Trends from the Merit-Based Portion of the Tennessee Education Lottery Scholarship for Historically Black Colleges and Universities, Religiously Focused Institutions

Aaron A. Allison, Ed.D
Adjunct Professor of Education
Union University
aallison@uu.edu

Tori L. Colson, Ed.D
Assistant Professor of Teacher Education
University of Southern Indiana
tshoulders@usi.edu

Abstract
This study examined the trends in enrollment numbers and academic quality of first-year Tennessee students on the merit-based portion of the Tennessee Education Lottery Scholarship (TELS) upon HBCU’s and religiously focused institutions in Tennessee from 2005-2014. The researchers hypothesized that the merit-based portion of the TELS was a contributing factor to retaining talented, first-year, undergraduate, Tennessee students at private, accredited, higher education institutions in Tennessee. The average enrollment, average ACT score, and average high school GPA of first-year, undergraduate, Tennessee students at HBCU and religiously focused schools were examined for trends. The data revealed no significant difference in the trend for enrollment of first-year Tennessee students at HBCU private institutes and religiously focused institutes. There was a significant trend of improvement in ACT averages and HSGPA averages at such schools. This is meaningful for institutions in recruitment and retention of high-quality students. Implications and future areas of research are discussed.

Keywords Merit-based, Lottery, Scholarships, Religious Universities, Historically Black Colleges and Universities

Introduction
State-funded, merit-based aid is an innovative, growing, and important component of higher education funding used to recruit and retain students with academic talent in the state. The Tennessee Education Lottery Scholarship (TELS) is an example of a state-funded, merit-based aid that affects any higher education institute accredited in Tennessee. This broad-based, merit scholarship follows the individual student, which creates a competitive higher education market. Since the scholarship is attached to the individual and not an institution, particular types of institutions may be uniquely affected by the scholarship. Particularly, private, accredited, institutions are affected because of high tuition cost and recruiting and retaining high quality students. The TELS provides financially challenged students a

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greater opportunity financially at these institutions. Because of the TELS importance, this study examined trends in enrollment patterns for Historically Black Colleges and Universities (HBCU) and religiously focused, accredited private higher education institutions in Tennessee after the rollout of the TELs.

The state of Tennessee’s aggressive, merit-based lottery scholarship is an example of how state investment in an individual’s higher education funding overlaps with the interest of private colleges. In 1993, Georgia instituted a lottery scholarship, which used revenue from a state-operated lottery to fund scholarships (Rubenstein & Scafide, 2002). The Georgia funding innovation was a development of a broad-based, state-sponsored, merit-based scholarship, which used academic requirements for eligibility regardless of financial status. Since Georgia started the merit aid program in 1993, 14 states have begun similar aid programs (Ness & Noland, 2007).

In 2002, Tennessee voters chose to have a state-run lottery, with its proceeds designated to college scholarships. This referendum by the voters was a culmination of many years of discussion and cooperation among Tennessee legislators, educators, and various state constituents. Out of this decision from voters emerged the TELS, which received bipartisan support among Tennessee legislators. The TELS provides funds for students who meet particular standards to attend qualified college and universities throughout the state.

The TELS started operating on January 20, 2004, and began dispensing lottery proceeds to fund scholarships for Tennessee students attending eligible public or private institutions and universities across the state (Tennessee Higher Education Commission, 2013). The state identified the lottery to fund higher education scholarships without affecting expenditures from its normal operating budget.

The TELS is the 13th merit aid program to be introduced in the nation and is the broadest scholarship program, with 65% of Tennessee graduates in 2012 eligible to receive a lottery-funded scholarship (Tennessee Higher Education Commission, 2012).

An analysis of enrollment trends of Tennessee students at Tennessee Independent Colleges and University Association (TICUA) institutes from 2005-2014 measured the impact of the merit-based portion of the TELS as a factor for these school’s recruitment and retention trends. In addition, an analysis of average ACT scores of first-year Tennessee students at Tennessee religiously focused institutes from 2005-2014 measured the impact of the merit-based portion of the TELS on talent retention of Tennessee students at these schools. The High School Grade Point Average (HSGPA) mean of first-year Tennessee students at religiously focused institutes was another indicator of retention.

