of College-enrollment Policies in Five States

Characteristic	Total Number		%	CA	FL	GA	MD	PA	Federal
	Unweighted	Weighted							
Total									
Number	103	103		15	18	24	19	13	14
Level of model									
Total	103	103	100	100	100	100	100	100	100
Gov't – student	59	90	87.9	73.3	83.3	95.7	100	92.3	84.6
Gov't – school – student	19	8	7.8	20.0	16.7	4.3	—	7.7	—
Gov't – HE – student	12	3	2.6	—	—	—	—	—	15.4
Gov't – HE – school – student	13	2	1.7	6.7	—	—	—	—	—
Component									
Total	103	103	100	100	100	100	100	100	100
Academics	10	6	5.6	13.3	11.1	4.2	—	7.7	—
Finances	66	93	90.1	73.3	83.3	95.8	100	92.3	100.0
Knowledge	3	1	1.1	6.7	—	—	—	—	—
Academics & finances	5	0	0.3	—	—	—	—	—	—
Academics & knowledge	17	3	2.6	6.7	5.6	—	—	—	—
Finances & knowledge	2	0	0.2	—	—	—	—	—	—
Academics, finances, & knowledge	0	0	—	—	—	—	—	—	—
Target Population									
Total	103	103	100	100	100	100	100	100	100
High academic	14	26	25.6	—	50.0	66.7	10.0	—	—
Low academic	4	0	0.4	—	—	—	—	—	—
Low finances	15	42	40.8	—	16.7	—	70.0	91.7	100.0
High academic – low finances	7	13	12.8	78.6	—	—	10.0	—	—
Low academic – low finances	2	0	0.2	—	—	—	—	—	—

TABLE 2 (Continued)
 Characteristics of College-enrollment Policies in Five States

Characteristic	Total Number		%	CA	FL	GA	MD	PA	Federal
	Unweighted	Weighted							
Underrepresented minorities	4	1	0.7	—	5.6	—	—	—	—
Low college participation	6	1	0.9	—	—	—	—	—	—
Particular career field	17	2	1.8	—	—	4.2	5.0	—	—
Particular type institution	9	9	9.1	—	16.7	24.3	—	—	—
Other finite populations	8	1	0.7	—	—	—	5.0	—	—
Competitive grant	1	0	0.1	—	—	—	—	—	—
Not limited	16	7	7.0	21.4	11.1	4.2	—	8.3	—
Grade level									
Total	103	103	100	100	100	100	100	100	100
Grades 6–12	5	1	0.6	—	—	—	—	—	—
Grades 9–12	24	6	5.4	21.4	—	4.2	—	7.7	—
Freshmen/Undergraduates	64	93	89.9	78.6	83.3	95.8	100.0	92.3	100
Grades 9–12 – Undergraduates	1	0	0.3	—	—	—	—	—	—
Grades K–12	3	3	3.0	—	16.7	—	—	—	—
Grades K – Graduate	6	1	0.6	—	—	—	—	—	—

NOTE: Analyses are weighted by the relative funding level for a given level of government.

component, with the remainder (4% in Georgia and 8% in Pennsylvania) including only an academic preparation component. While also emphasizing finances, Florida and California have a somewhat more diverse set of programs. In Florida, 83% of programs include only a financial component, 11% include only an academic component, and 6% include an academic and knowledge component. In California, 73% of programs include only a financial component, 13% include only an academic component, 7% include an academic and knowledge component, and 7% include only a knowledge component.

Table 2 reveals that a range of criteria are used to target college-enrollment programs. About two fifths (41%) of the programs are targeted toward students with low financial resources and one fourth (26%) are targeted toward students with high academic abilities. About 13% are targeted toward students with high academic achievement and low financial resources, 9% are targeted toward students attending a particular type of institution, and 7% are not limited to particular groups of students. Table 2 shows that very small shares of programs target students with other characteristics, including low academic achievement, underrepresented minorities, low college-participation rates, particular career fields, or other finite populations (e.g., dependents of law enforcement personnel, youth in foster care, etc.).

