

IncluCivics Report:

Metro Nashville Public Schools

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IncluCivics: Metro Nashville Public Schools

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Background

In January of 2015, the Metro Human Relations Commission (MHRC) released the first *IncluCivics Report* examining the diversity and equity of 50 Metro Nashville departments. With payroll data provided by Metro Human Resources, the MHRC began a thorough look at the diversity among Metro employees. There were two goals: First, to provide a snapshot of diversity in Metro government. Second, to begin to address the issues that were identified in the analysis. A list of recommendations was included in the report, outlining a number of strategies for beginning to address the underrepresentation of certain groups within Metro –including the creation of a Diversity Advisory Committee.

An update to the report was released in May 2015, using more recent data and addressing the request from the community for a more robust gender analysis. It also came with the announcement that employee data would be updated on Nashville’s Open Data Portal every quarter. Moreover, with the help of Code for Nashville, MHRC launched an online IncluCivics Platform (www.IncluCivics.com) to encourage transparency, accountability, and constituent engagement. This effort received local and national attention, affirming the need to continually examine our workforce and ensure that it is truly representative of Davidson County residents.

IncluCivics: Metro Nashville Public Schools

This IncluCivics study follows in this tradition of inclusion and transparency, analyzing one of the largest public institutions in Davidson County – Metro Nashville Public Schools (MNPS). As one of the largest employers in Metro Nashville, with almost 11,000 employees, MNPS is a crucial part of the city’s workforce. Moreover, it is likely the sector that is the most sensitive to the rapid demographic shifts that have taken place in Nashville and the South over the past several decades. Indeed, it is in school hallways where the changes in the racial, ethnic, religious, and linguistic composition of the city are likely the most apparent.

MNPS students are incredibly diverse, with 30% of all students coming from households in which English is not the primary language and with more than 140 different languages spoken in their households (Garrison 2014). Additionally, students of color now outnumber white students in our public schools, with blacks alone comprising 40% of the student body. The most rapid change, however, has occurred among Latinos –a population that was virtually absent from Nashville schools just 20 years ago – who now account for more than 20% of MNPS students (Garrison 2014). Despite these figures, the recruitment and retention of teachers of

diverse backgrounds have not kept pace, with journalists documenting MNPS's struggle to find and keep teachers of color.

Recent reports suggest that if the faculty and staff in schools do not reflect the diversity of their students, there can be negative consequences for school success and inequity in access to important academic pathways, especially among minority students. This is evident in our own city where despite a minority-majority student body, most MNPS students in gifted services programs are white and outnumber black, Latino, and Asian students by a ratio of 3-to-1 (Gonzales 2016b). Often times, students are placed in these programs based on a teacher's observation and recommendation.

These findings are not exclusive to Nashville. In fact, a recent Vanderbilt University report examining data for 10,000 elementary schools across the U.S. found that black students were 66% less likely to be placed in gifted programs than their white counterparts. Moreover, the report found that it was easier for white teachers to identify gifted and talented skills among white students than among students of color. The racial gap diminished almost entirely when black students had a black teacher (Gonzales 2016a). Another national study found that non-black teachers were about 30% less likely than black teachers to expect a black student –and especially a black male student –to complete a four-year college degree (Gershenson et al 2015).

These examples support the case for recruiting and retaining a more diverse body of educators. While the authors of the Vanderbilt study dismiss teacher bias as the entire source of inequity, they do suggest that student interactions may differ with teachers of different racial backgrounds than their own. Education scholars have long pointed to the evidence showing that students of all racial and economic backgrounds benefit from a diverse teacher workforce, with minority students making positive gains in standardized test scores, attendance, retention, and increased college attendance (for a review, see Villegas and Davis 2008). Irvine (1989:62) describes the various ways in which minority teachers are not simply role models, but “culturally responsive instructors.” The presence of teachers of color has a positive impact even if a student is not assigned to their class. In fact, school districts for which the racial/ethnic distribution of teachers more closely reflects that of its students see higher graduation rates for students of color (Pitts 2007).

Recent stories of youth violence and homicide have placed a spotlight on the needs of our youngest constituents. The schools are one avenue for reaching young people, particularly students of color who are more likely than their white peers to attend high poverty schools. In Nashville, this trend is exacerbated for Hispanic students –we are among the 20 U.S. cities where the greatest percentages of Latino children attend high-poverty schools (Haggard 2016). Additionally, black students are more likely to be the recipients of harsh disciplinary measures. While the number of suspensions in Metro schools has decreased recently, the gap between whites and blacks remains. Black students account for 71% of school suspensions and expulsions, yet make up only 44% of all students (Smith 2016).

We present this report as a both a guide to continue to have these conversations and as tool for the ongoing work to address these issues.

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Data Snapshot

Racial/Ethnic Diversity

- Hispanic/Latinos and Asian or Pacific Islanders are underrepresented among MNPS employees. While they make up 10.2% and 3.6% of the Nashville population, respectively, Latinos and APIs only account for 1.9% and 0.8% of employees at MNPS.
- Black MNPS employees are overrepresented in Food Service, Transportation, and Teacher's Aides/Assistants, while Hispanics are overrepresented in Security.
- Whites are the overwhelming majority of teachers at all levels, with the exception of adult high schools – where black teachers are the majority.
- Hispanic employees are overrepresented in positions that bridge community and school, particularly as translators and school-to-family liaisons.
- Blacks make up a substantial share of personnel that monitor student and employee behavior – including 90% of truancy intervention and 75% of monitors.
- As it pertains to salary, blacks and Hispanics are overrepresented in the lowest income brackets, though the distribution is much more equitable for whites and blacks at higher income levels. Additionally, while Asian/Pacific Islanders are more equitably distributed in middle and low-income brackets, they are absent from high-earning income brackets.
- Blacks, Hispanics, and Asians have significantly lower incomes than their white peers, even after controlling for gender, age, full-time status, length of employment, and employment sector.

Gender Diversity

- Over three-quarters (78.5%) of MNPS employees are women.
- On average, women make significantly less than men per year even when controlling for race, age, whether one is a full-time employee, employment sector, and length of employment.
- Within MNPS, the vast majority of sectors are segregated by gender, with the most female-dominated sectors being Library Services, Food Services, and Teachers' Aides/Assistants. The most male-dominated sectors are Grounds and Maintenance, Information Technology, and Security.
- While there is some gender parity in specific jobs within MNPS (namely, High School Teachers, Architects, Family Liaisons, and Program Directors), most remain gendered in predictable ways. Women account for most of the personnel in early education, administrative, and other support roles. Men make up most of the jobs considered blue-collar or technology-focused.

- Despite only accounting for 21.5% of MNPS employees, men make up approximately 40% of top earners (bringing home more than \$80,000 a year). In contrast, women (who are 78.5% of MNPS employees) account for at least 87% of those making less than \$20,000 a year.
- The most noticeable difference in salary between men and women occurs at the lower and upper ends of the income distribution. There are larger shares of women within lower income brackets and larger shares of men within higher income brackets.
- As it pertains to race, white, Hispanic, and Asian/Pacific Islander men make more than their female counterparts. Among blacks, however, women out-earn men.

Teacher and Student Diversity (Compared)

- Whites are overrepresented among teachers, comprising 73.9% of teachers but 63.7% of all MNPS employees. Meanwhile, blacks are underrepresented as 23.5% of teachers, but 33.4% of MNPS employees. Hispanics account for 1.4% of teachers and 1.9% of MNPS employees. Asians are 0.3% of all MNPS teachers and 0.2% of MNPS employees.
- Whites comprise more than three-quarters of the teachers in the earliest education levels (pre-k, kindergarten, and elementary school), but are just a third of teachers in Other (non-traditional) schools.
- Blacks account for nearly a third (31.6%) of all middle school teachers and over half (58.3%) of teachers in non-traditional schools.
- Hispanics (underrepresented overall) are most greatly represented at the high school level, where they account for 2.6% of teachers.
- Asians make up less than 1% of teachers at all school levels, with the exception of non-traditional schools where they represent 4.2% of all teachers.
- Male teachers of every racial/ethnic group are virtually absent from early education (pre-k and kindergarten), special education, and non-traditional schools. The share of male teachers in middle and high schools is greater than that of females, regardless of race or ethnicity (e.g. 39.4% of black male teachers are located in high schools, compared to 14.8% of black female teachers).
- The racial/ethnic distribution of teachers is disproportional to the racial/ethnic backgrounds of MNPS students – whites make up 73.5% of teachers, but just 31.8% of students. Blacks are 42.2% of students, but only 23.5% of teachers. Hispanics account for 21.5% of students, yet are less than 2% of teachers. Asians comprise 4.7% of students but less than 1% of teachers.
- For every 1 teacher of the same racial/ethnic background, there are: 6.4 white students, 26.9 black students, 222.8 Hispanic students, and 78.5 Asian students.

Data and Methods

MNPS Employee Data

The primary source of data for this report comes from the Human Capital division of MNPS. The data provide the following information for each person employed by MNPS: gender, race, ethnicity, pay grade, annual salary, job title, full time or part time status, age (calculated by year of birth), certification status, job tenure (calculated by year started), and school or department at which the individual is employed. We obtained this data in December 2015.

MNPS Student Data

The second source of data provides demographic information on the students enrolled in Metro Nashville Public Schools. Most of the data were provided to us by the Office of Information Management and Decision Support in MNPS. We obtained this data in January 2016.

Census Data

In addition to the data above, we use supplemental data drawn from US Census estimates of the Nashville-Davidson Metropolitan Statistical Area (MSA). These data were collected from the Integrated Public Use Microdata Series-USA (IPUMS-USA). The IPUMS-USA data are based on US Census estimates (the American Community Surveys).

Measures

Because this report is concerned with diversity, we focus on race, ethnicity, gender, salary, and department of employees. Below we explain how each of these variables is constructed for analytical purposes.

Race/Ethnicity. We combined two variables, race and ethnicity, together into five dichotomous variables: Non-Hispanic white¹, Black or African American (not of Hispanic descent), Hispanic/Latino, Asian or Pacific Islander (API), and Other Race/Ethnicity (not of Hispanic descent). The “Other” category includes Native Americans, Mixed Race/Ethnicity (two or more), and “Unknown/Not Answered.”²

Gender. Gender indicates whether the employee identifies as a male or female, rather than the biological sex of the employee.

Tenure. Tenure is a measure of the length of employment (in years) for each employee. Note that this should not be confused with whether the teacher has tenure as defined by state law.

Salary. Annual salary is measured in two ways. First, for more descriptive statistics, annual salary is divided into the following income brackets: (1) Less than \$10,000; (2) \$10,000-19,999; (3) \$20,000-29,999; (4) \$30,000-39,999; (5) \$40,000-49,999; (6) \$50,000-59,999; (7) \$60,000-69,999; (8) \$70,000-79,999; (9) \$80,000-89,999; (10) \$90,000-99,999; (11)

¹ The “white” racial category includes people with origins in Europe, the Middle East, or North Africa

² Throughout the text, black and African American are used interchangeably, as are Hispanic and Latino.

\$100,000+ per year. Second, we use a continuous measure of salary that is log-transformed when we later predict variations in annual salary.

Home Unit. Each employee is assigned a “Home Business Unit,” that is, the place where she or he primarily works. For most employees (e.g., teachers, principals, and certain staff), this is a specific school. For other employees, this is a department at MNPS (e.g., accounting or transportation).

Racial makeup of students. We used aggregated data from enrollment counts in Nashville public schools to examine the diversity in student bodies. Each school has a measure of the percentage of students who are (1) White, (2) Black or African American, (3) Hispanic/Latino, and (4) Asian or Native Hawaiian/Pacific Islander. Note that unlike MNPS employees, we do not include an “Other” category. Students of other racial categories (e.g. Native American) accounted for less than 0.1% of the student population.

Analysis

Our report uses the data described above to present descriptive statistics about the gender and racial diversity of MNPS employees. We occasionally supplement these data with 2015 Census estimates on the Nashville-Davidson MSA for comparison purposes.

We begin our analysis with a focus on racial and ethnic diversity among all MNPS employees, followed by a look at gender diversity in the second section. The third section more closely examines diversity among MNPS teachers, specifically, and how this matches the racial and ethnic composition of students enrolled in MNPS. We conclude by discussing the implications of our findings and the opportunities they present.