This study hypothesized that Tennessee’s merit based scholarship was a contributing factor for enrollment and quality of Tennessee students at accredited private universities in Tennessee. This study has the potential to provide valuable information for policy makers of independent institutes so they can better understand the importance of broad-based merit scholarships on their schools.
Also, this information will give state politicians a broader perspective on how merit scholarships affect all college students in their state, instead of only residents who choose to attend state institutions. If the hypothesis proves accurate, private universities should encourage merit-based scholarships in their states, for merit-based scholarships have proven to help these schools.

**Review of Literature**

**Emergence of State-Funded, Merit-Based Scholarships**

Since the mid-1990s, scholars have divided state-funded scholarships into two categories: needs-based scholarships and merit-based scholarships (Ness & Noland, 2007). Traditionally, higher education scholarships have been awarded in the United States to those with financial limitations. In 1993, under the leadership of Governor Zell Miller, Georgia instituted the HOPE lottery scholarship, which stood for Helping Outstanding Pupils Educationally, to great national acclaim (Ingle & Petroff, 2013). Miller, who was elected governor in 1990, championed the concept of the Georgia HOPE scholarship based on his personal experience with the GI Bill (Heller & Marin, 2004). Miller came from a low-income family, was able to attend the University of Georgia through the GI Bill, and wanted to extend a similar type of benefit to all citizens.

Long (2004) analyzed the impact of the Georgia HOPE scholarship and concluded that colleges do respond to the incentives created by merit aid. After the Georgia HOPE Scholarship was implemented, 4-year colleges within the state increased student charges at a faster rate than similar schools in nearby states. In addition, Long showed strong evidence that in response to the Georgia HOPE scholarship, private colleges reduced institutional aid while increasing tuition prices. Public schools do not have the same flexibility to increase tuition prices, so they raised room and board costs to increase revenue from HOPE recipients attending the school with little to no tuition burden. Public 4-year universities raised their costs 5% faster than other southeastern colleges after the HOPE scholarship program was instituted (Long, 2004).

**Merit scholarships in various U.S. regions.** State-funded merit-based scholarships are particularly popular in the southeast region of the United States. Ingle and Petroff (2013) examined the concept of regional diffusion, where politicians institute policy ideas from neighboring states in their legislation. Ingle and Petroff (2013) identified regional diffusion as a factor in the development of merit-based aid for college students as a regional pattern in the southeast portion of the United States. This diffusion theory held true as Woo and Choy (2011) reported that the Southeast had the highest proportion of state merit scholarship recipients of any region in the United States (24%), while the nationwide total lagged at 10%.

While Ingle and Petroff (2013) uncovered regional diffusion theory, their study moved outside this regional focus, as they profiled innovation across merit aid adopting states outside the southeastern United States. Merit aid states outside of the southeast include Alaska, Massachusetts, Michigan, Nevada, and New Mexico. Ingle and Petroff excluded New Mexico in their study because an adequate
qualitative study about that state has already been made. Of the four states profiled, all had Republican governors who were strong, vocal advocates of the merit scholarships. Unlike states in the Southeast who had good economic conditions when starting merit aid, only two of the four states (Michigan and Nevada) self-reported favorable economic conditions before accepting merit aid. Regardless, all four states had improving economies and believed a statewide merit scholarship would boost the economy and diversify the work force.

Michigan and Nevada used tobacco settlement money to fund their merit scholarships. Since the money was earmarked to address public health issues, much public policy framing had to occur to justify this allocation. Ingle and Petroff (2013) summarized their findings with this statement:

In our four sampled states, we witnessed how an established program can remain static over time or become a pawn of changing administrations and economic conditions, leading to policy tinkering (e.g., name change, additional eligibility requirements), being reinvented/repackaged (e.g., Michigan Merit Award becomes Michigan Promise), or as evidenced in Michigan, a program can come to its end. (p. 21)

Woo and Choy (2011) also offered significant data on the prevalence of merit-based aid in America by comparing it to needs-based aid over a 12-year period. Needs-based funding remained a consistent part of the American student profile, as undergraduate borrowing increased from 32% (1995-1996) to 37% (2007-2008). Over the same time period, merit aid among undergraduates more than doubled from 6% (1995-1996) to 14% (2007-2008). One significant trend identified in this report was the demographic shift of grants that is occurring as merit aids increased. Woo and Choy reported the percentage of undergraduates who received both merit and needs-based aid in the highest income group increased from 13% (1995-1996) to 18% (2006-2007). On the other side of the spectrum, those undergraduates from the lowest income group received less merit aid in 2007-2008 (37%), than in 1995-1996 (41%). The effects of merit aid on lower income groups is worthy of further observation. For this reason, the study looked at the effects of merit scholarships on private Historically Black Colleges and Universities (HBCU) in Tennessee.

