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Targeted Merit Aid: Implications of the Tennessee Education Lottery Scholarship Program

By Erik C. Ness and Brian E. Noland

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As the nation’s newest broad-based merit aid program, the Tennessee Education Lottery Scholarship program’s generous eligibility requirements may target the very students who are disproportionately left out of similar programs in other states. This article compares the scholarship eligibility rates of Tennessee students with three other states: Florida, Louisiana, and West Virginia. This study suggests that Tennessee’s model may mitigate recent criticisms of merit aid programs and may compel policymakers to consider more fully the negative consequences of traditional merit aid.

In June 2003, Tennessee Governor Phil Bredesen signed into law the thirteenth broad-based merit aid program in the United States. Based initially on Georgia’s HOPE scholarship model, the Tennessee Education Lottery Scholarship Program ultimately became the nation’s broadest scholarship program, with 65% of high school graduates projected to be eligible to receive a lottery-funded scholarship. This wide pool of eligible students and the program’s supplemental awards for low-income students suggest that the current merit aid and need aid classifications may not adequately describe this new financial aid program.

Scholars have traditionally dichotomized financial aid into two distinct and mutually exclusive categories: merit-based aid and need-based aid. One reason for this dual classification could be that until Georgia’s lottery-funded HOPE (Helping Outstanding Students Educationally) Scholarship Program, enacted in 1993, an overwhelming proportion of state and federal financial aid funds were awarded based primarily on students’ ability to pay. As states have steadily adopted Georgia’s scholarship model, scholars and policymakers have identified these programs as merit aid. Many scholars contend that these new, politically popular scholarships deplete state funds that were previously (or could potentially be) used for need-based aid. On the other hand, policymakers contend that as state appropriations for higher education decrease and tuition increases, these merit aid programs offer necessary revenue sources to students and their parents in order to maintain college affordability.

This paper aims to explore the need aid and merit aid dichotomy and to suggest a hybrid classification: targeted merit aid. The first two sections briefly report background information on both need aid and merit aid. The third section outlines the recent scholarly criticism of merit aid programs with particular
attention focused on Georgia’s HOPE scholarship. The targeted merit aid concept is considered by analyzing the new Tennessee Education Lottery Scholarship Program, specifically by applying the Tennessee criteria to three states—Florida, Louisiana, and West Virginia—that currently fund broad-based merit scholarships and comparing the differences among predicted recipients of each program’s award criteria. Finally, the paper presents research and policy implications of the Tennessee case and targeted merit aid.

While higher education institutions have a long history of providing need-based aid to students, the first comprehensive government foray into financial aid for individual students was the 1944 Servicemen’s Readjustment Act, or G.I. Bill. Although the G.I. Bill was not “means tested,” this broad-based financial aid entitlement set a distinct precedent of federal support for higher education. This precedent continued with the passage of the National Defense Education Act of 1958, which provided financial aid primarily for students studying in math and science fields. Then, the 1965 Higher Education Act (HEA) authorized the Educational Opportunity Grant, the Guaranteed Student Loan program, and the College Work Study program. The Education Amendments of 1972 also sparked state financial aid funding by offering federal matching funds through the State Student Incentive Grant (SSIG) program (Heller, 2002b).

Heller (2002b) notes that the landmark 1965 HEA was not implemented with the success that the higher education community had hoped. Mumper (1996) attributes this primarily to the implementation strategy of linking federal funds to state college enrollments, rather than individual student financial need. Contrary to current practice of federal student aid, these early financial aid dollars (not including loan programs) went first to individual institutions, and then were funneled to students.

Shifting the flow of federal funding marked the fundamental policy change of the Education Amendments of 1972. By directly funding individual students, based on their ability to pay for higher education, the new Basic Educational Opportunity Grant program, later renamed Pell, would award more than one million students financial aid in the first academic year after enactment (Heller, 2002b; Mumper, 1996). According to the most recent Trends in Student Aid (College Board, 2006), the total Pell Grant expenditures in constant dollars grew from $3.4 billion in 1975-76 (the first year in which all undergraduates were eligible for Pell Grants) to $12.7 billion in 2005-06. While this marks a substantial increase, the buying power of Pell Grants shows the opposite trend. In 1975-76, the maximum award ($1,400) was 72% of the total cost of attendance at a public four-year university; in 2005-06, the $4,050 maximum award was only 33% of the total cost of attendance at the same institution type. Scholars often point to this diminishing buying power in
support of increases in need-based awards instead of creating new programs based on merit.