In terms of variations across government sponsors, Table 2 shows that, compared with those in other states, programs in California are more likely to be targeted at students with high academic achievement and low financial resources (79% versus 13% overall). Programs in Florida and Georgia tend to place greater emphasis on serving students with high academic achievement (50% in Florida, 67% in Georgia, 26% overall). Maryland, Pennsylvania, and federal programs place relatively greater emphasis on serving students with low financial resources: 70% in Maryland, 92% in Pennsylvania, and 100% of federal programs. Programs that target students attending particular types of institutions are most common in Georgia (25% of all programs).

The most common time of intervention for these programs is at college enrollment. Table 2 shows that 90% of the programs are available to entering freshmen and continuing college students. About 5% of the programs are available to high school students, and 3% of the programs are available to students in grades K–12. Very few programs are available to students in grades 6–12 (0.6%), grades 9 through undergraduate (0.3%), or grades K–16 (0.6%).

The grade level of implementation varies somewhat based on the sponsoring government. The vast majority of programs in all states are directed toward entering freshmen and continuing college students: 79%

in California, 83% in Florida, 96% in Georgia, 100% in Maryland, 92% in Pennsylvania, and 100% of federal programs. One fifth (21%) of programs in California are directed toward high school students, and 17% of programs in Florida are directed toward students in grades K–12.

Relationships among Various Dimensions of College-Enrollment Programs

The most common type of program is implemented directly from the government to the student and includes components that address the financial barriers to college. Table 3 shows that, when weighted by relative funding level, 89% of all programs in this review are implemented by the government directly to students and include only a financial component. This type of program is typified by the need and non-need-based financial aid programs that are sponsored by the federal and state governments. This type of program is the most common in all five states examined: California (73% of all programs), Florida (83%), Georgia (96%), Maryland (100%), Pennsylvania (92%), and federal government (85%). Examples of this type are the Cal-Grant in California, the HOPE Grant and the HOPE Scholarship in Georgia, the Bright Futures Scholarship Program in Florida, Educational Assistance Grants in Maryland, PHEAA State Grants in Pennsylvania, and the Federal Pell Grant program.

TABLE 3
Percentage Distribution of Policies by Level of Implementation and Program component (weighted)

Component	Total	Gov't – Student	Gov't – School – Student	Gov't – Higher ed – Student	Gov't – Higher ed – School – Student
Total					
Total	100.0	89.1	7.9	2.0	1.0
Academics	5.9	—	5.9	—	—
Finances	91.1	89.1	—	2.0	—
Knowledge	1.0	—	1.0	—	—
Academics & finances	0.0	—	—	—	—
Academics & knowledge	2.0	—	1.0	—	1.0
Finances & knowledge	0.0	—	—	—	—
California					
Total	100.0	73.3	20.0	0.0	6.7
Academics	13.3	—	13.3	—	—
Finances	73.3	73.3	—	—	—
Knowledge	6.7	—	6.7	—	—
Academics & finances	0.0	—	—	—	—
Academics & knowledge	6.7	—	—	—	6.7
Finances & knowledge	—	—	—	—	—

TABLE 3 (Continued)

Percentage Distribution of Policies by Level of Implementation and Program component (weighted)

