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Equity and Access in the UW System: A Review of Student Applications

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Abstract

The mission of the University of Wisconsin System is to provide Wisconsin's high school graduates with opportunities to cultivate "intellectual, cultural, and humane sensitivities, scientific, professional and technological expertise, and a sense of purpose." Further, as part of its 2020 strategic plan to meet state workforce needs, the System seeks to increase the number of Wisconsinites who both start college and persist to earn their degree. To reach these goals, high school graduates must first apply for admission to the UW System's two- or four-year institutions. This report analyzes application patterns among Wisconsin high school students who earned their high school diploma in 2016. We find that, among students with similar high school grades and ACT scores, Black students are more likely to apply to a UW System school (and to UW–Madison in particular) than otherwise similar non-Hispanic White students. Economically disadvantaged students and students from rural school districts, on the other hand, are less likely to apply to a UW System school or to UW–Madison, though differences are relatively modest in magnitude. If Wisconsin wants to increase equity in who applies to our public colleges and universities, we suggest targeting outreach to academically successful students eligible for free or reduced-priced lunch, and those attending rural high schools.

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Introduction

The University of Wisconsin (UW) System provides postsecondary opportunities to Wisconsin residents across 13 universities and 26 campuses in the state. The System's 2020FWD plan seeks "to increase the number of Wisconsinites who both start college and persist to earn their degree" (University of Wisconsin System, 2020). The first step toward achieving this goal is to increase the number of students who apply for admission.

Who applies for admission to the UW System, and where do they apply? How equitable are the chances of applying to the UW System, and to different types of UW System schools, across students and school districts in the state? Although these questions are fundamental for assessing where we are and measuring how well we are improving equity in access, we have not adequately addressed them, due largely to constraints on the kinds of data available to us. As we discuss below, we know a lot about students that attend UW System schools, but much less about students who apply, and very little about students who do not apply.

This report seeks to answer these questions for a recent cohort of Wisconsin high school graduates by merging data from the UW System with data from the state Department of Public Instruction and Department of Children and Families. We offer two sets of analyses in this report: one focuses on differences among students in applying to *any* UW System school and another evaluates differences in application across types of UW System schools among applicants. We focus on racial/ethnic, economic, and geographic differences in patterns of college application.

Overall, we find that once we adjust for differences in secondary school academic achievement, Black students are substantially more likely to apply to UW schools than otherwise similar non-Hispanic White students, while economically disadvantaged students are slightly less likely to apply than their more economically advantaged peers. We document a modest disadvantage in rates of application for students in rural districts and towns relative to those in suburban and urban districts.

Turning to application patterns among those who apply, we find that Black students are more likely than otherwise similar non-Hispanic White students to apply to the state flagship, UW–Madison, and to other four-year campuses, and substantially less likely to apply to two-year campuses. We find a similar, though less pronounced, pattern for Hispanic students applying to UW–Madison and two-year campuses but not to other four-year campuses. Economically disadvantaged students and those from rural districts and towns are slightly less likely than their more advantaged, urban, and suburban peers to apply to UW–Madison.

The report begins with a summary of the data and measures available to us, highlighting potential challenges to interpretations. Next, we discuss our analyses of patterns of any application to a UW System school. Finally, we discuss differences in the types of UW schools to which Wisconsinites in the high school class of 2016 applied.

Data and Measures

These analyses are based on linked data from Wisconsin's State Longitudinal Data System (SLDS), the University of Wisconsin System's database of applications, and child records from the Department of Children and Families (DCF). Each data source is a census of a population, but the overlap of the three is defined by the presence of a record in the DCF data. As such, it is a somewhat unusual population, albeit one that includes almost two-thirds of all students who graduated from high school in 2016. We elaborate on this qualification below.

The SLDS tracks the universe of public-school students in Wisconsin through their K–12 educational careers. We use elements from these data to understand how students' college application behavior varies by gender, racial/ethnic identification, degree of economic disadvantage, high school location, and academic performance. We focus our analyses on the high school graduating class of 2016 because 2016 is the only year of the SLDS for which we have near-complete coverage of both ACT scores and high school grade point average (GPA). We calculate students' cumulative GPAs from their high school grades over four years preceding their graduation and take ACT composite scores from test administrations during students' junior year of high school.

