

**Moving On: State Policies to Address Academic Brain Drain in the South**

Paper presented at the Forum on Public Policy in Higher Education  
Annual conference of the Association for the Study of Higher Education  
Portland, OR  
November, 2003

Kimberly R. Rogers  
Graduate Research Assistant  
Donald E. Heller  
Associate Professor and Senior Research Associate

Center for the Study of Higher Education  
The Pennsylvania State University  
400 Rackley Building  
University Park, PA 16802  
814-865-3519  
krr154@psu.edu

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## **Introduction**

In recent years, many state policymakers have expressed concerns about “brain drain”, or the migration out of the state of the most academically-talented students at two points: 1) when they graduate from high school and enter postsecondary education, or 2) when they complete a baccalaureate degree. This concern links into the perspective of policymakers, the public, and the media that an important role of higher education, and public higher education in particular, is to contribute to economic development through the creation of an educated and skilled workforce for the state.<sup>1</sup> While this issue has been raised primarily in states with comparatively lower levels of educational attainment and economic development (such as Georgia and Louisiana), it is one that has been raised in a wide variety of states.

States have formulated a number of policies to address the concerns over brain drain. Among the most common policies has been the creation of state merit scholarship programs. A recent report from the Harvard Civil Rights Project (Heller & Marin, 2002) summarized the dozen states that have implemented broad-based merit scholarship programs over the last decade. These programs use a variety of criteria to measure “merit”, but many share an expressed goal of keeping the state’s brightest students close to home when they make their college choice decision. Honors colleges, loan forgiveness programs, and tax credits have also been implemented in many states to improve the retention of educated residents (Arnone, Hebel & Schmidt, 2003), but these programs do not have nearly the impact, as measured by the number of individuals served and the state investment of public resources, as do merit scholarship programs, however.

In order to analyze the national policy responses to coping with the problem of brain drain, this study reviews the existing research on the migration of beginning college students and completing baccalaureate students. This study includes a comprehensive review of policies and programs employed by states in an attempt to retain high school and college graduates. From a policy perspective, the South is of particular interest because it has historically invested less in its educational system, which has resulted in low rates of educational attainment among its residents (The 2002 State New Economy Index, 2002). The recent deluge of merit scholarships programs and honors colleges in the South suggests that the problem of brain drain has reached the level of criticality.

## **The Issue of Brain Drain**

When young, educated residents migrate out of state, the home state loses not only the best and brightest residents, but also the skills necessary for global competitiveness and economic development (Gottlieb, 2001). High school graduates may seek an out-of-state education because they feel that their “home” universities are of poor quality, while college graduates leave because they seek better jobs and higher pay. This departure results in the loss of a future substantial tax base as well as the loss of a knowledgeable and skilled workforce, which is necessary to attract and/or retain businesses in any area (Southern Technology Council, 1998). To fulfill most

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<sup>1</sup> See, for example, Copeland (2003) and Sentell (2002) for recent media accounts of this issue.

employers' labor demands in the 21<sup>st</sup> century, a region must have a significant supply of young college-educated workers.

While not every state or region has a problem with brain drain, most do. Most southern states, along with New Jersey, Nebraska, and Pennsylvania, have had difficulty keeping their high school graduates in state for college. New Jersey loses the most college-bound residents of any state in the union. More than 24,000 students leave New Jersey every year to attend college (Schmidt, 1998). Nebraska, Hawaii and countless other states share a comparable loss of college-age adults. North Dakota ranks first in percent of high school graduates and continuance to college, but 32<sup>nd</sup> in the number of college graduates in the state. According to the Lilly Endowment (Carnegie Mellon Center for Economic Development, 2001), Colorado has the largest number of college graduates, while West Virginia has the fewest.