Component	Total	Gov't – Student	Gov't – School – Student	Gov't – Higher ed – Student	Gov't – Higher ed – School – Student
Florida					
Total	100.0	83.3	16.7	—	—
Academics	11.1	—	11.1	—	—
Finances	83.3	83.3	—	—	—
Knowledge	—	—	—	—	—
Academics & finances	—	—	—	—	—
Academics & knowledge	5.6	—	5.6	—	—
Finances & knowledge	—	—	—	—	—
Georgia					
Total	100.0	95.7	4.3	—	—
Academics	4.3	—	4.3	—	—
Finances	95.7	95.7	—	—	—
Knowledge	—	—	—	—	—
Academics & finances	—	—	—	—	—
Academics & knowledge	—	—	—	—	—
Finances & knowledge	—	—	—	—	—
Maryland					
Total	100.0	100.0	—	—	—
Academics	—	—	—	—	—
Finances	100.0	100.0	—	—	—
Knowledge	—	—	—	—	—
Academics & finances	—	—	—	—	—
Academics & knowledge	—	—	—	—	—
Finances & knowledge	—	—	—	—	—
Pennsylvania					
Total	100.0	92.3	7.7	—	—
Academics	7.7	—	7.7	—	—
Finances	92.3	92.3	—	—	—
Knowledge	—	—	—	—	—
Academics & finances	—	—	—	—	—
Academics & knowledge	—	—	—	—	—
Finances & knowledge	—	—	—	—	—
Federal					
Total	100.0	84.6	—	15.4	—
Academics	—	—	—	—	—
Finances	100.0	84.6	—	15.4	—
Knowledge	—	—	—	—	—
Academics & finances	—	—	—	—	—
Academics & knowledge	—	—	—	—	—
Finances & knowledge	—	—	—	—	—

NOTE: Analyses are weighted by the relative funding level for a given level of government.

The second most common type of program, but representing only 6% of all programs, involves government, schools, and students and focuses on academic preparation. This program type is relatively more common in California (13% of all programs), Florida (11%), and Pennsylvania (8%). This program type includes California's College Readiness Program, College Preparation Program, and the California High School Exit Examination, as well as Florida's state assessment programs and Pennsylvania's Project 720.

In California, 7% of all programs are implemented from the government through schools to students and involve provision of college knowledge. Examples of this type of program include the appropriation of \$75 million in 2006–07 for additional counselors for grades 9–12. An additional 7% of the programs in California involve the government, schools, higher education institutions, and students and involve both academic preparation and college-related knowledge. Examples of this type are the Student Opportunity and Access Program (Cal-SOAP), Puente, and Mathematics Engineering Science Achievement (MESA) programs.

In Florida, 6% of all programs are implemented by the government through schools to students and involve both academic preparation and college-related knowledge. This program type is exemplified by Florida's Centers of Excellence program, a program designed to encourage elementary and secondary school students from historically disadvantaged groups to attend college.

While programs that are implemented by the government to students and that provide only financial resources are the most common type of federal program, programs that are implemented by the government through higher education institutions to students and that provide financial resources are the second most common type of federal program (15% of all federal programs). Examples of this latter type of program include the Federal Work-Study Program and the Perkins Loan Program.

Characteristics of a Particular Type of Policy

In an effort to more completely understand government approaches to college enrollment, we examined additional characteristics of the most common type of program: programs that involve government and students and that provide students with financial resources to attend college. Even within this type, governments offer differing approaches.

Table 4 shows variations in this type in terms of the targeted population. All federal and Pennsylvania government programs of this type are targeted toward students with low financial resources. Examples of programs that are sponsored by the federal government, implemented

directly to students, include only financial resources, and are available only to students with low financial resources are the Federal Pell Grant program, the Federal Family Education Loan Program, and the Leveraging Educational Assistance Program. In Pennsylvania, this program type is exemplified by the PHEAA State Grant.

About 70% of Maryland programs of this type also target students with low financial resources, but smaller percentages of policies in other states have this target population: 20% in Florida, 0% in California, and 0% in Georgia. In California, all of the programs of this type are targeted toward students with high academic achievement and low financial resources (e.g., Cal Grant program). In Florida and Georgia, about two thirds of this program type are targeted toward students with high academic achievement (60% of all Florida programs of this type and 68% of all Georgia programs of this type). Examples of these programs are the merit-based student aid programs in these states (i.e., Florida Bright Futures Scholarship, Georgia HOPE Scholarship). In Florida and Georgia, a notable share of programs of this type is also targeted toward students who attend a particular type of institution: 20% in Florida and 27% in Georgia. Examples of this program type are the William L. Boyd IV Florida Resident Access Grant (FRAG), which provides tuition assistance to undergraduates attending eligible in-state private, nonprofit colleges and universities, and the Georgia HOPE Grant program, which is available to students attending eligible certificate and diploma programs.

