Generational Jumps? How HSIs Promote Upward Mobility



MOTIVATION

The current study builds on prior research by examining (1) intergenerational income mobility for students at Hispanic Serving Institutions (HSIs) and Predominantly White Institutions (PWIs) and (2) assessing variation in mobility measures across HSIs. This report goes further than previous work by examining a greater variety of income brackets when assessing students' mobility. Doing so uncovers the extent to which HSIs can help mitigate inequity and stratification by fostering intergenerational income mobility.

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⁶HSIs demonstrated higher mobility rates when looking at classic, extended, and upward mobility, as well as those who move into middle class+ income. At the same time, HSIs demonstrated similar success and privilege perpetuation rates to PWIs."





Introduction

Sixty-six percent of all Hispanic college students attend an Hispanic Serving Institution (HSI), though HSIs represent only 18% of all colleges and universities in the United States (Excelencia in Education, 2022).¹ To qualify as an HSI, an institution must enroll at least 25% of their undergraduate student body as full-time equivalent (FTE) Hispanic students.² In addition, HSIs enroll over 20% of all American Indian & Alaska Native, Asian, Black, and Native Hawaiian and Pacific Islander undergraduate students in the country, extending HSIs' educational reach and significance far beyond what the moniker suggests (HACU, 2022a). In part because of such reach, advocacy organizations and news outlets describe HSIs as engines and drivers of upward mobility (Cruz Rivera, 2019; Essure, 2022; Espinosa et al., 2018; HACU, 2022b, Murray, 2022). While public perception matters, only a handful of empirical studies have explicitly examined this topic at HSIs (Espinosa et al., 2018; Itzkowitz, 2022; Opportunity Insights, 2017). In this research report, we explore the extent to which HSIs operate as mechanisms spurring economic mobility for their students and compare this mobility to that at Predominantly White Institutions (PWIs).

Background

HSIs have continually operated amidst decades of under-funding, unmet infrastructure needs, and constrained resources (Anguiano & Navarro, 2020; HACU 2021; Malcom et al., 2010; Merisotis & McCarthy, 2005; Nellum & Valle, 2015; Ortega et al., 2015). These institutions must compete for limited resources, which have failed to keep up with the growth in the number of HSIs (Nellum & Valle, 2015). Out of the three federal funding programs designated for HSIs—Developing HSIs, HSI STEM, and Promoting Postbaccalaureate Opportunities for Hispanic Americans programs—only the HSI STEM program is guaranteed funding. The other two programs depend on annual appropriations (Anguiano & Navarro, 2020), drawing attention to HSIs' lack of funding security. As another example, during the height of Covid-19, HSIs received only 21% of the CARES Act funding earmarked for Minority Serving Institutions (MSIs), despite making up more than half of all MSIs (Excelencia in Education, 2020). Considering differential institutional resources, prior research discussing similarities in college graduation and labor market outcomes between HSI and non-HSI attendees highlights the impressive job HSIs do in fostering student mobility (Flores & Park, 2014; Park et al., 2018).

¹ We recognize the discussion surrounding Hispanic, Latina/o, and Latinx. For more information on this topic, see the Association of Mexican American Education 2018 special issue on HSIs. For consistency and because of students' identification as Hispanic, per IPEDS, we use Hispanic throughout this report.

² Under Title V of the Higher Education Act, HSIs are defined as accredited, not-for-profit, two- or four-year institutions of higher education enrolling at least 25% full-time Hispanic students. Institutions must also demonstrate relatively low per-student expenditures and an enrollment of at least 50% highneed students.

Ongoing Importance

Context

Previous research shows that HSIs contribute to reducing the educational attainment gap for Hispanic and other underserved student groups (<u>Garcia, 2017</u>; <u>Núñez, 2017</u>). Additional research demonstrates that Hispanic students attending HSIs are more likely to encounter professors and students with shared experiences than students at PWIs, fostering a sense of identity, community, and empowerment (<u>Cuellar, 2015</u>; <u>Garcia et al., 2019</u>). A 2019 congressional hearing attests to HSIs' ability to provide a community for those enrolled (<u>Engines of Economic Mobility, 2019</u>). A greater sense of community could contribute positively to the experiences of HSI students and serve as a mechanism to reduce the educational attainment divide.

Educational attainment is just one important element of what it takes to serve Hispanic students (<u>Garcia et al., 2019</u>). Of additional importance are economic outcomes, including the labor market returns students experience after postsecondary exit. We argue that economic mobility remains understudied within HSI research and contributes to the larger question of what it means to serve students long-term.

Despite efforts towards using more nuanced measures of institutional success (Morse & Brooks, 2021), the country's most coveted institutional rankings (e.g., *U.S. News & World Report, Forbes*) historically have remained more focused on measures of prestige (e.g. peer reputation, graduation rates, selectivity) than on access, support, or outcomes (e.g. mobility, low-income enrollment, or employability) (<u>Nathenson, Peek, & Burkhasuer, 2021</u>). Unsurprisingly, as under-resourced institutions, HSIs are rarely included at the top of these lists.

Opportunity Insights' Mobility Report Cards and Thirdway's Economic Mobility Index (EMI) are both attempts to move away from prestige-driven rankings and towards access-oriented information. The report cards and EMI examine upward mobility at postsecondary institutions in general. The report cards document access, outcomes, mobility rates, and trends (<u>Opportunity Insights, 2017</u>), where mobility rates are determined by the proportion of students who start college in the bottom income quintile and end up in the top income quintile. Incidentally, five of the ten colleges demonstrating the highest mobility rates are HSIs (<u>Chetty et al., 2017</u>). The EMI, on the other hand, ranks institutions by how long "low-income students [take] to recoup their educational costs based on the earnings premium they obtain ... by multiplying the proportion of Pell recipients by the Price-to-Earnings Premium (PEP) percentile rank (<u>Itzkowitz, 2022, pg. 7</u>)." Low-income families are defined as those with annual incomes of no more than \$30,000 at the time of enrollment. Institutions with the highest PEPs often enroll low proportions of low-income students, limiting their reach.

