

INCLUCIVICS Data Update:

The Diversity & Equity of Fifty Metro Nashville Departments

By:
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and
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May 2015
(original report: January 2015)





IncluCivics Data Update

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Background

In January 2015, the Metro Human Relations Commission (MHRC) released the IncluCivics Report, analyzing the demographic makeup of 50 Metro Nashville departments. The data in the original report was provided by Metro Human Resources (Metro HR) in August 2014. Since then, Metro HR has provided more recent data (captured April 1, 2015) and has announced that updated data will be released quarterly. Also, since releasing the IncluCivics Report in January, MHRC received numerous requests for a more robust data analysis (particularly with regard to gender). This Data Update is intended to provide just that.

As stated in the IncluCivics Report, it is imperative to understand what diversity in Metro's workforce looks like now in order to provide a baseline from which to assess our efforts at attaining greater diversity in the future. To further encourage transparency and public education, the MHRC is also releasing and maintaining an online IncluCivics Platform (www.IncluCivics.com) that captures the demographic data provided quarterly by Metro HR and renders it in user-friendly charts and graphs. The IncluCivics Platform will track changes in the data over time.

This Data Update was prepared by the Metro Human Relations Commission and Anna W. Jacobs, Data Analyst.

Funding was provided by the Metropolitan Human Relations Commission Support Fund of the The Community Foundation of Middle Tennessee.

The IncluCivics Platform was created, free of charge, by Code for Nashville.

INLUCIVICS Data Update: Snapshot

- Data captured from the Metropolitan Government Open Data Portal, representing the Metro workforce as of April 1, 2015
- Updates the IncluCivics Report (issued January 2015); it provides more recent data and a more robust analysis
- Released in conjunction with an online, dynamic platform that captures the demographic data released quarterly, renders it in user-friendly formats, and tracks workforce composition over time (www.IncluCivics.com)
- Non-Hispanic White population overrepresented in 50% of the 50 departments (in nine departments, Non-Hispanic White employees make up 85% or more of the employees)
- Hispanic/Latino population significantly underrepresented in all departments (Metro's workforce is 1.9% Hispanic, while the employment-aged population is 10.2%)
- Twelve percent of department directors are African American, 0% are Hispanic, and 0% are Asian/Pacific Islander
- Non-Hispanic White employees are overrepresented among the higher income brackets while African American and Hispanic employees are overrepresented in the lowest income brackets
- Controlling for gender, job tenure, and age, African American employees make on average \$7,719 less than the average for Non-Hispanic White employees
- Controlling for gender, job tenure, and age, Hispanic employees make on average \$6,626 less than the average for Non-Hispanic White employees
- While the Nashville-Davidson County population has a relatively equal gender balance, nearly two-thirds of Metro employees are men
- Men are overrepresented among the higher income brackets while women are overrepresented in the lowest income brackets
- Controlling for race, job tenure, and age, women make on average \$4,450 less than the average for male employees
- While men are overrepresented overall in the Metro workforce, African American and Hispanic men are not; gender disparity is practically non-existent among African American and Hispanic employees

Data and Methods

Metro Data

The primary data for this report come from the Nashville Metro Government's Open Portal. The data were provided by Metro's Department of Human Resources (Metro HR) on April 1, 2015. Metro HR releases quarterly data on the demographic composition and salaries of permanent Metro employees by department.¹ The data provide the following information for each employee: gender, race, ethnicity, pay grade, annual salary, job title, department description, full time or part time status, birth year, and job tenure (calculated by year started²).

We examined diversity in 50 Metro departments. It should be noted that Metro HR does not maintain data on the following independent or quasi-independent departments: Metro Housing and Development Agency, Metro Transit Authority, the Airport Authority, Nashville Electric Service, Metro Nashville Public Schools. Nor does the data include Metro Council Members. Data on temporary Metro employees, such as poll-workers and sports officials, were also not included.

Using the data publicly available through Metro HR, we have created a new website called IncluCivics (www.IncluCivics.com). This website takes data from Metro's Open Data Portal and tracks changes in employee composition over time in figures and formats that are readily accessible to the general public. This platform was created by Code for Nashville (<http://www.codefornashville.org/>), a group of civic-minded technologists and developers who volunteer their time to create civically and socially focused apps and platforms. More information about the website is provided in Appendix 1.

Census Data

In addition to the Metro HR data, we used supplemental data to describe the Nashville-Davidson Metropolitan Statistical Area (MSA). These data were drawn from the Integrated Public Use Microdata Series-USA (IPUMS-USA). The IPUMS-USA data are based on US Census estimates (the American Community Surveys). More information on the IPUMS-USA data is provided in Appendix 2.

Measures

This report focuses on race, ethnicity, gender, salary, and department of employees. While other measures of diversity would be of interest, the data collected by Metro HR is limited to these variables.

Race/Ethnicity. We combined two variables, race and ethnicity, into five dichotomous variables: Non-Hispanic White, African American (not of Hispanic descent), Hispanic or Latino, Asian or Pacific Islander, and Other Race/Ethnicity (not of Hispanic descent). The "Other"

¹ This data is available to the public and can be found at <https://data.nashville.gov/Metro-Government/General-Government-Employees-Demographics/4ibi-mxs4>

² The start date represents the most recent start date and does not account for breaks in service.

category includes Native Americans,³ Mixed Race/Ethnicity (two or more), and “Unknown/Not Answered.”

Gender. Gender indicates whether the employee identifies as a male or female, rather than the biological sex of the employee.⁴

Salary. Annual salary is divided up into twelve categories: (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) \$100,000-124,999; or (12) \$125,000+ per year.

Departments. Metro HR provides information on the following 56 departments:

Administrative	Internal Audit
Agricultural Extension	Justice Integration Services
Airport Authority	Juvenile Court
Arts Commission	Juvenile Court Clerk
Assessor of Property	Law
Beer Board	MTA
Circuit Court Clerk	Mayor's Office
Circuit Court Satellite	Metro Action Commission
Clerk and Master	Metropolitan Clerk
Codes Administration	Metropolitan Council
Community Ed Commission	Municipal Auditorium
Convention Center Authority	NCAC
County Clerk	Office of Emergency Management
Criminal Court Clerk	Parks
Criminal Justice Planning Unit	Planning Commission
District Attorney	Police
Election Commission	Public Defender
Emergency Communication Center	Public Library
Farmer's Market	Public Works
Finance	Register of Deeds
Fire	Sheriff
General Services	Social Services
General Sessions Court	Soil and Water Conservation
Health	Sports Authority
Historical Commission	State Fair Board
Human Relations Commission	State Trial Courts
Human Resources	Trustee
Information Technology Service	Water Services

³ Native Americans were not included separately because the number was too small for any meaningful analysis (N=12)

⁴ There was no information supplied on the number of transgender individuals currently employed by Metro.

There are some departments included in data provided by Metro HR that we nonetheless exclude from our analyses. First, MTA is an independent agency. The Chief Executive Officer is the agency's only Metro government employee. Other personnel are employees of the Davidson Transit Organization, a private, non-profit organization. Second, HR maintains information on only 4 employees from Airport Authority, not their entire workforce. The Airport Authority is a public corporation that manages, owns and operates the airport, separate from Metro Government. Third, Soil and Water Conservation is a one-person department, which does not provide enough data for analysis. Finally, we removed data on the Metro Council because most of the employees are elected officials.

We also combined some departments. Metro HR lists one department called "Administrative," which we combined with the Mayor's Offices since these employees are actually within the Mayor's Office. Circuit Court Clerk and Circuit Court Satellite were also combined because, while these departments are listed separately for some payroll purposes, they are a single department for hiring and promotion. All of these changes leave us with 50 departments.

Analysis

Our report uses the data described above to present descriptive statistics concerning the gender and racial diversity of Metro employees. We occasionally supplement these data with 2013 Census estimates on the Nashville-Davidson MSA for comparison purposes. The first section of our analysis focuses on racial and ethnic diversity, and the second section focuses on gender diversity. In each section, we examine the overall composition of Metro Employees, then consider diversity among departments and by annual salary.

RACIAL/ETHNIC DIVERSITY

Table 1 and Figure 1 below display the racial and ethnic diversity of Metro employees. Table 1 compares the makeup of the Metro workforce with that of the working aged Nashville-Davidson County MSA (18-55 years old). Non-Hispanic Whites makeup 70 percent of employees, African Americans make up 26 percent of employees, Hispanics and Latinos make up about 1.9 percent of employees, and Asians make up about 0.8 percent of employees.