### **Brain Drain in the South**

Most southern states have had difficulty retaining their high school and college graduates. In terms of the number of college graduates per capita, most southern states rank in the bottom quintile, with Arkansas, Kentucky and West Virginia holding the dubious distinction of having the fewest college graduates among all 50 states (The 2002 State New Economy Index, 2002). The Southern Technology Council (2001) has discovered that academic ability is a strong predictor of "leavers" and "stayers". Between 1970 and 1995, Kentucky lost about 25,000 residents born during the 1960s. The high school students who plan to leave Kentucky are among the best prepared academically in the state (Kentucky Long-Term Policy Research Center, 2001). This dearth of college-educated workers is particularly devastating to the South. There is no question that the retention of college-age adults is problematic for, and vital to, these states. The challenge facing many states is two-fold: how do you get residents to remain in state for college and how do you retain them after completion of the baccalaureate degree?

### **The Use of Honors Programs in Combating Brain Drain**

Honors programs and colleges have been a popular choice to stem the outflow of college-age state residents. Now more than ever, regions are using the quality of their institutions of higher learning as a tool for attracting young individuals, with the hope that they remain after graduation to work or start businesses (Pennsylvania Economy League-Eastern Division, 1998; Carnegie Mellon Center for Economic Development, 2001). The National Collegiate Honors Council (NCHC), established in 1966 to serve as a voice for excellence in undergraduate education, has as one of its specific purposes, the development of new honors programs, to continue to provide enriched academic and cultural opportunities to the honors student. Since 1994, the number of honors colleges/programs has more than doubled at both private and public institutions across the country (NCHC, 2002). The greatest surge in honors colleges has occurred at public flagships institutions, regional state colleges, and small private colleges, with nearly one-third of these programs having been established since 1985 (NCHC, 2002; Long, 2002).

According to Long (2002), honors programs in public universities juxtapose increasing quality with lowered prices to attract higher ability students. Honors programs offer low faculty-student ratios, special living/housing arrangements on some campuses, and small class size. Long believes that this combats brain drain without limiting places available to less academically

gifted students. For many honors students, the colleges are a desirable alternative to the higher priced, elite institutions (i.e. the Ivy League institutions and other notable private institutions), and this presumably brings a halt to the out-of-state migration of talented young people.

### **Honors Colleges in the South**

The out-migration at the high school-to-college transition point is highest among the best and brightest because these students tend to have higher grade point averages, and thus, receive more admissions and merit scholarship offers from public and private institutions (Southern Technology Council, 2001). Due to their historically lower levels of educational attainment, states in the Southeast and the Southwest are most likely to have honors programs and colleges to enhance their competitiveness (NCHC, 2002; Long, 2002). In a speech delivered at the Southern Regional Honors Colleges 13<sup>th</sup> Annual Conference in 2001, former University of South Carolina President John Palms defines the role of honors colleges as providing keen competition to elite private institutions of higher education, by enabling high-achieving students to remain in the South (Palms, 2002). This retention of human capital, in Palms' view, is crucial to the current and future ability of the South to compete economically. Specifically in the case of the state of Georgia, honors programs appear to be a precursor to state merit-based scholarships (Long, 2002).

### **Merit Scholarships Programs**

In the last decade, the most politically popular policy solution to retain educated residents is the broad-based merit scholarship program. Growth in merit scholarships can be attributed at least in part to state legislatures' concerns about the effect of brain drain on state economies and their desire to increase human capital (Cornwell, Lee & Mustard, 2002; Dynarski, 2002; McPherson & Schapiro, 1998). In 1998, the Southern Technology Council suggested that states that are losing graduates "should seriously consider stabilizing or lowering both in-state and out-of-state general tuition levels" at public universities (STC, 1998, p. 23). Rather than maintaining low tuition levels that provide a subsidy to all students, regardless of ability, many states have chosen to offer merit aid to keep high school graduates in state. For example, the West Virginia PROMISE Scholarship program states, "Getting more students into college is the best thing we can do to turn around the economies of our communities, to attract energetic people to the state and to keep our best students home in West Virginia" (*PROMISE facts*, 2002). Similarly, the University of Alaska Scholars program "is designed to help reduce the number of Alaska's high school graduates who leave the state for education and jobs elsewhere" (Hamilton, 2002). According to Mumper (2003), this reverse targeting policy design directs subsidies away from those with the greatest financial need and toward middle- and upper-income students (p.51-52). Nationally (as of November 2003), thirteen states have created broad-based merit aid programs that do not incorporate a student means test, while several others have the issue on their legislative agendas.