To examine college application behavior, we link students' high school records to any applications they initiated to UW System colleges. However, the only identifying information UW System files include for students who did not ultimately attend a system college is Social Security Numbers (SSNs). The Department of Public Instruction does not hold SSNs and so cannot match those records to the SLDS. To link applicants to the SLDS, therefore, we needed a third party with both student SSNs and SLDS student identifiers. The Wisconsin Department of Public Instruction assigns each student a 10-digit numeric identifier, or "WISEid." With cooperation from DCF, we were able to match students' SSNs to recover the WISEids for students in the DCF data. All sample students have had some contact with the programs administered by DCF, including the Special Supplemental Nutrition Program for Women, Infants, and Children; Wisconsin Shares (subsidies for early care and education); foster care; and child support.

Figure 1 displays the overlap between the data sources from which we derived our matched data. Our analytic sample is the shaded portion, denoting public high school students present in the DCF administrative data who may or may not have applied to UW System colleges. Students present in DCF's database are disproportionately economically disadvantaged relative to the population of children in the state as a whole. This sample selection mechanism may change the interpretation of our results. Among all students who graduated from Wisconsin high schools in

2016, Table A1 compares the characteristics of students included in the analytic sample (60%) to those who are not included (40%).

Given the modest differences in the population of students captured by DCF, we cannot be sure that our results also apply to the 40% of students we exclude from the sample. However, in supplementary analyses we have attempted to correct for sample selection by weighting students by the inverse of the probability that they are present in DCF's database, conditional on all measured covariates. We found that these results were substantively equivalent to those we report. This increases our confidence that our findings apply to the full population of high school graduates from public schools in Wisconsin.

Descriptive Statistics

To provide context around the students in our analysis, Table 1 includes summary statistics of our full sample in column 1, then disaggregated by those who did and did not apply in columns 2 and 3. We have 31,675 students in our sample, 12,932 (41%) of whom applied to at least one UW System college or university. Nearly 60% of UW-system applicants were female. Black and Hispanic students each comprised around 10% of the sample. Students identifying as American Indian, Asian, Pacific Islander, and multiracial were about 7% of the full sample. Twenty percent of the 2016 cohort persistently qualified for free or reduced priced lunch (FRL) while nearly 45% of the sample qualified for FRL at least once. English language learners (ELLs) were about 9% of those who did and did not apply to a UW System school. A slightly greater share of students in our sample reside in cities (29%) than in suburbs (26%) or rural areas (25%). Students from towns made up about 20% of the sample. The average ACT score for those who applied was 22 compared to 18 for those who did not apply. The average GPA for the sample was a 2.7, while students who applied to a UW System school had an average GPA of around 3.1.

Table 2 presents the share of students applying to any UW System school by race, place, and family income. White students were more likely to apply (42%) than Black students (39%) or Hispanic students (33%). Students residing in suburbs were slightly more likely to apply to a UW System school (44%) than students elsewhere (around 40%). Notably, students in rural areas were about as likely to apply to the UW System as were students in urban areas or towns. Half of all students who never received free or reduced-price lunch applied to a UW System school. This contrasts with 37% of students who received FRL and applied to college, and 33% of students who persistently qualified for FRL. About 40% of ELLs applied to college next to 41% of non-ELLs.[1]

[1] For reference, Table A2 shows the number of applications to each UW college or university in 2016.

Who Applies to the UW System?

To understand inequalities in who applies to *any* UW System college, we estimate a series of linear probability models. Coefficients from these models express the expected change in the probability of applying to a UW System college associated with a one-unit change in each predictor, holding constant other predictors in the model.