Table 1: Racial/Ethnic Composition of Metro Employees and Nashville-Davidson MSA, 2015

	Metro Government	Nashville-Davidson MSA
% White	70.2	56.2
% African American	26.4	26.4
% Hispanic or Latino	1.9	10.2
% Asian or Pacific Islander	0.8	3.6
% Other	0.7	3.6

Figure 1: Racial/Ethnic Makeup of Metro Government

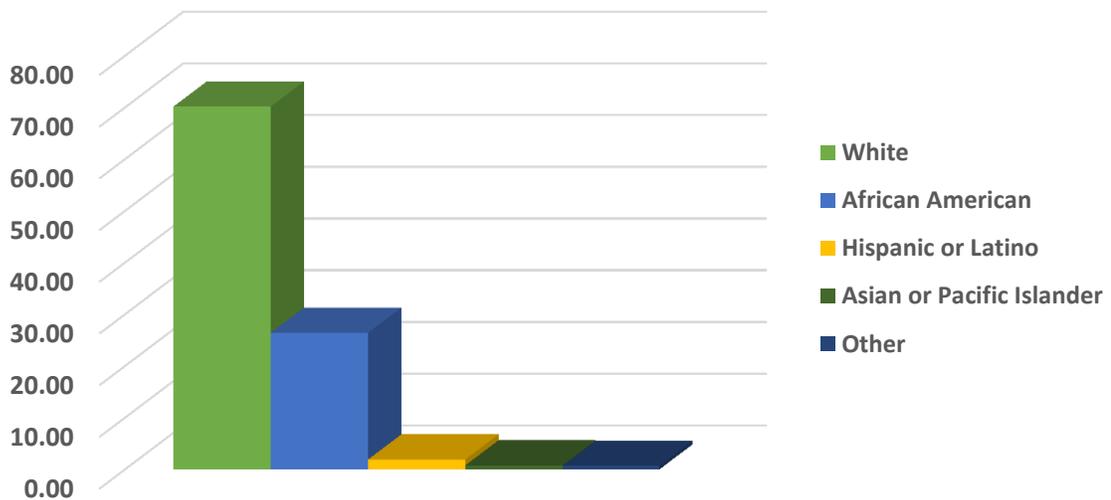


Figure 2 displays the racial and ethnic diversity from Figure 1 compared to the working-age population of the Nashville-Davidson MSA. This figure shows that non-Hispanic Whites are over-represented among Metro employees, while African Americans, Hispanics, and Asian/Pacific Islanders are under-represented among government employees. We go into more detail about this below.

Figure 2: Racial/Ethnic Makeup of Metro Government Employees Compared to Population of Nashville-Davidson MSA

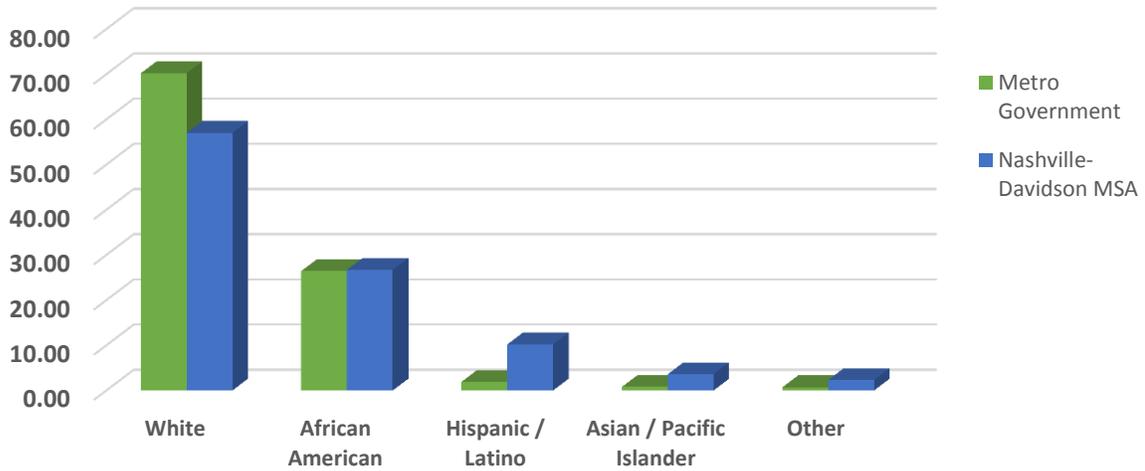


Figure 3 shows the racial and ethnic makeup of each department. The total number of employees in each department follows directly after the department name. Non-Hispanic Whites (green bars) are overrepresented in many departments. There are nine departments in which non-Hispanic Whites make up 85 percent or more of the employees: Historical Commission (100%), Metropolitan Clerk (100%), Office of Emergency Management (100%), Register of Deeds (97%), Trustee’s Office (89%), Arts Commission (89%), Justice Integration (88%), Fire Department (86%), and Information Technology (85%). African Americans (blue bars) tend to be more evenly distributed, but in five departments they make up at least half of all employees: Beer Board (75%), Metro Action Committee (74%), Social Services (63%), Agricultural Extension (50%), and Sports Authority (50%). Hispanic and Latino (yellow bars) employees are only present in 24 of 51 (47%) departments, and Asian and Pacific Islander (dark green bars) employees are only present in 19 of 51 (37%) of the departments.

Figure 3: Racial/Ethnic Makeup of Metro Departments

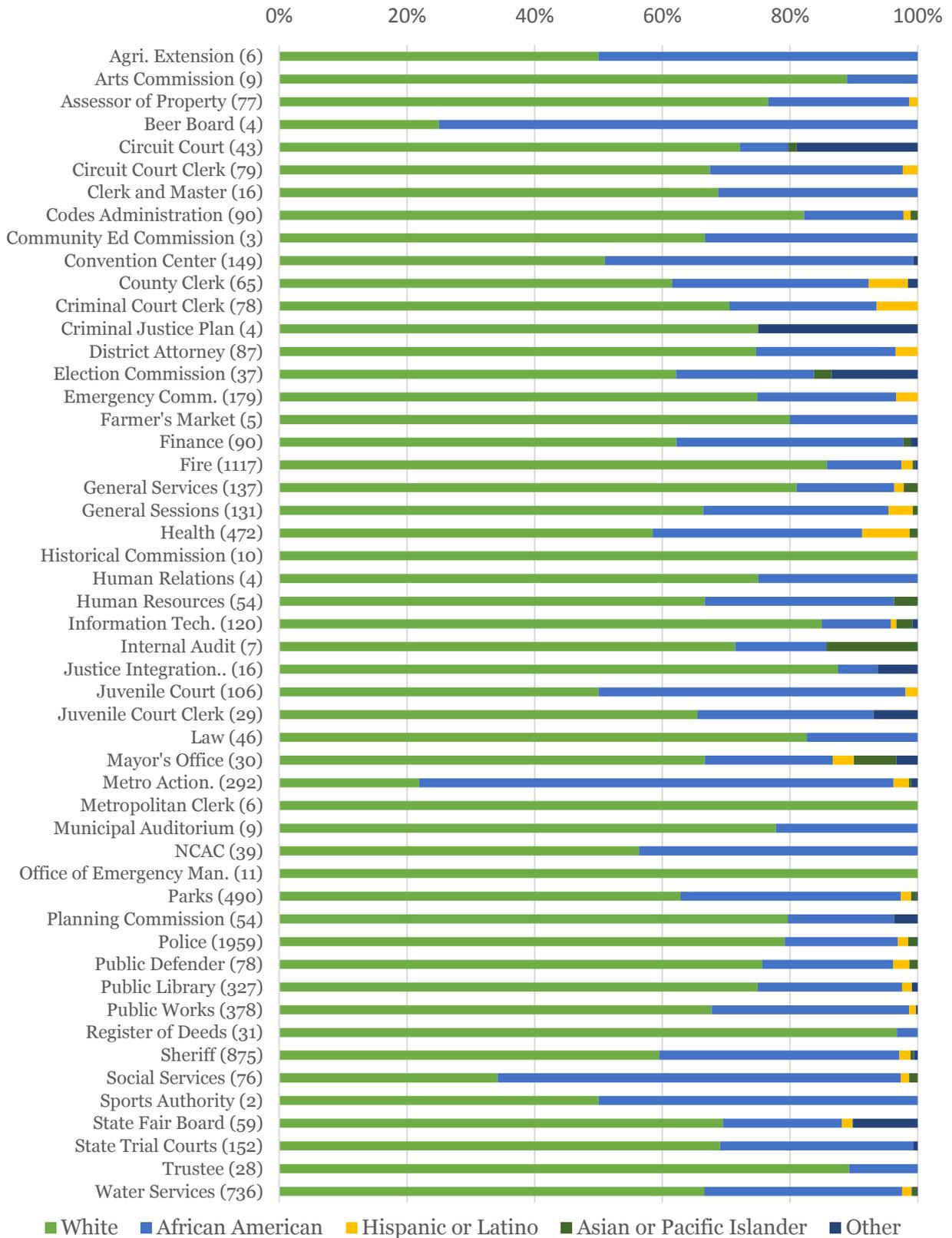


Table 2: Racial / Ethnic Breakdown of Each Income Bracket, Nashville Metro Employees, 2015

Annual Salary	% White	% African American	% Hispanic or Latino	% API	% Other
Less than \$10,000	54.04	41.93	2.17	0.31	1.55
\$10,000-19,999	56.25	39.06	2.73	0.39	1.56
\$20,000-29,999	50.66	45.53	2.62	0.36	0.83
\$30,000-39,999	61.05	34.9	2.83	0.64	0.59
\$40,000-49,999	70.36	26.03	2.07	0.82	0.72
\$50,000-59,999	79.37	17.28	1.53	1.28	0.55
\$60,000-69,999	84.46	13.69	0.74	0.83	0.28
\$70,000-79,999	85.65	12.8	0.66	0.66	0.22
\$80,000-89,999	78.82	18.24	0.59	1.18	1.18
\$90,000-99,999	80.85	14.89	2.13	1.06	1.06
\$100,000-124,999	85.87	10.87	1.09	0.00	2.17
\$125,000+	81.36	18.64	0.00	0.00	0.00

We next turn to the differences in pay by race and ethnicity. Table 2 above displays the racial and ethnic makeup of each income bracket for all Metro employees as of March 2015. Although non-Hispanic Whites make up 70.2 percent of Metro employees and 57.2 percent of the Nashville-Davidson MSA, they are under-represented in the lower income brackets of Metro employees. Conversely, African Americans (who make up 26.4 percent of Metro employees and 26.8 percent of the Nashville-Davidson MSA) are over-represented among the lowest income brackets. At higher income levels, the story is reversed: non-Hispanic Whites are over-represented among the highest income levels, while other minorities are under-represented. Below, Figure 4 graphically displays these numbers.