Woo and Choy (2011) also reported that recipients of merit aid were highest among undergraduates in nonprofit 4-year institutions, as opposed to for-profit or 2-year institutions. Merit aid depends both on the resources of the institution in question and student access to state merit scholarship programs. Undergraduates in 4-year institutions were the largest group of recipients of merit aid: 19% of undergraduates in 4-year public and 36% at private nonprofit institution received merit aid in the 2007-2008 school year (Woo & Choy, 2011). Additionally, full-time students received more merit aid in the 2007–2008 academic year than part-time students.

Significant data emerged from Woo and Choy (2011) in regard to private colleges: At private nonprofit 4-year institutions in 1995–96, there was no measurable difference between the average needs-based grant ($7,000) and merit grant ($6,200). In 2007–08, however, the average merit grant was larger than the average needs-based grant ($8,400 vs. $7,700, respectively). (p.10) It was not discernable in the report how much of this merit aid came from the institution and

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how much came from state-funded merit aid. However, the increase in merit aid at private institutions indicated that private institutions may be benefiting from merit aid.

It is important to note that not all states that offer merit scholarships ignore economic need while allocating aid. While this study focuses on merit aid programs that gather no information from students about their families’ economic background, merit aid programs in 18 states do consider need in their awards (Domina, 2014). Large-scale programs in Arkansas, California, Delaware, Indiana, Missouri, New Hampshire, and Texas require students to demonstrate financial need in addition to acquiring academic eligibility to qualify for merit aid.

Groen (2011) studied how effective merit aid was at retaining graduates in the state’s work force in the paper Do Merit Aid Programs Help States Build Skilled Workforces? Groen’s analysis of multiple studies concluded that merit aid programs impact the student decision of where to go to college more so than the choice of whether to go to college. Past statistics have indicated that students tend to choose colleges in their home states and remain there after graduation. Groen cited one of his own studies that showed that 81% of students who entered college in the mid-1970s and late-1980s were still living in their home state 4 years after graduating from college and 73% were still living in state 10 years later.

As merit aid programs increase the amount of state residents enrolled in state institutions, out-of-state student enrollment is reducing (Liang & Ness, 2010). Though it is logical to hypothesize that state-awarded merit aid contributes to keeping college graduates in state, Groen’s (2011) evidence suggested that broad-based merit aid programs have a relatively small effect on the amount of college-educated workers in a state. Groen suggested that alternative programs are more responsible for retaining college graduates. Groen called programs that offer incentives to college graduates to stay in state “location contingent aid” programs. These programs make a direct connection between receiving aid and working in the state after graduation. Groen cited two types of programs that were in place for undergraduate students. The first alternative program was one which students obtain a scholarship during college in exchange for working in the state after graduation. If students do not fulfill the work requirement they must repay the scholarship. The second type of program cited by Groen was one that provides subsidies after college in the form of repayments of student loans.

Ness and Lips (2011) attributed market forces as the reason for the emergence of merit aid. They looked at a comparison of Merit Aid State Flagship (MASF) campuses and Non-Merit Aid State Flagships (non-MASF) with regard to institutional scholarships offered and the marketing of the awards. Six of the eight non-MASF universities offered prestigious programs while four of the MASFs did so. Ness and Lips identified this difference in the number of MASFs and non-MASFs offering prestigious awards, but that was not the most significant difference. They identified the presentation of the scholarship as the largest distinction between MASF institutions non-MASF institutions with regard to institutional scholarships. This lack of promotion in non-MASF schools may indicate that these schools rely on
the state merit program as a complementary funding source to entice students who already plan to attend that institution.

Hillman (2011) pointed out a weakness in merit aid, and believed that if all aid were allocated purely on the basis of student merit that it would redistribute resources to those students who are already likely to attend college. The study uses the U.S. National Merit Scholars program as an example of merit aid that only benefits families who “have the social and cultural capital (and financial capital) to participate in college-preparation programs” (Hillman, 2011, p.12). Merit aid only awards students who achieve a high degrees of academic excellence in high school and earn high scores on standardized tests. Hillman labeled these programs as socially regressive by rewarding intergenerational privileges. Hillman labeled the trend of merit aid as social stratification. Hillman predicted that policy makers will attempt to satisfy both priorities of needs-based aid and merit aid by creating a hybrid criterion that will apply to both qualifiers.