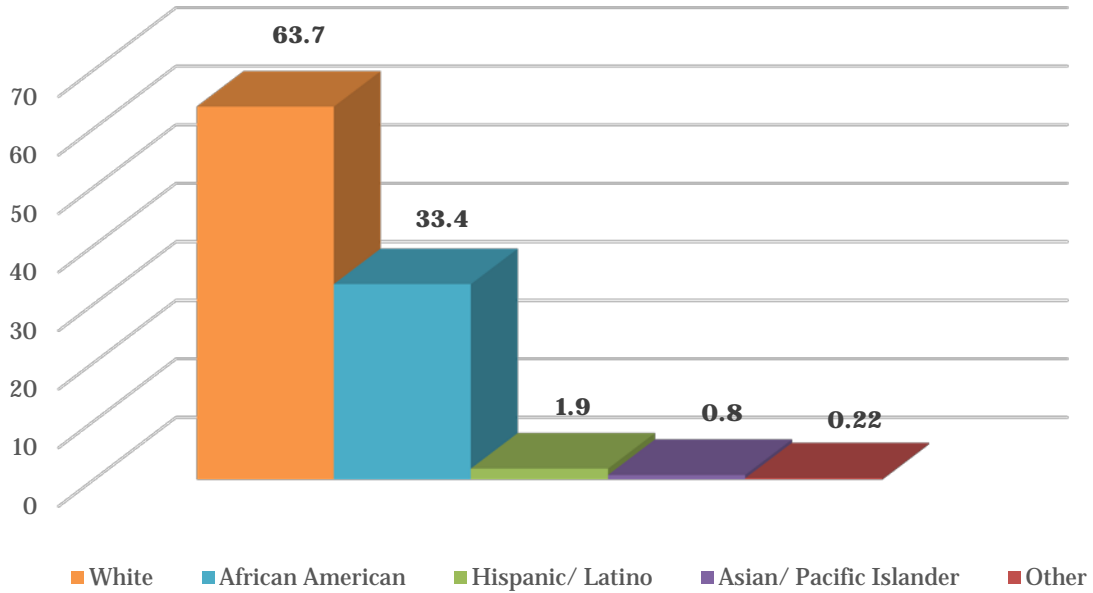
For the purposes of this analysis, we do not include charter school student or employee data, as their individual staffs are not employed by MNPS.

This report was written by Mel Fowler-Green and Samantha Perez, both of the Metro Human Relations Commission, with the help of data analysts Anna Jacobs and Brittany Hearne. We give special thanks to Jeff Gibson, Oscar Miller, and Gini Pupo-Walker for their invaluable input. This report was prepared with funding from the Metro Human Relations Commission Support Fund of The Community Foundation of Middle Tennessee

Racial and Ethnic Diversity

Figure 1 below shows the racial and ethnic diversity of MNPS employees. Non-Hispanic whites make up 63.7% of all MNPS employees, while African Americans make up 33.4% of employees. Less than 2 % of MNPS employees are Hispanic/Latino, less than 1% of all employees are Asian/Pacific Islander, and less than 0.5% list their race as “Other”.

Figure 1: Racial/Ethnic Makeup of MNPS Employees



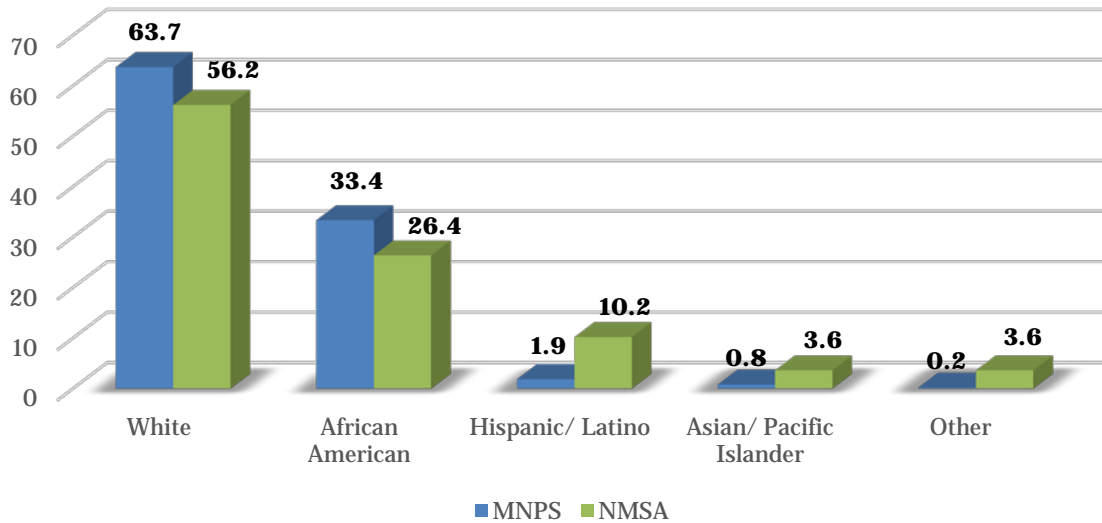
How does this reflect the racial diversity in Nashville? Table 1 compares the makeup of the MNPS workforce with that of the working age (18-55 years old) population in the Nashville-Davidson Metropolitan Statistical Area (MSA).

Table 1: Racial/Ethnic Makeup of MNPS Employees and Nashville-Davidson MSA, 2015

Race/Ethnicity	MNPS	NMSA
% White	63.7	56.2
% African American	33.4	26.4
% Hispanic/ Latino	1.9	10.2
% Asian or Pacific Islander	0.8	3.6
%Other	0.2	3.6

According to census estimates, 56.2% of Nashville-Davidson residents identify as non-Hispanic white, and 26.4% of residents identify as non-Hispanic black, which means that both groups are overrepresented among MNPS employees. Conversely, 10.2% of Nashville residents identify as Hispanic or Latino, 3.6% identify as Asian or Pacific Islander, and 3.6% identify as an “other” race or ethnicity. These three groups are extremely underrepresented among MNPS employees. Figure 2 graphically represents this data below.

Figure 2: Racial/Ethnic Makeup of MNPS Employees and Nashville-Davidson MSA, 2015



We next break down the racial and ethnic composition by sector³ (Figure 3) and job (Figure 4), to see if the racial makeup of employees varies by the type of work done.

³ See Appendix 1 for a detailed list of jobs under each sector.

Figure 3: Racial/Ethnic Makeup of MNPS Employees by Sector

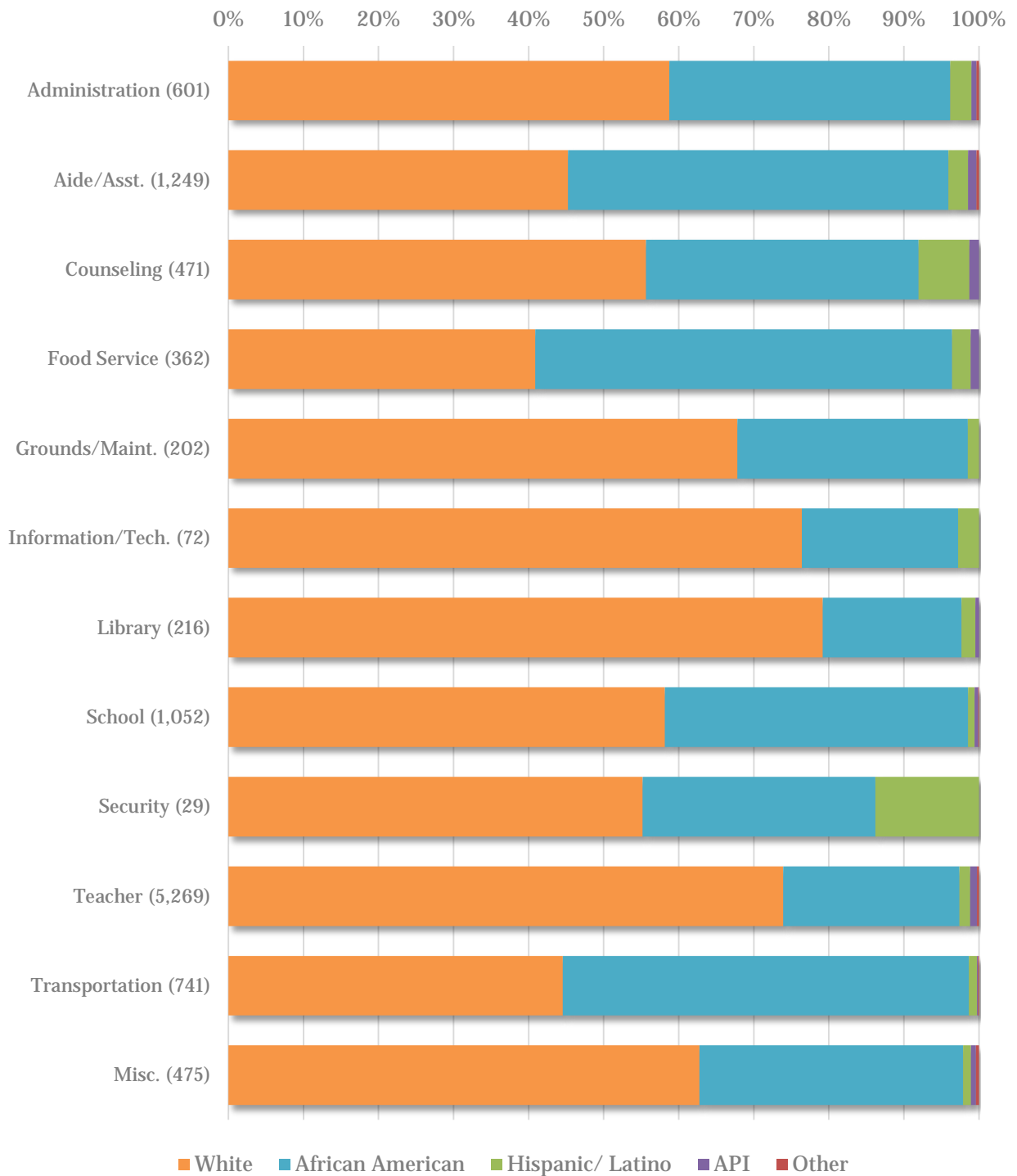
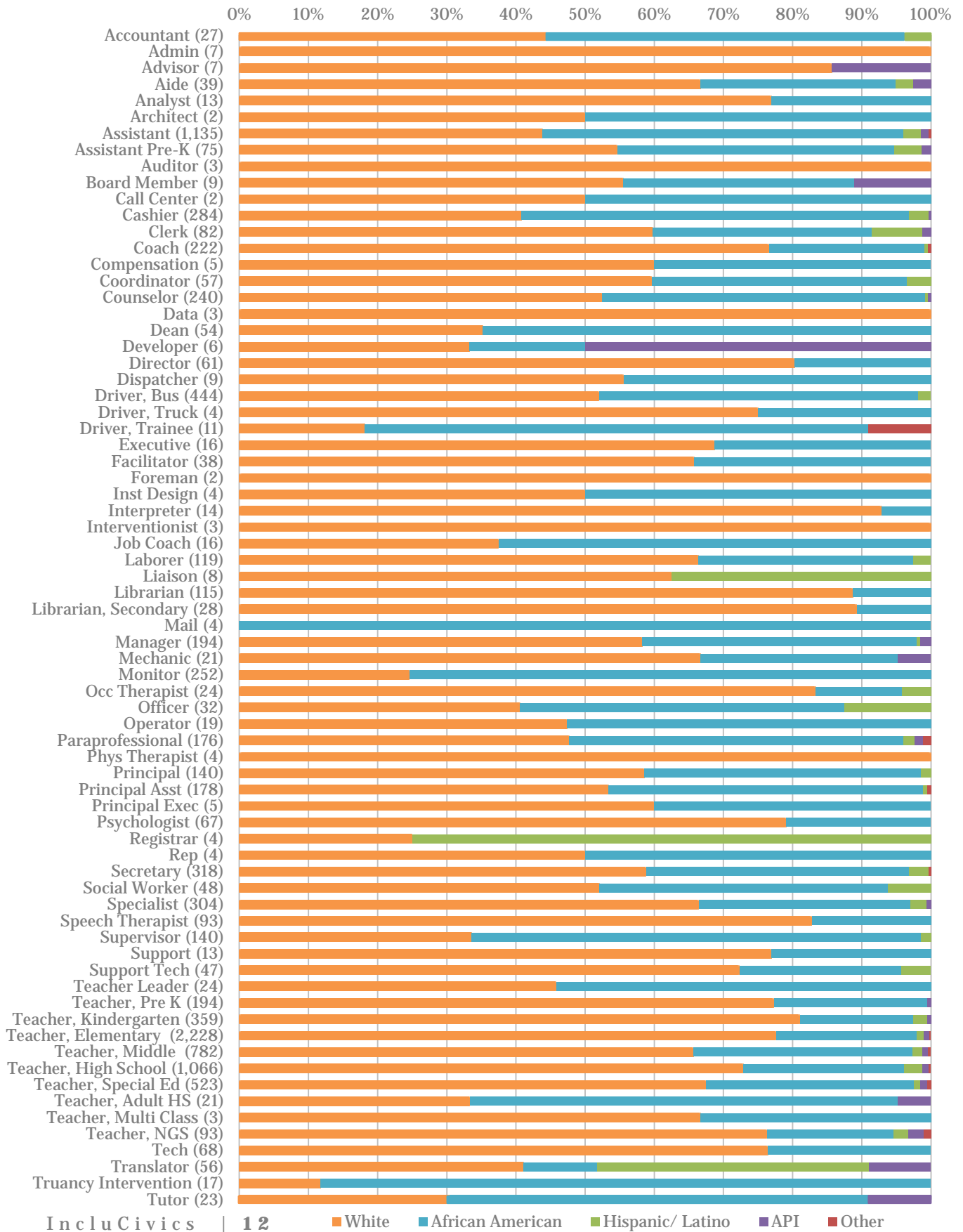


Figure 4: Racial/Ethnic Makeup of MNPS Employees by Job



Recall that, in MNPS, whites make up 63.7 %, blacks make up 33.4%, and Hispanics make up 1.9% of employees. In Figure 3, we see that whites are most over-represented in the following three sectors: Library (79.2%), IT (76.4%), and Teachers (73.9%). Whites are underrepresented in Food Service (40.9%), Transportation (44.5%), and Teacher’s Aides/Assistants (45.2%) – three sectors that are the most greatly overrepresented by black employees (55.5%, 54.1%, and 50.7%, respectively). Hispanics’ most notable sector is Security (13.8%), though they are also overrepresented in Counseling (6.8%), relative to their representation among MNPS employees.