The four panels in Figure 4 below break down this table visually, as well as add in statistics about the Nashville-Davidson MSA for comparison. In each panel, the solid line represents the overall percentage of Metro employees for that race or ethnicity, and the dashed line represents the overall percentage in the Nashville-Davidson MSA. Panel A shows that non-Hispanic Whites make up 70 percent of Metro employees and 56.3 percent of the Nashville-Davidson MSA, as displayed by the two lines. The green bars that pass the dotted line show where Whites are over-represented relative to the population (in higher-wage jobs), and the green bars that do not meet the line show where Whites are under-represented (in lower-wage jobs).

Panel B shows that African Americans make up 26.4 percent of Metro employees and 26.8 percent of the Nashville-Davidson MSA, as displayed by the two lines. The blue bars that pass the dotted line show where African Americans are over-represented relative to the population (in lower-wage jobs), and the green bars that do not meet the line show where they are under-represented (in higher-wage jobs).

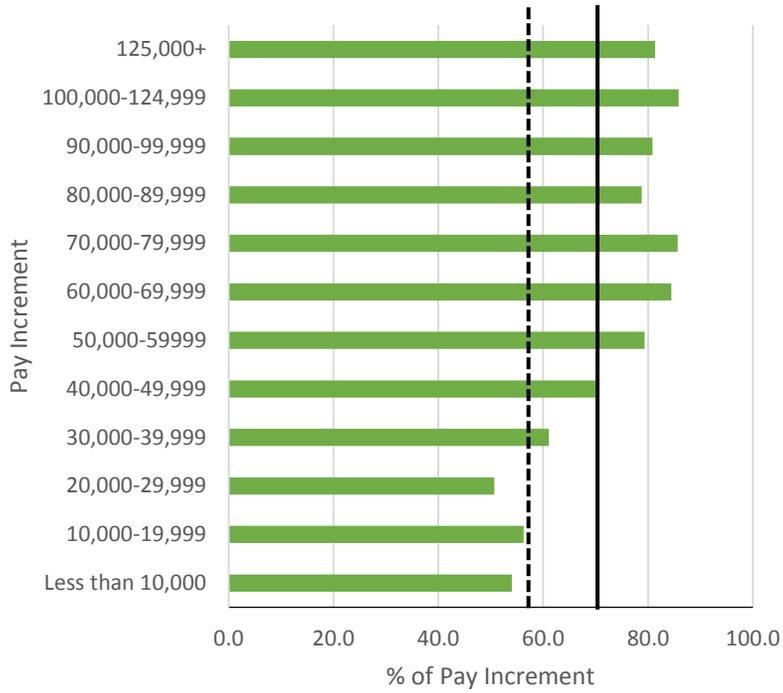
Panel C shows that Hispanics and Latinos make up 1.9 percent of Metro employees, but 10.2 percent of the Nashville-Davidson MSA, as displayed by the two lines. No yellow bars pass the dotted line, indicating that Hispanics and Latinos are extremely under-represented in Metro jobs relative to the population. Among the Hispanic and Latino workers employed by the Metro

government, they tend to be over-represented in lower-wage jobs, are under-represented in higher-wage jobs.

Finally, Panel D shows that Asians and Pacific Islanders make up less than one percent of Metro employees (0.79%) but 3.6 percent of the Nashville-Davidson MSA, as displayed by the two lines. Like Hispanics and Latinos, no dark green bars pass the dotted line, indicating that Asians and Pacific Islanders are also extremely under-represented in Metro jobs relative to the population. Among the API workers employed by the Metro government, their distribution in pay is a bit more evenly dispersed than Hispanic/Latino workers, but is slightly skewed toward higher-wage jobs.

Figure 4: Percentage of Each Pay Bracket Made up by Each Racial/Ethnic Group

Panel A: % of Each Pay Increment Made Up by White Metro Employees



Panel B: % of Each Pay Increment Made Up by African American Metro Employees

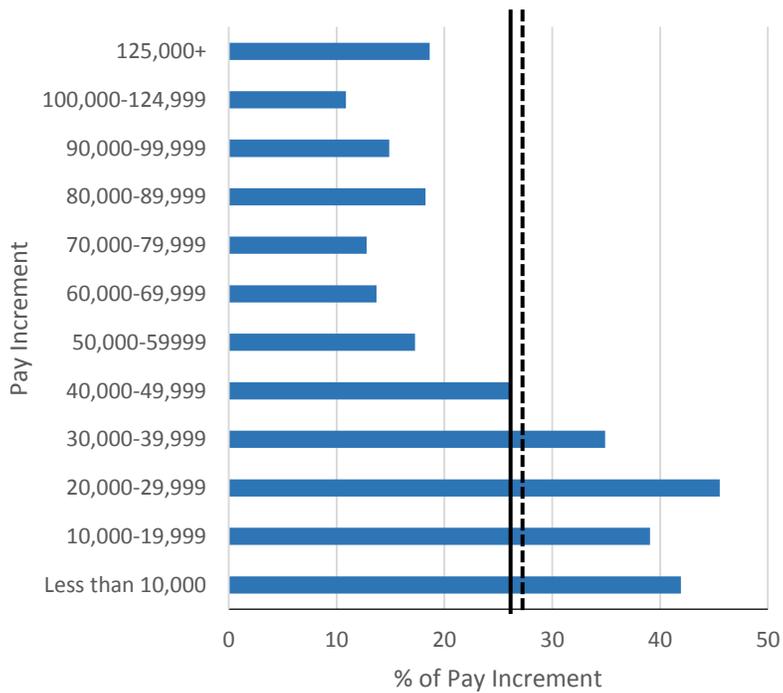


Figure 4, Continued: Percentage of Each Pay Bracket Made up by Each Racial/Ethnic Group

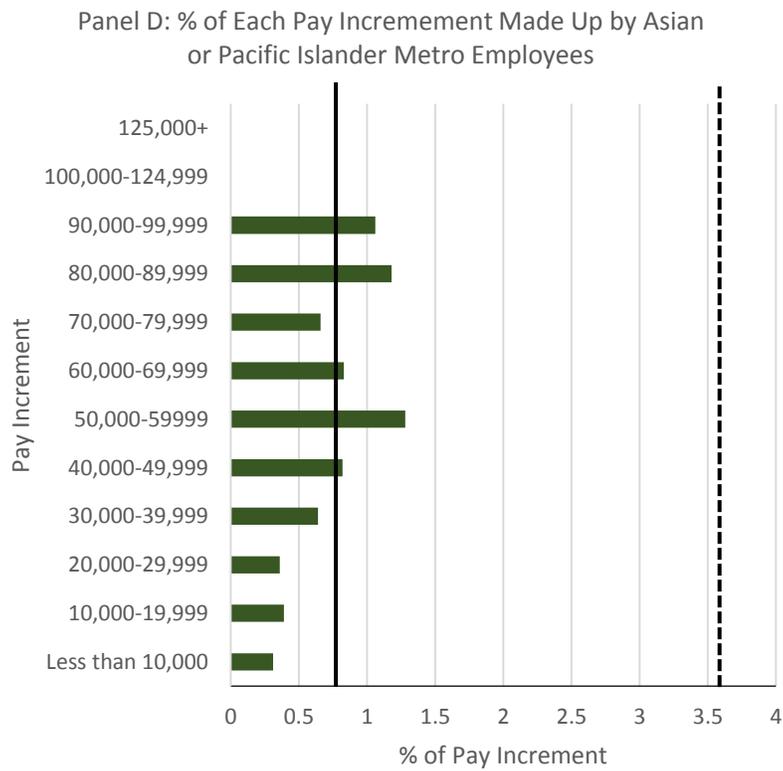
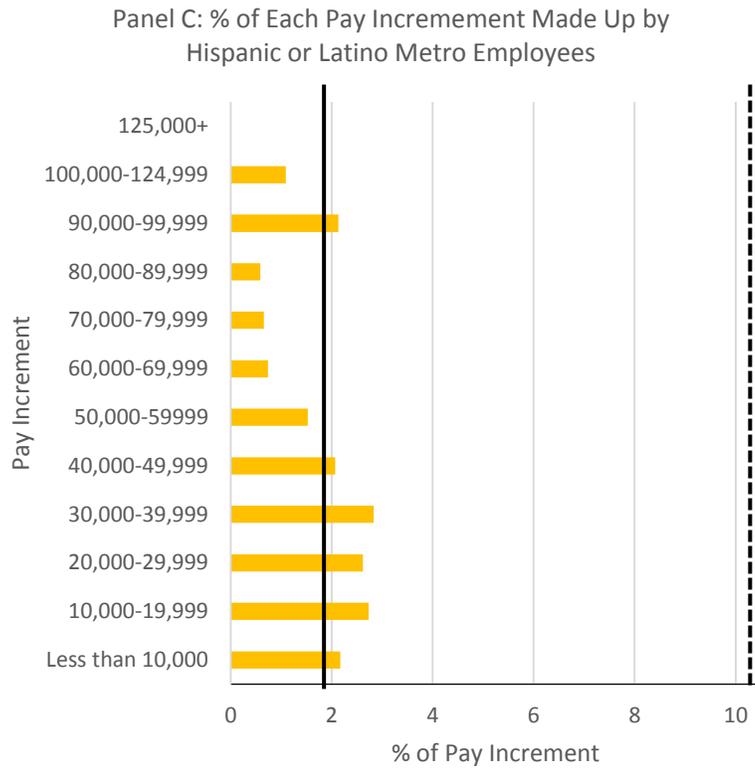