**Merit-Based Aid**

Merit aid policy can be traced back to the California Master Plan of 1960, which included a popular, yet inefficient and regressive, policy of no tuition for students at any state college from the University of California, Berkeley to Los Angeles City College. Since then, in many other states as well, low tuition has been a stable strategy for providing access to college, despite the fact that most students could afford to pay much more. Lottery funded merit aid programs, beginning in 1993 with the Georgia HOPE Scholarship program, appear to follow this trend of addressing college affordability through broad-based discounts, rather than a graduated cost schedule with financial aid directed to students least able to afford college costs.

Since Georgia’s enactment of a merit aid program in 1993, fourteen states have begun similar aid programs. Heller (2002a) cites three “primary motivations” of states enacting merit aid programs: (1) to promote college access, (2) to provide incentives for students to achieve academically, and (3) to attract the “best and brightest” students to colleges in-state. As with the common motivations of states to adopt merit aid programs, the sources of funding are also similar. More than half of the states with merit aid programs fund scholarships through lotteries; other common revenue sources include tobacco settlement funds and state-sponsored video gambling machines.

Three of the most recent states to adopt lotteries (New Mexico, South Carolina, and Tennessee) have done so with merit-based scholarships earmarked as the primary beneficiary. While not specifically using the lottery, West Virginia funds its new merit aid program on the proceeds of video gambling (gray machines). Also since 1990, three state legislatures (Florida, Kentucky, and Missouri) have enacted laws to earmark lottery funds for merit aid instead of their previous practice of adding lottery proceeds to their state’s general fund. These trends seem to suggest a public willingness to support lotteries provided the proceeds are allocated to education.

While each of these seven states award merit-based scholarships, there are some key distinctions. In five states—West Virginia, South Carolina, Tennessee, Florida, and Missouri—students initially qualify for scholarships based on high school grade point averages and/or national college admissions test scores (SAT/ACT), then must maintain a certain college grade point average to renew their scholarships. However, three of these states—South Carolina, Florida, and Tennessee—have tiered awards that reward students with exceptional grade point averages and test scores with higher scholarships. The Tennessee program also provides awards for students from low-income households. The Missouri’s Bright Flight scholarships are not as broad-based, awarding only those students in the top 3% of all Missouri SAT and ACT test takers.
In the sixth state, the Kentucky Educational Excellence Scholarship (KEES) Program awards students for their grade point average achievement in high school each year (9th-12th grades). For instance, a student with a 4.0 GPA at the end of the academic year earns $500 toward college, with a sliding scale for students earning at least a 2.5 GPA who earn $125. Students also earn bonuses based on their ACT scores (i.e., 15 ACT = $36, 28 ACT and above = $500). Upon high school graduation, students tally the total awards for each year and the ACT bonus to determine their scholarship amount for each year of college provided they maintain a 2.5 postsecondary grade point average.

In the seventh and final, the New Mexico Lottery Success Scholarships base eligibility entirely on postsecondary performance. High school grade point averages and national test scores are irrelevant. Instead, all students who earn a 2.5 grade point average after completing 12 credit hours receive scholarships equal to 100% of tuition at a public New Mexico college or university.

Criticism of Merit Aid
Just as voters and elected officials have come to laud merit aid programs, scholarly consensus has risen to question the use of limited public resources in this inequitable manner. Critics of merit aid programs point to the broader issues of college access and affordability, specifically substantial tuition increases and their disproportionate effect on low-income students. These critics suggest that additional financial aid should target needy students. Perhaps the most comprehensive critique of state merit aid is Who Should We Help? The Negative Social Consequences of Merit Scholarships (Heller and Marin, 2002).

This report, sponsored by Harvard University’s The Civil Rights Project, presents the broadest and deepest consideration of merit aid programs to date. Drawing on evidence from four states, the report focuses on three major themes: (1) a shift from need-based scholarships to merit scholarships; (2) merit scholarships disproportionately reward middle- and upper-class students; and, (3) merit scholarships reward a disproportionate and lower percentage of students from racial/ethnic minority groups. With regard to the first theme, the report notes that 12 states were awarding merit-based scholarships. In 2000-2001, these states distributed $863 million in merit scholarships and awarded nearly one-third of that amount, $308 million, in need-based scholarships (Heller, 2002a).