The first broad-based, state-financed merit aid program in the country was started in Arkansas in 1991. The Arkansas' Academic Challenge Scholarship, funded by general state revenues, provides up to \$2,500 per year to high school students who demonstrate merit and have need (Dynarski, 2002). Unlike Arkansas' breakthrough program, which required scholastic

achievement and a means test, Georgia introduced its Helping Outstanding Pupils Educationally (HOPE) scholarship program in 1993, which rewarded only academic talent.<sup>2</sup> “First awarded in the fall of 1994, the HOPE Scholarship provides full tuition, fees, and a book allowance for all Georgia students with a B average who attended an in-state public college. Those students choosing to attend an in-state private college were given comparably valued compensation” (Mumper, 2003, pp. 50-51). Funded by the state lottery, Georgia’s approach to decreasing brain drain was soon the template for nearly a dozen states (Louisiana, South Carolina, Kentucky, etc.). By 2002, 12 states had merit programs with no need component that allowed for at least partial payment of tuition, and in many instances, full tuition at any public college or university, while other states (Alabama, Nebraska) had HOPE-like proposals pending in the state legislatures (Dynarski, 2002; Cornwell, Lee & Mustard, 2002). Broad-based merit aid programs are heavily concentrated in the South, with nine of the existing 12 programs located in the southeastern region of the country.

The eligibility criteria for merit scholarships vary widely by state. Of the existing programs, six states require a minimum grade point average (GPA) between 2.5 and 3.0 and standardized test scores (Arkansas initially based their program solely on test scores, but later added the GPA element), while the remaining six look only at a student’s GPA (four states require a minimum 3.0 GPA, while two states require only a 2.5 GPA). Michigan is the only state to rely solely on performance on a state curricular frameworks test (Dynarski, 2002). Only two states, Florida and Kentucky, award differing amounts of aid to students based on their academic credentials (Office of Program Policy Analysis and Government Accountability, 2003; Kentucky Higher Education Assistance Authority, 2003 ).

### **The Impact of Broad-based Merit Aid**

Proponents of merit aid argue that it increases human capital by improving the effort of students to get good grades in high school, enroll in college, and hopefully remain in state after graduation. McPherson and Schapiro (1998) believe that “...the presence of merit awards might provide an added stimulus to students to perform well in high school, with attendant social benefits. The prospect of merit dollars may induce students to improve their performance both in strictly academic pursuits and in those kinds of extracurricular activities that college admissions committees seem to care about” (p.111). Henry and Rubenstein (2002) believe that students who reside in HOPE-like states perform at a higher level in order to qualify for the grants. The existence of these grants affects the academic choices that students make, as there is a possibility that students take less challenging classes in high school to have a higher GPA to become eligible for these grants. Henry and Rubenstein (2002) found that GPA and SAT scores were higher for entering freshmen in Georgia after the introduction of the HOPE program. Even if some of the GPA increase (from 2.71 in 1989 to 2.98 in 1999) may be attributed to grade inflation or less challenging academic work, the SAT increase is very real (from 979 to 1009) and cannot be linked in any way to grade inflation.