Table 3: Mean and Median Annual Salary by Race/Ethnicity, 2015

Race or Ethnicity	Median Salary(\$)	Mean Salary (\$)	Average Tenure (Years)
Non-Hispanic White	49,113	50,025	12.1
African American	38,351	40,558 ***	11.0***
Hispanic/Latino	38,721	40,549 ***	9.0***
Asian/Pacific Islander	50,051	50,098	9.2*
Other Race/Ethnicity	44,472	43,019 ***	11.6

Note: Asterisks indicate significantly different means (compared to non-Hispanic Whites):

* $p < 0.05$, ** $p < 0.01$

Table 3 above presents the median salary, average salary, and average job tenure (in years) for Metro employees by race/ethnicity. We conducted t-tests, which help determine whether the differences in salaries are statistically significant, or whether they are due to sampling error or random chance. On the one hand, compared to non-Hispanic White workers, African American workers, Hispanic and Latino workers, and workers in the “Other” category all make significantly lower salaries ($p < 0.01$). On the other hand, there is no substantial difference in the average salary of Asian/Pacific Islander and non-Hispanic White employees.

However, it is possible that the racial disparities in income are due to differences in job tenure or other factors. Non-Hispanic White employees have both the highest incomes and the highest job tenure. Below in Table 4, we use Ordinary Least Squares (OLS) regression to conduct multivariate tests of income disparity. Model 1 uses only race/ethnicity to predict annual salary (compared to non-Hispanic White employees). According to Model 1, African American employees make, on average, \$9,516 less per year than White employees. Hispanic and Latino employees make, on average, \$9,609 less per year than White employees. Asian and Pacific Islander employees do not make a significantly different annual salary compared to White employees. Finally, employees of “other” race/ethnicity make, on average, \$7,139 less per year than White employees.

The question is: how much of this difference is due to other factors? In Model 2 we include the following control variables: gender, job tenure, age, and age-squared.⁵ In other words, the coefficients for race in Model 2 control for the fact that White employees tend to have longer job tenure, or that more African American employees are women. We therefore get a more accurate estimate of how salary varies by race, holding all else equal.

The findings in Model 2 are similar to Model 1. African American employees make, on average, \$7,719 less per year than White employees, holding all else equal (controlling for job tenure, age, and gender). Hispanic and Latino employees make, on average, \$6,626 less per year than White employees, holding all else equal. Asian and Pacific Islander employees still do not make a significantly different average salary compared to White employees. Finally, employees of “other” race/ethnicity make, on average, \$4,876 less per year than White employees holding all else equal.

⁵ Age-squared is a commonly used control because salary tends to increase with age through middle age, but often decreases with age among elderly employees

Table 4: OLS Regression Predicting Annual Salary (in Thousands of Dollars) by Race and Ethnicity

	(1)	(2)
<i>Race/Eth (ref=NHW)</i>		
African American	-9.516*** (0.47)	-7.719*** (0.42)
Hispanic/Latino	-9.609*** (1.51)	-6.626*** (1.31)
Asian/ Pac. Islander	-0.060 (2.33)	1.616 (2.02)
Other	-7.139*** (2.56)	-4.876** (2.22)
<i>Controls</i>		
Female (ref=male)		-4.450*** (0.38)
Job Tenure (Years)		0.795*** (0.02)
Age		2.244*** (0.10)
Age ²		-0.025*** (0.00)
Constant	50.159*** (0.25)	-4.235* (2.25)

Notes: N=8,902; Standard errors in parentheses
Asterisks indicate statistical significance: *** p<0.01, ** p<0.05, * p<0.1

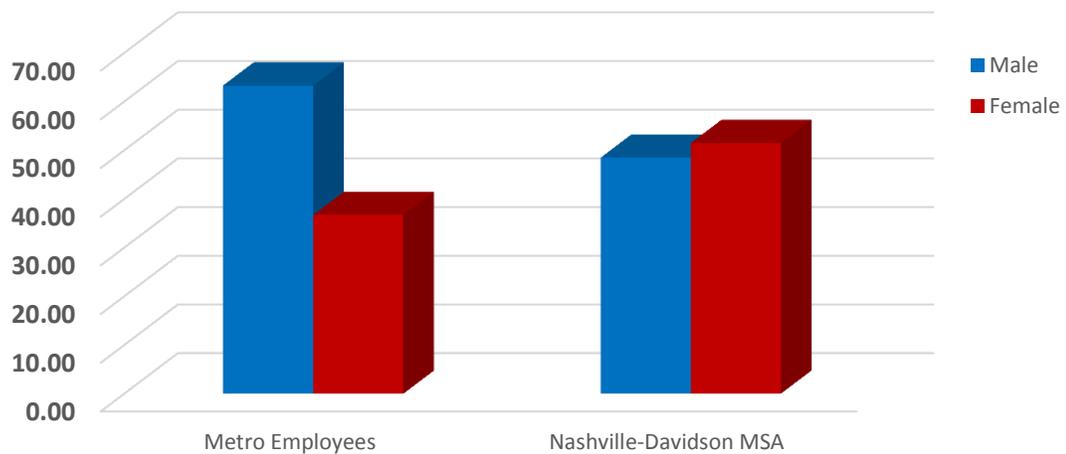
GENDER DIVERSITY

We now turn to examining the gender diversity among Metro employees. Table 5 and Figure 5 show the gender diversity among all Metro employees and the Nashville-Davidson MSA. Although the Nashville-Davidson MSA has a relatively equal gender balance (51.5 % of residents are female), the gender composition of Metro employees is not equally balanced. Instead, nearly two-thirds (63.3 %) of Metro employees are men, and just over one-third are women.

Table 5: Gender Composition of Metro Employees and Nashville-Davidson MSA, 2015

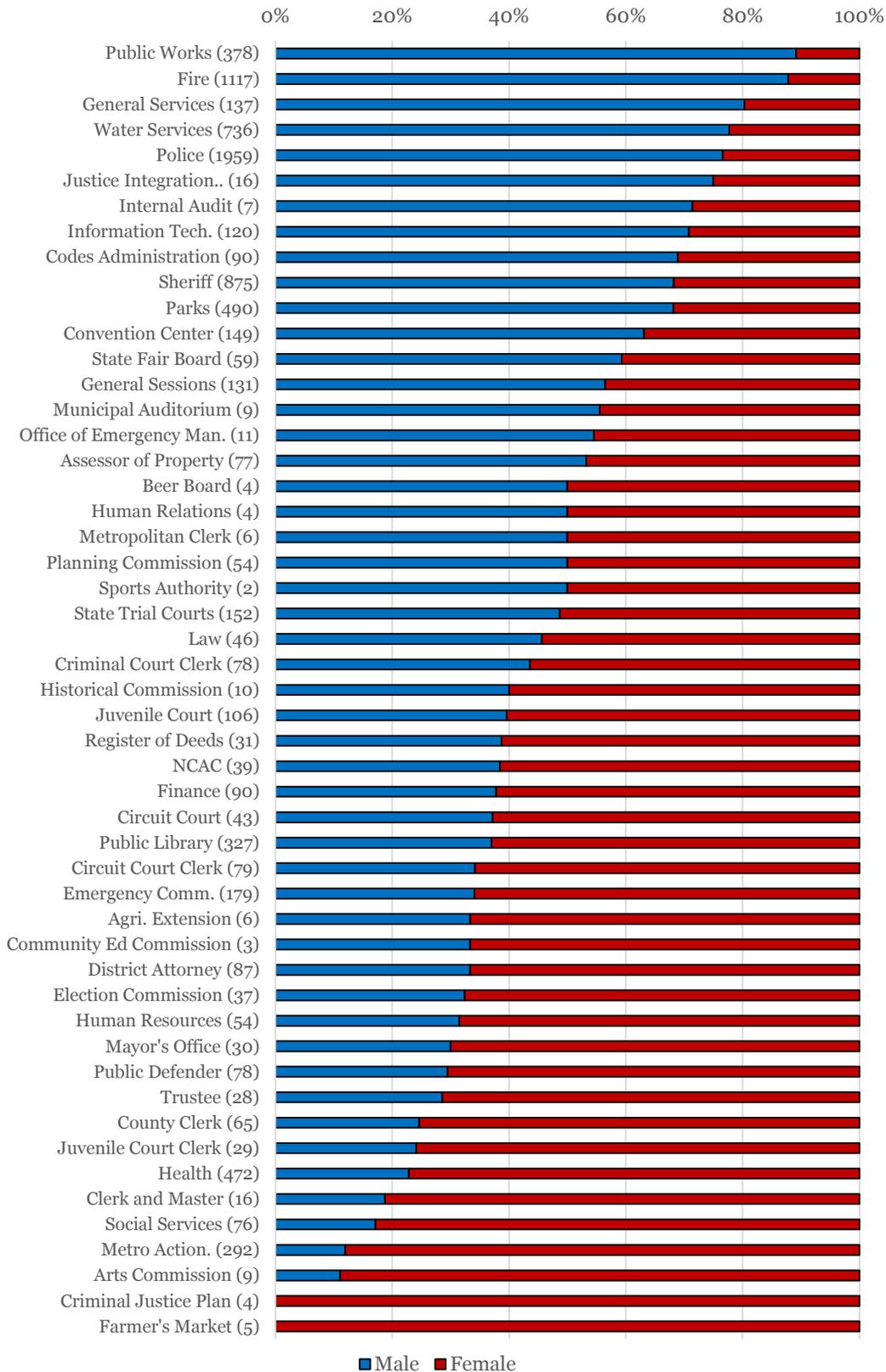
	Metro Employees	Nashville-Davidson MSA
% Male	63.3	48.5
% Female	36.7	51.5

Figure 5: Gender Composition of Metro Employees Compared to Population of Nashville-Davidson MSA



Below, in Figure 6, we examine the composition of specific Metro departments by gender. The blue lines represent the percent of the department that is made up of men, where the red lines represent the percent of the department that is made up of women.

