DRAFT SUMMARY

Analysis of Mississippi Eminent Scholars Grant Program
for the Office of Student Financial Aid

August 21, 2015
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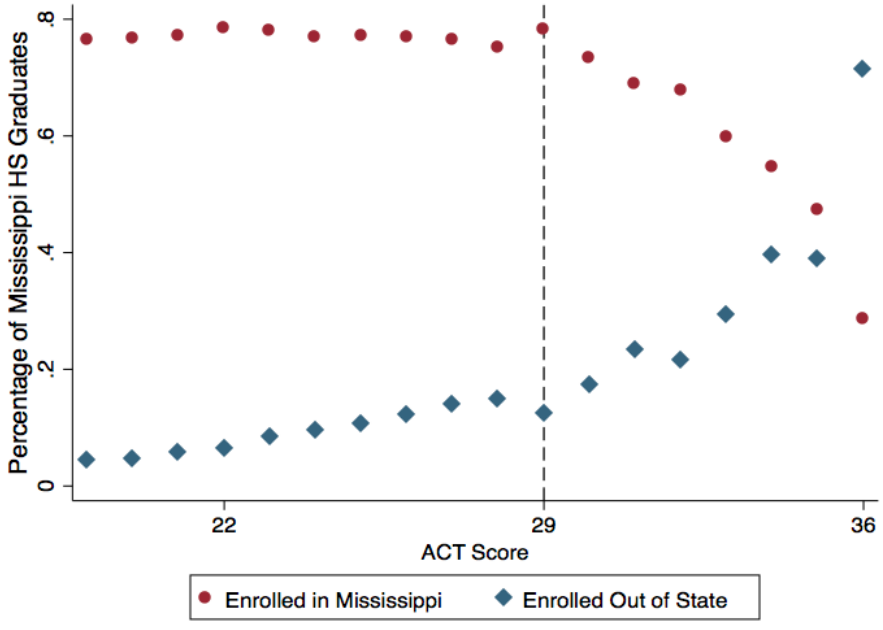
How many/what Mississippi students are included in this analysis?

From 2004 to 2008 – 4,183 Mississippi high school graduates met the ACT and GPA criteria necessary to qualify for MESG.[1] Ninety-one (91) percent of those eligible students enrolled in a two- or four-year college the year after high school graduation.[2]

Does MESG make a difference in a high performing student's decision to stay in Mississippi for college?

MESG causes more eligible students to enroll in Mississippi colleges and universities. Most of these students would otherwise enroll in colleges out of the state. MESG eligible students are 3 percentage points more likely to enroll in a Mississippi college or university because of the program.[3] The same group of students is 4 percentage points less likely to attend a college outside of Mississippi because of the program.[4]

The chart below shows the uptick in Mississippi postsecondary enrollment and decrease in out-of-state college enrollment that occurs because of MESG at the ACT score threshold of 29.



[1] Criteria include: ACT score of 29 or higher and high school GPA of 3.5 or higher.
[2] Seven percent of MESG-eligible graduates did not enrolled in college within two years of high school graduation (300 students).
[3] See Appendix for corresponding regression results.
[4] See Appendix for corresponding regression results.

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Are MESG eligible students more likely to receive a bachelor's degree from a Mississippi college?

Yes. Students eligible for MESG are 4 percentage points more likely to receive a bachelor's degree from a Mississippi institution. The same cohort of students is also 4 percentage points less likely to receive a bachelor's degree from an out-of-state college or university. Overall, there is no net change (in-state and out-of-state combined) in bachelor's degrees earned because of the MESG program.

Where do MESG eligible students go to college?

Table 1 lists the ten colleges and universities most frequently attended by students that met eligibility criteria for receiving MESG funds. The top five schools to enroll MESG eligible high school graduates are located within Mississippi. Close to half of MESG eligible students attend either Mississippi State University or the University of Mississippi. Louisiana State University and Alabama University are the only out-of-state colleges on the top ten listing.