Daun-Barnet, Hermsen, Vedder, and Mabry (2013) conducted a single case study on the Michigan Promise Scholarship (MPS). In the mid-2000s, the MPS started, encountered opposition, and eventually became defunct. In 1999, Governor John Engler signed into law the Michigan Merit Award Scholarship Trust Fund, which was financed by a portion of the state’s annual tobacco settlement. Immediately, it was placed under scrutiny as The American Civil Liberties Union (ACLU) brought suit against the state in 2000, claiming that eligibility defined solely upon test scores was discriminatory and in violation of the Civil Rights Act of 1964 (Daun-Barnet et al., 2013). The plaintiffs dropped the case since the courts had decided that individuals could not bring individual suits in these cases by claiming violations against the Civil Rights Act of 1964. This was significant, as it has set the precedent for new state-sponsored merit scholarships.

Daun-Barnet et al. (2013) reported that the adaptations to the MPS was an improvement over the first program as it increased the award by 60%, eliminated the testing proficiency requirement, and created an incentive to complete college. However, by the spring of 2010, the Michigan legislature eliminated the MPS due to a projected budget deficit. At the point of elimination, only a small number of students had received the full award before the program was cut from the state budget (Daun-Barnet et al., 2013).

An evaluation of the program’s failure concludes that the structures of the program led to problems in the administration of the program. Daun-Barnet et al. (2013) observed, “When the decision was made by policymakers to replace the Merit with the Promise Scholarship, the financial aid community was not consulted, and the challenges of implementation were not discussed” (p. 29). The Daun-Barnet et al. report recommended that financial aid professionals find ways to connect to the policymaking process. Also, it was recommended that the work be done by policymakers to be prepared with a set of ideas or legislative priorities that could be used when the political climate was right for introducing state-funded merit aid. As merit scholarships increase in popularity, this report by Duan-Barnet et al. offers a stark reminder that merit aid can fail to produce its intended outcome.
Methods

Description of the Study
This research was a trend analysis of enrollment numbers, average ACT scores, and GPA averages of first-year Tennessee students at selected TICUA institutions. The data obtained is intended to produce conclusions in the following areas:

Research question 1. What is the impact of the TELS on enrollment and retention of academically talented first year, undergraduate, Tennessee students who attend private, religiously focused institutions?

Subjects
The current study examined trends affecting 45,550 first-year undergraduate Tennessee students attending Tennessee private institutions. This research’s sample population was first-year Tennessee students of Tennessee institutes, 2005-2014. Students eligible for the TELS were a Tennessee resident for at least one year at the time of the application (Tennessee Student Assistance Corporation, n.d.-b), achieved a minimum of a 21 ACT, exclusive of the essay and optional subject area battery tests, or an overall weighted minimum 3.0 grade point average (Tennessee Student Assistance Corporation, n.d.-b).

TICUA. There were 59 eligible state institutions in which qualified students could accept this merit aid (Tennessee Student Assistance Corporation (n.d.-a). Of the 59 qualified institutions, 31 were private institutions that were members of TICUA (Tennessee Independent Colleges and Universities Association, n.d.). To obtain the data, the researcher of the current study partnered with the research division of TICUA to analyze the data it has collected.

Groups
TICUA institutions were clustered as religiously focused based on the institutions self-identification through the Integrated Postsecondary Education Data System (IPEDS). The IPEDS is an identification tool for the NCES which is housed in the U.S. Department of Education (National Center for Education Statistics, n.d.) The NCES is the primary federal entity for collecting and analyzing data related to education in the United States for Congress (National Center for Education Statistics, n.d.). Of the 31 TICUA institutes eligible for the TELS, six institutions chose “not applicable” when it came to religious affiliation.

HBCU. In the HBCU grouping, three institutions were analyzed. Therefore, with each of the three HBCU Tennessee institutions having 10 years of data, there were 30 data points for this grouping. The three HBCU institutions in TICUA were Fisk University, Lane College, and Le Moyne-Owen College.