Gender Composition of Metro Departments

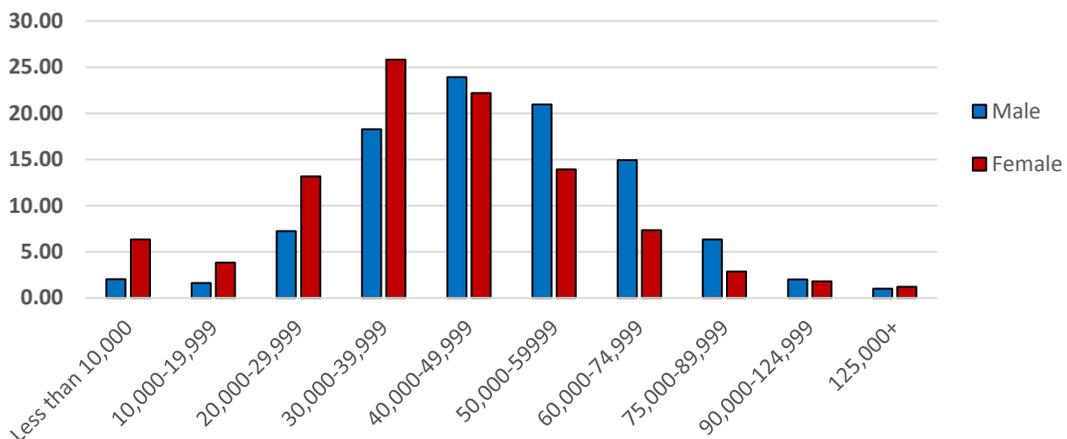


We next turn to the differences in pay between men and women. Table 6 below displays the gender makeup of each income bracket for all Metro employees as of March 2015. Men are under-represented in the lower income brackets of Metro employees and over-represented among the highest income brackets. Conversely, women are over-represented among the lowest income brackets and under-represented among the highest income brackets. Figure 7 graphically displays these numbers.

Table 6: Gender Breakdown of Each Income Bracket of Metro Employees, 2015

Salary	% Male	% Female
Less than 10,000	35.51	64.49
10,000-19,999	42.13	57.87
20,000-29,999	48.57	51.43
30,000-39,999	54.91	45.09
40,000-49,999	65.00	35.00
50,000-59,999	72.13	27.87
60,000-69,999	77.80	22.20
70,000-79,999	79.29	20.71
80,000-89,999	65.88	34.12
90,000-99,999	58.51	41.49
100,000-124,999	65.93	34.07
125,000+	65.52	34.48

Figure 7: Metro Employees' Salary by Gender

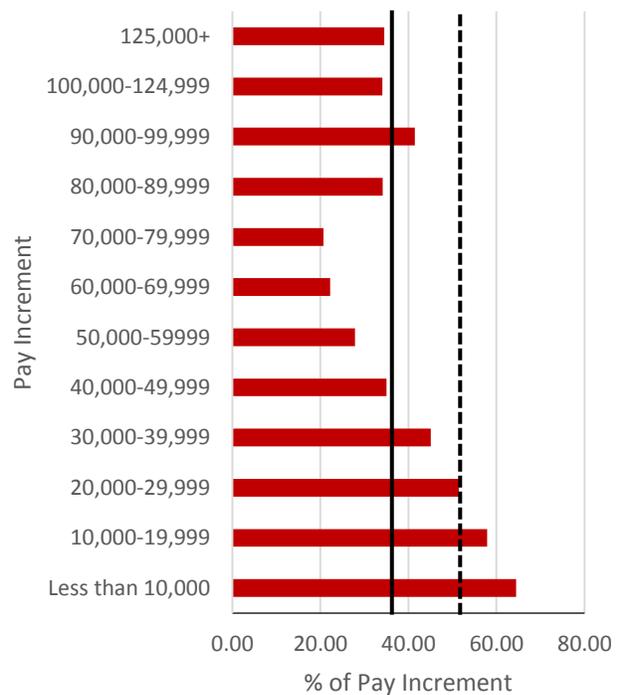
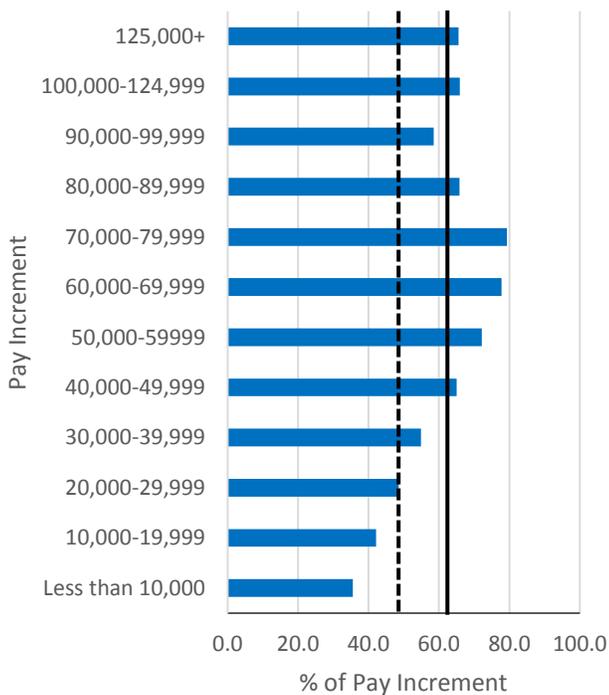


The two panels in Figure 8 below break down Table 6 visually, as well as add in statistics about the Nashville-Davidson MSA for comparison. Like Figure 4, the percentage of Metro employees of each gender is marked by the solid line in each panel, and the dashed line represents the overall percentage in the Nashville-Davidson MSA. Panel A shows that while men make up 63.2 percent of Metro employees, they only make up 49 percent of the Nashville-Davidson MSA. Again, men are under-represented in the lower income brackets of Metro employees and over-represented among the highest income brackets. Panel B shows that women (who make up 36.7 percent of Metro employees and 51 percent of the Nashville-Davidson MSA) are over-represented among the lowest income brackets and under-represented among the highest income brackets. Figure 9 graphically displays these numbers.

Figure 8: Percentage of Each Pay Bracket Made up by Each Gender

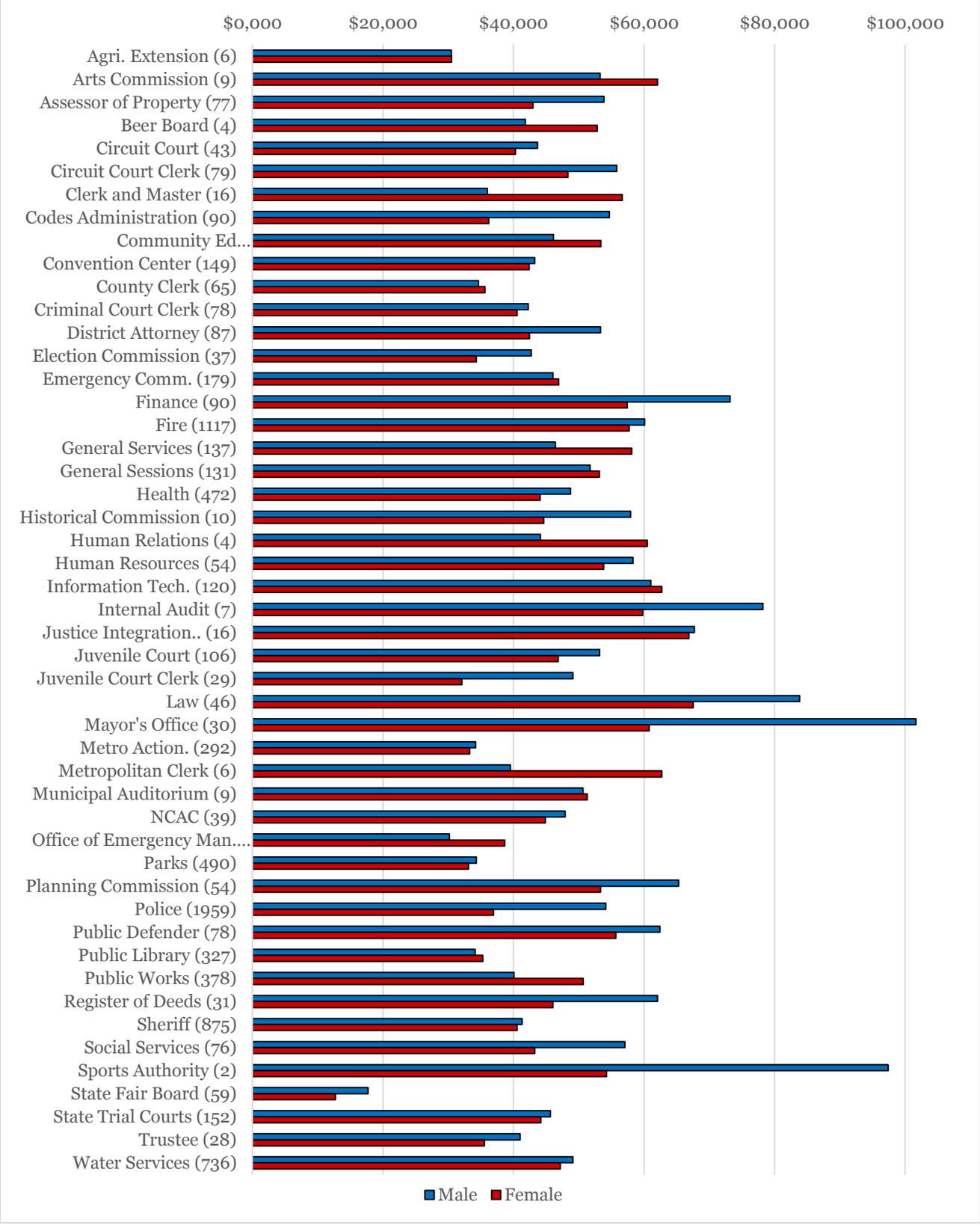
Panel A: % of Each Pay Increment Made Up by Male Metro Employees