An exception to the high PEP/low Pell standard is CUNY's Baruch College—an emerging HSI with a high PEP and a high proportion of low-income students.³ Notably, all of the top 10 EMI schools are HSIs, concentrated across California, New York, and Texas (<u>Itzkowitz, 2022</u>). This may be due to the pairing of high proportions of low-income students with relatively high state funding, allowing California, New York, and Texas' public four-year institutions to function as affordable postsecondary options for low- and middle-income students (<u>Itzkowitz, 2022</u>). The Mobility Report Card and EMI indices lay important groundwork for exploring upward mobility overall, providing evidence of HSIs' long-term influence on students. The significant number of HSIs in both the Mobility Report Card and EMI top ten lists—despite differing methodologies—underscores the need for our current study.

This work also builds on previous reports examining mobility at MSIs. The American Council on Education's (ACE) Minority Serving Institutions (MSIs) mobility study focuses on Historically Black Colleges and Universities (HBCUs), Asian American and Native American Pacific Islander Serving Institutions (AANAPISIs), and HSIs. ACE found that MSIs demonstrate higher mobility rates for their students than do their non-MSI counterparts (Espinosa et al., 2018). Similarly, our HBCU social mobility report (Nathenson et al., 2019) takes a deeper dive into HBCU-driven mobility than does ACE's, highlighting several important findings related to HBCU mobility. These include 1) more HBCU students experience upward mobility than PWI students and 2) downward mobility (e.g., ending up in a lower economic category than one grew up) occurs more often among those who attended PWIs as compared to HBCUs.

The previously described research is grounded in Blau and Duncan's seminal *Status Attainment Model*, in which education is the critical pathway connecting an individual's origin and destination (<u>Blau &</u> <u>Duncan, 1967</u>). The aforementioned studies operationalize origin as parental income.⁴ Opportunity Insights researchers spend time discussing parent income in their mobility report cards, comparing median parent incomes and the proportion of students from the top 1%, for example (<u>Chetty et al.,</u> <u>2017</u>). EMI accounts for income-origin by assessing the PEP for students from low-income households (<u>Itzkowitz, 2022</u>). Finally, both our previous HBCU mobility report (<u>Nathenson et al., 2019</u>) and ACE's MSI report (<u>Espinosa et al., 2018</u>) account for parental income by considering students' family income quintiles. The MSI and HBCU studies differ in that the HBCU study conditions its' results on parent income and includes movement through all income categories rather than focusing solely on those at the bottom. That said, our HBCU study addresses just one facet of the larger MSI puzzle. We therefore continue our investigation of economic mobility at MSIs by directing our attention towards HSIs in this report. The current study also ascribes to Blau and Duncan's emphasis on parental origin. It follows the same methodology as the HBCU report, while further developing the collective understanding of upward mobility among HSI attendees and MSI attendees, more broadly.

³ While Emerging HSIs are not federally recognized, they are defined as those institutions enrolling 15% - 24.9% Hispanic FTE students (HACU, 2022c).

⁴ We note that the term income-origin is limited only to a student's financial context, whereas origin by Blau and Duncan was originally conceptualized in multiple dimensions—as father's education and occupational prestige.

Research Aims

Previous research shows that HSIs contribute to reducing the educational attainment gap for Hispanic students. This research report assesses:

- 1. Income mobility among HSI and PWI students
- 2. The differences in income mobility across HSIs

We discuss mobility to the highest 20% of the U.S. income distribution (top quintile) along with various other measures of upward mobility. To better understand student outcomes on a localized level, and to allow for reasonably generalizable conclusions, we focus our comparison of intergenerational income mobility at HSIs and PWIs on institutions within the same set of commuting zones.



Methodology

Data Sources

This report uses publicly available data from Harvard's Opportunity Insights. These data, which were created as a collaboration between a team of researchers (Chetty and colleagues) and federal employees, include college attendance information from the National Center for Education Statistics' (NCES) Integrated Postsecondary Education Data System (IPEDS). Postsecondary institutions are identified by the Office of Postsecondary Education Identifier—the OPEID. The dataset also includes U.S. population-level inter-generational income information, sourced from the Internal Revenue Service (IRS), linking parents to those children born between 1980 and 1991. HSIs are identified from a 2016-2017 list provided by the Hispanic Association of Colleges and Universities (<u>HACU, 2017</u>).

Parent income is measured by averaging parents' incomes over the 5 years when their child was between the ages of 15 and 19. Student income comes from their 2014 earnings, when students were in their early to mid-thirties. We define postsecondary institution as the college or university the child attended most often between ages 19 and 22. Income mobility measures at institutions of higher education are determined by aggregating parents' and children's incomes among children born between 1980 and 1982. While there is data available for the cohorts born between 1983 and 1991, less data on their post-college outcomes is available since they finished more recently.

Analytic Sample

To better understand student outcomes on a localized level, and to allow for reasonably generalizable conclusions, we focus our comparison of intergenerational income mobility at HSIs and PWIs on institutions within the same set of commuting zones. We also limit our sample to institutions that demonstrate similar institutional selectivity, per Barron's Selectivity Index. In total, our analytic sample includes data on cohorts born from 1980 to 1982 who attended 90 four-year HSIs and 140 four-year PWIs.⁵ Other HSIs either had insufficient data on student enrollments from 1980 through 1982, did not have individually identifiable data because they were part of a university system at the time, or were unable to be merged from the HACU list to the Equality of Opportunity (EOP) data.⁶ While the sample is limited to about sixty percent of four-year HSIs, which is a potential limitation, the sample captures more HSIs than prior work in this area (i.e., Espinosa, 2018).⁷ The HSIs included in our sample also offer a good geographic representation of all HSIs. Figure 1 maps the HSIs in our analytic sample.

⁵ In a few rare instances, the Equality of Opportunity's mapping of institutions from the IRS data to the Department of Education's OPEID yielded multiple institutions per OPEID (<u>Chetty et al., 2017</u>). As such, EOP created 'Super-OPEIDs," which clustered institutions by zip code, if necessary. Of our 90 HSIs, 85 represent unique HSI institutions, 5 consist of both HSIs and non-HSIs, and 3 consist of multiple campuses of a university system.

⁶ Five institutions were unable to be matched between the files.

 $^{^{\}rm 7}~$ Of the 148 unique four-year HSIs identified in the HACU data (excluding Puerto Rico).