Figure 4 above breaks down the racial and ethnic diversity by jobs. A few trends stand out. First, teachers are overwhelmingly white, accounting for nearly three-quarters of all teachers in every level of education. The one exception is in adult high schools, where African American teachers are the majority (61.9%). For all other education levels, blacks account for 23%, Hispanic/Latinos account for 1.9%, and Asians make up less than 1% of MNPS teachers. Second, despite being underrepresented in most other jobs, Hispanic employees are present as translators (39.3%) and school-to-family liaisons (37.5%) –jobs that serve to bridge community and school. They additionally account for 75.0% of registrars. Third, African Americans appear to be highly represented in positions that monitor student and employee behavior. They make up close to 90% of truancy intervention personnel, 65% of supervisors, and 75% of monitors.

We next turn to the differences in pay by race and ethnicity. Table 2 below breaks down each income bracket for all MNPS employees by race and ethnicity, as of December 2015.

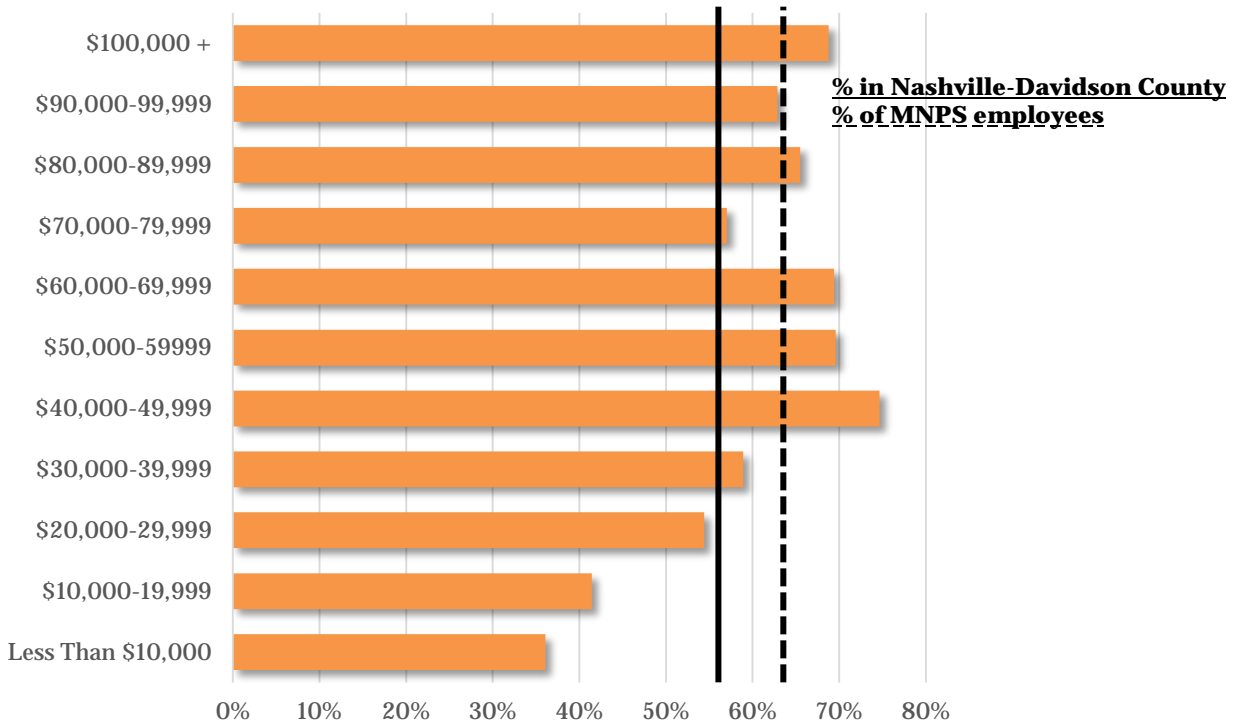
Table 2: Racial / Ethnic Breakdown of Each Income Bracket, MNPS Employees 2015

	% White	% Black	% Hispanic	% API	% Other
\$100,000 +	68.79	30.57	0.64	0.00	0.00
\$90,000-99,999	62.86	35.24	1.90	0.00	0.00
\$80,000-89,999	65.48	34.52	0.00	0.00	0.00
\$70,000-79,999	57.03	39.92	1.14	1.52	0.38
\$60,000-69,999	69.41	29.55	0.70	0.23	0.12
\$50,000-59,999	69.60	28.50	1.37	0.37	0.16
\$40,000-49,999	74.64	22.42	1.61	1.03	0.30
\$30,000-39,999	58.91	37.90	2.63	0.38	0.19
\$20,000-29,999	54.41	42.44	2.38	0.70	0.07
\$10,000-19,999	41.44	53.42	3.42	1.33	0.38
Less Than \$10,000	36.08	61.39	1.90	0.63	0.00

Although whites make up over 63% of MNPS employees, they are underrepresented in the four lowest income brackets, while African American employees (who make up one-third of MNPS employees) are overrepresented in these same four brackets. Hispanic/Latino employees, who make up less than two% of the MNPS workforce, are also overrepresented in the lower income brackets. However, in the three highest income brackets, it appears that whites and African Americans are more equitably represented, though Hispanics and Asians are largely absent from these high-earning groups.

Figure 5: Percent of Racial/Ethnic Group in Each Pay Bracket

Panel A: % of White MNPS Employees in Each Pay Bracket



Panel B: % of Black MNPS Employees in Each Pay Bracket

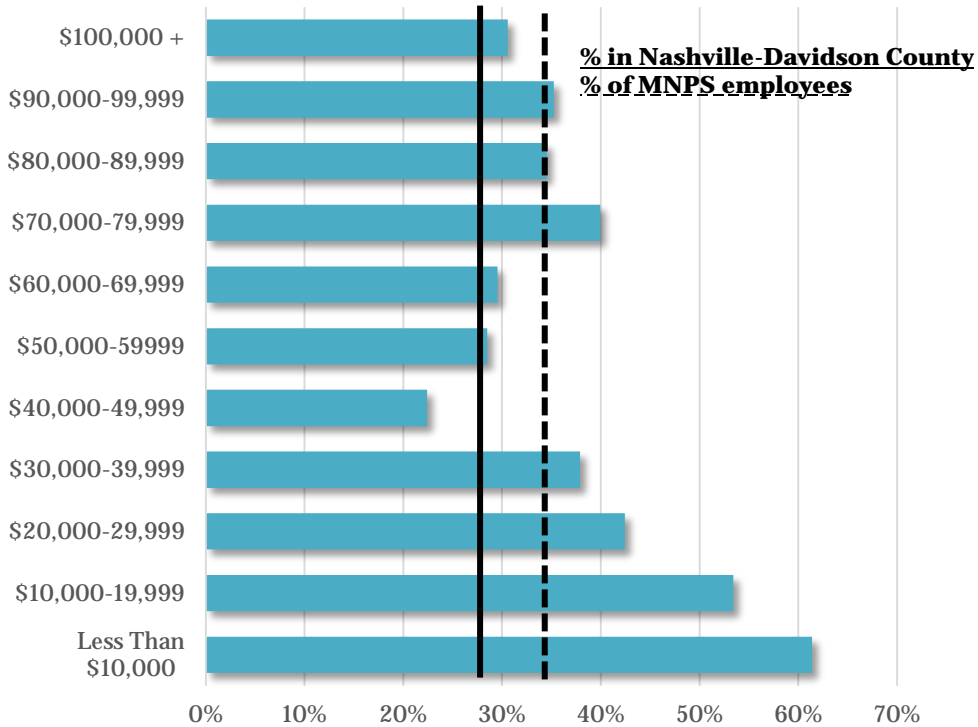
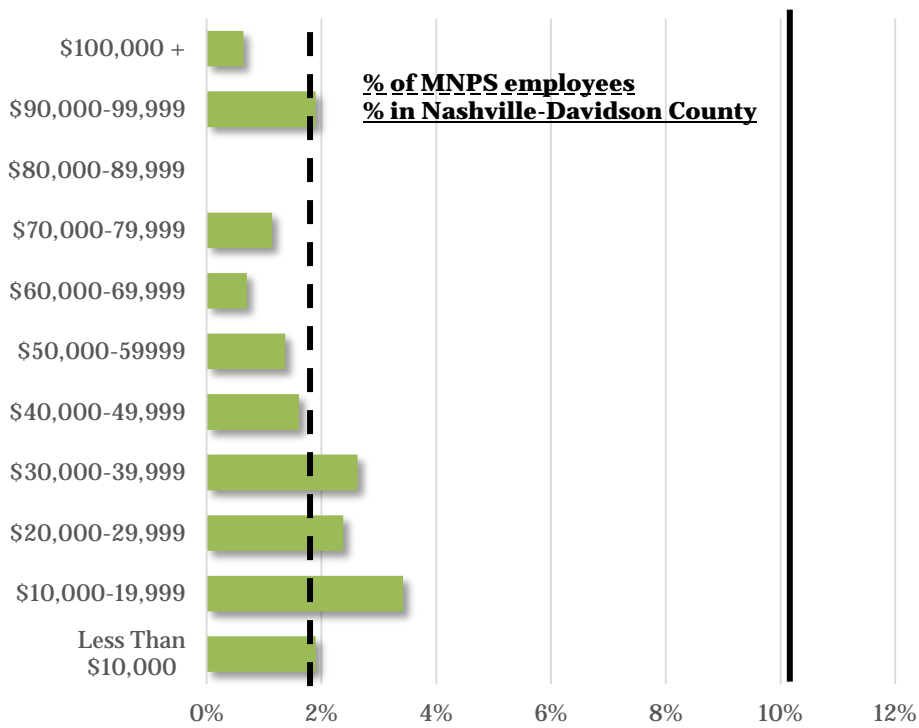
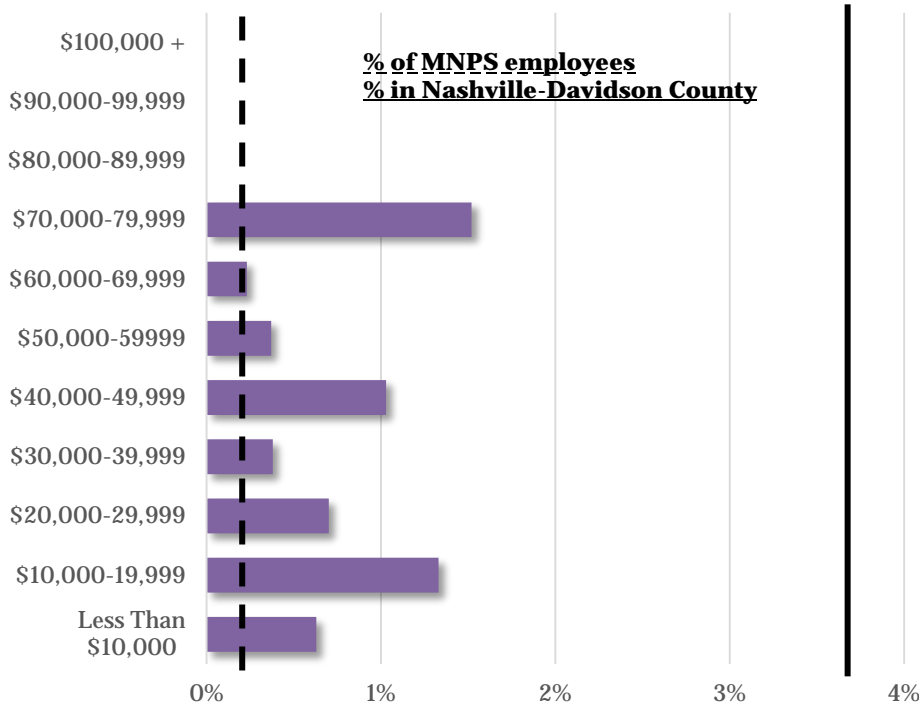