In Florida, some evidence supports the assertion that the Bright Futures program has improved high school academic preparation, with the largest gains occurring among minority students who

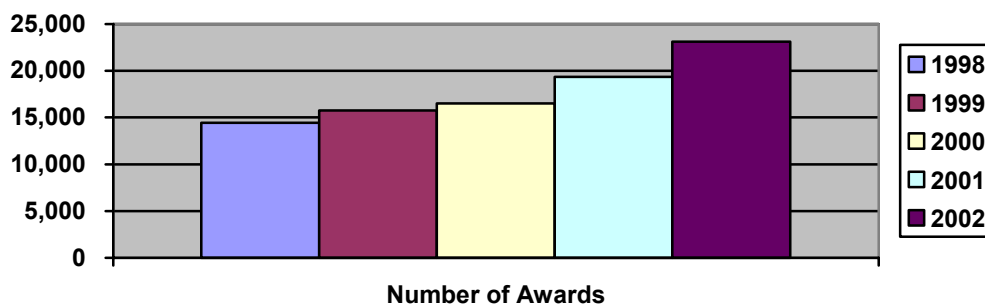
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<sup>2</sup> When first implemented, the HOPE program had an income cap of \$66,000, which was raised to \$100,000 the second year. The cap was eliminated entirely the third year.

are Limited English-Proficient, but not necessarily low income (OPPAGA, 2003). Florida students took more of the required high school courses required to qualify for a Bright Futures scholarship, and more rigorous courses overall. The percentage of high school graduates taking required Bright Futures courses increased from 54 percent in 1997 to 65 percent in 2001, while 30 percent of all high school graduates qualified for Bright Futures scholarships in 2001, up from 26 percent in 1997. Yet, the Office of Program Policy Analysis and Government Accountability admits that while GPA and rigorous course taking have improved, test scores show little change, unlike in Georgia. In fact, the SAT, ACT, and College Placement test scores of students actually *declined* from 1996-97 to 2000-01 (p.6). The OPPAGA reports that this decline is due to the increase in the number of students who took the exams, resulting in a generally weaker group of test takers.

The little-studied case of South Carolina appears to follow the patterns observed in Georgia and Florida. Like Florida, the number of students who qualify for the South Carolina LIFE Scholarship program has increased rapidly since it was first awarded in 1998. At its inception in fall 1998, 14,443 students at two- and four-year public and private institutions received awards valued at \$13.6 million. In fall 2002, more than 23,000 students received \$81 million in funding to attend college (South Carolina Commission on Higher Education, 2003). For the South Carolina LIFE program it is not possible to determine whether the increase in awards is due to the retention of South Carolina residents and/or to improved academic performance.

**South Carolina LIFE Awards by Fall Semester**



### ***Merit Aid, College Attendance, and College Destination***

The existence of broad-based merit aid programs appears to have a positive impact on states' ability to encourage students to attend college in the state. With the implementation of the Bright Futures program, the percentage of Florida high school graduates attending college in Florida has increased from 52 percent in 1997 to 61 percent in 2001 (OPPAGA, 2003). The new breed of merit-aid program does not only impact if one goes to college, but where one goes. A student who was previously considering a two-year college for academic or financial reasons may find extra motivation to strive for that B average to gain access to a four-year institution that is no longer financially out of reach (Dynarski, 2002). This renewed desire to perform well academically to "reach" for a higher-caliber institution and a lengthier course of study may positively impact human capital.

Dynarski (2002) finds that in Georgia and other states, broad based merit aid increased the probability of attendance at a four-year public institution. In Florida, 73 percent of Bright Futures recipients attend a public four-year institution, 18 percent attend public two-year community or vocational colleges, and 11 percent attend private colleges or universities. (OPPAGA, 2003). For Georgia, an increase in enrolled students was noted at both four-year public and private institutions, although the gains for private colleges and universities were not as substantial (a 3.9 percentage point increase for public institutions and only a 0.6 percentage point increase for private institutions) (Dynarski, 2002).