Figure 1. Hispanic-Serving Institutions in the Analytic Sample

1.	University of Houston System	TX
2.	Arizona State and Northern Arizona University and University of Arizona	AZ
3.	University of Illinois System	IL
4.	Long Island University System	NY
5.	College of Mount Saint Vincent and Manhattan College	NY
6.	Fairleigh Dickinson University	NJ
7.	Azusa Pacific University	CA
8.	California Baptist University	CA
9.	California Lutheran University	CA
10.	California State University, Fullerton	CA
11.	California State University, East Bay	CA
12.	California State University, Long Beach	CA
13.	California State University, Los Angeles	CA
14.	California State University, Dominguez Hills	CA
15.	California State University, San Bernardino	CA
16.	California State Polytechnic University, Pomona	CA
17.	California State University - Sacramento	CA
18.	San Diego State University	CA
19.	California State University, Northridge	CA
20.	La Sierra University	CA
21.	University of La Verne	CA
22.	Mount St. Mary's College	CA
23.	Pacific Union College	CA
24.	Vanguard University of Southern California	CA
25.	Saint Mary's College of California	CA
26.	University of California, Riverside	CA
27.	University of California, Santa Barbara	CA
28.	University of California, Santa Cruz	CA
29.	Whittier College	CA

30.	Woodbury University	CA
31.	Barry University	FL
32.	Saint Thomas University	FL
33.	Florida Atlantic University	FL
34.	Broward College	FL
35.	Nova Southeastern University	FL
36.	Palm Beach State College	FL
37.	South Florida State College	FL
38.	Northeastern Illinois University	IL
39.	Robert Morris University Illinois	IL
40.	Dominican University	IL
41.	Saint Xavier University	IL
42.	Trinity International University	IL
43.	Washington Adventist University	MD
44.	Felician College	NJ
45.	New Jersey City University	NJ
46.	Kean University	NJ
47.	William Paterson University of New Jersey	NJ
48.	Saint Peter's University	NJ
49.	Vaughn College of Aeronautics and Technology	NY
50.	City College of New York - CUNY	NY
51.	CUNY Hunter College	NY
52.	CUNY Queens College	NY
53.	CUNY John Jay College of Criminal Justice	NY
54.	New York City College of Technology of The City University of New	NY
55.	Dominican College of Blauvelt	NY
56.	Mercy College	NY
57.	Nvack College	NY
58.	Houston Baptist University	TX
59.	University Of the Incarnate Word	TX
		1/1

60.	Our Lady of The Lake University	TX
61.	Texas State University	TX
62.	Southwestern Adventist University	TX
63.	St. Edward's University	TX
64.	Saint Mary's University	TX
65.	Texas Lutheran University	TX
66.	Texas Woman's University	TX
67.	University of Saint Thomas of Houston, TX	TX
68.	University of Texas at Arlington	TX
69.	Wiley College	TX
70.	Virginia Union University	VA
71.	Columbia Basin College	WA
72.	Valencia College	FL
73.	CUNY Lehman College	NY
74.	Warner University	FL
75.	Florida International University	FL
76.	University of Texas of The Permian Basin	TX
77.	University of Texas at San Antonio	TX
78.	College of Southern Nevada	NV
79.	National University	CA
80.	Boricua College	NY
81.	Keiser University	FL
82.	Saint Augustine College	IL
83.	City College	FL
84.	CollegeAmerica Denver	CO
85.	California State University, San Marcos	CA
86.	Hodges University	FL
87.	California State University, Monterey Bay	CA
88.	California State University Channel Islands	CA
89.	Nevada State College	NV
90.	Brandman University	CA

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Outcome Measures

We examine both the unconditional and conditional intergenerational (from parent to child) income mobility distributions at HSIs and PWIs. Chetty et al. originally called these the 'mobility rate' and the 'success rate,' respectively. Unconditional mobility measures are just that—not conditioned on parent income, whereas conditional mobility measures are conditioned on parent income.⁸ The 25 cells in our unconditional mobility matrices (5 parent income origins x 5 student incomes) sum to 100. Measures of unconditional mobility discussed include classic mobility, extended mobility, upward mobility, and middle class+ income.

The classic mobility rate represents the proverbial bootstrap mythos, measuring how students move from the lowest to the highest income quintiles (used by Chetty and colleagues). While this measure's focus on the largest possible mobility jump illustrates the role postsecondary institutions can play in transforming students' income trajectories, the measure cannot shed light on most students who do not experience such a leap. The extended mobility rate employed by Espinosa et al. builds on the classic mobility rate. Instead of looking at students who move from only the bottom 20% to the top 20% of the income distribution, it examines those who start in the bottom 40% (quintiles 1 and 2) and end in the top 40% (quintiles 4 and 5). While incorporating a greater variety of mobility possibilities, the extended mobility measures. The first of our more holistic unconditional mobility measures includes 'upward mobility', which measures any movement from a lower to a higher income quintile, such as students who started in quintile 3 and ended in quintile 4. We also examine students who move into a 'middle class+ income,' defined as students who ended up in income quintiles 3, 4, or 5 (upper 60% of the income distribution; Nathenson et al., 2019), regardless of their parents' income. We highlight students who moved from quintile 1 or 2 up into a middle class+ income.

⁶⁶HSIs do more with less in that they effectively use fewer resources to promote mobility among a larger proportion of high-need students.⁹⁹

⁸ More formally, our previous report (Nathenson et al., 2019) describes them as follows, "the mobility rate is defined as the percent of children who originate in a specific income quintile and end up as adults in a specific (often different) income quintile. The success rate is defined as the percent of children in a specific income quintile, conditional on their parent being in a specific income quintile. The former presents a holistic picture of the origin-destination income mobility patterns from parents to students (e.g., what percent of all students were in the top quintile and had parents with incomes in the bottom quintile). The latter details the income mobility of students given that their parents' income was in a specific income bracket (e.g., of students who had parents in the bottom quintile, what percent of students achieved income in the top quintile)."

Accounting for parental income allows for greater comparability of institutions with dissimilar levels of student affluence. We therefore explore a variety of conditional mobility measures, which include the success rate of students in the 1st quintile, the proportion of students who ended up in the top three income quintiles, and privilege perpetuation. The success rate compares child income within a given income-origin category, where the values in each row in the matrix sum to 100. The value of each cell in a success rate matrix indicates the percent of students who ended up in a particular income, conditional on the income of their parents. We use success rate matrices to separate our work from that of other scholars, and to explore intergenerational income mobility at HSIs in greater detail.