Table 5 shows no variation across governments in programs of this type in terms of the grade level of participating students. Not surprisingly, all programs of this type target entering and continuing college students regardless of government sponsor.

TABLE 4
Government-Student Policies that Focus on Finances by Target Population and State

Target	Total	CA	FL	GA	MD	PA	Federal
Total (weighted)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
High academic	28.9	—	60.0	68.2	10.0	—	—
Low finances	43.3	—	20.0	—	70.0	100.0	100.0
High academic - low finances	14.4	100.0	—	—	10.0	—	—
Underrepresented minorities	—	—	—	—	—	—	—
Particular career field	2.2	—	—	4.5	5.0	—	—
Attend particular type institution	10.0	—	20.0	27.3	—	—	—
Other finite populations	1.1	—	—	—	5.0	—	—
Not limited	—	—	—	—	—	—	—

NOTE: Analyses are weighted by the relative funding level for a given level of government.

TABLE 5
Government-Student Policies that Focus on Finances by Grade Level and State

Grade	Total	CA	FL	GA	MD	PA	Federal
Total (weighted)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Grades 9–12	—	—	—	—	—	—	—
Freshmen/Undergraduates	100.0	100.0	100.0	100.0	100.0	100.0	100.0
K-Graduate	—	—	—	—	—	—	—

NOTE: Analyses are weighted by the relative funding level for a given level of government.

Conclusions

Several conclusions may be drawn from this study. First, the analyses reveal distinctive state approaches to improving college enrollment. At one end of the continuum, Maryland focuses almost exclusively on providing financial resources directly from the government to low-income students at the point of college entry. Pennsylvania's approach is similar, although with a small share of initiatives that attempt to encourage college enrollment through high schools and promoting academic achievement. Like Maryland and Pennsylvania, the federal government also emphasizes direct aid to low-income students at the point of college entry. But, unlike other states, the federal government implements a notable (15%) share of programs through higher education institutions. Florida and Georgia also emphasize the provision of financial resources directly to students at the point of college entry, but unlike the federal, Maryland, and Pennsylvania governments, they target these resources to students with high academic achievement. Unlike Georgia, Florida also sponsors a small number of programs that are implemented through schools and that are designed to address nonfinancial barriers to college enrollment, particularly barriers related to academic achievement and knowledge. Of the government programs examined in this study, California has the smallest share of programs that are implemented directly from the government to the student and that include only financial resources. Also unlike other states, California targets most resources toward students based on both academic achievement and financial need. California also has a relatively higher share of programs that are implemented through high schools and that target nonfinancial barriers to college enrollment.

Second, the patterns revealed through our data are remarkably consistent with Hearn's (2001) observations about federal student financial aid policies and programs, suggesting that his observations may be applied to college-enrollment programs more generally. The number of different

program types (as shown in Table 3) and variations in the pattern of program types across the five states and the federal government suggest that college-enrollment programs lack philosophical coherence, systematic and intentional policy development, and program clarity and distinctiveness. The lack of programmatic clarity is also suggested by the range of populations that college-enrollment programs target. Only about 41% of all programs are specifically directed to students with low financial resources. Examining the populations targeted by college-enrollment programs suggests other goals include rewarding students who have high academic performance and encouraging students to attend particular types of institutions.