### *College Performance*

Cornwell, Lee and Mustard (2002) have compiled an elaborate list of both positive and negative behavioral responses of students to the HOPE scholarship. First, they proffer that students exert more effort in their studies. After all, a non-need-based grant that is GPA-driven perhaps encourages students to attend class regularly, complete assignments, and study for exams. The second effect that these researchers find in data collected at University of Georgia, is that students substitute academic work for employed work. If students who formerly worked to pay for tuition, fees and books now have the money provided to them by the state, they are more likely to spend that time with their studies, subsequently further increasing their human capital.

Unfortunately, it appears that the negative effects of the HOPE scholarship in Georgia may outnumber the positive effects. Cornwell, Lee and Mustard (2002) find that merit-based grants often result in too much focus on grades and gaming the system, not learning. The negative behavioral responses that accompany the HOPE include grade inflation, grade petitioning by students, the taking of fewer credits (either to delay the inevitable loss of the scholarship since the checkpoints to determine continued eligibility are based on credit hours) or the dropping of courses to avoid a poor grade. Binder and Ganderton (2002) found that the New Mexico merit aid program had the unintentional effect of students taking fewer credit hours in order to safeguard to minimum required GPA. Healy (1997) found that for the University of Georgia, the rate of dropping classes increased by almost 2 percentage points (from 5.5 percent to 7.3 percent).

Cornwell, Lee, and Mustard (2002) also indicate that students may simply take easier classes or have “easier” majors to maintain eligibility. This last point of students choosing easier majors could have several potential effects. First, what is considered an easier college major? Will the overproduction of Georgia residents with degrees in “easy” majors actually decrease human capital in the future? The labor market will not support the oversupply of jobseekers with degrees that are not seen as legitimate by the business community. Finally, what does this view of an easy discipline do to the academy? Will the Georgia legislature place a stipulation on the field of study to qualify for the HOPE scholarship?

Cornwell, Lee and Mustard (2002) assert that while the objective of merit aid was to stimulate effort and increase human capital, the effect has been anything but positive. They conclude, “the incentives for students to work harder are fairly narrowly tailored. Students who are slightly above or below the grade point requirement will have stronger incentives to work harder, but

incentives to put forth more effort are fairly modest for low and high achievers who are unlikely to gain or lose HOPE” (p. 25).

### ***Merit Aid, Race, Income and Politics***

When examining the impact of broad-based merit aid programs, we must observe potential and actual race effects. Minority and poor students receive a disproportionately smaller share of merit scholarships, while white and upper-income students – exactly the groups who have had the highest college-going rates in the nation – receive a larger share of the grants (Mumper, 2003; Heller & Marin, 2002). For fall semesters 1999, 2000, 2001 and 2002, 78 percent of all South Carolina LIFE recipients were white (South Carolina Commission on Higher Education, 2003). However, whites accounted for only 57 percent of all South Carolina public high school graduates in 1999 (American Association of Collegiate Registrars and Admissions Officers, 1999). In Georgia, white students have experienced a 12.3 percentage point increase in college enrollment post-HOPE while the rate for African Americans appears unchanged (Dynarski, 2000, p. 631). In Georgia, only 15 percent of African Americans have a high school or college GPA of 3.0 or above to qualify for the HOPE (Dynarski, 2002). However, the one bright note is that black Georgians were much more likely to attend four-year institutions in the post-HOPE policy arena, than before (Dynarski, 2002).

The situation in Florida with the Bright Futures scholarships is similarly dismal for non-white students. White students received at least 70 percent of all Bright Futures scholarship money at all three program levels, yet accounted for only 58 percent of public high school graduates in 1999 (AACRAO, 1999). African Americans and Hispanics comprised only 11 percent of Academic Scholars, 21 percent of Medallion Scholars, and 26 percent of Vocational Gold Seal Scholars (OPPAGA, 2003). More students of color qualified for the less lucrative awards that had less academically rigorous requirements. Even though Florida Bright Futures rewards merit and not need, the OPPAGA (2003) found that college was more affordable for everyone, regardless of need. However, this raises the question of whether state-supported merit aid programs should aid those students who do not have financial need, and would be likely to attend college without the assistance of public funds, to the detriment of those who do. In New Mexico, 64 percent of the Lottery Success Scholarship funds are awarded to students whose families make \$50,000 a year or more while only 15 percent of the money goes to students from families with incomes of \$20,000 or less (Selingo, 2001). Subsidizing the enrollment of middle- and upper-income students serves no obvious purpose of equity (McPherson and Schapiro, 1998).