Panel B: % of Each Pay Increment Made Up by Female Metro Employees



To help make better sense of these findings, Figure 9 below shows the average annual salary by department and gender among departments that employ both men and women. Blue columns represent the mean salary of the department for men, and red columns represent the mean salary of the department for women. The figure shows that in 32 of the 50 departments (64 %), men make significantly higher annual salaries.

Figure 9: Average Salary of Metro Employees, by Department and Gender



Below, Table 7 presents the median average and annual salary for Metro employees by gender. Again, we conducted t-tests to help determine whether the differences in salaries are statistically significant, or whether they are due to sampling error or random chance. The data indicates that women make significantly lower annual salaries than men on average.⁶

Table 7: Mean and Median Annual Salary by Gender, 2015

Gender	Median Salary (\$)	Mean Salary (\$)	Average Tenure (Years)
Male	50,017	49,114	12.3
Female	42,604	40,748 *	10.8 *

Note: Asterisks indicate significantly different means (compared to men): * p<0.01

However, it is possible that the gender disparities in income are due to differences in job tenure or other factors. Male employees have both the highest incomes and the highest job tenure. Below in Table 8, we use Ordinary Least Squares (OLS) regression to conduct multivariate tests of income disparity. Model 1 uses only gender to predict annual salary (female compared to male employees). According to Model 1, female Metro employees make, on average, \$7,486 less than male Metro employees.

The question is: how much of this difference is due to other factors? In Model 2 we include the following control variables: race/ethnicity, job tenure, age, and age-squared.⁷ We therefore get a more accurate estimate of how salary varies by gender, holding all else equal (controlling for job tenure, age, and race).

The findings in Model 2 are similar to Model 1, though the size of the income disparity has been reduced significantly. In other words, about 40 percent of the gender disparity in income was due to race, age and job tenure. Still, there is a strong and significant relationship between gender and income, as female metro employees still make less than \$4,450 less per year than their male counterparts, holding all else equal.

⁶ This does not mean that women and men performing within the job title or grade are paid differently. Metro maintains a pay plan that sets salary ranges within grades. This report analyzed salary data by \$10,000 increments without regard to job title or grade.

⁷ Age-squared is a commonly used control because salary tends to increase with age through middle age, but often decreases with age among elderly employees

Table 8: OLS Regression Predicting Annual Salary (in Thousands of Dollars) by Gender

	(1)	(2)
<i>Gender (ref=male)</i>		
Female	-7.468*** (0.43)	-4.450*** (0.38)
<i>Controls</i>		
African American (ref=NHW)		-7.719*** (0.42)
Hispanic/Latino (ref=NHW)		-6.626*** (1.31)
Asian/Pac. Islander (ref=NHW)		1.616 (2.02)
Other (ref=NHW)		-4.876** (2.22)
Job Tenure (Years)		0.795*** (0.02)
Age		2.244*** (0.10)
Age ²		-0.025*** (0.00)
Constant	50.150*** (0.26)	-4.235* (2.25)

Notes: N=8,902; Standard errors in parentheses
Asterisks indicate statistical significance: *** p<0.01, ** p<0.05, * p<0.1

We are also interested in how the gender and racial composition of Metro employees vary together. Figures 10a and 10b both provide the racial composition of employees, separated by gender. As both figures show, there is more racial and ethnic diversity among female Metro employees.

Figure 10a: Racial and Ethnic Breakdown of Metro Employees, By Gender

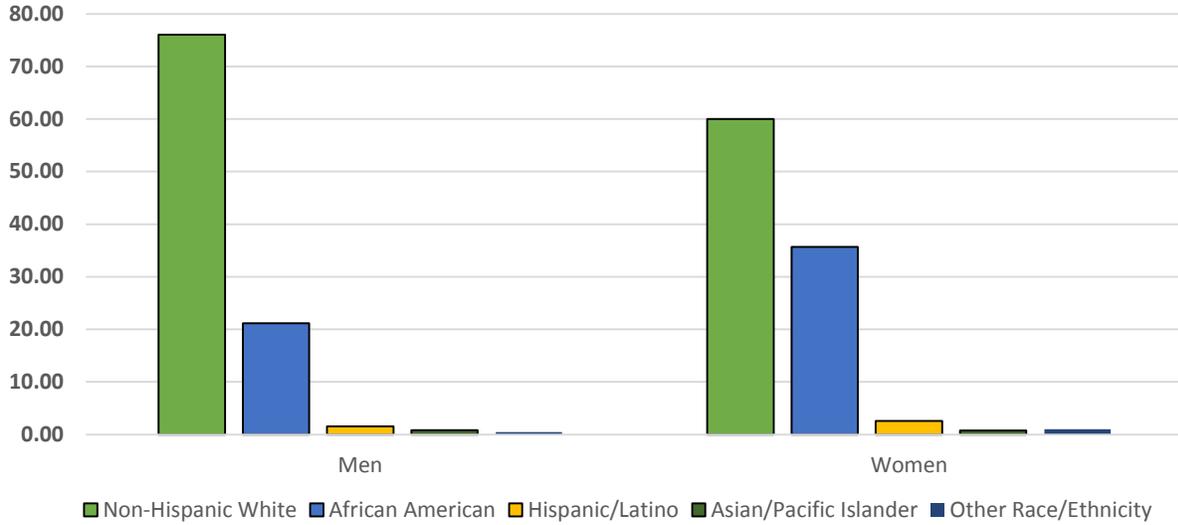
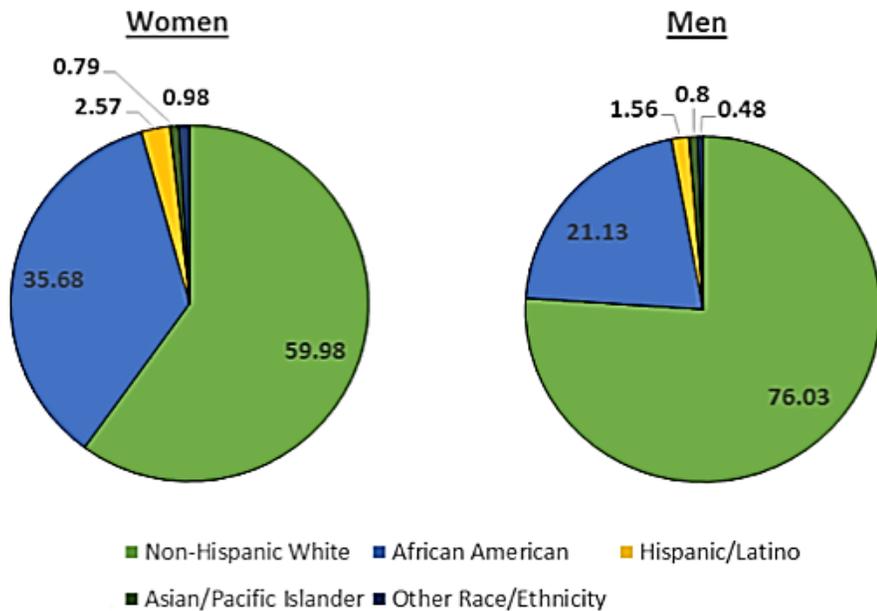
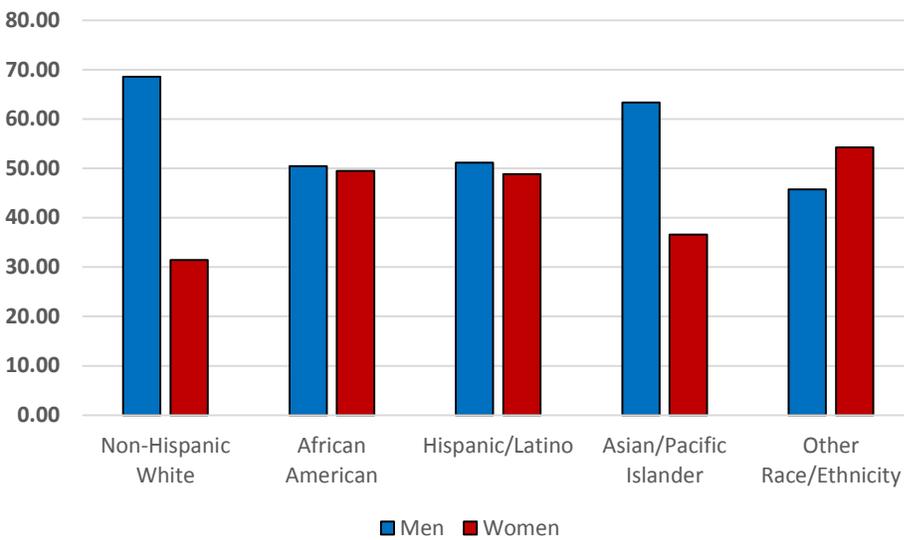