We present the results of these analyses in Table 3. Model 1 examines differences in the probability of application by gender, race/ethnicity, economic disadvantage, whether students were ever English language learners, and place (e.g., city, suburban, town, and rural). In Model 2, we adjust for differences among potential applicants in academic achievement, measured by composite ACT scores and high school GPA. We also estimate two additional models, one that includes school fixed effects and one that includes weights. The fixed effects models control for all observed and unobserved factors associated with the high schools from which students graduated. The weighted model corrects for differences between the analytic sample in the 2016 high school cohort and the population of students who graduated high school in Wisconsin in 2016. For the most part, point estimates are substantively identical to those in Model 2. We include fixed effects and weighted estimates in Appendix Table A3.

We begin with the descriptive results in Table 3, Model 1. After accounting for differences in race/ethnicity, experiences of economic disadvantage, language and place of origin, women who graduated high school in 2016 were 12.3 percentage points more likely than men to apply to a UW system school. We do not observe a statistically significant difference in the rates of application for Black and White students in the state, holding other demographic attributes constant. If anything, we see a (nonsignificant) conditional advantage of two percentage points for Black students. Hispanic students, on the other hand, are 5.8 percentage points less likely to apply than otherwise similar non-Hispanic White students.

As expected, we see sharp differences in patterns of application by family income. Economically disadvantaged students are substantially less like to apply to a public college or university in the state. After accounting for other attributes in Model 1, students who were persistently disadvantaged were 19.3 percentage points less likely to apply to any UW system school than those who were never economically disadvantaged, while those who experienced economic disadvantage in some years were about 13.5 percentage points less likely to apply than those never economically disadvantaged.

While economic origin appears to be a substantial determinant of applying to a UW System school, language of origin does not. Students ever classified as ELLs were five percentage points *more* likely than those never classified to apply. Finally, students who graduate from high schools in rural areas or towns were three and four percentage points less likely, respectively, to apply to a UW System school than those graduating from suburban or urban high schools, all else equal.

To some degree, differences we observe among students may be due not to social background per se, but instead to differences in their academic opportunities and achievements in primary and secondary school and the quality of the schools they attend. In Model 2, we adjust for differences in these opportunities and achievement. After controlling for students' achievement on the ACT and their high school GPA, and other background attributes, we estimate that women are about four percentage points more likely than men to apply to a UW System school. Black students are substantially *more likely* to apply to a UW System school than are otherwise similar White students, enjoying a net advantage of almost 17 percentage points. Non-White students who are neither Black nor Hispanic are about nine percentage points more likely to apply than non-Hispanic White students, all else equal, while the conditional application probabilities of Hispanic students and non-Hispanic White students are statistically indistinguishable (with a one percentage point estimated advantage for Hispanic students).

We can account for much, but not all the difference in application probabilities across family income by differences in academic achievement and, to a lesser extent, the schools that students attend. Adjusting for academic achievement reduced the estimated economic gap in application by about 80%. Nevertheless, students who persistently and sometimes qualified for FRL were between three and four percentage points less likely to apply than students who never qualified for subsidized meals, all else equal. The advantage in the chances of applying to a UW System school enjoyed by those whose first language was not English remains stable at about 6.2 percentage points, net of educational achievement and opportunities.

Probability of Application to UW System by Institution Type

Next, we turn to evaluating patterns of application to different types of UW System schools *among those who applied to any UW System school*. We restrict the sample on the assumption that students make application choices in two stages. First, they decide whether or not to apply to any UW System schools. Some students may choose not to apply because they are not going to apply to any college, while others may choose to apply to only private or religiously affiliated college, colleges in other states, etc. If they decide to apply to a public college or university in their state, they next decide which schools to apply to. This restriction reduces the sample from 31,657 high school graduates to 12,932 UW System applicants.

We distinguish among three types of UW institutions: the state flagship (UW–Madison), the other 12 four-year campuses in the system, and the 13 two-year campuses in the system. Note that students could, and often did, apply to more than one type of school. Across the models we present, we adjust for both demographic background and academic achievement.

Applying to UW–Madison

Column 1 of Table 4 presents results of a linear probability model estimating the association between student background characteristics, academic achievement and applying to UW–Madison. After accounting for race, place, income, and achievement, there was no difference in

the probability of applying to UW–Madison between men and women. Conditional on other background and achievement measures, students of color who apply to a UW System school are more likely to apply to UW–Madison than are White students. For example, Black and Hispanic students were about 13 and 8 percentage points more likely to apply, respectively, compared to non-Hispanic White students.