Religiously focused. Institutions that self-identified on the IPED with a denomination or claimed “Interdenominational” or “Multiple Protestant Denomination” were grouped in this study as religiously focused. Twenty-five Tennessee private institutions in TICUA chose a label or denomination on the IPEDS and were considered religiously focused institutions for this study. The six
institutions that self-identified on the IPED as “Not Applicable” were excluded from the religiously focused grouping. One institution identified as religiously focused, but was included from this study due to reporting discrepancies. Therefore, with each of the 24 religiously focused institutions participating having 10 years of data, there were 240 data points for this grouping.

**Institutions excluded from study.** Three TICUA member institutions were not included in this study as they did not admit undergraduate students. One TICUA member did not join the Association until 2009, therefore data is not available for this institution for this study. Additionally, two TICUA member institutions were excluded because they did not share student-level data on all students to TICUA. Thus, of the 34 TICUA member institutions, 28 were included in this study due to data limitations (See Appendix A).

**ACT and HSGPA**

The American College Testing (ACT) measurement was used to survey the talent level of Tennessee first-year students who attended Tennessee institutions. In 2013, all 69,641 Tennessee graduates completed the ACT. This full coverage of the Tennessee high school graduate population makes the ACT the standard assessment by which to judge the talent of Tennessee first-year students in college. The High School Grade Point Average (HSGPA) is a metric that indicates the performance of students during their high school years. The HSGPA is one of the only quantitative measurements available for analysis of a student’s high school education.

**Participant Data**

For Research Question 1, a Two-Group Repeated Measure MANOVA was chosen as the statistical test to test the hypothesis that one or more independent variables have an effect on a set of two or more dependent variables. The Box’s Test of Equality of Covariance Matrices tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups. With Box’s significance of .000, the null hypothesis was violated. Therefore, the analysis proceeded with understanding that there were significant differences in the dependent variables when affected by the independent variable.

There were three HBCU private, regionally-accredited institutions in Tennessee; therefore, there were 30 data points for analysis. There were 24 of the 28 institutes that self-identified in The Integrated Postsecondary Education Data System (IPEDS) with a denomination or as nondenominational. Since there was a disproportionate population between Group 1 (HBCU) at $N = 30$ and Group 2 (Religiously focused) at $N = 240$, a random sample of $N = 50$ was chosen for religiously focused for the statistical analysis.

Once the Random Sample Cases was chosen in SPSS, 50 of the first 240 data points was the chosen filter, and the SPSS program randomly selected the 50 requested data points. After the randomization technique, Group 2 was reduced from $N = 240$ to $N = 50$. 

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Findings

Statistical Results
The study ran and analyzed a Two-Group Repeated Measure MANOVA test to analyze trends in the TELS (independent variable) and enrollment (dependent variable), ACT scores (dependent variable), and GPA (dependent variable) of first-year Tennessee students at private HBCU institutions in TICUA and religiously focused TICUA institutions. Alpha was determined as more stringent at .0167, by dividing .05 by 3 for the three dependent variables.

Under the Multivariate Tests, the Pillai’s Trace test revealed $F = 25.973$, Hypothesis $df = 3.00$, Error $df = 76.000$. The two groups differed significantly on the collection of the three dependent variables at $Sig. = .000$. Therefore, the analysis confirmed that the study could continue to determine which dependent variables were affected by the independent variable over the years examined. Table 1 displays the multivariate tests.

Table 1
Multivariate Tests HBCU and Religiously Focused Institutions

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>$F$</th>
<th>Hypothesis $df$</th>
<th>Error $df$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pillai’s Trace</td>
<td>.506</td>
<td>25.973</td>
<td>3.00</td>
<td>76.000</td>
<td>.000</td>
</tr>
<tr>
<td>Wilks’ Lamba</td>
<td>.494</td>
<td>25.973</td>
<td>3.00</td>
<td>76.000</td>
<td>.000</td>
</tr>
<tr>
<td>Hotelling’sTrace</td>
<td>1.025</td>
<td>25.973</td>
<td>3.00</td>
<td>76.000</td>
<td>.000</td>
</tr>
<tr>
<td>Roy’s Largest Root</td>
<td>1.025</td>
<td>25.973</td>
<td>3.00</td>
<td>76.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 2
Levene’s Test of Equality of Error Variances for HBCU and Religiously Focused Institutions