Figure 5, Continued: Percentage of Each Pay Bracket Made up by Each Racial/Ethnic Group

Panel C: % of Hispanic/Latino MNPS Employees in Each Pay Bracket



Panel D: % of Asian/Pacific Islander MNPS Employees in Each Pay Bracket



The four panels in Figure 5 illustrate the findings in Table 2 for the following racial/ethnic groups: White, African American, Hispanic/Latino, and Asian/Pacific Islander. We also include racial/ethnic statistics from the Nashville-Davidson MSA for comparison purposes. In each panel, the solid line represents the overall percentage of residents in the Nashville-Davidson area for that race or ethnicity, and the dashed line represents the overall percentage of MNPS employees for that race or ethnicity. Panel A reminds us that non-Hispanic whites comprise 56.2% of the Nashville-Davidson MSA and 63.7% of MNPS employees, as displayed by the solid and dashed lines, respectively. The orange bars that pass the solid line show where white MNPS employees are overrepresented relative to the larger Nashville population and the orange bars that do not meet the line show where they are underrepresented. Likewise, the orange bars that surpass the dashed line show where whites are overrepresented among MNPS employees, while those that fall short of the dashed line reveal where whites are underrepresented. Overall, Figure 5 suggests that white MNPS employees are slightly overrepresented in higher income brackets, but substantially overrepresented in middle-earning income brackets. Moreover, they are underrepresented among the lowest-paying jobs relative to their share of Nashville residents and among MNPS employees.

Similarly, the solid and dashed lines in Panel B show that African Americans account for 26.4% of the Nashville MSA and 33.4% of MNPS employees. The blue bars that pass the solid line show where African American MNPS employees are overrepresented, given their share of the Nashville population, while the blue bars that do not meet the solid line show where they are underrepresented among income brackets. The blue bars that pass the dashed line indicate where African Americans are overrepresented among MNPS employees; those falling below show where African Americans are underrepresented among MNPS employees. It appears that African American MNPS employees are overrepresented in both the highest- and lowest-earning income brackets (albeit, to a greater degree within low-wage jobs) when compared to their share of the Nashville population. Within MNPS, however, African Americans are overrepresented in the lowest-earning income brackets and one of the higher-earning brackets, but underrepresented in the highest-earning bracket and in the middle-earning income brackets.

Panel C shows that Hispanic/Latinos account for only 1.9% of MNPS employees and 10.2% of the Nashville MSA, indicated by the dashed and solid lines, respectively. Relative to their share of MNPS employees, Hispanic employees are underrepresented in middle-earning income brackets, while overrepresented in the low-income groups (with the exception of the lowest bracket). Additionally, Hispanics are underrepresented in all of the high-earning brackets, with the exception of the second-highest bracket in which they appear more equitably represented. Hispanic MNPS employees are so greatly underrepresented relative to their share within the greater Nashville population that the green bars do not meet the solid line in any income bracket.

Finally, Panel D shows that Asians and Pacific Islanders account for only 0.2% of Metro employees and 3.6% of the Nashville MSA. Unlike Hispanic/Latino employees, there is a more even distribution among API employees across income brackets, although none are represented in the three highest income brackets. However, they are overrepresented in both middle- and low-earning jobs. Like in Panel C, the purple bars do not meet the solid line in any income

bracket, indicating they are largely underrepresented, relative to their share in the greater Nashville population.

These race and income trends are not surprising given the racial disparities among some employment sectors. For example, recall that African Americans are overrepresented in the Food Service, Transportation, and Teacher’s Aides/Assistants sectors. These sectors are also the lowest paying (on average), as Table 3 shows below.

Table 3: Average Annual Salary by Sector

Sector	# Employed	Avg. Salary
School	1,052	\$57,477
Information/Tech.	72	\$57,441
Counseling	471	\$49,157
Teacher	5,269	\$48,770
Security	29	\$44,442
Administration	601	\$43,909
Library	216	\$40,629
Grounds/Maint.	202	\$40,141
Misc.	475	\$36,015
Transportation	741	\$24,991
Food Service	362	\$21,000
Aide/Asst.	1,249	\$19,138

Table 4 below presents the median salary, average (mean) salary, and job tenure⁴ in years for MNPS employees by race/ethnicity.

Table 4: Mean and Median Annual Salary and Tenure by Race/Ethnicity, 2015

	Mean Salary (\$)		Median Salary (\$)	Tenure (Years)
White	44,923.44		43,010.01	8.16
Black	38,447.09	***	42,082.10	8.22
Hispanic	35,340.45	***	37,331.84	4.15 *
API	36,632.96	***	42,082.10	3.69 *
Other	38,749.44		42,082.10	3.56 *

Note: Asterisks indicate significance: *p<0.05, **p<0.01, ***p<0.001

We conducted t-tests (a difference of means test), which help determine whether the differences in salaries between whites and all other groups are statistically significant, or whether they are due to sampling error or random chance. African American, Hispanic/Latino, and Asian/Pacific Islander workers make significantly lower annual salaries (on average) than non-Hispanic white workers. However, workers in the “Other” race category did not have average salaries that were statistically different than non-Hispanic white workers. Also note

⁴ Again, “job tenure” refers to the years that the individual has been employed by MNPS, **not** the presence of tenure as defined by state law.

that white and black employees have an average length of employment that is significantly longer (about double) than that of Hispanic/Latinos, Asian/Pacific Islanders, and employees of “other” races or ethnicities.

However, it is possible that the racial disparities in income are due to differences in factors other than race, such as gender, age, length of employment, and employment sector. In Table 5 below, we use multi-level mixed effects regression to conduct multivariate tests of income disparity. We used multi-level modeling (MLM) because of the clustering of individuals into different schools and departments. To decide if MLM was an appropriate model technique, we first calculated an intra-class correlation (ICC) statistic. This lets us know how much variation in salary is due to variation in schools/business-units. Our calculated ICC was 0.33, suggesting that 33% of salary variation is at the school/business-unit level. This means that we should account for the employees’ home business unit if we want to estimate the actual effect of race on income.⁵

Table 5: Multilevel Linear Regression: Salary and Race

	Coef.	(SE)
Race/Ethnicity (Ref=White)		
African American	-0.060***	(0.006)
Hispanic/Latino	-0.104***	(0.018)
Asian/Pac. Islander	-0.084**	(0.028)
Other	-0.063	(0.051)
Female (Ref=Male)	-0.018**	(0.007)
Age	0.022***	(0.001)
Age ²	-0.000***	(0.000)
Fulltime Emp.	0.667***	(0.012)
Tenure (in yrs)	0.015***	(0.000)
Industry (Ref=Teachers)		
Administrative	-0.448***	(0.012)
Aide/Asst.	-1.044***	(0.011)
Counseling	-0.112***	(0.013)
Food	-0.910***	(0.015)
Grounds	-0.534***	(0.043)
IT	-0.472***	(0.038)
Library	-0.287***	(0.017)
School	0.022*	(0.009)
Security	-0.392***	(0.100)
Transportation	-0.564***	(0.048)
Misc.	-0.846***	(0.010)
Intercept	9.637***	(0.035)

Notes: N=10,732. Asterisks indicate significance:
*p<0.05, **p<0.01, ***p<0.001

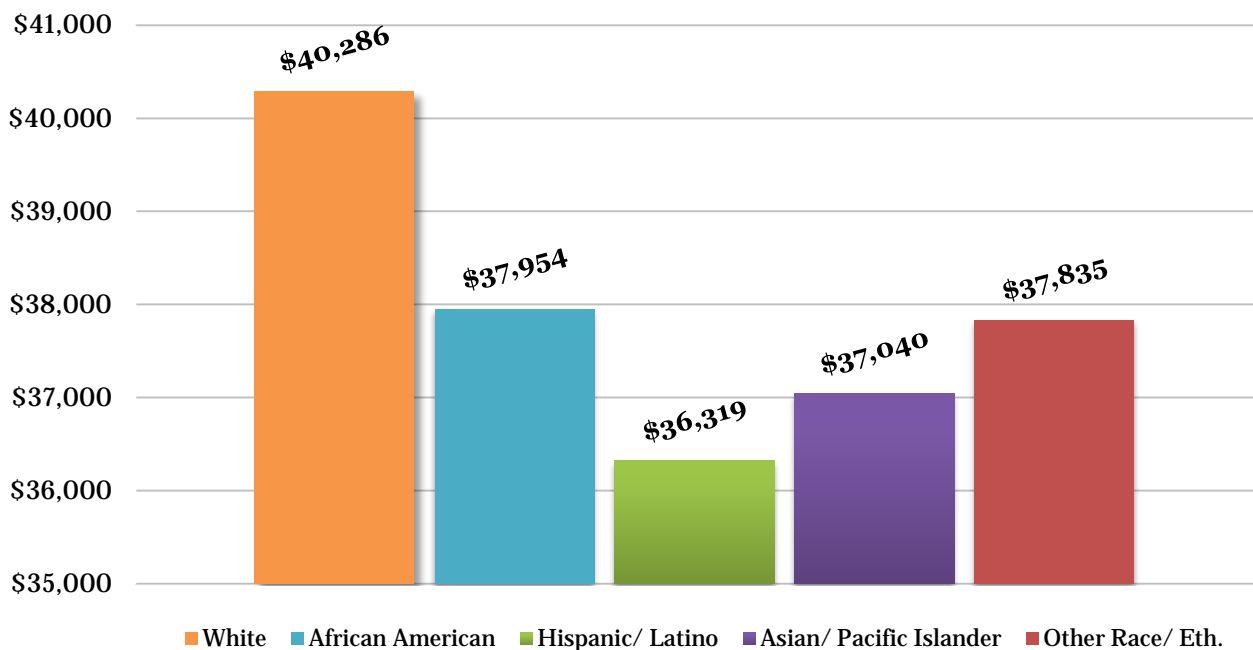
⁵ Though there is no standard rule of thumb for ICC statistics, some have suggested that an ICC of greater than or equal to 0.05 constitutes significant cross-unit variation, therefore, unit (such as school) should be accounted for in statistical modeling.

According to Table 5, African American, Hispanic/Latino, and Asian/Pacific Islander employees make significantly lower incomes than non-Hispanic white employees, even when controlling for age, gender, length of employment, full-time employee status, employment sector, and home business unit.

The coefficients in Table 5 represent the differences in logged income⁶ and can be difficult to interpret. To make these findings more understandable, we used the model displayed in Table 5 to estimate the predicted annual salary of each racial/ethnic group, while controlling for all covariates⁷. Figure 6 graphically displays these predicted values. Again, this is controlling for the differences in age, gender, length of employment, full-time status, employment sector, and home business unit. In other words, these values are the predicted salaries for white, African American, Hispanic/Latino, Asian/Pacific Islander, and “Other” race employees with the same age, gender, and full-time status and who are employed in the same sector and at the same school.

On average, white employees have a predicted yearly salary of \$40,286, which is higher than that of all other racial/ethnic groups. African Americans have a predicted salary of \$37,954, an amount comparable to that of employees identifying as “Other,” with a predicted salary of \$37,835. Asian/Pacific Islander employees have a predicted salary of \$37,040, and finally, Hispanic/Latino employees have the lowest predicted salary, at \$36,319, nearly \$4,000 less than their white counterparts.

Figure 6: Predicted Salaries by Race/Ethnic Group



⁶ This is done because income is not normally distributed: generally, few individuals make high incomes, and many individuals make lower incomes. Logarithmic transformation of the “salary” variable allows for us to use linear regression.

⁷ This was done using the < margins > command in Stata 14SE.