All else equal, economically disadvantaged students are less likely than their more advantaged peers to apply to UW–Madison. On average, students who sometimes and persistently qualified for free/reduced priced lunch were about three percentage points less likely to apply to the state flagship than their non-economically disadvantaged peers. However, ELLs continue to experience a 5.8 percentage point advantage compared to those never classified, all else equal. Finally, students coming from cities were no more or less likely to apply to UW–Madison than their suburban peers. However, students coming from towns and rural areas were about four and six percentage points less likely to apply to the state flagship, respectively.

Applying to Other UW Four-Year College

Among those who applied to any UW System school, we saw a slight advantage of about two percentage points for women relative to men in the likelihood of applying to a four-year institution other than UW–Madison. We did see sharp differences in the likelihood of applying across racial/ethnic groups, with Black students nearly 11 percentage points *more likely* to apply to a four-year college than otherwise similar White students. Hispanic students who applied to a UW System school were no more or less likely to apply to a four-year campus than were non-Hispanic White students. Among UW System applicants, we found no evidence of economic disparities in the probability of applying to a four-year institution conditional on other demographic attributes, place, and prior academic achievement. Similarly, we found no significant differences in applying by ELL status or place of origin.

Applying to UW Two-Year Colleges

Finally, Column 3 of Table 4 shows results of the probability of applying to any UW System two-year college conditional on applying to a UW System school. Again, after accounting for social background and academic achievement, the likelihoods of applying to a two-year campus for men and women were statistically indistinguishable. Black students were nearly 18 percentage points *less likely* to apply to a two-year college than were otherwise similar White students. Hispanic students and other students of color were also less likely than otherwise similar White students to apply to a two-year campus, by between six and eight percentage points. Economic disparities in the conditional probability of applying to a two-year campus were modest, with persistently disadvantaged students no more or less likely to apply than never-disadvantaged students, and students who qualified sometimes about three percentage points less likely to apply to a two-year campus than otherwise similar never-disadvantaged students. Students from rural parts of the state were 5.9percentage points more likely to apply to a two-year campus, all else equal, than students in suburban school districts. These spatial differences

may be at least in part attributable to the distance between students' homes and different types of UW System schools (Hirschl & Smith, 2018).

Discussion

The University of Wisconsin System plays a critical role in enrolling and educating the citizenry of Wisconsin. We estimate that just over four of 10 students who graduated high school in Wisconsin in 2016 applied to at least one UW System school. In this report, we explore how the chances of applying to any UW school—and to different types of UW schools—vary among students in the state. We pay particular attention to the ways in which race, family income, and place shape student engagement with public colleges and universities.

Black students are more likely to apply to the UW System than are non-Hispanic White and Hispanic students once we control for background factors and achievement. Relative to their White peers, Black applicants are appreciably more likely to apply to UW–Madison or to other four-year institutions and less likely to apply to two-year colleges. Any lack of racial diversity in public baccalaureate colleges in the state is not due to the failure of students to apply, at least conditional on their levels of high school achievement. The degree to which different campuses choose to admit students, and their success matriculating and retaining students they admit, is outside the scope of this report and merits further research.

Marginal differences in application probabilities among high school graduates are striking, with economically disadvantaged students around 13 to 19 percentage points less likely than their more advantaged peers to apply to the UW System. Most of the economic gradient in rates of application is associated with economic disparities in high school academic achievement. After accounting for disparities in grades and ACT scores, the state has also done fairly well attracting applicants from economically disadvantaged backgrounds conditional on high school achievement. Even so, there is still room for improvement. All else equal, students who were economically disadvantaged prior to finishing high school are about three to four percentage points less likely to apply to a UW System school than their more advantaged peers. If they do apply, they are about three percentage points less likely to apply to UW–Madison.

Finally, differences in application by geography are modest (three to four percentage points) but favor students who graduate from urban and suburban districts over those in more sparely populated districts. Among students who do apply to the UW System, those from rural districts and towns are four to six percentage points less likely to apply to UW–Madison than otherwise similar students from urban and suburban districts.