<table>
<thead>
<tr>
<th></th>
<th>$F$</th>
<th>$df1$</th>
<th>$df2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment</td>
<td>.365</td>
<td>1</td>
<td>78</td>
<td>.548</td>
</tr>
<tr>
<td>ACT</td>
<td>.014</td>
<td>1</td>
<td>78</td>
<td>.908</td>
</tr>
<tr>
<td>HSGPA</td>
<td>.422</td>
<td>1</td>
<td>78</td>
<td>.518</td>
</tr>
</tbody>
</table>

The Levene’s Test of Equality of Error Variances, shown in Table 2, challenged the null hypothesis that the error variance of the dependent variable was equal across groups. All three dependent variables were determined as not significant under this
test. While the data showed there was not overall significance through Levene’s Test, the Tests of Between-Subjects Effect, represented in Table 3, tested if there was significance with each dependent variable. When HBCU and religiously focused institutes were analyzed in the Tests of Between-Subjects Effect, enrollment showed no significance. Conversely, the ACT average and HSGPA showed significance.

Table 3
Tests of Between-Subjects Effect for HBCU and Religiously Focused Institutions

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment</td>
<td>29126.453</td>
<td>2.105</td>
<td>.151</td>
</tr>
<tr>
<td>ACT</td>
<td>393.308</td>
<td>72.085</td>
<td>.000</td>
</tr>
<tr>
<td>HSGPA</td>
<td>2.272</td>
<td>40.318</td>
<td>.000</td>
</tr>
</tbody>
</table>

Limitations. Concerns existed when considering the variety of independent variables that could affect enrollment, ACT scores, and high school GPA. In other words, there could be a number of independent variables that impacted enrollment of first-year Tennessee students at Tennessee institutions that could not be explored in the scope of this study. There were also many independent variables that could influence ACT scores and GPA of Tennessee students at these types of Tennessee private institutions. When analyzing trends in the TELS upon this study, the TELS (independent variable) was considered only a contributing factor in its effect upon the three dependent variables (enrollment, ACT, and high school GPA).

Conclusions and Discussions
The research concluded that there was not a significant trend in enrollment for private, HBCU institutes in Tennessee between 2005 and 2014. Therefore, the merit-based portion of the TELS was not a contributing factor in first-year enrollment of Tennessee students in private HBCU institutions in Tennessee. This fact reinforces concerns that merit-scholarships do not benefit the African American population, which traditionally has underperformed academically compared to other ethnic groups. This statistical fact also reinforces that a merit-based scholarship may not be an incentive for first-year, African-American students to participate in private, higher education. If there is an overall trend in higher education to shift financial aid from needs based to merit based, African American participation could be negatively impacted by this trend. So, the critics of merit-based scholarships can look to the TELS trend upon private, HBCU institutes in Tennessee as an example of merit-based scholarships potential to adversely affect African American participation in higher education.

The data show that the TELS did show a significant trend upon the average ACT scores of first-year, undergraduate, Tennessee students at private, HBCU institutions in Tennessee. Therefore, the merit-based portion of the TELS was a contributing factor in retaining talented Tennessee students in private, HBCU institutes in Tennessee. These data reinforce that state merit aid does attract
quality students to private institutions in the awarding state. This statistical fact demonstrates that the retention of talented, first-year state students is occurring for accredited, private, HBCU institutes in Tennessee.

For research question 1, there was a significant trend in average HSGPA of first-year, undergraduate, Tennessee students at private, HBCU institutions in Tennessee from 2005 to 2014. Therefore, the merit-based portion of the TELS could be a contributing factor in retaining talented Tennessee students in private HBCU institutions in Tennessee. This trend also showed that the TELS could have been a contributing factor towards the high school performance of students who choose to attend private, HBCU institutes in Tennessee. This trend reinforces the hypothesis and research that merit aid programs have the potential to boost student commitment to participate in higher education during their high school years. This trend is particularly encouraging for the African American population, which traditionally has underperforming high school academics and lower participation in higher education compared to other ethnic groups.

Discussion
When analyzing results for private, HBCU institutes, the data of this study contributes to important questions about these types of institutions. Though there are not significant enrollment trends for private HBCU institutes, it is hard to definitively state whether or not private HBCU are adversely affected by state merit aid. Only when money that could have gone for needs-based aid is shifted to merit-based aid can there be an evidential argument that state merit aid negatively affects HBCU private institutes.