Gender Diversity

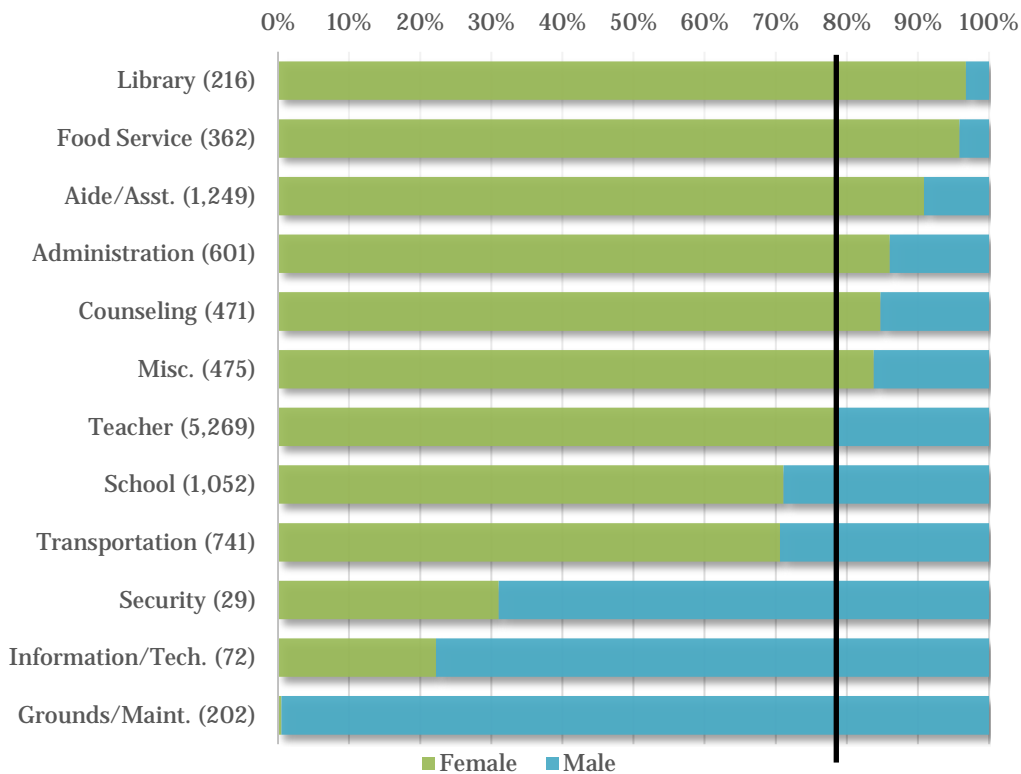
We next turn our attention to the gender diversity of MNPS employees. Table 6 shows that, similar to national trends,⁸ over three-quarters of MNPS employees are female.

Table 6: Gender Composition of Primary and Secondary School Employees, MNPS and National, 2015.

	MNPS Employees	United States
%Male	21.5	25.2
%Female	78.5	74.8

We break gender diversity up by employment sector in Figure 7 below. For reference, the black line in Figure 7 marks the overall average proportion of women employed by MNPS (78.5%).

Figure 7: Gender Diversity of MNPS Employees, by Employment Sector

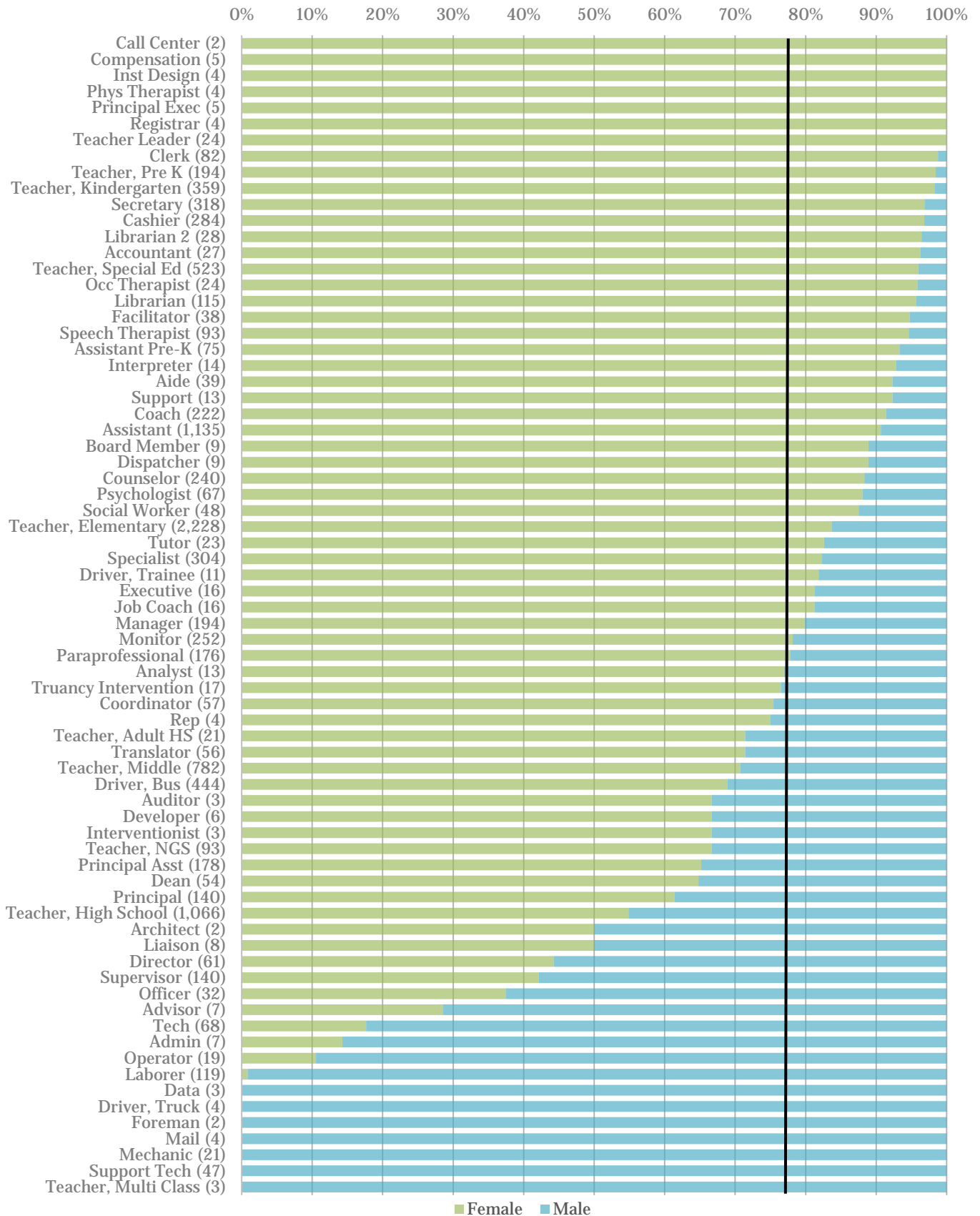


Note: The black line represents the proportion of women employed by MNPS (78.5%)

The sectors most dominated by women are Library Services (96.8% female), Food Services (95.9% female), and Teachers’ Aides/Assistants (90.9% female). Men are overrepresented in the Grounds and Maintenance (99.5% male), Information Technology (77.8% male), and Security (69.0% male) sectors. Note that all sectors are relatively segregated by gender: the sectors that come closest to gender parity are Schools, Security, and Transportation, which still have twice as many employees of a particular gender.

⁸ See Bureau of Labor Statistics. 2015. “Employed Persons by Detailed Industry, Sex, Race, and Hispanic or Latino Ethnicity.” Available at <http://www.bls.gov/cps/cpsaat18.htm>.

Figure 8: Gender Diversity of MNPS Employees b Job



Inclu C ivics Note 2 The black line represents the proportion of women employed by MNPS (78.5%)

Narrowing down our focus, Figure 8 above breaks down the gender diversity by specific job title. Again, the solid black line references the overall proportion of women employed by MNPS (78.5%). Notably, some jobs do approach gender parity. Specifically, High School Teachers, Architects, Family Liaisons, and Program Directors are all relatively balanced between men and women, with each of these positions at or close to 50% of each gender.

Despite this parity, most MNPS jobs remain largely gender segregated in predictable ways. Women are most greatly overrepresented as teachers at the early education level (i.e. elementary and pre-k), as well as in special education. Additionally, administrative and supportive roles are largely held by women. These include clerks, secretaries, librarians, occupational therapists, facilitators, speech therapists, interpreters, aides, support, counselors, psychologists, and social workers. In each of these roles, women make up more than 87.0 % of personnel. On the other hand, men are largely overrepresented in what are commonly seen as traditional blue-collar jobs. These includes mechanics, mail personnel, foreman, truck driver, and laborer. Men also account for 82% of tech jobs and 100 % of both data and support tech jobs.

We next turn to the differences in pay by gender. Table 7 breaks down each income bracket for all MNPS employees by gender as of December 2015.

Table 7: Gender Breakdown of MNPS Employees by Income Bracket, 2015

Salary	% Male	% Female
\$100,000 +	40.1	59.9
\$90,000-99,999	41.0	59.1
\$80,000-89,999	38.1	61.9
\$70,000-79,999	29.3	70.7
\$60,000-69,999	21.3	78.7
\$50,000-59,999	21.1	78.9
\$40,000-49,999	22.9	77.1
\$30,000-39,999	30.8	69.2
\$20,000-29,999	20.6	79.4
\$10,000-19,999	13.0	87.0
Less Than \$10,000	3.8	96.2

Although women make up over 78.5% of MNPS employees, they are overrepresented in the lowest three income brackets, and underrepresented in the highest income brackets. While men are only 21.5 % of MNPS employees, they account for approximately 40% of those whose salaries are in the top three income brackets. Additionally, men are underrepresented among the least-earning, most notably in the lowest income brackets. Among those who make less than \$10,000 a year, only 3.8% are male and among those making between \$10,000 and \$19,999, only 13% are male.

Table 8 below breaks down the income distribution for men and women separately. If the income distribution were equal for men and women, we would see similar percentages within each income bracket. Instead, note that over 16% of female employees make between \$10,000 and \$20,000 per year, while less than 9% of male employees make that much. Conversely, if we add together the percentages for the four highest income brackets, we see that over 9% of male employees make over \$70,000 per year, and less than 5% of female employees make that much. Figure 9 graphically presents these findings. We see higher percentages of women than men at the lower end of the distribution (lower-income brackets) and larger shares of men than women at the higher end of the distribution (higher-income brackets).

Table 8: Income Distribution of MNPS Employees by Gender, 2015

Salary	% Male	% Female
% \$100,000 +	2.7	1.1
% \$90,000-99,999	1.9	0.7
% \$80,000-89,999	1.4	0.6
% \$70,000-79,999	3.3	2.2
% \$60,000-69,999	8.0	8.1
% \$50,000-59,999	17.3	17.7
% \$40,000-49,999	36.5	33.6
% \$30,000-39,999	7.1	4.4
% \$20,000-29,999	12.7	13.5
% \$10,000-19,999	8.9	16.3
% Less Than \$10,000	0.3	1.8
% Total	100	100

Figure 9: Income Distribution of MNPS Employees by Gender, 2015

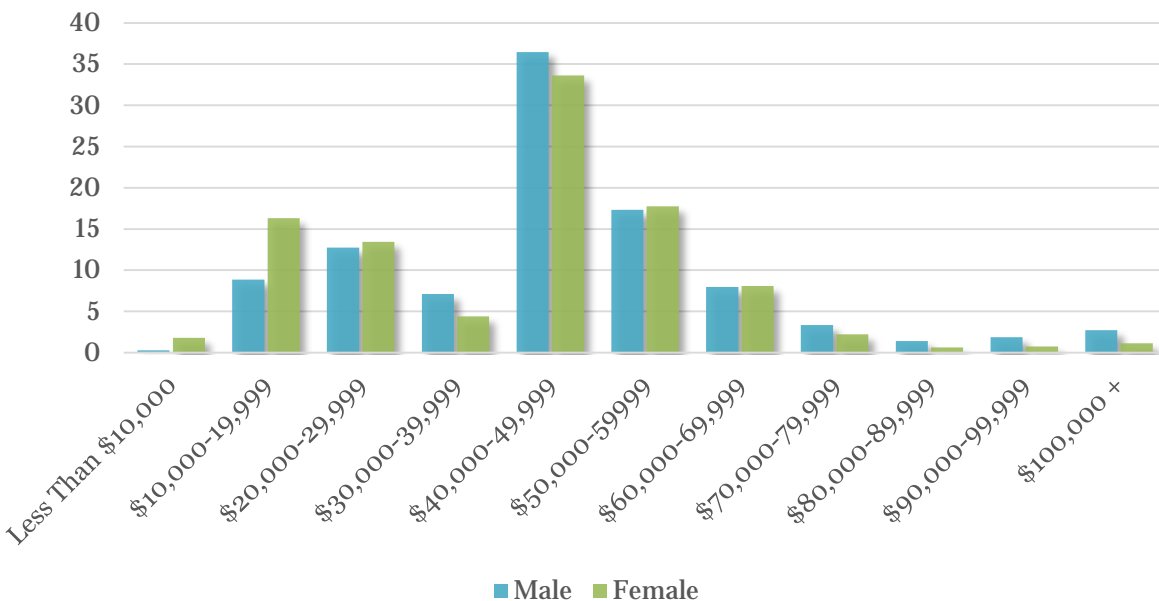


Table 9 below presents the median and average (mean) salaries for MNPS employees by gender. We conducted t-tests (a difference of means test), which help determine whether the differences in salaries between men and women are statistically significant, or whether they are due to sampling error or random chance. While median salaries for males and females are the same, we find that female employees make on average over \$5,000 less than men per year, a difference that is statistically significant ($p < 0.001$). This finding suggests that there may be more men in higher income brackets pulling up the mean or, conversely, more women in lower income brackets bringing down the average salary. Table 9 also shows average length of employment (in years) for men and women. Although women make less than men on average, they also have significantly longer job tenure ($p < 0.05$).