Conclusions

This report provides a unique assessment of patterns of college application among high school graduates in Wisconsin. That assessment, of course, is incomplete. We see applications to UW System schools but not to other colleges or universities. Furthermore, data constraints make

it impossible for us to observe the full population of students in the high school class of 2016 (only those in the DCF data) or the full set of high school achievement data in years other than 2016 (DPI chose to stop collecting high school grades). Nonetheless, these patterns provide an important baseline and check on equity in application probabilities in the state.

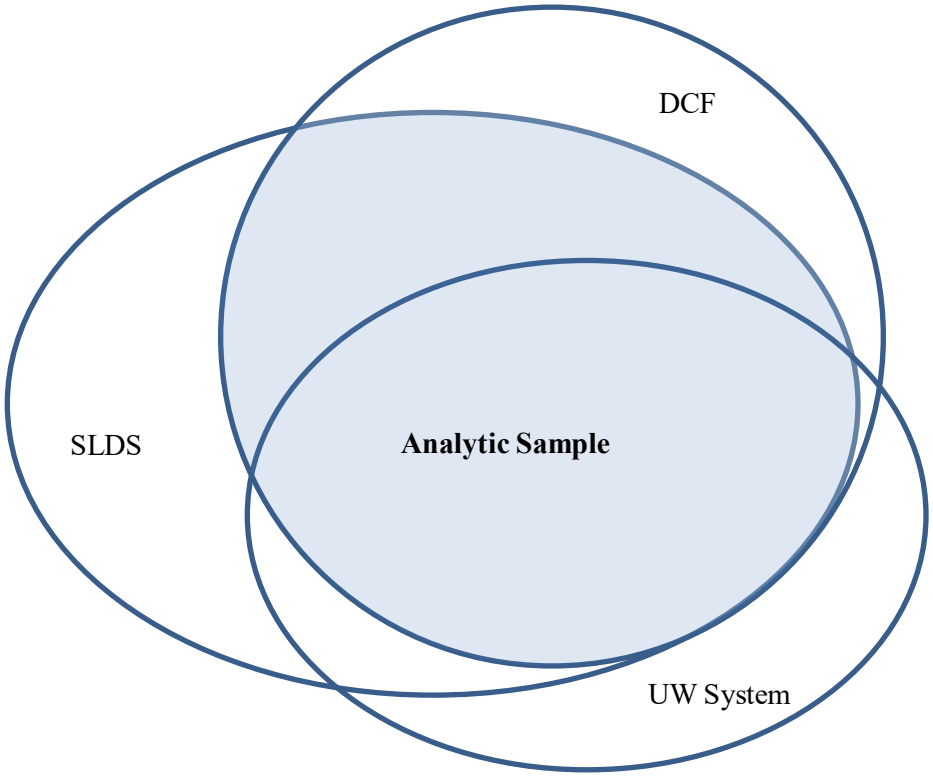
Although we hope our work is informative to UW System policymakers, this report is unable to answer two important questions. First, what accounts for the adjusted differences in the probability of application by race, family income, and place? Why are Black students so much more likely to apply than White students, and those from economically disadvantaged backgrounds and more sparely populated districts less likely to apply than those who are more economically advantaged and from cities and suburbs? Answering these questions requires data not available to us and, we suspect, data that do not exist. If policymakers want to answer these questions they will likely need to ask college recruiters and students, through structured surveys, focus groups, semi-structured interviews, or some combination of these methods.

Second, what if anything should we do to change these patterns? Are economic and spatial disparities in patterns of application sufficiently large to warrant action on the part of the UW System? If so, what actions could we take to reduce the economic and spatial disparities in application probabilities? These questions require value judgments about whether to intervene on student and family choice and at what cost to do so. As such, they are better answered by those in the offices of UW campuses, the UW System, and the state legislature.

