

RACE, INCOME, AND INSTITUTIONAL HETEROGENEITY IN THE EFFECTS OF STATE MERIT AID LOSS

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OUR PARTNERSHIP

We are a research-policy partnership with a co-created research agenda. We prioritize the production of information and analysis that directly supports THEC/TSAC's work and contributes to the academic literature on merit-based financial aid.

Many thanks to our partnership's leadership team, Drs. Emily House (Executive Director, THEC/TSAC), Stephen DesJardins (Professor, CSHPE), and Brian McCall (Professor, CSHPE). Thanks as well to the Institute of Education Sciences, U.S. Department of Education (PR/Award R305B150012#), which provided training support to KC Deane and Kristen Cummings.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of THEC/TSAC or the Institute of Education Sciences.

TRANSLATING RESEARCH TO PRACTICE

- Research questions are co-formed between SHEEO staff and academic research partners
- Research questions evolve and outputs are iterative
- Communication is critical – between project leads, researchers, and SHEEO staff
- Apply what is learned to improve practice

OUR RESEARCH FOCUS: TN HOPE

Merit-based statewide scholarship in Tennessee launched in 2004

- In 2018-19, there were **almost 30k first-time freshmen** recipients
- Lottery expenditures of **almost \$300 million** in 2018-19
- Initial eligibility criteria:
 - Recent graduate from TN HS
 - HS GPA of 3.0+ or ACT of 21+ (or SAT of 1060+)
 - Enroll at an eligible two- or four-year TN postsecondary institution

Scholarship Award Amounts (in years used in this analysis):

- Four-year students can earn up to \$2,000 per semester
- Two-year students can earn up to \$1,000 per semester
- Low-income students (AGI ≤ \$36k) eligible for Aspire supplement (max \$750/semester)

PART I: RESEARCH DESIGN + FINDINGS



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STUDENTS MUST MEET CERTAIN CRITERIA TO REMAIN ELIGIBLE

Specifically, a student must:

1. Maintain continuous enrollment during all fall and spring terms
2. Exceed GPA renewal threshold at each of 4 checkpoints

Almost half (**43%**) of HOPE recipients lose scholarship eligibility at the first checkpoint, with loss disproportionately concentrated among low-income and Black students.

WHAT DO WE KNOW ABOUT HOPE LOSS

Losing TN HOPE at the first checkpoint...

- ↓ persistence from 3rd to 4th term
- ↓ average course load
- small ↑ biannual earnings
- no difference in on-time degree completion *(Carruthers & Özek, 2016)*

- ↑ next-semester stop-out
- no difference in cross-sector transfer
- no difference in 100% or 150% time BA degree completion *(Cummings, Deane, McCall, & DesJardins, 2020)*

RESEARCH QUESTIONS

1. What are the effects of scholarship loss at the first checkpoint among **four-year college students**, on average and by race and income sub-groups?
2. What are the effects of scholarship loss at the first checkpoint among **two-year college students**, on average and by race and income sub-groups?
3. How does the *average* effect of scholarship loss at the first checkpoint differ **across four-year public institutions** in Tennessee?

OUTCOMES

Outcomes of interest:

- Stop-out *(next semester)*
 - Cross-sector transfer *(next-semester for four-year students; within 4yrs of entry for two-year students)*
 - 100% and 150% time degree completion *(BA receipt for four-year students; AA receipt for two-year students)*
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- Subgroups of interest:
 - Aspire Black Students
 - Non-Aspire Black Students
 - Aspire White Students
 - Non-Aspire White Students

DATA AND SAMPLE

Data provided by THEC / TSAC:

- Enrollments (*institutional data*)
- Financial aid records
- HOPE payments
- Degrees earned

Final sample: All TN HOPE recipients who reached the first checkpoint with HOPE intact and who first enrolled in a TN public . . .