Finally, privilege perpetuation is an attempt to examine an 'affluence floor,' or the extent to which income is maintained across generations (Nathenson et al., 2019). It is measured by the proportion of students who start and end up in the fourth- and fifth-income quintiles. Our conditional mobility analyses discuss the success rate and privilege perpetuation overall, and then among the top 10 HSIs and PWIs for each measure. When discussing students' income categories, we sometimes refer to those in the bottom or 1st quintile as low-income, the 2nd quintile as lower-income, the 3rd quintile as median or middle-income, the 4th quintile as upper-middle income, and the 5th quintile as high-income or affluent. We refer to students in the 3rd quintile *and higher* as middle class+ income.



Main Findings

Descriptive Comparisons

We first compare institutional and student characteristics at HSIs and PWIs in our analytic sample. This allows us to better understand the institutional context students experience once arriving on campus, and to understand aggregate differences in the types of students attending the two types of institutions. We look at the full mobility rate matrices for HSIs and comparison PWIs, describe a variety of mobility rate measures, examine the success rate matrices for both institution types, and discuss several success rate measures.

INSTITUTIONAL AND STUDENT CHARACTERISTICS

Table 1 compares institutional and student characteristics at HSIs and PWIs. HSIs had significantly fewer resources than PWIs. For example, HSIs demonstrated fewer instructional expenditures in both 2000 (\$4,700) and 2012 (\$8,472) than did PWIs (2000: \$6,442; 2012: \$14,000). Typical measures of prestige include factors like whether an institution is public or private and standardized test scores (Morse & Brooks, 2021). Public institutions comprised 48% of the HSIs and 34% of the PWIs in our sample. Relatedly, SAT scores at HSIs were significantly lower than at PWIs, demonstrating a difference of over 5% in 2001 and 2013 (5.8% and 6.5%, respectively). HSIs also cost significantly less, on average, than did PWIs in 2000 and 2013.

Looking to graduation and earnings, HSI students were between 11% and 13% less likely to graduate within 150% time than were PWI students in 2002 and 2013, respectively. Ten years after entry, HSI students (\$42,941) earned an average of 4.4% less than those who attended PWIs (\$44,905). These results align with prior research, documenting important differences that are consistent with a narrative of fewer resources available to HSIs.

Similar to earlier findings (<u>Engle & Tinto, 2008</u>; <u>Trejo, 2016</u>), HSI students were less likely to major in arts and humanities than were PWI students. That said, no other significant differences were found when comparing other college majors (e.g., business, health, social sciences, STEM).

⁶⁶Although most students will not experience a "rags-to-riches" leap in income quintile, smaller changes are more commonly experienced among the average college attendee."

Table 1. Institutional and Student Characteristics at HSIs and PWIs¹

	HSI	PWI	
INSTITUTIONAL RESOURCES (\$)			
Endowment Assets per Student in 2000	1,414	7,646	
Average Faculty Salary, 2001	53,928	55,320	
Total Instructional Expenditures, 2000	4,700	6,442	*
Total Instructional Expenditures, 2012	8,472	14,000	*
INSTITUTIONAL SELECTIVITY			
Proportion of Selective Institutions	0.80	0.81	
Public University (vs Private)	0.48	0.34	*
Rejection Rate (One Minus Acceptance) from College Scorecard, 2013	0.39	0.37	
Average SAT Scores, 2001 ²	997	1056	***
Average SAT Scores, 2013 ²	1001	1068	***
COST OF ATTENDANCE (\$)			
Average Annual Cost of Attendance, 2000	7,564	10,380	***
Average Annual Cost of Attendance, 2013	16,984	22,709	***
Net Cost of Attendance for Bottom 20% Income Quintile from College Scorecard, 2013	12,785	16,430	***
STUDENT BODY			
Total IPEDS Undergraduate Enrollment (Fulltime and Part-time), 2000	11,842	8279	+
Total IPEDS Undergraduate Enrollment (fulltime and Part-time), 2013	12,589	8314	*
Proportion of Undergraduate Student Body, 2000			
Black	0.15	0.16	
Hispanic	0.23	0.09	***
Asian/Pacific Islander	0.08	0.07	
Non-Resident Alien	0.03	0.04	*
Proportion by College Major, 2000			
Arts and Humanities	0.08	0.14	***
Business	0.24	0.21	
Health	0.09	0.07	
Multi/Interdisciplinary	0.14	0.12	
Public and Social Services	0.06	0.06	
Social Sciences	0.25	0.24	
STEM	0.14	0.14	
Trades and Personal Services	0.01	0.01	
COLLEGIATE OUTCOMES			
Percentage of Students Graduating within 150 Percent of Normal Time, 2002	0.45	0.51	***
Percentage of Students Graduating within 150 Percent of Normal Time, 2013	0.49	0.55	***
Median Earnings (\$) of students who are working and not enrolled 10 years after entry from College Scorecard, 2011	42,941	44,905	+
N ³	90	140	

+ p<.1 * p<0.05 ** p<0.01 *** p<0.001

¹Further information on these characteristics can be found in the Opportunity Insights data, <u>https://opportunityinsights.org/wp-content/uploads/2018/04/</u> Codebook-MRC-Table-10.pdf

 $^{\rm 2}$ Defined as the mean of the 25th and 75th percentile of math and verbal SAT scores.

³230 is the maximum sample size. In some instances, descriptive information was missing for some of the institutions.

Mobility Rates

PARENT INCOME

To offer a basis for understanding mobility rates across HSIs and PWIs, Table 2 includes HSI (Panel A) and PWI (Panel B) parent-child income quintile mobility matrices in their entirety. Representative of the proportion of students in each parent-child income pair, the 25 cells in each panel of Table 2 sum to 100%. We present and discuss these findings within the context of prior research and for comparison with the success rate matrices, discussed later (Table 4).