Table 1. TOP POSTSECONDARY INSTITUTIONS FOR MESG ELIGIBLE STUDENTS (2004-2008)

	SCHOOL NAME	No. OF STUDENTS	PERCENTAGE OF STUDENTS
1.	Mississippi State University	1,025	27%
2.	University of Mississippi	808	22%
3.	University of Southern Mississippi	294	8%
4.	Mississippi College	221	6%
5.	Millsaps College	156	4%
6.	Louisiana State University	69	2%
7.	University of Alabama	52	1%
8.	Mississippi Gulf Coast CC	50	1%
9.	Itawamba CC	48	1%
10.	William Carey University	48	1%

What are some ways to think about the cost effectiveness of MESG for Mississippi?

On average, Mississippi distributes $5,404 in MESG funds to students eligible for MESG. This investment increases bachelor's degree attainment from a Mississippi postsecondary institution for this group of students by 4 percentage points.

To calculate the amount of financial aid distributed by the state to gain one extra bachelor's degree, the amount distributed per student is divided by the increase in degree attainment:

Cost per bachelors degree: $5,404/ 0.0404 = **$133,727**

By observing Mississippi students that just miss out on MESG funds, we can conclude that a large portion of MESG receiving students would have attended college in Mississippi with or without the funds. This raises the cost of the program.

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Mississippi high school graduates that just miss out on MESG funds are very likely to attend colleges in the state. Seventy-five (75) percent of students with at least a 3.5 HS GPA and a 28 on the ACT – 1 point short of the MESG threshold of 29 – attend a two- or four-year college in the state. Observing other students allows us to infer that a high percentage of students receiving MESG would have attended in-state colleges without the funds.

In considering the cost effectiveness of the MESG program, there are several different options the state could consider. The first approach is to examine the potential Mississippi tax contribution of a MESG recipient with a bachelor's degree over their working lifetime. For the most realistic assessment of this value, the state may want to link data from MESG recipients that graduate from Mississippi colleges and universities with wage record data from the Department of Employment Security to determine the likelihood that graduates live and work in the state after graduation.

The second approach is to compare the cost per additional bachelor's degree of MESG ($133,727) to the cost effectiveness of other interventions aimed at raising degree attainment in the state. This approach would most likely require a similar analysis of other programs, so the state can assess and compare multiple programmatic investments.

Given the results, what are some ways to think about adjusting the MESG program?

1) Raise the ACT threshold beyond the current score of 29, so that students just eligible for the grant are those much less likely to attend a Mississippi college in the absence of scholarship. At the current ACT threshold, over 75 percent of students already stay in-state for college, so vast majority of funds flow to students who would already attend school in-state without the funds. One note here, is that it may take an increased scholarship amount to convince students with very high ACT scores to remain in the state for college, so the scholarship value may need to be adjusted or paired with other benefits to entice these students.

2) Adjust MESG to be a means-tested aid program. By adjusting MESG to a means tested scholarship, Mississippi could target funds to students whose college decisions are potentially most sensitive to cost and finances. An adjustment towards a means tested program could be a sharp cut off for family income, or a system that phases out the award as family income increases.

3) Reallocate MESG funds to other strategies that would encourage highly qualified students to remain in the state for college, or reallocate funds to other, existing financial aid programs. For example, Mississippi might invest funds in bolstering the honors programs at Mississippi universities, so students find those colleges more competitive, attractive options for higher education.

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APPENDIX.