Merit aid can shift state appropriations away from institutions, which may result in tuition creep. In the end, this will make college more expensive for the people who can least afford it, the non-white, low-income students who do not qualify for merit scholarships (Dynarski, 2002). While the Georgia HOPE and Florida Bright Futures programs have not actively disadvantaged students of color, there is the fear that they have added to their stratification through increased admissions standards at four-year institutions and potential and actual cuts in state need-based aid. “The expansion of HOPE occurred simultaneously with large cutbacks in Georgia’s need-based scholarship programs. In 1993-1994, the first year of the HOPE Program, Georgia allocated \$5.3 million to its need-based programs. By 1998-1999, it had decreased appropriations

to these programs to \$0.5 million, cutting them by over 90 percent during those five years.” (Heller, 2002, p. 240)

This potential decline in the higher education enrollment of non-white students does not appear to be problematic for middle- and upper-income predominately white voters. “The sudden increase in merit aid is hugely popular with white, middle-class parents, who, not incidentally, are also the most politically active voters and demanding consumers” (Kronholz, 2003). Rather than appropriating additional funds directly to colleges, state legislatures instead approve merit aid programs which allow the middle-class white voter to see that “meritocracy works.” Dynarski (2002) categorizes this effect as the voters perceiving the benefits of merit aid as personal and immediate. No stigma of an unconditional entitlement surrounds the programs; rather they are viewed as an earned reward. This leads Dynarski (2002) to wonder what happens to the money originally earmarked for college, now that merit scholarships cover the majority of tuition and fees. Cornwell and Mustard (2002) have positively correlated new car registrations with HOPE recipients, and found that car purchases rose faster after the implementation of HOPE than before.

After witnessing the high cost of these merit aid programs, politicians are starting to realize that while politically popular, merit aid is not always the best solution to brain drain (Selingo, 2001). The political popularity of these programs is a force that is difficult to resist for and undo by politicians. One politician in Louisiana, where the Tuition Opportunity Program for Students (TOPS) is king has remarked that no politician wants to be branded “anti-TOPS”. In Georgia, Representative Charlie Smith was met with swift opposition when he attempted to tinker with the HOPE formula, which led him to remark, “It’s less painful to jump off a cliff than to change HOPE” (Selingo, 2001, A20). With the ever-increasing costs of college attendance, it may become nearly impossible to derail the merit aid train that is speeding through many states. Yet, a weak economy may halt or diminish the amount of the awards as well as the number of recipients. Arkansas has temporarily closed its program to new applicants, even though renewals are still possible. New Mexico finds itself in a similar position as the costs of the programs have far exceeded the expectation of politicians (Selingo, 2001). Those states which fund their grant/scholarship programs through legislative appropriations (California, Louisiana, Maryland, Mississippi) and not the lottery (Florida, Georgia, New Mexico, West Virginia, South Carolina, Kentucky ) may have to either raise the academic requirements or add a means test to decrease the number of eligible students.

### ***Stopping the Brain Drain?***

After the implementation of HOPE, Georgians were more likely to stay in state to attend two and four-year colleges. “In particular, fewer Georgia students now attend college in states that border Georgia” (Dynarski, 2000, p. 632). Dynarski (2002) concludes that a “clear effect of the spread of merit aid will be reduced migration across state lines for college. Merit aid both pulls students toward their own states’ schools and pushes them out of other states’ schools. Like low tuition for state residents, merit aid pulls students toward home. Increased competition for seats in merit states will push them home” (p. 34). Dynarski (2002) notes that it remains to be seen whether students remain in state after the completion or the termination of their higher education, which of course was one of many primary objectives for merit aid in all states, not just Georgia.