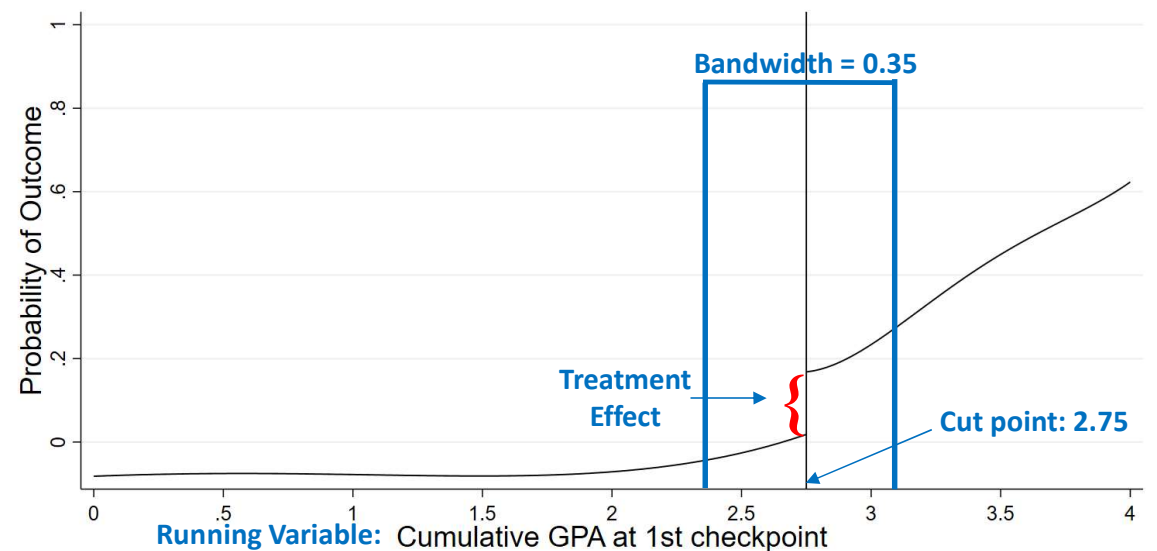
- RQ1: four-year college (*fall 2010 – fall 2013; N = 43,786*)
- RQ2: two-year college (*fall 2010 – fall 2015; N = 26,614*)
- RQ3: four-year college, with a separate sample created for each institution

For all subgroup analyses, we limit our sample to Black and White students.

EMPIRICAL STRATEGY: REGRESSION DISCONTINUITY

Sharp regression discontinuity (RD)

- Use observations right around the cut-off to estimate causal effect of treatment (e.g., HOPE loss)
- Students within this bandwidth are *equivalent in expectation*
- Running Variable: GPA
- Treatment: GPA < 2.75 at C1
- Estimated with Optimal Bandwidth
- Covariates & fixed effects for precision
 - Cohort fixed effects
 - Institution fixed effects
 - Student-level covariates



Note: Graph is an example to demonstrate how the RD functions.

RQ1 RESULTS: FOUR-YEAR STUDENTS

	Stop-Out	X-Sector Transfer	100% BA	150% BA
All Students	0.025*** (0.010)	-0.001 (0.008)	0.007 (0.019)	-0.016 (0.033)
Income x Race				
Aspire & Black	-0.012 (0.022)	0.048*** (0.012)	-0.070** (0.038)	0.008 (0.105)
Non-Aspire & Black	0.027 (0.019)	0.050** (0.021)	-0.036 (0.057)	-0.319** (0.130)
Aspire & White	0.029 (0.031)	0.022 (0.014)	-0.084* (0.043)	-0.084 (0.081)
Non-Aspire & White	0.033*** (0.011)	-0.020** (0.010)	0.036* (0.020)	0.003 (0.026)

* p < 0.05; ** p < 0.01; *** p < 0.001. Significant effects are bolded. Standard errors in parentheses.

RQ2 PRELIMINARY RESULTS: TWO-YEAR STUDENTS

	Stop-Out	X-Sector Transfer	100% AA	150% AA
All Students	-0.011 (0.022)	-0.044** (0.022)	-0.020 (0.014)	-0.063** (0.028)
Income x Race				
Aspire & Black	-0.044 (0.051)	-0.237** (0.094)	0.068 (0.049)	0.119* (0.070)
Non-Aspire & Black	0.177* (0.080)	0.120 (0.136)	-0.016 (0.103)	0.039 (0.217)
Aspire & White	-0.005 (0.051)	-0.190*** (0.049)	0.003 (0.023)	-0.120*** (0.044)
Non-Aspire & White	-0.002 (0.025)	-0.008 (0.038)	-0.027 (0.019)	-0.041 (0.045)

* p <0.05; ** p<0.01; *** p<0.001. Significant effects are bolded. Standard errors in parentheses.