Finally, we recognize that this analysis tells only part of the story about who attends our public institutions of higher education. We have not evaluated admissions decisions nor have we considered patterns of attendance conditional on admission. However, we know that nationally, about three quarters of those in the high school class of 2013 were admitted to their first-choice institution (authors' calculations based on the High School Longitudinal Study of 2009). In 2016, the in-state admission rate for the UW System was 93%, ranging from 75% at UW–Madison to 99% at UW–Green Bay (University of Wisconsin System 2016). Most of the variation in UW System enrollment among high school graduates in the state is therefore attributable to application and matriculations decisions, not to admissions. If Wisconsin wants to extend the reach of its university system, it would do well to begin by considering differences in the chances of application among the students it seeks to serve.

Figures

***Figure 1*. Analytic sample and reference data sources**



Tables

***Table 1*. Summary Statistics**

	(1) Full Sample	(2) Applied to at least one UW System college	(3) Did not Apply
Female	52%	59%	46%
White	73%	75%	73%
Black	10%	09%	10%
Hispanic	10%	08%	11%
Other/multiple race	07%	09%	06%
Never FRL	35%	43%	29%
Persistent FRL	20%	16%	23%
Sometime FRL	45%	41%	48%
Ever ELL	09%	09%	09%
City	29%	28%	29%
Suburb	26%	28%	25%
Town	20%	19%	21%
Rural	25%	25%	26%
Max ACT Composite	19	22	18
Average GPA	2.71	3.10	2.44
N Students	31,675	12,932	18,743
% of all students	100%	41%	59%

***Table 2*. Share of Applications by Race, Place, Income, and Language**

Student Background	Percent applying to UW System school
Race	
White	42%
Black	39%
Hispanic	33%
Other/multiple race	48%
Place	
City	41%
Suburb	44%
Town	39%
Rural	40%
Income	
Never FRL	50%
Sometimes FRL	37%
Persistent FRL	33%
Language	
Never ELL	41%
Ever ELL	40%

***Table 3*. Linear Probability Models of Applying to Any UW System School**

	(1) Demographics	(2) Demographics + Achievement
Female	0.123***	0.039***
	(0.007)	(0.006)
Black	0.020	0.165***
	(0.017)	(0.013)
Hispanic	-0.058***	0.014
	(0.012)	(0.010)
Other/multiple race	0.085***	0.086***
	(0.015)	(0.013)
Persistent FRL	-0.193***	-0.042***
	(0.010)	(0.009)
Sometimes FRL	-0.135***	-0.031***
	(0.007)	(0.006)
Ever ELL	0.049***	0.062***
	(0.013)	(0.012)
City	-0.004	0.015
	(0.017)	(0.014)
Town	-0.040***	-0.027**
	(0.015)	(0.014)
Rural	-0.031**	-0.039***
	(0.015)	(0.013)
ACT Composite		0.101***
		(0.005)
ACT Composite^2		-0.002***
		(0.000)
Average GPA		0.002
		(0.032)
Average GPA^2		0.033***
		(0.006)
Constant	0.455***	-1.079***
	(0.014)	(0.046)
Observations	31,675	31,675
R-squared	0.043	0.229
School FE	No	No
Weights	No	No

Standard errors are in parenthesis
*** p<0.01, ** p<0.05, * p<0.1

***Table 4*. Linear Probability Models of Applying to UW–Madison, Other UW Four-Year, and UW Two-Year Colleges**

	(1) UW–Madison	(2) Four-Year	(3) Two-Year
Female	-.005	.016**	.011
	(.006)	(.007)	(.008)
Black	.130***	.108***	-.175***
	(.012)	(.021)	(.027)
Hispanic	.082***	.009	-.083***
	(.015)	(.016)	(.018)
Other/multiple race	.116***	-.007	-.065***
	(.015)	(.017)	(.019)
Persistent FRL	-.031***	.010	.002
	(.011)	(.013)	(.013)
Sometimes FRL	-.032***	.004	.026***
	(.007)	(.008)	(.008)
Ever ELL	.058***	-.020	.028
	(.017)	(.017)	(.019)
City	.006	-.025	.063*
	(.016)	(.022)	(.033)
Town	-.046***	-.009	.038
	(.013)	(.024)	(.031)
Rural	-.058***	-.009	.059**
	(.012)	(.017)	(.025)
ACT Composite	-.079***	.144***	-.068***
	(.006)	(.009)	(.009)
ACT Composite2	.002***	-.003***	.001***
	(.000)	(.000)	(.000)
Average GPA	-.277***	.201**	.029
	(.029)	(.095)	(.097)
Average GPA2	.069***	-.031**	-.027*
	(.006)	(.016)	(.016)
Constant	.875***	-.942***	1.245***
	(.075)	(.146)	(.137)
Observations	12,932	12,932	12,932
R-squared	.272	.079	.106
School FE	No	No	No
Weights	No	No	No