Second, merit scholarships reward students who already would attend college rather than increase access to students who might not otherwise participate in higher education. The chapter by Heller and Rasmussen (2002) that considers the college participation rate and merit scholarship rate of Michigan and Florida high schools, not surprisingly, finds that the high schools with the highest college participation rates also have the highest scholarship rates.
Third, a disproportionately lower percentage of merit scholarships are awarded to minority students. Two chapters of the Harvard report focus exclusively on the effects of race in the HOPE Scholarships in Georgia. Dynarski (2002) reports that in the years before HOPE White students were nearly 11% more likely to attend college than African Americans, but since HOPE that figure has increased to 26% more likely. Cornwell and Mustard (2002) present further evidence of this trend by finding that the large majority of African Americans who received HOPE are attending the state’s less selective schools. Similar results are reported among Hispanics for New Mexico’s Lottery Success Scholarship (Binder and Ganderton, 2002).

As the Harvard report indicates, lotteries have played a major role in the proliferation of statewide merit scholarship programs. Often enacted in times of economic decline, lotteries are viewed by some as a panacea to solve the problems caused by decreasing higher education funding. However, a growing literature suggests that states should be equally wary of lotteries for social as well as economic reasons.

In addition to the findings included in Who Should We Help?, two economic studies of the HOPE Scholarship program raise questions about who is offered HOPE. Dynarski (2000) finds that HOPE has likely increased the college attendance rate of 18- and 19-year-olds by more than 7 percentage points compared to other southeastern states. However, this increased participation comes overwhelmingly from White students from middle- and upper-income families. In fact, the racial gap in college attendance has increased with a rise of 12.3 percentage points among White students while the attendance rates of African American students have not increased at all, relative to other neighboring states. This finding further supports the notion that HOPE funds students who need financial aid the least.

A similar trend has surfaced as Georgia debates adding income caps to the HOPE eligibility criteria. Supporters of re-inserting a means test cite findings that the 20 ZIP codes with the most lottery winners had annual family incomes below the state’s median, in contrast to the 20 counties with the most HOPE recipients where family incomes were 72% higher (Selingo, 2003). Despite these startling figures, income caps do not appear to be a likely alternative. Scholars are quick to point out that adding an SAT test requirement would likely reduce the number and proportion of eligible minorities and low-income students, thereby further highlighting merit aid’s disparate impact.

In November 2002, Tennessee voters overwhelmingly passed a referendum in support of implementing a lottery with its proceeds earmarked for college scholarships. Becoming the thirteenth state to offer merit scholarships, Tennessee policymakers quickly looked to models in other states, particularly Georgia’s HOPE program. As the lottery scholarship criteria were being
considered, national and state education leaders from higher education provided information and advice based on the merit aid experience in other states. This expert advice, often disaggregated to allow elected officials to consider how students in their districts would fare under various scenarios, helped to shape the legislative approach in determining appropriate scholarship criteria and award amounts (Ness, forthcoming).

After considering hundreds of scholarship program iterations, Tennessee enacted a scholarship program that awards students who earn a 3.0 grade point average (GPA) or 19 ACT score a base scholarship of $3,000. Supplemental awards of $1,000 can be earned by students who either earn a 3.75 GPA and 29 ACT (General Assembly Merit Scholarship) or students who meet the base criteria and have a family income below $36,000 (need supplement). Also, the Tennessee program includes an Access award, for students earning a 2.75 grade point average and 18 ACT, of $2,000, which is equal to one-half the amount of the base award with a need supplement. Since the enactment of the Tennessee program in 2003, these award amounts have increased. For 2006-07, the base HOPE award is $3,800 and the need-based supplement is $1,500. The merit supplemental award remains $1,000.

Initially, consensus built on a 3.0 GPA “and” 19 ACT base criteria. However, due to myriad political considerations, the Tennessee General Assembly settled on a 3.0 GPA “or” 19 ACT score criteria (Ness, forthcoming). Despite the politics involved, it appears that this change was initially based on legislators’ concerns that too few low-income and African American students would qualify. Because income caps were quickly rejected, the only scenario by which this disparate impact could be assuaged was to broaden the pool of eligible students. For example, applying the 3.0 GPA “and” 19 ACT criteria, African American students would represent only 6% of total projected eligible students. By changing the “and” to “or” the percentage of African American eligible students doubled to 12%.

While the Tennessee Education Lottery Scholarship Program was originally conceived in the legislature and in the public as a replication of Georgia’s HOPE Scholarship Program, the enacted program is much broader and includes means-tested components. The program is the only broad-based merit aid program to award larger scholarships to poorer students. Therefore, it appears that Tennessee Education Lottery Scholarship program could be termed “targeted” merit aid. Due to the wide pool of expected eligible students, some may suggest the term “blanket” merit aid would be more appropriate; however, this disregards the intent of policymakers to craft scholarship criteria to ensure that those students who need financial aid most would be included. This distinction, although not affecting the total cost of the program, clarifies the intent of the program to be as inclusive as fiscally possible for the sake...
of equity rather than a blanket attempt to maximize the number of students receiving scholarships.

