

Supplemental digital content for Hauschildt KE, Messersmith J, Iwashyna TJ. Inequities in indirect cost rates between historically Black colleges and universities and other institutions. Acad Med.

Supplemental Digital Appendix 1

Stata Code Used in a Study Comparing Negotiated Indirect Cost Rates of Historically Black Colleges and Universities (HBCUs) and Other Universities (Non-HBCUs)

After importing the “IDCRates_DATA_20230331” file (see Supplemental Digital Appendix 2 below) into Stata and saving as a .dta file, we used the following statistical code for our analyses.

Stata Code for Analyses

```
use "IDCRates_DATA_20230331.dta"
```

```
/* Top expenditures */  
reg rate topexphbcuyn
```

```
/* MSA clusters*/  
xtset msanum  
xtreg rate msamatchhbcuyn, fe
```

```
/* Expenditure clusters */  
xtset hbcuexpclusternum  
xtreg rate expclusterhbcuyn, fe  
xtreg rate expclusterhbcuyn nsf_2021_exp, fe
```

```
/* FOR EXCEL BARGRAPHS */  
egen ratecat = cut(rate), at(30, 35, 40, 45, 50, 55, 60, 65, 70) label  
tabulate ratecat topexphbcuyn  
tabulate ratecat msamatchhbcuyn  
tabulate ratecat expclusterhbcuyn
```

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Supplemental Digital Appendix 2

Individual Institutional Data, From a Study Comparing Negotiated Indirect Cost Rates of Historically Black Colleges and Universities (HBCUs) and Other Universities (Non-HBCUs)

Schools	NSF_2021_Exp	type	HBCUExpClusterNum	MSA	MSANum	End Year	Rate
Howard U	52412	TopExpHBCU	1	Washington–Arlington–Alexandria, DC–VA–MD–WV	101	2021	54.5
FL A&M U	47124	TopExpHBCU	2	Tallahassee, FL	102	2022	48
NC A&T State U	40751	TopExpHBCU	3	Greensboro-High Point	103	2022	44
TN State U	26880	TopExpHBCU	5	Nashville-Davidson–Murfreesboro–Franklin, TN	104	2021	42
DE State U	23193	TopExpHBCU	6	Dover, DE	105	2021	46
Tuskegee U	21355	TopExpHBCU	7	Montgomery, AL	106	2020	47
Morgan State U	20628	TopExpHBCU	7	Baltimore–Columbia–Towson	107	2023	51
Prairie View A&M U	17582	TopExpHBCU	9	Houston–The Woodlands–Sugar Land	108	2024	50.5
Jackson State U	16157	TopExpHBCU	10	Jackson, MS	109	2022	51
U of the Virgin Islands	15231	TopExpHBCU	12	NA		2021	68
NC Central U	14105	TopExpHBCU	13	Durham-Chapel Hill, NC	110	2023	49
Xavier U	12799	TopExpHBCU	15	New Orleans–Metairie	111	2024	50
Hampton U	11669	TopExpHBCU	15	Virginia Beach-Norfolk-Newport News, VA-NC	112	2024	50
Virginia State U	10123	TopExpHBCU	17	Richmond, VA	113	2025	44
TX Southern U	9128	TopExpHBCU	18	Houston–The Woodlands–Sugar Land	108	2023	52.3

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Alabama A&M U	9065	TopExpHBCU	18	Huntsville, AB	114	2024	47.2
Clark Atlanta	8892	TopExpHBCU	20	Atlanta-Sandy Springs-Alpharetta, GA	115	2026	50.3
KY State U	8756	TopExpHBCU	20	Frankfort, KY*	116	2013	51
Central State U	8751	TopExpHBCU	20	Dayton, OH	117	2022	45
U of AR Pine Bluff	8713	TopExpHBCU	20	Pine bluff, AR	118	2016	59.4
Johns Hopkins U	3181385	TopExpNonHBCU		Baltimore–Columbia–Towson	107	2023	63.75
UCSF	1710036	TopExpNonHBCU				2021	61.5
U of MI	1639645	TopExpNonHBCU				2024	56
U of Penn	1631950	TopExpNonHBCU				2023	62.5
U of WA	1488645	TopExpNonHBCU				2020	55.5
UCLA	1454880	TopExpNonHBCU				2019	56
UCSD	1425499	TopExpNonHBCU				2022	58
U of WI	1380075	TopExpNonHBCU				2023	55.5
Stanford U	1274483	TopExpNonHBCU				2024	54.4
Harvard U	1254008	TopExpNonHBCU				2024	69
Duke U	1237686	TopExpNonHBCU		Durham-Chapel Hill, NC	110	2023	61
OH State U	1236111	TopExpNonHBCU				2024	57.5
UNC Chapel Hill	1205883	TopExpNonHBCU		Durham-Chapel Hill, NC	110	2024	55.5
Cornell U	1183524	TopExpNonHBCU				2022	64
Yale U	1165148	TopExpNonHBCU				2023	67.5
TX A&M U, College Station and Health Science Center	1147720	TopExpNonHBCU				2023	51.5
U of MD	1142264	TopExpNonHBCU		Washington–Arlington–Alexandria, DC–VA–MD–WV	101	2023	55
U. of Pittsburgh	1135416	TopExpNonHBCU				2023	56