The statistical evidence does demonstrate that the merit-based portion of the TELS is attracting more academically prepared students to private HBCU institutes in Tennessee. Perhaps academically underprepared African American students are attending more community colleges or proprietary schools, while the recipients of the merit-based portion of the TELS have more financial resources to choose an accredited, private HBCU school. Regardless of this speculation, it is clear that the merit-based portion of the TELS contributes to HBCU schools obtaining talented, first year, undergraduate, Tennessee students.

There was a significant trend in average HSGPA of first-year, undergraduate, Tennessee students at private, religiously focused institutions in Tennessee from 2005-2014. Therefore, the merit-based portion of the TELS was a contributing factor in retaining talented Tennessee students in religiously focused TICUA institutes. According to these trends in HSGPA averages, first-year students who were choosing religiously focused institutions were better prepared for college. The minimum HSGPA requirement to obtain the merit-based portion of the TELS was a contributing factor for college readiness for students with a religious preference in choosing a college.

The lack of statistical significance in enrollment for religiously focused institutes was a surprise, as the study hypothesized that state-funded merit aid would benefit religiously focused institutions in retaining state students with a religious preference. While higher education participation has increased in Tennessee since
the full implementation of the TELS, these data demonstrate that there was no apparent benefit in enrollment from state-funded merit aid for religiously focused institutes in Tennessee.

The significant ACT average and HSGPA average increase are meaningful for religiously focused institutes who desire to increase their academic stature and raise their academic profile. Stakeholders in religiously focused institutes can use this data to support the creation or expansion of state-funded merit-based aid in their respected states.

Implications
This study has the potential to provide valuable information for policy makers of independent institutes so they can better understand the importance of broad-based merit scholarships on their schools. Since the TELS is a state-initiated program, these data give state politicians a broader perspective on how merit scholarships affect all college students in their state, instead of only students who choose to attend state institutions. Since the data have shown multiple benefits for private institutes, private universities should encourage the creation or enhancement of state merit-based scholarships in their states to recruit and retain academically talented students.

Recommendations for Future Research
As Tennessee continues the tradition of innovation in higher education, future research should be given to the influence of current state innovation. As profiled in the Review of Literature, Governor Bill Haslam launched in 2013 the Drive to 55 program to increase the number of Tennesseans with a postsecondary certificate from 32% to 55% by 2025. Part of the Drive to 55 initiatives is the Tennessee Promise, which began in 2015. The Tennessee Promise will reduce the TELS individual award amount for first-year students. This last dollar scholarship may hurt particular institutions in Tennessee, such as private HBCU, religiously focused, and geographically distinct, among other types of higher education institutes. Future research on the Tennessee Promises’ impact on first-year Tennessee students at particular types of schools will be a valuable extension of this study.

Summary
This study has demonstrated that state-funded, merit-based aid is a component of higher education funding. The TELS is an example of state, merit-based aid that affects all types of higher education institutes in Tennessee. As a demonstration of the TELS’ importance to all higher education institutes, this study examined trends from 2005-2014 of the merit-based portion of the TELS upon HBCU and religiously focused, accredited, private, higher education institutions in Tennessee. The positive trends in retaining talented, first-year, undergraduate, Tennessee students at these types of institutes reinforce the value of broad-based, state-funded, merit-based aid as an impactful method to promote higher education.

References


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Appendix A

The 28 TICUA institutes and their IPEDS designation who received first year Tennessee students from 2005-2014, and are included in this study:

**Baptist**
- Baptist Memorial College of Health Sciences
- Carson-Newman University

**Christian Churches**
- Johnson University
- Milligan College

**Christian Methodist Episcopal**
- Lane College

**Churches of Christ**
- Freedman-Hardeman University
- Lipscomb University

**Church of God**
- Lee University

**Cumberland Presbyterian**
- Bethel College

**Free Will Baptist Church**
- Welch College

**Interdenominational**
- Belmont University
- Bryan College – Dayton

**Multiple Protestant Denominations**
- Le Moyne-Owen College

**Not Applicable**
- Cumberland University
- Fisk University
- Lincoln Memorial University
- Memphis College of Art

**Presbyterian Church (USA)**
- King University
- Maryville College
- Rhodes College
- Tusculum College

**Protestant Episcopal**
- Sewanee-The University of the South

**Roman Catholic**
- Aquinas College
- Christian Brothers University

**Seventh Day Adventists**
- Southern Adventist College

**Southern Baptist**
- Union University

**United Methodist**
- Martin Methodist College
- Tennessee Wesleyan

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