Without evidence that students are in fact staying in the state after receiving their baccalaureate degrees, these initiatives may be just further subsidizing increases in human capital for other states' economies.

Should all states undertake expensive policy initiatives to stem the out-migration of college students and college graduates? Based on the evidence, the answer is no. And apparently, voters and legislators in many states do not wish to commit state resources to end brain drain, despite the relative success of Georgia and Florida. Proposals geared toward containing brain drain have failed around the country. A broad-based merit aid program initiative in Alabama has failed, and in North Dakota, voters defeated Measure 3 in November 2002, which would have provided \$5000 for both income tax reduction and student loan forgiveness over 5 years (\$1,000 per year) to any North Dakota college graduate who stayed in state (Wirtz, 2003). In fact, attempting to accommodate all of the students who leave would be a problem for New Jersey and Illinois, where the higher education facilities are near capacity (Prospero, 2001). However, proposals for HOPE-like programs are currently pending in Indiana, South Dakota, Virginia and Wyoming.

### **Potential Implications of Brain Drain Policy Initiatives in the South**

The lure of merit scholarships for the South lies in their ability to “help states keep their brightest students, allow public colleges to admit more students with good grades and test scores, and increase the overall number of students in college”, according to the proponents of these programs” (Selingo, 2001). The use of state funds for merit aid programs is a particularly contentious policy issue because “the rapid growth of state merit scholarship programs has drawn scarce funds away from the need-based programs” (Mumper, 2003, p.50). During the 2000-01 academic year, “the 13 states with broad, merit-based programs [spent] \$709.4 million on awards to about 320,000 students...while need-based aid in the 13 states, including federal matching dollars, totaled just \$325.2 million in 1998-99” (Selingo, 2001).

The establishment of honors colleges as unique and challenging academic experiences for highly-qualified students can only be advantageous from a human capital viewpoint, yet there is the fear that honors programs/colleges are draining financial and faculty resources from those students who need them the most. Some critics, like Murray Sperber (2000), charge that while honors colleges may indeed keep some high-ability students “at home”, they are in fact pulling resources away from those students who are not deemed “high ability”. In fact, more than 75 percent of two- and four-year public institutions offer special financing packages or scholarships to students who enroll in an honors program (Long, 2002). Many private institutions without high name recognition or national attention also entice gifted students to their college or university through the use of honors college scholarships. For example, Indiana University of Pennsylvania had \$313,000 in financial aid set aside for honors program students during the 2001-02 academic year (Selingo, 2002). As high achieving students often come from middle- and upper-income families, these financial subsidies are far from needed to ensure their participation in higher education.

Despite the fervor to establish and fund initiatives to stanch brain drain, there is no evidence that any of these measures have been successful in keeping students in the state *after* receiving their bachelor's degrees. While Long (2002) provides a concise overview of the impetus for the

creation of honors programs and colleges, she does not effectively address the question of whether the creation of honors programs has in fact improved the retention of educated residents. As far as merit scholarships are concerned, Dynarski (2002) wonders if merit aid improves completed schooling or simply attempted schooling.

Finally, merit scholarships do not always appear to reward academic talent. Louisiana, Mississippi and Arkansas require less than a 3.0 high school GPA and sometimes students simply sit for the ACT or SAT to qualify for their respective awards. While the goal of these programs is to increase human capital, how does the awarding of generous tuition scholarships to infra-marginal students of marginal ability increase human capital? These areas are ripe for future research. Until policy makers look at the root of the problem as opposed to the symptoms, brain drain will continue to be a problem in those regions that have the lowest levels of educational attainment and pay on the national scale.

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