Table 2. Mobility Rate

PANEL A. MOBILITY RATE, HISPANIC SERVING INSTITUTIONS

			CHILD INCOME QUINTILE							
		1	2	3	4	5	TOTAL			
PARENT	1	2.07%	2.57%	2.98%	3.74%	3.84%	15.19%			
	2	2.41%	2.76%	3.54%	4.75%	5.05%	18.50%			
INCOME	3	2.33%	2.58%	3.32%	4.75%	5.84%	18.83%			
	4	2.40%	2.60%	3.16%	5.13%	7.14%	20.42%			
QUINTILE	5	3.19%	3.07%	3.76%	6.25%	10.81%	27.07%			
	TOTAL	12.40%	13.57%	16.75%	24.61%	32.67%	100.00%			

PANEL B. MOBILITY RATE, PREDOMINANTLY WHITE INSTITUTIONS

			CHILD INCOME QUINTILE							
		1	2	3	4	5	TOTAL			
	1	1.52%	1.96%	2.00%	2.41%	2.89%	10.77%			
PARENI	2	1.85%	2.30%	2.75%	3.53%	4.34%	14.77%			
	3	2.12%	2.56%	2.95%	4.16%	5.72%	17.52%			
INCOME	4	2.56%	2.78%	3.43%	5.29%	8.04%	22.10%			
QUINTILE	5	4.29%	4.08%	4.42%	7.23%	14.82%	34.84%			
	TOTAL	12.34%	13.68%	15.55%	22.61%	35.81%	100.00%			

⁶⁶About a third (33.7%) of HSI students came from households in the bottom 40% (quintiles 1 and 2) of the U.S. income distribution.⁹⁹ HSIs and PWIs yielded notably different results when looking at the income-origin profile of their students, similar to previous HBCU to PWI comparisons (Espinosa et al., 2018; Nathenson et al., 2019). Around 1 in 6 (15.2%) HSI students enrolled came from low-income (quintile 1) households, compared to 1 in 9 (10.8%) PWI students (a 4-percentage point difference). An additional 18.5% and 14.8% of HSI and PWI students' income-origins fell in the second lowest quintile, respectively. Combined, these results indicated that about a third (33.7%) of HSI students came from households in the bottom 40% (quintiles 1 and 2) of the U.S. income distribution, compared to just over one quarter (25.6%) of PWI students.

Shifting our focus to the top of the U.S. income distribution, we observed the inverse among students with parents in the top 40% of income at the time of enrollment. Compared to 56.9% of PWI students, 47.5% of HSI students enrolled while coming from upper-middle and high-income (quintiles 4 and 5) households. This means that HSIs enrolled 9 percentage points fewer students originating in upper-middle and high-income households than did PWIs. Under a third (27.1%) of HSI parents' incomes were in the top income quintile compared to 34.8% of PWI parents, an 8-percentage point difference (28.4% more at PWIs).

Considering both the upper and lower portions of the income distribution, we find that HSIs serve larger proportions of economically disadvantaged students and smaller proportions of students from abovemedian income households than do PWIs. This is consistent with previous research documenting large low-income student enrollments at HSIs (<u>Garcia et al.,2019</u>; <u>Santiago et al., 2016</u>; <u>U.S. Department of Education, 2022</u>).

CLASSIC AND EXTENDED MOBILITY

Under both the classic and extended mobility rate measures, we found that HSI students were more likely to experience upward mobility than PWI students. As seen in Table 3, the classic mobility rate at HSIs was higher than the rate at PWIs (3.8% and 2.9%, respectively). In looking at the extended mobility rate, around 1 in 6 (17.4%) HSI students moved to the 4th or 5th quintiles compared to just over 1 in 8

PWI students (13.2%)—a 27.5% difference. Such findings are similar to those found when examining HBCUs, where HBCUs typically demonstrate higher classic and extended mobility rates than do non-MSIs (<u>Espinosa et al., 2018</u>; <u>Nathenson et al., 2019</u>). Yet, these measures are limited to examining either one or four out of 25 cells in the mobility matrix, leaving out potentially important and relevant information.

Table 3. Mobility Measures

MOBILITY MEASURE	HSI	PWI
Upwardly Mobile	44.18%	37.80%
Move into Middle Class+	60.86%	58.90%
End up in Middle Class+	74.03%	73.98%
'Classic' Mobility Rate	3.84%	2.89%
Extended Mobility Rate	17.37%	13.16%

UPWARD MOBILITY

As in our HBCU study (<u>Nathenson et al., 2019</u>), we examine a broader and more holistic approach to understanding mobility. Upward mobility includes any movement into a higher income quintile—regardless of income-origin. We calculated the upward mobility rate by summing the 10 cells above the matrix diagonals. Partly due to the disproportionate enrollment of low-income students at HSIs, upward mobility rates were higher at HSIs 44.2% than at PWIs 37.8% (Table 3).

MIDDLE CLASS+ INCOME

On the moving into and ending up in middle class+ income measures, HSIs and PWIs differed by less than two percentage points (60.9% HSI vs 58.9% PWI for moving into and 74.0% at both HSIs and PWIs for ending up middle class+; Table 3). This suggests an important similarity between our two institution types. Despite their noteworthy differences, HSIs and PWIs are on par with one another in so far as nearly three quarters of those who attended ended up in the top 60% of income earners.

Although more modest in gain than the classic mobility rate documenting jumps from the 1st to the 5th quintile, the extended and upward mobility rates reflect real-life changes in the financial circumstances and the resources available to those who attend college. Assessing smaller jumps in income quintiles allows us to illustrate a consistent finding. After exiting their postsecondary institution, HSI students experience stronger unconditional mobility than students who attended our comparison PWIs. We note that these findings reflect, in part, the higher enrollments of low-income students at HSIs as compared to PWIs and should be interpreted as such.





Success Rates

Unconditional mobility offers a useful but incomplete picture of intergenerational income mobility. As described above, success rates, in our opinion, provide more accurate insights into mobility. They illustrate how students move through income quintiles from college through adulthood, contingent on their family's income. Over a quarter (27.6%) of HSI students with low-income parents (quintile 1) moved into the top income quintile compared to 30.7% of PWI students, as indicated in Table 4. An additional 24.7% of HSI students and 22.3% of PWI students moved from the bottom quintile to the 4th quintile. The above findings suggest that a one-generation transformation from low-income to upper-middle or high-income is similar at PWIs (53.0%) and HSIs (52.3%) (under 1 percentage point difference). The higher unconditional mobility rate at HSIs than at PWIs (Tables 2 & 3) exists because of the larger share of low-income students at HSIs. While this is a descriptive study, it is notable that the success rates are similar given HSI's significantly lower instructional expenditures (see Table 1).