Third, while illustrating that multiple program types exist, the typology offers a framework for bringing order to the complexity of the college-enrollment policy domain. Multiple entities will likely continue to sponsor multiple programs, all with goals that are related to college enrollment. Although programs are generally developed and implemented in isolation, the typology reveals both overlap and distinctiveness among policy objectives. The most common program type is one that involves the government and the student and that provides financial resources to offset college prices.

Implications for Policy and Practice

The typology developed in this study has several implications for policy and practice. First, for policymakers and practitioners, the typology helps to situate the goals and objectives of individual programs within the broader context of existing efforts. This typology may serve as a tool for policymakers and practitioners who are not satisfied with the current approach of incremental and discrete approaches to policy but who are interested in working toward “more reflective policymaking, policy delivery, and policy evaluation” (Hearn, 2001, p. 308). By mapping current approaches to college enrollment, this typology may encourage policymakers to adopt approaches that are characterized by philosophical coherence, well-considered patterns of policy development, and programmatic clarity and distinctiveness (Hearn, 2001). For example, state and local officials might use the results of this study to identify gaps when designing or modifying programs. The typology gives specific information about which students are and are not targeted, at which levels, and with what interventions. Coupled with information about local and/or regional college-enrollment policies and programs, the typology provides a tool for understanding where interventions are most needed and least redundant.

Second, policymakers and practitioners should consider the strengths and disadvantages of the most common type of college-enrollment programs. The typology suggests that the most common approach to increasing college enrollment is to provide resources directly from the government to the student. While 88% of all programs are implemented from the government to the student, only 2% involve government, higher education institutions, schools, and the students. The analyses also suggest that the most common point of intervention is when students are entering or continuing college. But intervening at this point necessarily excludes students who have already “leaked out” of the pipeline to college enrollment. These patterns raise questions about the relative effectiveness of programs that involve different levels of context and different components and that target different populations of students at different points in time.

Implications for Research

Knowledge of the effectiveness of existing college-enrollment programs is informed largely by quantitative analyses that focus on discrete programs (e.g., student financial aid, Upward Bound). While illuminating understanding of the impact of these programs on students’ college-going behaviors, most existing research focuses on the independent influence of particular programs, ignoring the wider range of efforts that exist at the federal, state, and local levels. As a result, little is known about the ways in which programs at multiple levels (e.g., federal government, state government, K–12 schools) with distinct and uncoordinated purposes (e.g., K–12 academic preparation, higher education affordability) interact to shape higher education opportunity for young people of different demographic backgrounds.

Therefore, as mentioned above, future research should address questions about the relative effectiveness of different program types. The typology developed in this study may be a tool for understanding the extent to which multiple programs separately and together influence college enrollment among different groups of students. Such research should be designed to inform policymakers and practitioners about the most effective types of programs for improving college enrollment for all students.

Future research should use the typology to assess the consistency between stated aims and characteristics of college-enrollment programs and actual implementation of the programs. We developed the typology based on a review of documents describing the programs rather than an evaluation of the programs as implemented. Such research should also consider the extent to which policies are achieving stated college-enrollment-related goals.

Finally, when conducting these and other future analyses, researchers must recognize the variation in programs across states, even among programs with the same or similar name. For example, “dual enrollment” programs exist in Florida, Georgia, and Pennsylvania. However, the program characteristics vary. In Florida, both the community college system and state university system offer dual enrollment; high school students who participate are not responsible for registration, matriculation, or laboratory fees. In Georgia, students in the dual enrollment program may opt to use some of their HOPE credit hours to support the costs of participating in the program. In Pennsylvania, the state provides grants to school districts to offset the costs of dual enrollment programs, including tuition, fees, books, and transportation (Pennsylvania Department of Education, 2007).

Note

¹A corpus of work on policy formation, adoption, and dissemination suggests that these processes are incremental, haphazard, and highly dependent on political context and the power of the actors involved (e.g., Gladieux & Wolanin, 1976; Hannah, 1996; Hearn & Griswold, 1994; McLendon, 2003).

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