Standard errors are in parenthesis
*** p<0.01, ** p<0.05, * p<0.1

Appendix

***Table A1*. Variable Means by Presence in Analytic Sample from the Department of Children and Families (DCF) Match**

	Present in DCF	Not present in DCF	All students
High school locale			
City	29%	21%	26%
Suburb	26%	35%	30%
Town	20%	20%	20%
Rural	25%	24%	25%
Female	51%	48%	50%
Race/ethnicity			
White	72%	85%	77%
Black	10%	4%	8%
Latinx	11%	6%	9%
Other/multiple race	7%	5%	6%
Ever ELL	9%	4%	7%
Free or reduced-priced lunch receipt			
Never FRL	34%	82%	53%
Sometimes FRL	45%	12%	32%
Persistent FRL	22%	6%	15%
ACT composite score	19.4	22.6	20.7
GPA	2.65	3.14	2.85
N students	35,635	23,825	59,460
% of all students	60%	40%	100%

Among all students who graduated from Wisconsin high schools in 2016, Table A1 compares the characteristics of students included in the analytic sample to those who are not included. About 60% of the 59,460 high school graduates from 2016 are present in DCF's—and therefore our—database. Students in our analytic sample are somewhat more likely than other students to have attended schools in urban districts rather than suburban districts, are slightly more likely to be female, and are about twice as likely to identify as Black or Latinx and to have ever been an English Language Learner. Students in our sample are about 3.7 times more likely to have either sometimes or always received free- or reduced-price lunch (FRL), our indicator of economic disadvantage. Previous research has found that more frequent receipt indicates a higher degree of

economic disadvantage (Michelmore & Dynarski, 2017). Note, however, that the overlap between DCF and subsidized lunch receipt is still imperfect: about a third of students in DCF never received FRL, and nearly 20% of students excluded from DCF have received it. As we would predict by these students' higher levels of economic disadvantage, students in DCF have somewhat lower ACT scores and cumulative GPAs than do students excluded from the DCF data.

***Table A2*. Applications to UW Campuses**

UW Institution	Unweighted Frequency	Weighted Frequency	Percent
UW Colleges Online	45	55	0%
UW-Baraboo	181	254	1%
UW-Barron County	147	204	1%
UW-Eau Claire	1,685	3,288	7%
UW-Fond du Lac	186	282	1%
UW-Fox Valley	425	725	2%
UW-Green Bay	1,094	1,852	5%
UW-La Crosse*	1,829	3,840	8%
UW-Madison*	2,468	5,868	10%
UW-Manitowoc	115	171	0%
UW-Marathon County	248	387	1%
UW-Marinette	62	88	0%
UW-Marshfield	112	174	0%
UW-Milwaukee*	3,611	6,166	15%
UW-Oshkosh*	2,253	3,921	10%
UW-Parkside	920	1,368	4%
UW-Platteville	1,137	2,123	5%
UW-Richland	107	153	0%
UW-River Falls	678	1,159	3%
UW-Rock	291	421	1%
UW-Sheboygan	193	292	1%
UW-Stevens Point	1518	2,637	6%
UW-Stout	946	1,648	4%
UW-Superior	249	373	1%
UW-Washington	174	284	1%
UW-Waukesha	637	1,073	3%
UW-Whitewater*	2,323	4,102	10%
Total	23,634	42,909	100%

Notes: * Top five UW institutions applied to by 2016 cohort.