Table 4. Success Rate

		CHILD INCOME QUINTILE							
		1	2	3	4	5	TOTAL	TOP 3	
PARENT	1	13.72%	15.21%	18.81%	24.66%	27.60%	100.00%	71.07%	
	2	12.87%	14.16%	18.15%	25.89%	28.93%	100.00%	72.97%	
	3	12.25%	13.45%	17.14%	25.29%	31.87%	100.00%	74.30%	
INCOME	4	12.06%	12.85%	15.82%	24.68%	34.59%	100.00%	75.09%	
QUINTILE	5	12.37%	11.98%	15.03%	23.52%	37.10%	100.00%	75.65%	

PANEL A. SUCCESS RATE, HISPANIC SERVING INSTITUTIONS

PANEL B. SUCCESS RATE, PREDOMINANTLY WHITE INSTITUTIONS

		CHILD INCOME QUINTILE								
		1	2	3	4	5	TOTAL	TOP 3		
PARENT	1	14.80%	14.82%	17.39%	22.30%	30.69%	100.00%	70.38%		
	2	12.28%	14.74%	17.41%	23.48%	32.08%	100.00%	72.97%		
INCOME	3	12.05%	14.32%	16.29%	23.27%	34.07%	100.00%	73.63%		
	4	11.82%	12.86%	15.48%	23.54%	36.30%	100.00%	75.32%		
QUINTILE	5	12.42%	12.73%	13.74%	21.74%	39.37%	100.00%	74.85%		

TOP THREE QUINTILES

Although most students will not experience a "rags-to-riches" leap in income quintile, smaller changes are more commonly experienced among the average college attendee. Therefore, the final column in Table 4 describes the proportion of students who ended up in the top 60% of the U.S. income distribution. Seventy-one percent of low-income HSI students ended up with a middle class+ income (quintiles 3 and above). For HSI students with parents in the 4th and 5th income quintiles, the proportion ending up with middle class+ income was higher, at about 75%. PWIs presented similar results, with 70% of low-income students ending up with middle class+ incomes and 75% when children grew up in higher-income (quintiles 4 & 5) households. When comparing HSI and PWI student success rates, holding parent income constant, the difference is never more than a single percentage point.

MOBILITY RATES: TOP 10 HSIS VS PWIS

Though mobility rates at PWIs and HSIs were similar in the success rates discussed above, differences were noticeably larger when looking at institutions with the ten best success rates among each institution type. Table 5 displays the top 10 HSIs and PWIs ranked by students ending up in the top quintile conditional on starting in the 1st or 2nd, as well as the proportion that moved into middle class+ incomes. Overall, low-income (quintile 1) students graduating from our Top 10 PWIs were 27.8% more likely to end up in quintile 5, as well as 6.6% more likely to earn middle class+ incomes than their HSI counterparts.



Table 5. Conditional Mobility Measures, Ranked by Top 10

PANEL	PANEL A. HSIS								
	C5 P1		C5 P2		C3, C4, C5 P1		C3, C4, C5 P2		
H S I S A V G		0.28		0.29		0.71		0.73	
1	College of Mount Saint Vincent and Manhattan College	0.63	College of Mount Saint Vincent and Manhattan College	0.53	Southwestern Adventist University	0.91	Pacific Union College	0.85	
2	University of California, Santa Barbara	0.50	La Sierra University	0.47	College of Mount Saint Vincent and Manhattan College	0.88	St. Edward's University	0.85	
3	Dominican College of Blauevelt	0.48	California State Polytechnic University, Pomona	0.47	Texas Lutheran University	0.82	Nevada State College	0.84	
4	California State Polytechnic University, Pomona	0.46	University of California, Santa Barbara	0.46	California State University, Monterey Bay	0.82	Saint Mary's College of California	0.83	
5	Pacific Union College	0.45	Vaughn College of Aeronautics and Technology	0.45	Saint Mary's University	0.82	California State Polytechnic University, Pomona	0.82	
6	Vaughn College of Aeronautics and Technology	0.45	University of Illinois System	0.45	California State Polytechnic University, Pomona	0.81	Saint Mary's University	0.81	
7	California State University, East Bay	0.44	University of California, Riverside	0.44	Dominican College of Blauvelt	0.79	Texas Lutheran University	0.81	
8	Saint Mary's College of California	0.44	Saint Mary's College of California	0.44	University of Texas of The Permian Basin	0.79	City College of New York – CUNY	0.80	
9	University of Illinois System	0.42	University of Saint Thomas of Houston, TX	0.42	Vaughn College of Aeronautics and Technology	0.79	University of Illinois System	0.80	
10	University of California, Riverside	0.41	Pacific Union College	0.42	University of California, Santa Barbara	0.79	University of California, Riverside	0.80	

PANEL	PANEL B. PWIS								
	C5 P1		C5 P2		C3, C4, C5 P1		C3, C4, C5 P2		
H S I S A V G	-	0.31		0.32		0.70		0.73	
1	California Maritime Academy	0.85	SUNY Maritime College	0.71	California Maritime Academy	1.00	Randolph – Macon College	0.88	
2	Colorado School of Mines	0.64	Colorado School of Mines	0.65	Hood College	0.94	Letourneau University	0.87	
3	New Jersey Institute of Technology	0.64	California Maritime Academy	0.65	Lake Forest College	0.90	Mills College	0.87	
4	Drew University	0.57	New Jersey Institute of Technology	0.64	Colorado School of Mines	0.88	SUNY Maritime College	0.87	
5	Pace University	0.56	University of California, Berkeley	0.57	Concordia University Texas	0.86	Iona College	0.86	
6	University of California, Irvine	0.55	California Polytechnic State University	0.55	Texas Wesleyan University	0.86	Manhattanville College	0.85	
7	University of California, Berkeley	0.55	University Of California, San Diego	0.54	New Jersey Institute of Technology	0.85	New Jersey Institute of Technology	0.84	
8	University of California, San Diego	0.55	State University of New York At Stony Brook	0.54	SUNY Maritime College	0.83	Seton Hall University	0.84	
9	California Polytechnic State University	0.54	Wagner College	0.52	Pace University	0.82	Otis College of Art & Design	0.83	
10	Dominican University of California	0.53	CUNY Bernard M. Baruch College	0.52	University of the Pacific	0.82	Marymount University	0.83	

In looking at individual institutions, 63% of the lowest-income students at the College of Mount Saint Vincent and Manhattan College⁹, the top-ranked HSI for conditional mobility, moved into quintile 5 compared to 85% at the top PWI, California Maritime Academy. The College of Mount Saint Vincent and Manhattan College (88% quintile 1 to quintile 3+) fell to second place when comparing how students from quintile 1 moved into the middle class+ income categories, three percentage points behind the top HSI, Southwestern Adventist University (91% quintile 1 to quintile 3+). Southwestern Adventist University (91% quintile 1 to quintile 3+). Southwestern Adventist University was, however, still lower than California Maritime Academy, which won the top spot among PWIs with 100% of students moving to middle class+ incomes from quintile 1. Notably, of the 10 schools that promoted the most conditional mobility for HSI students, Vaughn College of Aeronautics and Technology served the highest proportion of low-income (quintile 1) students (36.5%), 45% of whom later moved into quintile 5. Yet again, our findings underscore prior research highlighting evidence of resource disparities between HSIs and PWIs (<u>Anguiano & Navarro, 2020; HACU, 2021; Malcom et al., 2010; Merisotis & McCarthy, 2005; Nellum & Valle, 2015; Ortega et al., 2015</u>).