**Research Design**

Using Tennessee’s new lottery scholarship program as a natural experiment, this study applies Tennessee’s targeted aid approach to similar merit aid programs in other states. We analyze data provided by ACT, Inc. that captured all ACT test-takers in the high school class of 2003. This database, searchable only for aggregate data, includes self-reported geographic, demographic, and academic information on all students who completed the ACT test. For this study, we sort the data first by the appropriate scholarship criteria in each state—high school GPA and ACT score—then further sorted by race and family income level. While the sample of comparison programs is limited to states in which a sizeable proportion of high school students take the ACT test, results are consistent in all three comparison states.

Based on the Tennessee experience in shifting from a dual GPA “and” ACT scholarship criteria to an “or” criteria, we selected other merit aid programs of similar scope with both GPA and ACT criteria. This narrowed the selection pool from twelve potential comparison states to three—Florida, Louisiana, and West Virginia. Each of these three states also has a significant proportion of their students completing the ACT. Louisiana and West Virginia are both considered ACT states with more than 60% of graduating seniors taking this test. Florida is considered a hybrid state because students take either (or both) the ACT and SAT. In 2003, 42% of Florida graduating seniors completed the ACT and 57% completed the SAT. We acknowledge that the ACT data do not reflect population data for Florida, nor for Louisiana and West Virginia; however, the general trends are consistent among all three states. Also, given the tiered awards in both Tennessee and Florida, this study considers the most widely attainable award in each state—the Tennessee HOPE Scholarship and the Florida Merit Scholars Award.

Based on the aggregate nature of the data, we report descriptive statistics on the number and percentage of students eligible for scholarships under various scenarios for each of the four states. Specifically, we consider how the scholarship criteria affect the total number and percentage of all scholarship recipients and the percentage of African American students and students with family incomes of $36,000 or less who would be eligible. These aggregate data, while ill-suited for multivariate analysis, provide a common data source for cross-state comparison that is sufficient for our analysis.

**Findings**

The results of our analysis illustrate, not surprisingly, that if comparison states were to implement the “or” scholarship criteria the number and percentage of recipients would increase significantly. Table 1 details the number and percent of students who qualify under each state’s scholarship criteria. The percentage of high school senior ACT test-takers who would be
eligible for scholarships in each of the comparison states, Florida, Louisiana, and West Virginia, is less than 40%, compared to greater than 65% of similar students in Tennessee. When these comparisons are disaggregated to consider the proportion of all African American students and all low-income students who meet their state’s merit aid eligibility criteria, the distinctions are even more stark.

When comparing the African American and low-income sub-groups in Florida, Louisiana, and West Virginia to the same sub-groups in Tennessee one finds that Tennessee has more than twice the proportion of African American and low-income students enrolled in higher education that are eligible for merit aid. For example, 44.6% of all African American students enrolled in Tennessee colleges and universities meet the scholarship eligibility criteria as compared to only 17% of the African American student population who meet the scholarship criteria in Louisiana. A similar trend exists regarding low-income students, for example, when comparing West Virginia, where 28.3% of all low-income students enrolled in higher education meet the eligibility criteria, to Tennessee, where more than twice the percentage (58.2%) of all low-income students meet the eligibility criteria.

Table 2 considers the effects of uncoupling the GPA and ACT requirements in each state; that is, switching the “and” to an “or” as happened with the Tennessee eligibility criteria at its inception. These results, perhaps, are most illustrative of the inclusive effect of broadening merit aid eligibility criteria. For instance, by changing the “and” to an “or” each state nearly doubles the proportion of all African American students who would be eligible, which results in significant net gains of eligible African Americans. Likewise, the proportion of all low-income students who would be eligible more than doubles in each state;
Table 2
Merit Aid Eligibility: Replacing “and” With “or”