***Table A3*. Linear Probability Models of Applying to Any UW System School**

	(1) School FE	(2) School FE + Weights
Female	0.037***	0.035***
	(0.006)	(0.007)
Black	0.137***	0.133***
	(0.013)	(0.014)
Hispanic	0.004	0.012
	(0.010)	(0.012)
Other/multiple race	0.076***	0.064***
	(0.013)	(0.014)
Persistent FRL	-0.033***	-0.031***
	(0.008)	(0.008)
Sometimes FRL	-0.024***	-0.025***
	(0.006)	(0.006)
Ever ELL	0.055***	0.052***
	(0.011)	(0.014)
ACT Composite	0.095***	0.105***
	(0.004)	(0.005)
ACT Composite^2	-0.002***	-0.002***
	(0.000)	(0.000)
Average GPA	0.033*	0.078***
	(0.019)	(0.023)
Average GPA^2	0.030***	0.020***
	(0.004)	(0.005)
Constant	-1.076***	-1.229***
	(0.046)	(0.050)
Observations	31,657	31,657
R-squared	0.261	0.254
School FE	Yes	Yes
Weights	No	Yes

Standard errors are in parenthesis
*** p<0.01, ** p<0.05, * p<0.1

***Table A4*. Linear Probability Models of Applying to UW–Madison, Other UW Four-Year, and UW Two-Year Colleges with Fixed Effects**

	(1) UW-Madison	(2) Four-Year	(3) Two-Year
Female	-.007	.015**	.017***
	(.006)	(.007)	(.006)
Black	.076***	.041***	-.053***
	(.013)	(.013)	(.019)
Hispanic	.055***	-.029**	-.01
	(.014)	(.013)	(.013)
Other/multiple race	.096***	-.019	-.033***
	(.016)	(.014)	(.013)
Persistent FRL	-.024**	-.007	.016
	(.011)	(.012)	(.012)
Sometimes FRL	-.019***	0.000	.023***
	(.007)	(.007)	(.007)
Ever ELL	.05***	-.001	.010
	(.016)	(.014)	(.013)
ACT Composite	-.079***	.141***	-.06***
	(.006)	(.008)	(.007)
ACT Composite2	.002***	-.003***	.001***
	(.000)	(.000)	(.0000)
Average GPA	-.277***	.284***	-.079
	(.043)	(.06)	(.049)
Average GPA2	.072***	-.046***	-.011
	(.008)	(.01)	(.008)
Constant	.855***	-1.023***	1.324***
	(.08)	(.118)	(.098)
Observations	12,909	12,909	12,909
R-squared	.321	.185	.291
School FE	Yes	Yes	Yes
Weights	No	No	No

Standard errors are in parenthesis
*** p<0.01, ** p<0.05, * p<0.1

***Table A5*. Linear Probability Models of Applying to UW–Madison, Other UW Four-Year, and UW Two-Year Colleges with Fixed Effects and Weights**

	(1) UW-Madison	(2) Four-Year	(3) Two-Year
Female	-.011	.019**	.013*
	(.008)	(.008)	(.007)
Black	.093***	.039***	-.064***
	(.017)	(.015)	(.018)
Hispanic	.061***	-.037**	-.014
	(.016)	(.015)	(.012)
Other/multiple race	.102***	-.033**	-.027**
	(.018)	(.015)	(.013)
Persistent FRL	-.022*	-.007	.014
	(.012)	(.012)	(.012)
Sometimes FRL	-.018**	-.003	.023***
	(.007)	(.007)	(.007)
Ever ELL	.059***	.006	.001
	(.019)	(.014)	(.012)
ACT Composite	-.075***	.154***	-.065***
	(.007)	(.009)	(.007)
ACT Composite2	.002***	-.004***	.001***
	(0)	(0)	(0)
Average GPA	-.365***	.392***	-.147***
	(.056)	(.075)	(.053)
Average GPA2	.089***	-.067***	.002
	(.01)	(.013)	(.009)
Constant	.897***	-1.294***	1.47***
	(.092)	(.13)	(.101)
Observations	12,909	12,909	12,909
R-squared	.364	.204	.277
School FE	Yes	Yes	Yes
Weights	Yes	Yes	Yes

Standard errors are in parenthesis
*** p<0.01, ** p<0.05, * p<0.1

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