Figure 1. Regression results for MESG effect on Out-of-State College Enrollment
Bandwidth (-5, 5): Results and significance not affected by this choice

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.         reg nsc_os_1    above28 centeract abovecenterinteract class_2005 class_20
> 06 class_2007 class_2008 if inrange(centeract,-5,5), robust

Linear regression                               Number of obs     =     13,867
                                                F(7, 13859)       =     29.70
                                                Prob > F          =     0.0000
                                                R-squared         =     0.0206
                                                Root MSE          =     .34183
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nsc_os_1	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
above28	-.0407079	.0119912	-3.39	0.001	-.0642123	-.0172035
centeract	.0143514	.0024215	5.93	0.000	.0096049	.019098
abovecenterint~t	.0298655	.0052076	5.74	0.000	.019658	.040073
class_2005	-.0079167	.009248	-0.86	0.392	-.0260439	.0102106
class_2006	.0006217	.009277	0.07	0.947	-.0175624	.0188059
class_2007	.0117622	.0093077	1.26	0.206	-.0064823	.0300066
class_2008	.0065725	.0091262	0.72	0.471	-.011316	.024461
_cons	.1634228	.0108527	15.06	0.000	.1421501	.1846955

Figure 2. Regression results for MESG effect on Mississippi College Enrollment
Bandwidth (-5, 5): Results and significance not affected by this choice

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Linear regression                               Number of obs     =     13,867
                                                F(7, 13859)       =     26.67
                                                Prob > F          =     0.0000
                                                R-squared         =     0.0145
                                                Root MSE          =     .4285
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nsc_ms_1	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
above28	.0251127	.0146989	1.71	0.088	-.003699	.0539244
centeract	-.0033736	.0031279	-1.08	0.281	-.0095046	.0027575
abovecenterinteract	-.040593	.0060091	-6.76	0.000	-.0523716	-.0288143
class_2005	.0140143	.0124522	1.13	0.260	-.0103937	.0384224
class_2006	.0540706	.0120232	4.50	0.000	.0305034	.0776378
class_2007	.072684	.0117456	6.19	0.000	.049661	.095707
class_2008	.0868413	.011506	7.55	0.000	.064288	.1093945
_cons	.7083019	.0138158	51.27	0.000	.6812211	.7353827

Figure 3. Regression results for MESG effect on In-State Bachelor's Degree Attainment

Bandwidth (-5, 5): Results and significance not affected by this choice

Linear regression

Number of obs	13,867
F(7, 13859)	14.63
Prob > F	0.0000
R-squared	0.0071
Root MSE	.48969

nsc_ba_6_ms	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
above28	.040613	.016655	2.44	0.015	.0079669	.0732591
centeract	.0166788	.0036314	4.59	0.000	.0095609	.0237968
abovecenterinteract	-.0448962	.0064815	-6.93	0.000	-.0576008	-.0321916
class_2005	.0303468	.0134846	2.25	0.024	.0039152	.0567785
class_2006	.0430787	.0133522	3.23	0.001	.0169067	.0692507
class_2007	.0179676	.0133018	1.35	0.177	-.0081056	.0440409
class_2008	.0120773	.0131638	0.92	0.359	-.0137256	.0378802
_cons	.6111799	.015553	39.30	0.000	.580694	.6416657

Figure 4. Regression results for MESG effect on Out-of-State Bachelor's Degree Attainment

Bandwidth (-5, 5): Results and significance not affected by this choice

Linear regression

Number of obs	13,867
F(7, 13859)	22.96
Prob > F	0.0000
R-squared	0.0162
Root MSE	.33361

nsc_ba_6_os	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
above28	-.0351164	.0116894	-3.00	0.003	-.0580293	-.0122036
centeract	.0117506	.0023846	4.93	0.000	.0070765	.0164247
abovecenterinteract	.0274525	.0050857	5.40	0.000	.0174839	.0374211
class_2005	-.0060424	.009209	-0.66	0.512	-.0240933	.0120085
class_2006	-.006894	.0090845	-0.76	0.448	-.0247008	.0109128
class_2007	.0051909	.0091491	0.57	0.570	-.0127426	.0231244
class_2008	-.0076282	.0088771	-0.86	0.390	-.0250285	.0097721
_cons	.1548387	.0106653	14.52	0.000	.1339333	.1757442