Figure 13b: Racial and Ethnic Breakdown of Metro Employees, By Gender



Finally, it is also helpful to look at the gender composition of employees by race, as shown in Figure 14. The largest gender disparity is among non-Hispanic White employees: there are more than twice as many men in this group than women. There is also a large gender gap among Asian/Pacific Islander employees: there are over 70% more men than women. However, the gender disparity is practically non-existent among African American and Hispanic and Latino employees.

Figure 14: Gender Composition of Metro Employees, by Race and Ethnicity



APPENDICES

Appendices 1a through 1d supplement the IncluCivics Report by providing more detailed information about the population of Nashville-Davidson MSA and the State of Tennessee. This information was compiled using data from the Integrated Public Use Microdata Series-USA (IPUMS-USA). The IPUMS-USA data are based on US Census estimates (the American Community Surveys). The high-precision microdata are a weighted subset of the entire census data; when weights are applied they represent the true population as a whole. Microdata stand in contrast to "summary" or "aggregate" data that is available from the Census Estimator website because each case represents one person. While using the IPUMS-USA data, we were able to calculate more detailed information on the Nashville-Davidson population and Tennessee as a whole.⁸ More information on the IPUMS-USA data is available at <https://usa.ipums.org/usa/index.shtml>.

Appendix 2 provides a detailed description of the IncluCivics data that we have compiled for public use (www.IncluCivics.com). This website takes data from Metro Government's Open Portal and renders and tracks differences in employee demographics over time in easy to understand figures. This platform was created by Code for Nashville (<http://www.codefornashville.org/>) a group of civic-minded technologists and developers who volunteer their time to create civically and socially focused apps and platforms. The Appendix provided here gives readers detailed instructions on how to access and navigate the site.

⁸ The reader may notice a small discrepancy in the population estimates of Nashville-Davidson MSA and Tennessee from the full IncluCivics Report released in January 2015; this is due to the use of the IPUMS-USA Microdata rather than aggregated census data estimates. Supplemental analyses (available upon request) proved that these estimates are not significantly different from each other.

Appendix 1a: Demographics of Nashville-Davidson MSA

	<u>Nashville-Davidson MSA</u>		<u>Tennessee</u>	
	Population (N)	% of Population	Population (N)	% of Population
<i>Population Count</i>				
Population (2010 Census)	627,991	-	6,356,897	-
Population Estimate (2013)	657,208	-	6,495,978	-
Population % Change, 2010-2013	4.65 % increase		2.82% increase	
<i>Age</i>				
Persons <5 Years Old	46,381	7.06%	397,362	6.12%
Persons <18 Years Old	141,852	21.58%	1,492,149	22.97%
Persons of Working Age (18-55)	379,479	57.74%	3,314,525	51.02%
Persons Over 65 Years Old	135,877	20.67%	872,892	13.44%
<i>Gender</i>				
Males	316,456	48.15%	3,176,386	48.90%
Females	340,752	51.85%	3,319,592	51.10%
<i>Gender, Working Age (18-55)</i>				
Males	185,659	48.92%	1,642,488	49.55%
Females	193,820	51.08%	1,672,037	50.45%
<i>Race and Ethnicity</i>				
White, non-Hispanic	374,856	57.04%	4,862,159	74.85%
Black or African American (NH)	179,275	27.28%	1,094,322	16.85%
Hispanic or Latino	65,361	9.95%	309,453	4.76%
Asian or Pacific Islander	20,628	3.14%	97,648	1.50%
Other Race/Ethnicity	17,088	2.60%	132,396	2.04%
<i>Race and Ethnicity, Working Age (18-55)</i>				
White, non-Hispanic	216,375	57.02%	2,434,258	73.44%
Black or African American (NH)	101,917	26.86%	595,391	17.96%
Hispanic or Latino	38,597	10.17%	172,320	5.20%
Asian or Pacific Islander	13,745	3.62%	60,266	1.82%
Other Race/Ethnicity	8,845	2.33%	52,290	1.58%
<i>Nativity</i>				
US-Born	571,958	87.03%	6,149,581	94.67%
Foreign Born	85,250	12.97%	346,397	5.33%
<i>Nativity, Working Age (18-55)</i>				
US-Born	312,423	82.33%	3,052,574	92.10%
Foreign Born	67,056	17.67%	261,951	7.90%

Source: Census Estimates, IPUMS USA 2010 and 2013

Appendix 1b: Nativity Makeup in Nashville-Davidson MSA, By Race and Ethnicity

	Population (N)	Percent of Race/Ethnic Group	Percent of Nativity Category
<i>US-Born</i>			
White	4,770,059	94.29%	77.57%
Black	1,058,467	94.17%	17.21%
Latino	170,900	45.70%	2.78%
Asian	29,082	23.90%	0.47%
Other	121,073	87.34%	1.97%
<i>Foreign Born</i>			
White	21,414	5.71%	25.12%
Black	10,458	5.83%	12.27%
Latino	35,499	54.30%	41.64%
Asian	15,715	76.10%	18.43%
Other	2,164	12.66%	2.54%

Source: Census Estimates, IPUMS USA 2013

Appendix 1c: Labor Force Participation and Employment Status of Nashville-Davidson MSA

	Population (N)	Percent of Population
<i>Labor Force Participation</i>		
In Labor Force	370,172	70.14%
Not in Labor Force	157,621	29.86%
<i>Employment Status</i>		
Employed, Civilian	343,727	65.13%
Employed, Armed Forces	452	0.09%
Unemployed	25,993	4.92%
Not in Labor Force	157,621	29.86%

Source: Census Estimates, IPUMS USA 2013

Appendix 1d: Employment Characteristics of Nashville-Davidson MSA by Age and Demographics

	Population (N)				Percent of Group			
	Employed, Civilian	Employed, Armed Forces	Unemployed	Not in Labor Force	Employed, Civilian	Employed, Armed Forces	Unemployed	Not in Labor Force
<i>Full</i>								
16-19	10,863	0	3,181	17,032	34.96%	0.00%	10.24%	54.81%
20-24	31,834	64	4,279	14,281	63.09%	0.13%	8.48%	28.30%
25-55	247,153	388	15,448	47,393	79.63%	0.13%	4.98%	15.27%
56-65	40,713	0	2,535	28,168	57.01%	0.00%	3.55%	39.44%
66-69	6,627	0	258	11,992	35.11%	0.00%	1.37%	63.53%
70+	6,537	0	292	38,755	14.34%	0.00%	0.64%	85.02%
<i>Men</i>								
16-19	4,291	0	2,021	8,897	28.21%	0.00%	13.29%	58.50%
20-24	16,608	64	2,109	5,989	67.05%	0.26%	8.51%	24.18%
25-55	129,253	200	7,205	15,259	85.08%	0.13%	4.74%	10.04%
56-65	19,403	0	1,235	12,658	58.27%	0.00%	3.71%	38.02%
66-69	3,545	0	0	4,924	41.86%	0.00%	0.00%	58.14%
70+	4,311	0	170	13,116	24.50%	0.00%	0.97%	74.54%
<i>Women</i>								
16-19	6,572	0	1,160	8,135	41.42%	0.00%	7.31%	51.27%
20-24	15,226	0	2,170	8,292	59.27%	0.00%	8.45%	32.28%
25-55	117,900	188	8,243	32,134	74.40%	0.12%	5.20%	20.28%
56-65	21,310	0	1,300	15,510	55.90%	0.00%	3.41%	40.69%
66-69	3,082	0	258	7,068	29.61%	0.00%	2.48%	67.91%
70+	2,226	0	122	25,639	7.95%	0.00%	0.44%	91.61%
<i>White</i>								
16-19	3,990	0	1,590	7,645	30.17%	0.00%	12.02%	57.81%
20-24	18,951	64	1,921	6,162	69.94%	0.24%	7.09%	22.74%
25-55	147,121	200	8,434	25,666	81.09%	0.11%	4.65%	14.15%
56-65	30,045	0	1,149	17,937	61.15%	0.00%	2.34%	36.51%
66-69	4,536	0	77	9,655	31.79%	0.00%	0.54%	67.67%
70+	4,777	0	170	30,321	13.54%	0.00%	0.48%	85.97%
<i>African American</i>								
16-19	4,025	0	901	6,648	34.78%	0.00%	7.78%	57.44%
20-24	7,117	0	1,389	6,243	48.25%	0.00%	9.42%	42.33%
25-55	60,648	188	5,844	13,914	75.25%	0.23%	7.25%	17.26%
56-65	8,682	0	1,086	8,048	48.73%	0.00%	6.10%	45.17%
66-69	1,746	0	181	2,115	43.20%	0.00%	4.48%	52.33%
70+	1,379	0	122	7,288	15.69%	0.00%	1.39%	82.92%
<i>Hispanic or Latino</i>								
16-19	2,294	0	100	1,670	56.45%	0.00%	2.46%	41.09%
20-24	3,317	0	507	1,074	67.72%	0.00%	10.35%	21.93%
25-55	24,398	0	811	5,552	79.31%	0.00%	2.64%	18.05%
56-65	715	0	152	1,287	33.19%	0.00%	7.06%	59.75%
66-69	0	0	0	117	0.00%	0.00%	0.00%	100.00
70+	0	0	0	834	0.00%	0.00%	0.00%	100.00