RQ3 PRELIMINARY RESULTS: FOUR-YEAR INSTITUTIONS

Stop-Out	X-Sector Transfer	100% BA	150% BA
↑ at x2 institutions	↑ at x1 institutions	↑ at x2 institutions ↓ at x2 institutions	↑ at x2 institutions ↓ at x3 institutions

OUR TAKE-AWAYS

1. Student populations experience loss differently, and the estimation of average effects masks this variation.
2. Not all effects of loss are immediate, in either sector. . .
3. . . nor are the effects of loss equal across four-year institutions.
4. Why and *how* HOPE loss affects student outcomes likely goes beyond a purely financial mechanism.

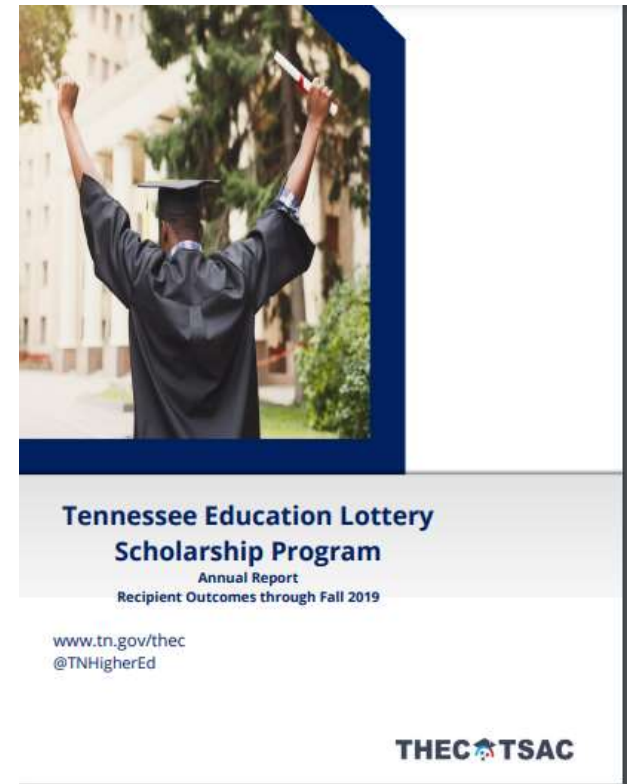
PART II: CONNECTING RESEARCH FINDINGS TO POLICY ACTION



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IMPROVE PUBLICLY-SHARED INFORMATION

- Improve annual reporting on the TN HOPE scholarship
 - Expand reporting to more thoroughly disaggregate information by race and income
 - Revamp reporting to provide systems and institutions more useful and actionable data
- Create interactive tools to bolster annual reporting



ENHANCE COMMUNICATION WITH AND REPORTING FOR INSTITUTIONS

Improve Reporting for Institutions

- Develop Institutional Profiles documenting the scholarship receipt and loss pipeline
- Report back to institutions on student outcomes, by key demographics and continued scholarship eligibility

Increase Familiarity with Institutional Practices

- Identify the suite of approaches that institutions take to inform students about key information (renewal, timing of checkpoints, and notice of renewal/loss) and how this information is integrated into institutional practices
- Convene multi-institution stakeholder groups to support cross-institutional learning

ENGAGE WITH STUDENTS

- Conduct student focus groups at key points throughout students' collegiate journeys, both pre- and post-college enrollment, to understand how they view the role of aid and its loss in their college decision-making
- Revisit TN HOPE communication and outreach to students leveraging existing structures to inform and remind students of scholarship requirements

UNDERSTAND HOW POLICY DESIGN CONTRIBUTES TO EFFECTS OF LOSS

Report-, Institution-, and Student-focused intervention

Policy Intersections with TN HOPE

- Explore intersections of TN HOPE within other regular reporting structures
 - Articulation and Transfer
 - Tennessee Promise and other financial aid
 - Degree completion initiatives
- Identify intersection points between TN HOPE (renewal and loss) and student transfer practices

THANK YOU!

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