Table 9: Mean and Median Annual Salary and Tenure by Gender, 2015

	Median (\$)	Mean (\$)		Tenure (Years)
Female	43,010.01	41,407.70		8.16
Male	43,010.01	46,491.13	***	7.69*

Note: Asterisks indicate significance level: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

However, it is possible that the income disparities between men and women are due to differences in factors other than gender and length of employment (job tenure), such as race, age, whether one is a full-time employee, and employment sector. In Table 10 below, we use multi-level mixed effects regression to conduct multivariate tests of income disparity. Again, we used MLM because of the clustering of individuals into different schools and departments (see the above section on race). Model 1 in Table 10 shows that female employees have significantly lower salaries when compared to men, even controlling for race, age, full time status, and sector clustering.

We were also interested to see if the gender pay gap is consistent by racial/ethnic group. Model 2 in Table 10 below includes interaction effects which assess whether the relationship between gender and wages varies by race. These interactions are listed under “Female x Race/Ethnicity,” with one interaction for each non-white racial/ethnic group. The coefficient for Female (first line of the table) refers to white women and shows a negative significant effect, indicating that, on average, white women make less than white men. Additionally, we find a positive significant interaction for African American females, indicating that the disparity in salary between black men and black women is narrower than that between white men and white women. Moreover, that the coefficient for the “Female x African American” interaction is larger than that of the Female coefficient suggests that black women, in fact, make more than their male counterparts. The non-significant interactions for Asian/Pacific Islander, Hispanic/Latino, and “Other” do not mean that there is no disparity in salary between men and women; it only indicates that any disparity in pay for these three groups is not significantly different than the gender pay gap for white employees.

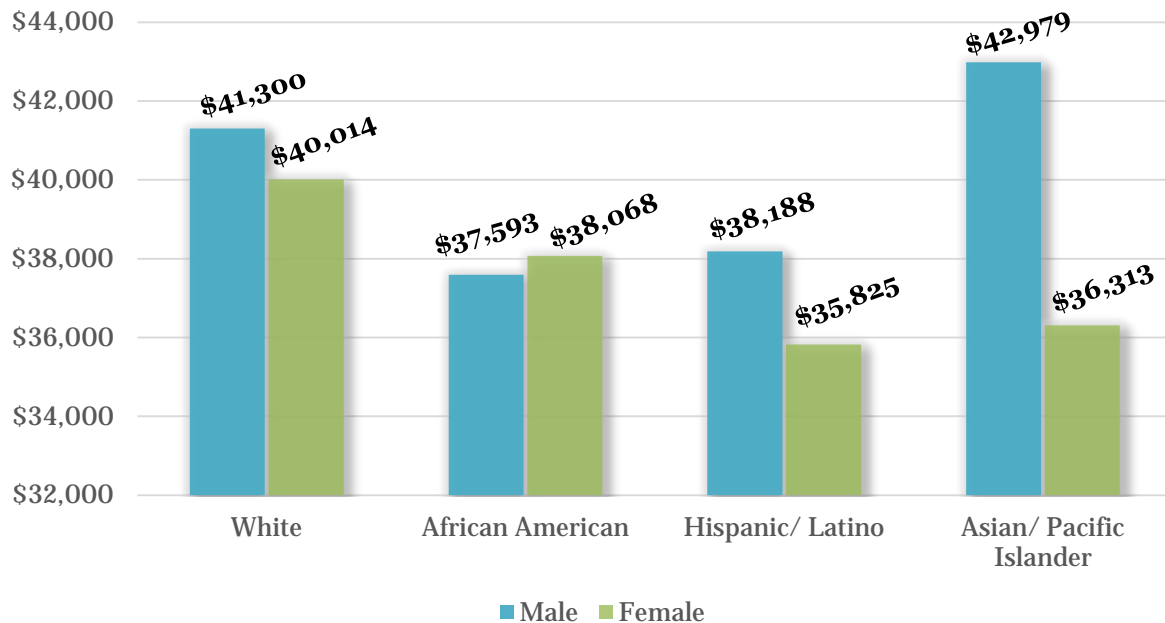
Table 10: Multilevel Linear Regression: Salary by Race/Ethnicity and Gender

	(1)		(2)	
	Coef.	(SE)	Coef.	(SE)
Female (Ref = Male)	-0.018**	(0.007)	-0.032***	(0.008)
Race/Ethnicity (Ref=white)				
African American	-0.060***	(0.006)	-0.094***	(0.011)
Hispanic/Latino	-0.104***	(0.018)	-0.078*	(0.038)
Asian/Pac. Islander	-0.084**	(0.028)	0.040	(0.083)
Other	-0.063	(0.051)	-0.053	(0.102)
Female x Race/Ethnicity				
Female x African			0.044***	(0.013)
Female x Hispanic/Latino			-0.032	(0.043)
Female x Asian/PI			-0.137	(0.088)
Female x Other			-0.014	(0.118)
Age	0.022***	(0.001)	0.022***	(0.001)
Age ²	-0.000***	(0.000)	-0.000***	(0.000)
Fulltime Emp.	0.667***	(0.012)	0.668***	(0.012)
Tenure (in yrs)	0.015***	(0.000)	0.015***	(0.000)
Industry (Ref=Teachers)				
Administrative	-0.448***	(0.012)	-0.448***	(0.012)
Aide/Asst.	-1.044***	(0.011)	-1.046***	(0.011)
Counseling	-0.112***	(0.013)	-0.113***	(0.013)
Food	-0.910***	(0.015)	-0.912***	(0.015)
Grounds	-0.534***	(0.043)	-0.532***	(0.043)
IT	-0.472***	(0.038)	-0.472***	(0.038)
Library	-0.287***	(0.017)	-0.286***	(0.017)
School	0.022*	(0.009)	0.023*	(0.009)
Security	-0.392***	(0.100)	-0.397***	(0.100)
Transportation	-0.564***	(0.048)	-0.563***	(0.048)
Misc.	-0.846***	(0.010)	-0.846***	(0.010)
Intercept	9.637***	(0.035)	9.650***	(0.035)

Notes: N=10,732. Asterisks indicate significance: *p<0.05, **p<0.01, ***p<0.001

As in Table 5, the coefficients in Table 10 represent the differences in logged income and can be difficult to interpret. To make these findings more understandable, we used Model 2 of Table 10 to estimate the predicted annual salary of men and women by racial/ethnic group, while controlling for all covariates. Figure 10 graphically displays these predicted values.

Figure 10: Predicted Salary by Race and Gender



We can see that white men make more than their identical female counterparts (over \$1,000 annually). For African American employees, female employees actually make about \$500 more annually than their male counterparts – supporting our findings from Table 10. Hispanic/Latino male employees make over \$2,000 a year more than their female counterparts. Finally, the pay gap is largest for Asian/Pacific Islander employees, where men make nearly \$7,000 per year more than their female counterparts.⁹ Recall again that this is after controlling for length of employment, differences in employment industry, age, and fulltime status.

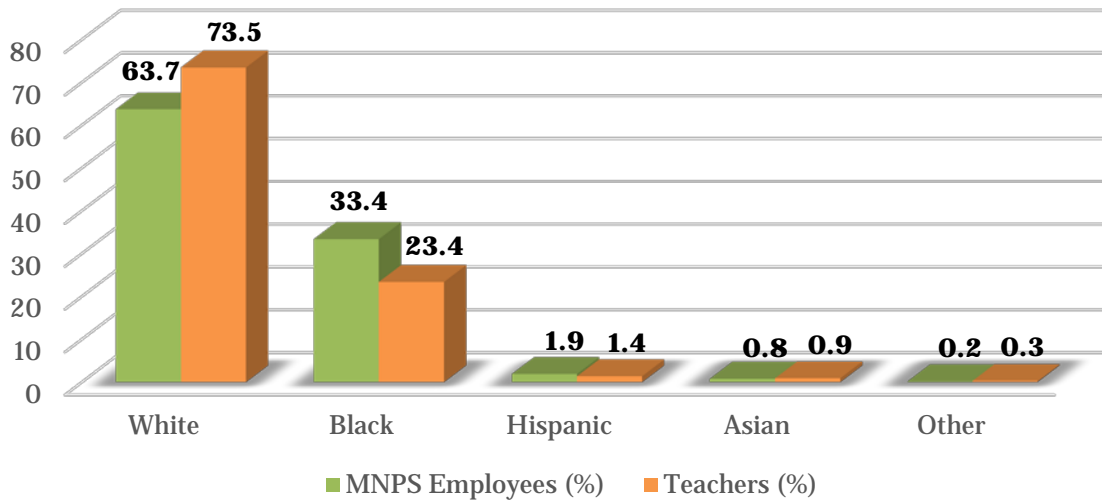
⁹ Although we found no significant difference in the gender pay gap between Asian/Pacific Islanders and whites, it's possible that the small number of APIs in our sample could have resulted in non-significant findings.

Teacher and Student Diversity, Compared

This next section focuses on MNPS certificated teachers and students. We first look at the race and ethnicity of MNPS teachers, followed by the gender breakdown.

Figure 11 below shows the racial and ethnic makeup of MNPS employees and teachers.

Figure 11: Race and Ethnicity for MNPS Employees and Teachers



Recall that among MNPS employees, whites account for 63.7%, African Americans make up 33.4%, Hispanic/Latinos comprise 1.9%, Asians are 0.8%, and 0.2% identify as other. Comparatively, whites make up close to three-quarters of all teachers and are thus overrepresented relative to their share of all MNPS employees. In contrast, blacks are underrepresented in the profession, comprising less than a quarter of all teachers, despite accounting for a third of MNPS employees. The percentages of Hispanic, Asian, and Other teachers are comparable to their share of all MNPS employees (1.4%, 0.9%, and 0.3%, respectively), but as shown in previous sections, they are substantially underrepresented relative to their percentage of the total Nashville population (10.2%, 3.6%, and 3.6%, respectively). In fact, the vast majority of teachers are either white or black, together accounting for more than 96% of the profession.

This distribution may look different by school level. Table 11 illustrates the percentage of teachers at every school level.¹⁰ The majority of teachers are located in Elementary, Middle, and High Schools, together accounting for 77% of all teachers. An additional 11% are in early education (Pre-K and Kindergarten), another 10% are in special education, and 0.5% teach in “Other” schools.¹¹

Table 11: Teachers per Grade Level

Education Levels	Teachers (%)
Pre-Kindergarten	3.7
Kindergarten	6.8
Elementary Schools	42.1
Middle Schools	14.8
High Schools	20.1
Special Education	9.9
Other Schools	0.5
Total	5176

Table 12 shows the racial and ethnic breakdown of MNPS teachers by education level. While white teachers make up 73.9% of all teachers, they comprise more than 77% of early education (pre-k, kindergarten, and elementary) teachers and less than 66% of middle school teachers. Interestingly, the share of white teachers is also lower in special education (67.5) and especially in other schools (37.5%).