Source: Census Estimates, IPUMS USA 2013

Appendix 1d, Continued: Employment Characteristics by Age and Demographics

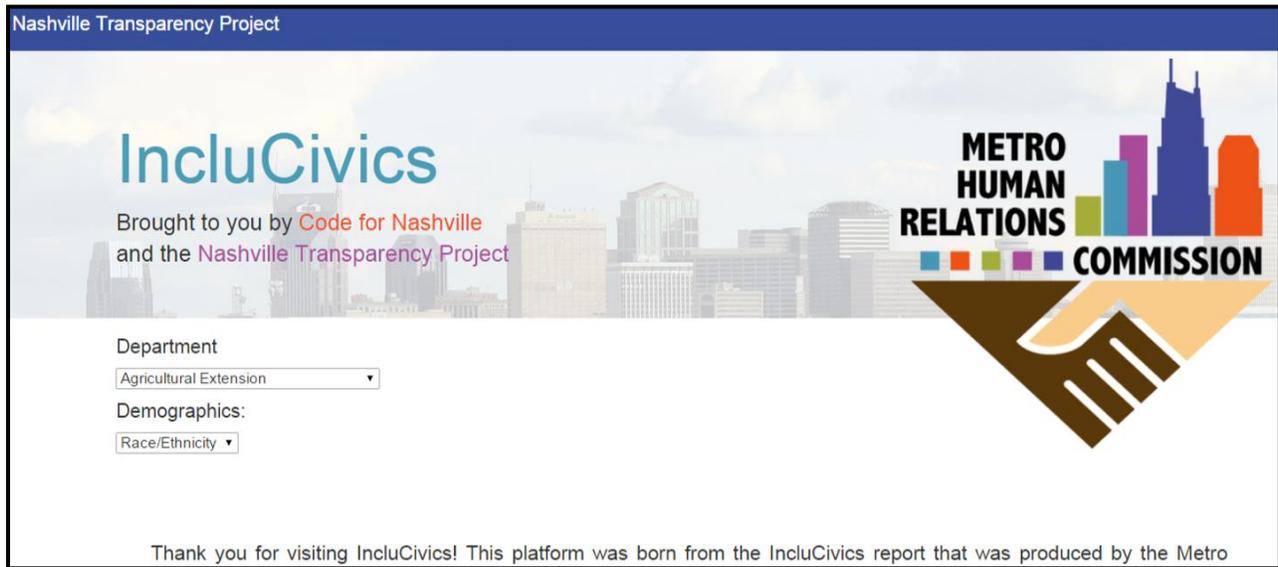
	Population (N)				Percent of Group			
	Employed, Civilian	Employed, Armed Forces	Unemployed	Not in Labor Force	Employed, Civilian	Employed, Armed Forces	Unemployed	Not in Labor Force
<i>Asian</i>								
16-19	301	0	0	394	43.31%	0.00%	0.00%	56.69%
20-	534	0	33	304	61.31%	0.00%	3.79%	34.90%
25-55	11,067	0	83	1,406	88.14%	0.00%	0.66%	11.20%
56-65	1,187	0	0	490	70.78%	0.00%	0.00%	29.22%
66-69	201	0	0	105	65.69%	0.00%	0.00%	34.31%
70+	222	0	0	0	100.00%	0.00%	0.00%	0.00%
<i>Other</i>								
16-19	253	0	590	675	16.67%	0.00%	38.87%	44.47%
20-	1,915	0	429	498	67.38%	0.00%	15.10%	17.52%
25-55	3,919	0	276	855	77.60%	0.00%	5.47%	16.93%
56-65	84	0	148	406	13.17%	0.00%	23.20%	63.64%
66-69	144	0	0	0	100.00%	0.00%	0.00%	0.00%
70+	159	0	0	312	33.76%	0.00%	0.00%	66.24%
<i>Foreign Born</i>								
16-19	1,998	0	343	1,595	50.76%	0.00%	8.71%	40.52%
20-	3,254	0	116	2,054	59.99%	0.00%	2.14%	37.87%
25-55	45,905	0	2,619	10,503	77.77%	0.00%	4.44%	17.79%
56-65	3,612	0	563	2,019	58.31%	0.00%	9.09%	32.60%
66-69	425	0	0	663	39.06%	0.00%	0.00%	60.94%
70+	481	0	80	1,634	21.91%	0.00%	3.64%	74.44%
<i>US</i>								
16-19	8,865	0	2,838	15,437	32.66%	0.00%	10.46%	56.88%
20-	28,580	64	4,163	12,227	63.46%	0.14%	9.24%	27.15%
25-55	201,248	388	12,829	36,890	80.07%	0.15%	5.10%	14.68%
56-65	37,101	0	1,972	26,149	56.88%	0.00%	3.02%	40.09%
66-69	6,202	0	258	11,329	34.86%	0.00%	1.45%	63.69%
70+	6,056	0	212	37,121	13.96%	0.00%	0.49%	85.55%

Source: Census Estimates, IPUMS USA 2013

Appendix 2: IncluCivics Platform Presenting the Data in a User-Friendly Way

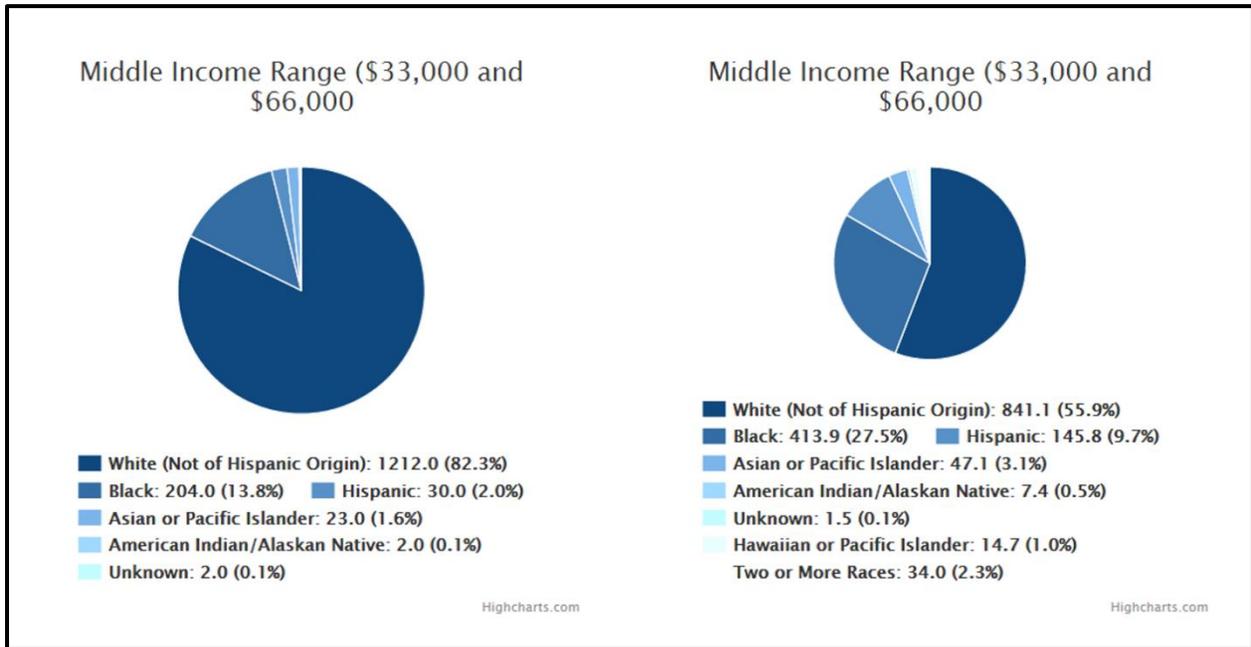
To access the IncluCivics platform, first go to www.inclucivics.com. This will bring you to the IncluCivics website, as pictured below in Figure A1. Once the website is loaded, select the department for which you want to view information. Then, select the demographics you are interested in (either Race/Ethnicity or Gender). Selecting these items will automatically pull up easy-to-read figures about the department.

FIGURE A1: IncluCivics Website



Once the data loads, you will see two columns of figures. The figures on the left side provide the actual demographic breakdown of the department by either race/ethnicity or by gender. The figures on the right provide US Census Bureau estimates of the same statistics for comparison purposes. For example, Figure A2 shows the demographic composition of the Metro Police Department in making between \$33,000 and \$66,000 annually, compared to the US as a whole. As the Metro Government continues to upload their quarterly data, users will be able to track how these trends change over time.

FIGURE A2: Example of IncluCivics Figures



Data Analyst: Anna W. Jacobs