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>African American</th>
<th>Income less than $36,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of Students</td>
<td>% Eligible</td>
<td># of Students</td>
</tr>
<tr>
<td>Florida</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current criteria</td>
<td>55,784</td>
<td>10,054</td>
<td>16,115</td>
</tr>
<tr>
<td>FL (“or” criteria)</td>
<td>34,580</td>
<td>4,590</td>
<td>9,449</td>
</tr>
<tr>
<td>Net gain (“or”)</td>
<td>13,383</td>
<td>3,175</td>
<td>5,810</td>
</tr>
<tr>
<td>Louisiana</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current criteria</td>
<td>37,366</td>
<td>10,775</td>
<td>13,884</td>
</tr>
<tr>
<td>LA (“or” criteria)</td>
<td>25,947</td>
<td>6,387</td>
<td>9,196</td>
</tr>
<tr>
<td>Net gain (“or”)</td>
<td>11,097</td>
<td>4,553</td>
<td>5,506</td>
</tr>
<tr>
<td>West Virginia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current criteria</td>
<td>11,728</td>
<td>375</td>
<td>4,028</td>
</tr>
<tr>
<td>WV (“or” criteria)</td>
<td>7,602</td>
<td>153</td>
<td>2,432</td>
</tr>
<tr>
<td>Net gain (“or”)</td>
<td>3,314</td>
<td>115</td>
<td>1,293</td>
</tr>
</tbody>
</table>

and, in Louisiana, this percentage increases by nearly 60%. Furthermore, of the 11,097 additional students who would be eligible if Louisiana implemented the “or” provision, almost one-half of the newly-eligible students would come from low-income households (5,506). In Florida and West Virginia, roughly 40% of the additional students would come from low-income households. Given this large percentage of additional students who are African American and low-income, one could argue that these students are being “targeted” by these broader programs.

Implications

Research

The most important research implication of the Tennessee scholarship program is that differentiation within merit aid programs matters tremendously. As reported in the merit aid overview, each state’s criteria not only differ, but differ substantially. One distinction that appears particularly relevant in light of these findings is noting whether merit aid programs have a standardized test requirement. The proportion of underrepresented students awarded scholarships in the three comparison states’ programs do not differ significantly. However, when compared with programs that do not require standardized tests, differences are considerable.

Researchers could also consider the effects of various financial aid models (merit, need, targeted) on basic higher education goals, such as graduation and retention rates of recipients, percentage of recipients staying in-state for college and employment, or satisfaction with the college experience. Analyzing programs based on their explicit goals could clarify the intended and unintended consequences. For instance, West Virginia’s Promise Scholarship program was specifically designed to keep West Virginia students in-state both while in college and
after postsecondary graduation. Therefore, the more rigorous 3.0 GPA and 21 ACT score requirements may be appropriate as these students are more likely to graduate from college than students who must only meet the GPA requirement.

One challenge researchers often face is gaining access to these data on state programs. It seems that by clearly conveying the relevance of proposed studies to these merit aid programs’ intended goals, administrators and policymakers may be more likely to release these data. Should such studies proliferate, policymakers would have useful data to consider when existing financial aid programs are altered or new programs created.

**Policy**

There are two primary policy implications of targeted merit aid: (1) the potential to broaden access to poor and minority students, and (2) the potential to bankrupt the merit aid program. From the preliminary evidence presented in applying the Tennessee scholarship criteria to other states, it is apparent that broader aid programs benefit African American and low-income students. However, policymakers will likely be cautious to expose the fiscal health of merit programs by significantly increasing the number of students. Means-testing remains the most efficient way to target financial aid, but these income caps appear to have become unsustainable. Therefore, it seems that the only means by which minority and low-income students can equitably participate in merit aid programs is to cast a wide net.

Ultimately, this notion of targeted merit aid and Tennessee’s scholarship program provides a new model for policymakers to consider that awards underrepresented students at higher rates than other merit aid programs. To sustain this model’s viability, states must continue to collect student-level data (especially income data) to inform policymakers better. The mounting evidence exposing the unintended consequences of merit aid programs may soon force elected officials to consider how criteria affect minority and low-income students, particularly those students in their districts.

Currently, the economic viability of the Georgia HOPE program is a major concern (Fischer, 2005). This leaves elected officials with the difficult task of determining how to reduce costs, usually through one of two options: (1) reduce awards amounts, or (2) eliminate eligible students. If the latter is agreed upon without income information on recipients, policymakers may be left to craft eligibility revisions based on anecdotal evidence from their constituents. However, as the disproportionate effects by race and income are reported, state elected officials may find reinvigorated opposition to reducing the pool of eligible students if evidence detailing which students will be left out becomes publicly transparent. Indeed, this may be Tennessee’s contribution to the policy debate. By beginning with such a wide pool of eligible students, if revised criteria can be shown to

*From the preliminary evidence presented in applying the Tennessee scholarship criteria to other states, it is apparent that broader aid programs benefit African American and low-income students.*
disproportionately eliminate poor and African American students from eligibility, these consequences may no longer be classified as unintentional.

References