Table 12: Teachers' Race and Ethnicity by School Level

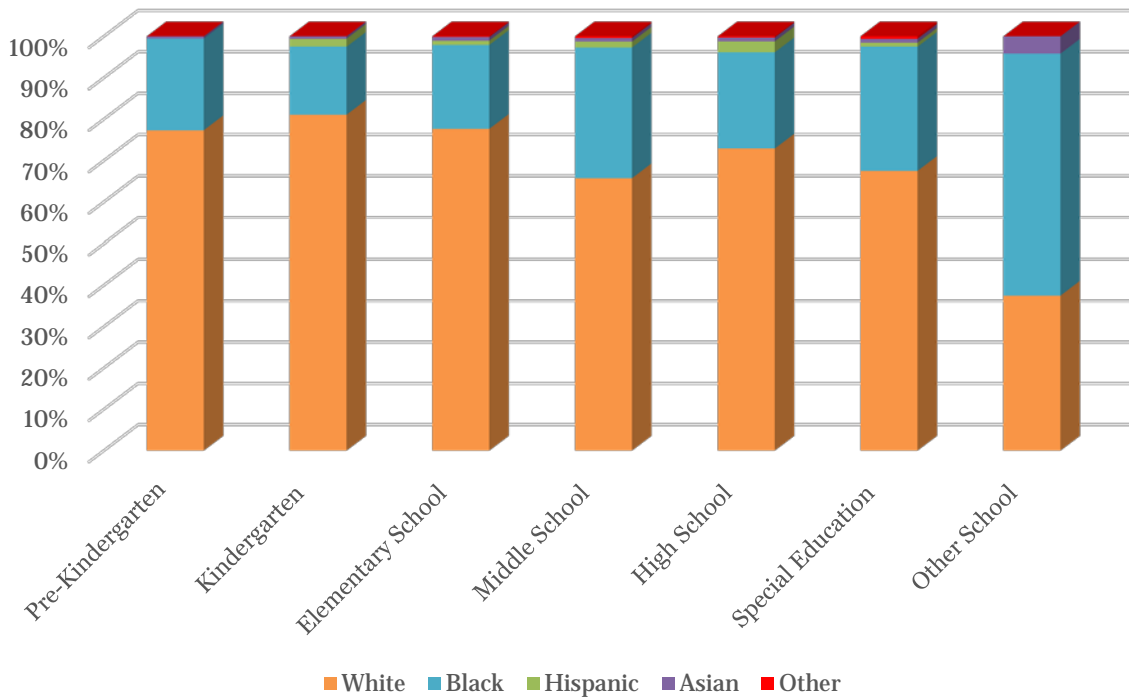
	White	Black	Hispanic	Asian	Other
Pre-Kindergarten	77.3	22.2	0.0	0.5	0.0
Kindergarten	81.1	16.4	2.0	0.6	0.0
Elementary Schools	77.7	20.3	1.0	0.9	0.2
Middle Schools	65.7	31.6	1.4	0.9	0.4
High Schools	72.9	23.3	2.6	0.9	0.3
Special Education	67.5	30.0	0.1	0.1	0.6
Other Schools	37.5	58.3	0.0	4.2	0.0
Total	73.9	23.6	1.4	0.9	0.3

¹⁰ A total of 93 teachers not assigned a specific grade level were dropped from this part of the analysis.

¹¹ “Other Schools” in this case include adult, alternative learning centers, GATE centers, Hybrid-Non-Traditional, and Non-Traditional schools

Conversely, black teachers – while just under 24% of teachers – are underrepresented in early education levels but overrepresented in middle school and special education. Strikingly, black teachers are also more than half of those teaching at other schools. Hispanic/Latino teachers make up less than 2% of teachers at MNPS, but are more greatly represented in kindergarten and high school classrooms. There are no Hispanic/Latino teachers in pre-k or other schools and virtually none in special education. Interestingly, while they are less than 1% of MNPS teachers, Asians make up a little over 4% of teachers in other schools. This information is graphically represented in Figure 12 below.

Figure 12: Teachers' Race and Ethnicity by Grade Level



Next, we look at the race and ethnicity of teachers by gender. As Table 13 shows, the gender breakdown is relatively similar across most racial/ethnic groups, with women comprising about three-quarters of all white, black, Hispanic, and Other race teachers. One notable difference is among Asians, for whom women make up a more substantial share of teachers – 87.2 % are female, while fewer than 13% are male.

Table 13: Teachers' Gender by Race and Ethnicity

Race and Ethnicity	Females	Males
White	78.6	21.4
Black	77.4	22.6
Hispanic	76.3	23.7
Asian	87.2	12.8
Other	71.4	28.6
Total	78.3	21.7

Table 14 shows the distribution of teachers of each race/ethnicity and gender by school levels. Among whites, the majority of females teach at the Elementary school level (48.2%), followed by high school (13.9%), middle school (12.3%), and special education (11.1%). Smaller shares of white female teachers are in kindergarten (9.5%) and pre-k (4.9%), but they are absent from other schools. Meanwhile, white males are greatly concentrated in several school levels – high school (54.6%), elementary school (28.2%), and middle school (14.5%). They are virtually missing from early education (Pre-K and Kindergarten), as well as special education and other schools.

Table 14: Teachers' Race, Ethnicity, and Sex by School Level

	Pre-K		Kinder		Elementary		Middle		High		Special Education		Other Schools	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M
White	4.9	0.2	9.5	0.1	48.2	28.2	12.3	14.5	13.9	54.6	11.1	1.8	0.0	0.6
Black	4.4	0.4	6.2	0.0	39.4	28.8	17.7	29.2	14.8	39.4	16.3	1.1	1.2	1.1
Hisp	0.0	0.0	12.5	0.0	35.7	16.7	14.3	16.7	28.6	66.7	8.9	0.0	0.0	0.0
Asian	2.6	0.0	5.1	0.0	46.2	16.7	12.8	33.3	17.9	50.0	12.8	0.0	2.6	0.0
Other	0.0	0.0	0.0	0.0	22.2	50.0	22.2	25.0	22.2	25.0	33.3	0.0	0.0	0.0

Note: Total white (female=3015, male=984); Total black (female=946, male=274); Total Hispanic (female=56, male=18); Total Asian (female=39, male=6); Total Other (female=9, male=4)

Black females show a similar distribution to that of their white female peers, with most (approximately 40%) in elementary schools, but with a greater concentration in middle and high schools and in special education. They are less concentrated in early education than white females but have a larger share in other schools. Black men are most heavily concentrated in middle schools (29.2%), with substantial shares in both elementary and high school as well. They make a small showing in special education and other schools, but are largely absent from early education.

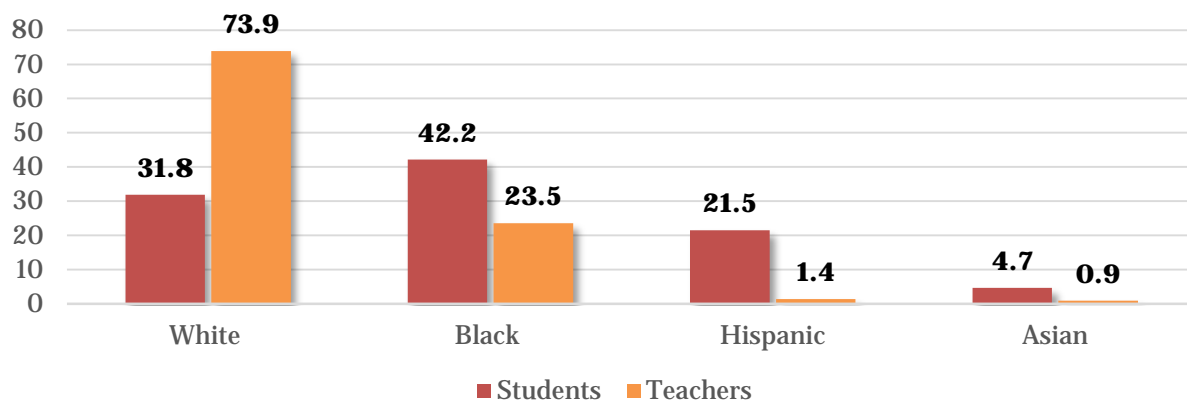
Latina teachers are absent from pre-kindergarten and other schools, but show substantial shares across all other school levels. Compared to their white peers, a larger percentage of Latinas find themselves in kindergarten, middle school, high school, and special education classrooms. For example, the percentage of Latina teachers at the high school level (28.6%) is nearly double that of their white and black counterparts (13.9% and 14.8%, respectively). Comparatively, Latinos are also missing from a number of different schools levels – specifically, pre-k, kindergarten, special education, and other schools. The overwhelming majority (66.7%) are located in high schools, with even shares in elementary and middle school (16.7% each).

The distribution of Asian women across school levels is largely similar to that of white and black females, with one notable exception. A larger share of Asian women is located in Other schools, compared to any other racial/ethnic group. The percentage of Asian women in these schools (2.6%) is more than double that of black men and women (1.2 % and 1.1%, respectively). Asian men have a distribution that mirrors that of Hispanic men – absent from early education, special education, and other schools. Similar to their peers of other racial/ethnic groups, Asian men are largely located in high schools (50%), but a larger share of them (33.3%) is represented in middle schools than for all other groups.

Lastly, those of “other” racial/ethnic backgrounds are missing from early education and Other schools. Notably, a third of “other” females are in special education, with even shares in elementary, middle, and high school (22.2% each). Half of “other” males are located in elementary schools and 25% are in both middle and high schools. However, these figures should be taken cautiously, as the total number for this group is substantially smaller than that of all other groups (n=13).

How does the racial/ethnic and gender composition of MNPS teachers compare to that of their students? We continue by examining the racial and ethnic makeup of MNPS students.

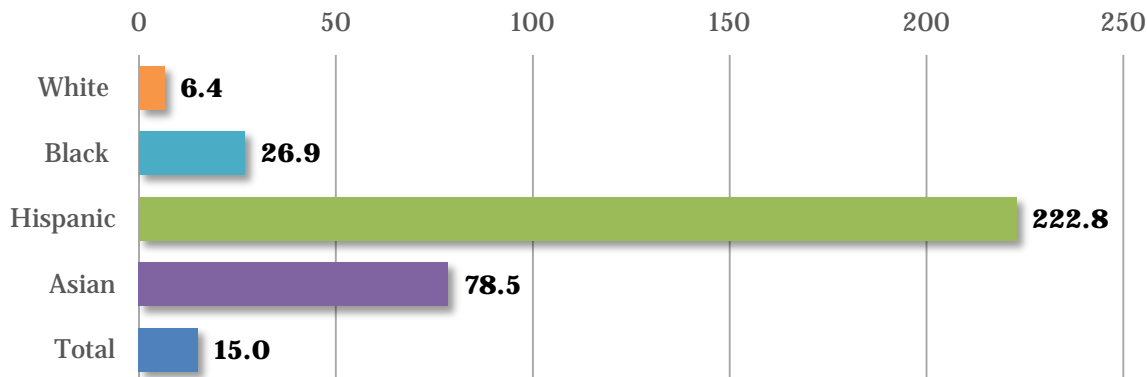
Figure 13: Percentage of MNPS Students and Teachers, by Race/Ethnicity



There are a total of 78,883 students, of which 31.8% are white, 42.2% are black, 21.5% are Hispanic/Latino, and 4.7% are Asian. Note that while whites account for 73.9% of all teachers, they are less than a third (31.8%) of all MNPS students. Conversely, blacks represent less than a quarter of all teachers (23.5%), but over 40% of students – the largest racial/ethnic group among MNPS students. As with blacks, Hispanic students account for a substantial proportion of the total (more than 20%), while Hispanic teachers are greatly underrepresented, at just 1.4% of all MNPS teachers. Similarly, Asians represent 4.7% of the student body, while less than 1% of educators. This is graphically illustrated in Figure 13 above.

Another way to conceptualize this disparity is through teacher to student ratios. On the whole, there are 15 students for every one teacher. Broken down by race/ethnicity: for every one white teacher, there are 6.4 white students; for every black teacher, there are 26.9 black students; for every Hispanic teacher, there are 222.8 Hispanic students; and for every one Asian teacher, there are 78.5 Asian students. This is displayed in Figure 14.

Figure 14: Ratio of Teacher to Student by Race/Ethnicity



Note: Figure shows the number of students of each race/ethnicity for every one teacher of the same racial/ethnic background

Looking at racial and ethnic distribution for teachers and student by school level (Table 15 below), we see an interesting pattern, namely that white teachers are consistently overrepresented at every school level, relative to the share of white students in those levels. Meanwhile, black, Hispanic, and Asian teachers are substantially underrepresented, given the shares of students of these racial/ethnic backgrounds. At the elementary school level, 32.5% of students are white, compared to 77.7% of teachers. In contrast, 39.3% of students are black, while 20.3% of teachers are black. Similarly, 24% of elementary school students are Hispanic/Latino, while only 1% of teachers are Hispanic/Latino. Asians account for 4.3% of students but less than 1% (0.9%) of elementary school teachers.