⁹ Per Chetty et al., the College of Mount Saint Vincent and Manhattan College are combined as a single institution.

Privilege Perpetuation

Decades of research show the many links between parental factors (e.g. education, occupation, and income) and student outcomes (<u>Akee et al., 2010; Blau & Duncan, 1967; Dahl & Lochner, 2005; Lareau, 2015; Sewell et al., 1969</u>). The Opportunity Insights data allow us to measure one domain of privilege perpetuation between generations, an 'affluence floor,' defined here as the intergenerational perpetuation of income for children with upper middle- and high-income parents (<u>Nathenson et al., 2019</u>).

When looking at students who end up in the top two income quintiles, HSIs (57.3%) and PWIs (58.4%) differed by just over 1 percentage point (Table 6). Of these students, just over half (51%) of those from HSIs grew up with parents in the top two quintiles, whereas 61% of PWI students did. Moreover, 75% of PWI students who ended up in the same place as their parents started and ended in the 4th or 5th quintile, compared to only 66% of HSI students, a 9-percentage point difference.

	HSI	PWI
MOBILITY MEASURE		
In $4^{\rm th}$ or $5^{\rm th}$ Quintile - Overall	57.28%	58.43%
From 4 th or 5 th	29.32%	35.38%
Share from $4^{\rm th}$ or $5^{\rm th}$	0.51	0.61
Don't Move ('Static' Mobility) - Overall	24.08%	26.89%
Share that Start and End Up in $5^{\mbox{\tiny th}}$	0.45	0.55
Share that Start and End Up in $4^{\mbox{th}}$ or $5^{\mbox{th}}$	0.66	0.75
CONDITIONAL MOBILITY MEASURE		
Started in 4th, End Up in $4^{\rm th}$ or $5^{\rm th}$	59.27%	59.84%
Started in 5th, End Up in $4^{\text{th}}\text{or}5^{\text{th}}$	60.62%	61.12%

Table 6. Privilege Perpetuation



Conditional mobility measures (see the bottom of Table 6) were similar at PWIs and HSIs, providing evidence of an affluence floor. At PWIs, for example, 59.8% of students who started in the 4th quintile remained in the same income level or entered the top quintile. HSIs were nearly the same, with 59.3% of HSI students remaining at least at the same income level as their parents (quintile 4+). Students who started in the 5th quintile at PWIs and HSIs were also more likely to remain in the 4th or 5th quintile than not (61.1% and 60.6%, respectively).

PRIVILEGE PERPETUATION: TOP 10 HSIs VS PWIS

Like the conditional mobility measure patterns mentioned above, assessing the top 10 institutions' privilege perpetuation magnified the distinctions between HSIs and PWIs. About 85% of Colorado School of Mines (the top PWI) students who started in the 4th or 5th quintiles stayed there, compared to approximately 77% of students at the top HSI, College of Mount Saint Vincent and Manhattan College.¹⁰ Among HSIs, Saint Mary's University and the University of Illinois System followed close behind, with about three-fourths of their students who started out in the 4th or 5th quintiles staying there. Some other HSIs at the top of the list for perpetuating income across generations were Texas Lutheran University, University of California Santa Barbara, California State Polytechnic University—Pomona, California State University East Bay, University of La Verne, Vaughn College of Aeronautics and Technology, and Saint Mary's College of California. Amongst HSIs, the UC system institutions are perhaps the most widely known. This holds true for the results described in Table 5 as well.

⁶⁶ Shifting our focus to the top of the U.S. income distribution, we observed the inverse among students with parents in the top 40% of income at the time of enrollment. Compared to 56.9% of PWI students, 47.5% of HSI students enrolled while coming from upper-middle and high-income (quintiles 4 and 5) households.⁹⁹

¹⁰ Calculated by averaging the students from both the fourth and fifth quintiles who ended up there. Table 7 disaggregates these categories.

Table 7. Privilege Perpetuation, Ranked by Top 10

PANEL A. HSIS								
	% IN 4TH OR 5TH QUINTILE, FROM 4TH			% IN 4TH OR 5TH QUINTILE, FROM 5TH				
HSI AVG		0.59			0.61			
1	College of Mount Saint Vincent and Manhattan College	0.75		College of Mount Saint Vincent and Manhattan College	0.79			
2	Saint Mary's University	0.74		University of Illinois System	0.78			
3	University of Illinois System	0.73		Saint Mary's University	0.76			
4	Texas Lutheran University	0.72		City College of New York – CUNY	0.73			
5	University of California, Santa Barbara	0.71		Saint Peter's University	0.73			
6	California State Polytechnic University, Pomona	0.71		University of California, Santa Barbara	0.72			
7	California State University, East Bay	0.70		California State University, East Bay	0.72			
8	University of La Verne	0.70		California State Polytechnic University, Pomona	0.71			
9	Vaughn College of Aeronautics and Technology	0.70		Dominican College of Blauvelt	0.71			
10	Saint Mary's College of California	0.70		University of California, Riverside	0.71			

PANEL B. PWIS							
	% IN 4TH OR 5TH QUINTILE, FROM 4TH		% IN 4TH OR 5TH QUINTILE, FROM 5TH				
PWI AVG	-	0.60		0.61			
1	Colorado School of Mines	0.85	SUNY Maritime College	0.91			
2	New Jersey Institute of Technology	0.82	California Maritime Academy	0.84			
3	SUNY Maritime College	0.82	Colorado School of Mines	0.84			
4	Saint Joseph's College of Brooklyn, NY	0.77	New Jersey Institute of Technology	0.80			
5	California Maritime Academy	0.76	Saint Joseph's College of Brooklyn, NY	0.77			
6	CUNY Bernard M. Baruch College	0.75	Mount Saint Mary's University	0.77			
7	University of California, Berkeley	0.74	University of California, San Diego	0.76			
8	University of California, San Diego	0.74	Randolph – Macon College	0.76			
9	University of California, Davis	0.74	University of Maryland System (Except University College) and Baltimore City Community College	0.76			
10	San Jose State University	0.74	University of California, Berkeley	0.76			

In summary, like our HBCU report, HSIs demonstrated higher mobility rates when looking at classic, extended, and upward mobility, as well as those who move into middle class+ income. At the same time, HSIs demonstrate similar success and privilege perpetuation rates to PWIs.