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GA Inst. of Tech	1114481	TopExpNonHBCU		Atlanta-Sandy Springs- Alpharetta, GA	115	2023	58.2
Columbia U	1098570	TopExpNonHBCU				2024	64.5
U of MN, Twin Cities	1072961	TopExpNonHBCU				2023	55
NYU	1063704	TopExpNonHBCU				2024	61
Vanderbilt U. and Vanderbilt U. Medical Center	1019273	TopExpNonHBCU		Nashville-Davidson– Murfreesboro–Franklin, TN	104	2023	58.5
Wash U, Saint Louis	989214	TopExpNonHBCU				2025	55.5
PA State U, University Park and Hershey Medical Center	970544	TopExpNonHBCU				2023	60.4
U of FL	959965	TopExpNonHBCU				2023	52.5
USC	955565	TopExpNonHBCU				2020	65
MIT	949076	TopExpNonHBCU				2022	55.1
Northwestern U	913178	TopExpNonHBCU				2023	60
Emory U	852922	TopExpNonHBCU		Atlanta-Sandy Springs- Alpharetta, GA	115	2023	56.5
UC Berkeley	846872	TopExpNonHBCU				2022	60.5
UC Davis	817409	TopExpNonHBCU				2025	61
U of TX	779348	TopExpNonHBCU				2022	58.5
U of AZ	770031	TopExpNonHBCU				2022	53.5
U of IL, Urbana- Champaign	731268	TopExpNonHBCU				2024	58.6
MI State U.	710178	TopExpNonHBCU				2023	56.5
IN U, Bloomington	695258	TopExpNonHBCU				2023	58.5
Purdue U, West Lafayette	679482	TopExpNonHBCU				2026	47

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AZ State U	677303	TopExpNonHBCU				2023	57
Boston U	652096	TopExpNonHBCU				2023	65
Lehigh U	41279	ExpMatchNonHBCU	3			2024	61
U of Denver	38751	ExpMatchNonHBCU	3			2024	50.7
U of Toledo	53169	ExpMatchNonHBCU	1			2021	50.5
UNC Charlotte	51877	ExpMatchNonHBCU	1			2025	54
Southern IL U Carbondale	47210	ExpMatchNonHBCU	2			2025	48.5
Boise State U	46065	ExpMatchNonHBCU	2			2022	40.5
U of AK, Anchorage	21332	ExpMatchNonHBCU	7			2022	53.1
Oakland U	20261	ExpMatchNonHBCU	7			2021	50
Central MI U	21726	ExpMatchNonHBCU	7			2026	46.5
U of Tulsa	16449	ExpMatchNonHBCU	10			2022	40
Queens Coll, CUNY	16063	ExpMatchNonHBCU	10			2023	54
FL Inst. Tech	23195	ExpMatchNonHBCU	6			not stated	44.87
Mid TN State	22531	ExpMatchNonHBCU	6			2024	31.3
New School	14281	ExpMatchNonHBCU	13			not stated	68
Humboldt State	14103	ExpMatchNonHBCU	13			not stated	47.5
Loyola Marymount	12819	ExpMatchNonHBCU	15			2025	43.9
John Jay Coll, CUNY	11791	ExpMatchNonHBCU	15			2023	69.5
CSU San Bernardino	11607	ExpMatchNonHBCU	15			2025	47
Ball State U	8826	ExpMatchNonHBCU	20			2023	49
AR State U	8422	ExpMatchNonHBCU	20			2022	39.73
LA Tech U	27417	ExpMatchNonHBCU	5			2022	47.3

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Rowan U	26458	ExpMatchNonHBCU	5			2023	50
U of Guam	17666	ExpMatchNonHBCU	9			2024	39
Montclair State U	17390	ExpMatchNonHBCU	9			2025	46
TX Christian U	15336	ExpMatchNonHBCU	12			not stated	55
CSU Long Beach	15134	ExpMatchNonHBCU	12			2021	47.5
Bryn Mawr Coll	8987	ExpMatchNonHBCU	20			2025	45
CSU Fullerton	9006	ExpMatchNonHBCU	18			2025	42
CSU Fresno	9213	ExpMatchNonHBCU	18			2022	40
CSU San Marcos	10213	ExpMatchNonHBCU	17			2021	49
MO State U	10014	ExpMatchNonHBCU	17			not stated	42.5
Georgetown	279932	MSAMatchNonHBCU		Washington–Arlington– Alexandria, DC–VA–MD–WV	101	2022	56
George Washington	266108	MSAMatchNonHBCU		Washington–Arlington– Alexandria, DC–VA–MD–WV	101	2023	61.5
George Mason*	214207	MSAMatchNonHBCU		Washington–Arlington– Alexandria, DC–VA–MD–WV	101	2023	58.9
American	65912	MSAMatchNonHBCU		Washington–Arlington– Alexandria, DC–VA–MD–WV	101	not stated	43
Florida State U	328604	MSAMatchNonHBCU		Tallahassee, FL	102	2023	54
Wake Forest	264216	MSAMatchNonHBCU		Greensboro–High Point	103	2024	55
Georgia State	206472	MSAMatchNonHBCU		Atlanta–Sandy Springs– Alpharetta, GA	115	2023	56
U of MD, BC	84418	MSAMatchNonHBCU		Baltimore–Columbia– Towson	107	2023	54
Rice	207404	MSAMatchNonHBCU		Houston–The Woodlands– Sugar Land	108	2026	56.5

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U of Houston	202536	MSAMatchNonHBCU		Houston–The Woodlands– Sugar Land	108	2023	55
Tulane	205206	MSAMatchNonHBCU		New Orleans–Metairie	111	2025	53
William and Mary	68801	MSAMatchNonHBCU		Virginia Beach-Norfolk- Newport News, VA-NC	112	2022	50.7
Old Dominion	62332	MSAMatchNonHBCU		Virginia Beach-Norfolk- Newport News, VA-NC	112	not stated	53
VA Commonwealth	364096	MSAMatchNonHBCU		Richmond, VA	113	2023	55.25
U of AB, Huntsville	149792	MSAMatchNonHBCU		Huntsville, AB	114	2021	48
U of Dayton	191228	MSAMatchNonHBCU		Dayton, OH	117		53