Table 15: Student and Teacher Race/Ethnicity by School Level

	White		Black		Hispanic		Asian	
	S	T	S	T	S	T	S	T
Elementary	32.5	77.7	39.3	20.3	24.0	1.0	4.3	0.9
Middle	31.8	65.7	43.1	31.6	20.2	1.4	4.9	0.9
High	29.5	72.9	46.9	23.3	18.8	2.6	4.8	0.9
Other	35.9	66.2	42.2	31.3	17.7	0.9	4.2	1.1
Total	31.6	73.9	42.3	23.6	21.5	1.4	4.6	0.3

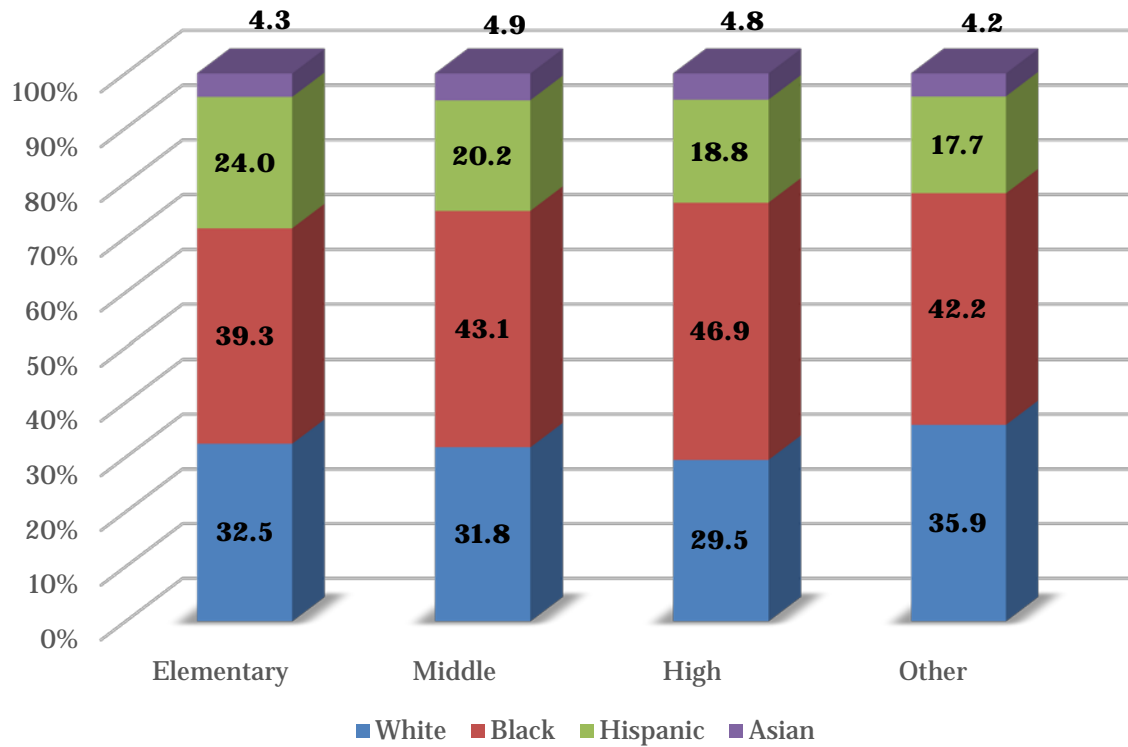
Note: S=Student, T= Teacher; The "other" racial and ethnic category for teachers has been excluded for comparison purposes. Elementary includes pre-k and kindergarten, Other includes, adult, alternative learning centers, GATE centers, hybrid-non-traditional schools, non-traditional schools, and special education schools.

The share of students and teachers in middle schools follows a similar pattern. While 31.8% of middle school students are white, nearly two-thirds (65.7%) of teachers are white. Black students, again, make up the largest racial/ethnic group at the middle school level –43.1% of students are black – and black teachers are better represented at this level than all other school types, though still underrepresented (31.6%). Hispanics account for 20.2% of students in middle schools but are barely 1.4% of teachers, while Asians represent 4.9% of students, but only 0.9% of teachers.

There is a similar pattern at the high school level. Whites make up less than a third (29.5%) of students, but they encompass almost three-quarters (72.9%) of teachers. Black students are the most highly represented at the high school level, where they account for nearly half (46.9%) of the student body. Yet, black teachers comprise only 23.3% of the teacher workforce at this level. Interestingly, Hispanic students are the least represented in high school (they comprise a greater share of elementary and middle school students), but the percentage of Hispanic high school teachers is double that of elementary and middle school teachers (2.6% vs. 1.0% and 1.4%, respectively). Asians are nearly 5% of the high school student body, but are, again, less than a percentage of high school teachers.

Finally, 35.9% of students attending other schools (adult, alternative learning centers, GATE centers, hybrid-non-traditional schools, non-traditional schools, and special education schools) are white, compared to 66.2% of teachers. Meanwhile, 42.2% of students are black, while 31.3% of teachers are. Hispanic/Latinos make up 17.7% of students, but less than 1% of teachers. Finally, 4.2% of students are Asian, though just slightly more than 1% of teachers are Asian. Figure 15 displays this information graphically.

Figure 15: MNPS Student Race/Ethnicity by School Level



Discussion and Opportunities

This report presents a number of interesting findings, and it identifies a number of challenges for MNPS and the Nashville community as a whole going forward. Our analysis is limited to the type of data we have available, and our focus on this report was on the racial/ethnic and gender diversity of the MNPS workforce. We offer a number of concluding thoughts.

First, the MNPS workforce simply does not reflect the current demographics of our city. This is not a phenomenon unique to MNPS. In fact, the initial *IncluCivics Report* analyzing the workforce of 50 Metro departments showed similar disparities. Nor are these disparities unique to Nashville. Across the country, teachers of color are significantly underrepresented compared to the number of students of color (Gershenson 2015). However, it is an issue that we can start to address here at home, particularly as it relates to our teachers.

As the final section of the report reveals, the ratios of students to teachers of their same racial/ethnic background are noticeably disproportionate. While whites account for a third of MNPS students, they comprise the vast majority (73.5%) of all teachers. Meanwhile, blacks account for more than 40% of the student body, but are less than a quarter of teachers. Recent local studies and news reports suggest that a more diverse teacher workforce may be better equipped to give all students equal access to educational opportunities (e.g. gifted services programs), to employ equitable disciplinary tactics, and to provide role models for professional attainment. The academic literature echoes the widespread benefits of a diverse teacher workforce (see Villegas and Irvine 2010, for a review). In Nashville, we benefit tremendously from the world-class universities and colleges we have in our own backyard and should capitalize on the opportunities to recruit young, diverse professionals into our public schools. Vanderbilt and MNPS have already partnered to offer a tuition-free Master's Degree in Teaching and Learning in Urban Schools for certificated teachers who commit to teaching in Metro schools for five years. Additionally, Lipscomb has been a training partner for English Language Learning programs in MNPS since 2011. However, if we are committed to finding and keeping teachers of color, these partnerships must be expanded to include other schools, particularly, the two Historically Black Colleges and Universities (HBCUs) in Nashville that each offer teacher certification programs.

One likely challenge to the recruitment and retention of qualified teachers (and all public employees, for that matter) is the lack of workforce and affordable housing within the urban core. Of course, this is not an issue that MNPS can resolve; rather, it will depend highly upon the efforts by the Metropolitan Development and Housing Agency (MDHA), Metro Planning, Metro Council, and the Mayor's Office to find solutions to our shortages and ensure that an important sector of our workforce has secure housing. Cities like San Francisco and Newark, who face similar challenges to those of Nashville, have embraced solutions like rental subsidies, forgivable loans, and housing developments specifically for their teachers (Cohen 2015).

Second, the racial/ethnic composition of MNPS students is rapidly changing, particularly as we continue to welcome immigrants and refugees to our city. Perhaps the most striking example is in our Latino population. While accounting for a little over 10% of the Davidson

County population, Latinos comprise more than 20% of students in our public schools. The evidence suggests that this number will continue to grow, given that nearly 1 out of every 4 elementary school students this year is Latino (see Table 15). Yet, this report reveals that less than 2% of teachers are Latinos. As such, targeted recruitment and retention of these teachers is and will be increasingly important in the next several years. There are some promising local programs addressing this need, including The Pionero Scholars Program at Lipscomb University. However, more gains might be made with more intentional recruitment among the well-organized programs that serve Latino youth, such as YMCA Latino Achievers and FUTURO (a project of the Tennessee Latin American Chamber of Commerce).

The call for a more diverse MNPS workforce is not to suggest that all white teachers are ill-equipped to teach students of color or that minority students should only be taught by teachers of their same racial/ethnic background. On the contrary, teachers of all backgrounds are crucial sources of information for students who have historically been marginalized within schools, but it is vital that our teacher training programs, especially local ones, include courses that emphasize cultural responsiveness as a core part of the curriculum (Gonzales 2016a). As beneficial as racial/ethnic congruence has been shown to be for students of color (Gershenson et al 2015), it is perhaps more important that teachers of all backgrounds be equipped with the knowledge and toolkits to enable every student to succeed to the best of their abilities.

Third, an ongoing analysis of the entire MNPS workforce is needed to ensure that diversity is not simply a goal for teachers alone. Many of the support and administrative roles within MNPS are largely gender and racially/ethnically segregated. This report finds that women are largely overrepresented in sectors like food services and as teachers' aides and assistants. Meanwhile, men comprise most of the grounds and maintenance, information technology, and security staffs. As it pertains to race/ethnicity, blacks are overrepresented in food service, transportation, and teachers' aides (coincidentally, the three lowest paying sectors). Hispanics are extremely underrepresented (comprising less than 2% of the MNPS workforce) but are overrepresented in the positions that serve as community brokers (i.e. translators and school-to-family liaisons). Beyond job titles, men are 40% of top earners (those making \$80,000 or more a year) despite accounting for less than a quarter of MNPS employees. In contrast, women represent 87% of those making less than \$20,000 and make significantly less than men, even when controlling for race, age, fulltime employment status, employment sector, and job tenure. Annual reviews of the employee data would represent a proactive step in working towards pay equity for all employees.

Fourth, diversity and inclusion initiatives need to start from the top down, at the highest levels of executive leadership. As currently structured, the executive positions do not reflect Nashville's diversity, either in gender or in racial/ethnic background. Intentional efforts should be made to prioritize greater inclusion of underrepresented groups. Moreover, as corporate diversity strategists like Deloitte have emphasized, diversity is not simply an HR issue. Inclusionary standards need to be embedded into MNPS measures of success – especially when it comes to recruitment, hiring, leadership assessment, and performance management. If the hiring decisions and other opportunities for inclusion are placed in the hands of school principals, these leaders should be held accountable for producing results, but high-level administrators must first create the diversity metrics and model the behavioral standards.

Finally, we would like to have included in this report a racial and gender analysis of decision-making roles throughout the school structure, but the data were not available. For instance, in addition to policy and leadership roles at the main office and principals, schools include some less formal leaders such as Instructional Coaches, Team Leaders, or Grade Level Leaders. Recording and reporting this data would provide important insight into the demographics of those who have influence on the school level, and therefore directly on the students.

In sum, a diverse education workforce is certainly beneficial for the youngest members of our community, but it is equally important for the economic health and cultural vitality of our city. This IncluCivics report represents an effort to better understand where Nashville is in its goal of workforce and educator diversity, an opportunity to identify where there are areas for inclusion, and a tool for the development of evidence-based solutions to our challenges.

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Appendix 1: List of Jobs by Sector

Administration	Counseling	IT	Schools	Security
Secretary	Counselor	Specialist	Specialist	Security Officer
Coordinator	Psychologist	Analyst	Principal Asst	Manager
Dean	Specialist	Manager	Coach	Dispatcher
Manager	Translator	Coach	Assistant	
Specialist	LSW	Developer	Principal	Teacher
Accountant	Liaison	Data	Supervisor	Teacher
Director	Audiologist	Advisor	Program Director	
Tech	Director	Tech	Monitor	Transportation
Clerk			Occ Therapist	Bus Driver
Admin	Food	Library	Tutor	Bus Monitor
Advisor	Cashier	Librarian	Paraprofessional	Mechanic
Exec	Manager	Clerk	Officer	Supervisor
Compensation	Sub	Director	Inst Design	Driver-Trainee
Operator	Supervisor		Facilitator	Dispatcher
Registrar	Chef	Misc	Principal Exec	Manager
Call Center	Director	Ed Assistant	Executive Officer	Truck Driver
Supervisor	Intern	Paraprofessional	Interventionist	Rep
Agent	Specialist	Speech Therapist	Physical Therapist	Director
Rep		Coach	Manager	Specialist
Writer	Grounds	Cashier	Intern	Tech
	Laborer	Job Coach	Manager Instructional Coaches	
Aide/Assist	Tech	Interpreter	Project Manager	
Assistant	Operator	Specialist	Reader	
Aide	Manager	Director	Speech Therapist	
	Supervisor	Auditor	Tech	
	Director	Mail		
		Architect		
		Tech		
		Manager		
		Supervisor		
		Writer		