⁶⁶HSIs improve outcomes for the country's highest-need student groups, doing so at rates comparable to PWIs.⁹⁹

Concluding Thoughts and Recommendations

Because traditionally underserved populations are more likely to attend HSIs than PWIs, the strong upward mobility rates demonstrated above indicate two important points: 1) HSIs improve outcomes for the country's highest-need student groups, doing so at rates comparable to PWIs. For example, 33.7% of HSI students in our sample came from households in the bottom two income quintiles, and 2) HSIs do more with less in that they effectively use fewer resources to promote mobility among a larger proportion of high-need students.¹¹ Recall that HSIs spent significantly less on instructional expenditures in 2000 and 2012 (Table 1).

Recommendation: Policy makers and funders alike should promote and advocate for additional funding to support HSIs.

HSIs doing an especially strong job of promoting mobility included the College of Mount Saint Vincent and Manhattan College, Southwestern Adventist University, Dominican College of Blauevelt, California State Polytechnic University—Pomona, Pacific Union College, and Texas Lutheran University.

Recommendation: Those interested in understanding HSI effectiveness should assess and evaluate the institutional strategies implemented and resources used to support low-income and other high-need student groups at HSIs.

Given the 18.6% of HSI students who experience downward mobility into the bottom 40% of the U.S. income distribution after postsecondary exit, and the 60.9% of HSI students who move into middle- or higher-income groups after graduating, identifying how students vary by mobility experiences will be telling within the larger story of HSI impact. While we are hopeful for the nearly three-fourths of HSI students who end up with middle class+ incomes, this finding raises a line of inquiry regarding what occurs among the remaining quarter of students who exit college and still end up in the first- or second-income quintiles. Taking these findings and the relationship between upward mobility and race into account (<u>Chetty et al., 2020</u>), we expect that student racial-ethnic identification plays an important role in this discussion as well.

Recommendation: Further research could uncover differences in downward and upward mobility among college students, including any associated with racial–ethnic identity.

¹¹ As compared to PWIs.

Similar to our HBCU study (<u>Nathenson et al., 2019</u>), we found higher downward mobility rates at PWIs than at HSIs (<u>see Appendix Table 1</u>). We also find that HSIs were similarly likely to perpetuate privilege or maintain the economic positions of students who started college in the fourth- or fifth-income quintiles, as PWIs. These findings underscore the effectiveness of HSIs, which produce similar outcomes, despite having fewer resources to put into promoting those outcomes.

Recommendation: Low-income students looking to enroll in college should consider enrolling at HSIs given their effectiveness in promoting upward mobility.

Distinctions between HSIs and HBCUs that inevitably affected the current and prior (<u>Nathenson et al., 2019</u>) findings include significant variability within HSIs, which range in Hispanic composition from 25–100% FTE, as well as the fact that the majority of HSIs do not have historical missions dedicated to serving Hispanic students (<u>Garcia et al., 2019</u>).¹² HSIs with lower proportions of Hispanic students may, in some cases, resemble PWIs more than high-Hispanic-enrolling HSIs. It was therefore unsurprising that HSIs and PWIs demonstrated more similarities than did HBCUs and PWIs in our 2019 analysis (<u>Nathenson et al., 2019</u>). Still, HSIs have more diverse student bodies than do PWIs, warranting a need for further long-term studies assessing student characteristics and life course outcomes among HSI students and the Hispanic population at large.

Recommendation: Scholars should further study the differences between PWI and HSI students' long-term outcomes, including unemployment, health, and home ownership, and do so utilizing individual-level data that can account for individual and family-level characteristics.

The current study builds on prior mobility research by focusing on HSIs within the larger MSI (<u>Espinosa</u> et al., 2018) and complementary HBCU (<u>Nathenson et al., 2019</u>) discussions. We further expand the growing body of HSI research (<u>Garcia et al., 2019</u>; <u>Santiago et al., 2016</u>) by discussing an understudied and long-term outcome critical to the welfare of students and their families—upward mobility.

Despite working under constrained resources relative to PWIs, our findings indicate that HSIs provide meaningful outcomes differences for the students they enroll, promoting long-term upward mobility for those who attend this growing group of institutions.

¹² FTE – Full-time equivalent.

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Methodological Appendices

Institutional Characteristics

IPEDS and IRS data link institutional and student characteristics. These measures include the total number of undergraduate students enrolled, student tuition and fees, the average salary among faculty, per student expenditures on instruction, per student endowment assets, rejection rates, and net cost for students from quintile 1 (financial aid proxy).

Student Characteristics

Although we do not assess individual student characteristics, we use aggregate demographic information in the available IPEDS data. This includes the percent of students graduating within 150% of expected program length (3 years if 2-year program and 6 years if 4-year program), average SAT scores, racial-ethnic makeup of the institution, and student majors by discipline.

Downward Mobility

Downward mobility is defined as students that move from one income quintile to a lower one later in life. PWIs (35.3%) demonstrated higher downward mobility rates than did HSIs (31.7%). In particular, the one in five students at both PWIs (20.2%) and HSIs (18.6%) who experienced downward mobility into quintiles 1 or 2 since postsecondary exit suggest a need for further research to understand why this phenomenon occurs.

	HSI	PWI
MEASURE		
Downwardly Mobile	31.74%	35.32%
End up in 1^{st} or 2^{nd} Quintile		
Overall	25.97%	26.02%
Excluding P1->C2 ¹	23.40%	24.06%
Excluding starting in P1 or P2	16.17%	18.39%

Table A1. Downward Mobility

¹ Parent in first quintile, child in second quintile

Figure A1. Classic Mobility Rate



Figure A2. Extended Mobility Rate



Generational Jumps? How HSIs Promote Upward Mobility