

IncluCivics Report 2020:

The Diversity & Equity of Fifty Metro Nashville Departments

By:

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Metro Human Relations Commission's IncluCivics Report on 50 Metro Government Departments - December 2020

Executive Summary

In March 2014, the Metro Human Relations Commission began to study various reports regarding diversity in Metro Government. After conducting a study of the Title VI report, the EEO4 report, and the annual diversity report submitted to Metro Council by each Metro department, the MHRC then conducted an internal analysis. This analysis involved studying demographic data on Metro employees to assess how representative Metro employees are of the city and county they serve, by race, ethnicity and gender.

Some of the salient findings of the 2015 report by MHRC were as follows:

- While the Black employee population is generally reflective of the Black community in Nashville, that population is not evenly distributed across departments. Black employees are overrepresented in some departments, while being underrepresented in others.
- Black employees are underrepresented in the income brackets above \$40,000 while White employees are overrepresented in the income brackets above \$40,000.
- There is a significant lack of Hispanic/Latinos and Asian/Pacific Islanders within Metro Government.
- More than half of all Metro departments do not have any employees that are Hispanic/Latinos or Asian/Pacific Islander.

IncluCivics 2020:

The 2020 report is an updated report to assess any significant changes since the initial report was conducted five years ago. This report is a thorough analysis of demographic data of Metro employees from 2015 – 2019. This report finds that while there have been slight improvements in the diversity and pay parity in Metro departments since 2015, the progress has not been substantial. The MHRC views it as an opportunity to further strengthen hiring practices in Metro to ensure that Metro government reflects and represents the communities it serves.

Salient findings of the IncluCivics Report 2020:

All Employees Over Time:

- Average Salaries
 - General salaries have gone up from 2015 to 2020, but the gap between Whites and all other races remain relatively stagnant. On average, White employees remain the highest paid workers compared to all other races.
 - The biggest average salary gap is between Hispanic and White employees, but the gap between Black and White employees is not far behind.
 - Female employees are on average more likely to be paid less than male employees.
- Employee Demographics
 - The number of Hispanic, Asian, and American Indian employees have increased over time, while the number of White and Black employees have decreased.
 - The number of male employees remains to be about three times more than the number of female employees.

Employees hired from 2015 to 2019:

- Average Salaries
 - The salary gap between White employees and employees of all other races appear to be generally decreasing.
 - The average salaries of newly hired male and female employees are mostly equal after 2015.
- Employee Demographics
 - Hispanic workers are the most underrepresented employees compared to the national average, while Black workers are overrepresented compared to the national average.
 - The percentages of male and female employees hired after 2015 are becoming more equal over time, with female employees hired in 2019 only being three percent lower than parity.

All Employees by Department:

- Compared to the city average, White and Black employees are overrepresented in the most departments. The other races are underrepresented in most of the departments. Hispanic employees tend to be the most underrepresented.
- The median salary of all departments is higher than the median salary for individual workers in the U.S. When also separated by race and ethnicity, a handful of departments' median salaries are under the national estimate of the median salary for individual workers.

List of Graphs:

- Changes Over Time:
 - Average Number of Employees by Race Over Time, 2015-2020
 - Average Salary by Race Over Time, 2015-2020
 - Salary Differences Between Full-Time White Employees and all other Full-Time Employees by Race and Ethnicity Over Time, 2015-2020
 - Average Number of Employees by Gender Over Time, 2015-2020
 - Average Salary by Gender Over Time, 2015-2020
 - Percentage Employees with Highest and Lowest 10% Salary by Race and Ethnicity Over Time, 2015-2020

- Demographic of Employees Hired from 2015 to 2019:
 - Percentage of Employees by Year Started (2015-2019) and Race and Ethnicity
 - Average Percentage of Salaries
 - Average Salary of Full-Time Employees by Year Started (2015-2019) and Race and Ethnicity
 - Percentage of Employees by Year Started (2015-2019) and Gender
 - Average Salary of Full-Time Employees by Year Started (2015-2019) and Gender

- 2019 Department Statistics:
 - Number of employees by department, 2019
 - Percentages of Race and Ethnicity by Department, 2019
 - Percentages of Gender by Department, 2019
 - Median Salary of Full-Time Employees by Department, 2019
 - Median Salary of Full-Time Employees by Race and Ethnicity and Department, 2019
 - Median Salary of Full-Time Employees by Gender and Department, 2019

Data and Methods

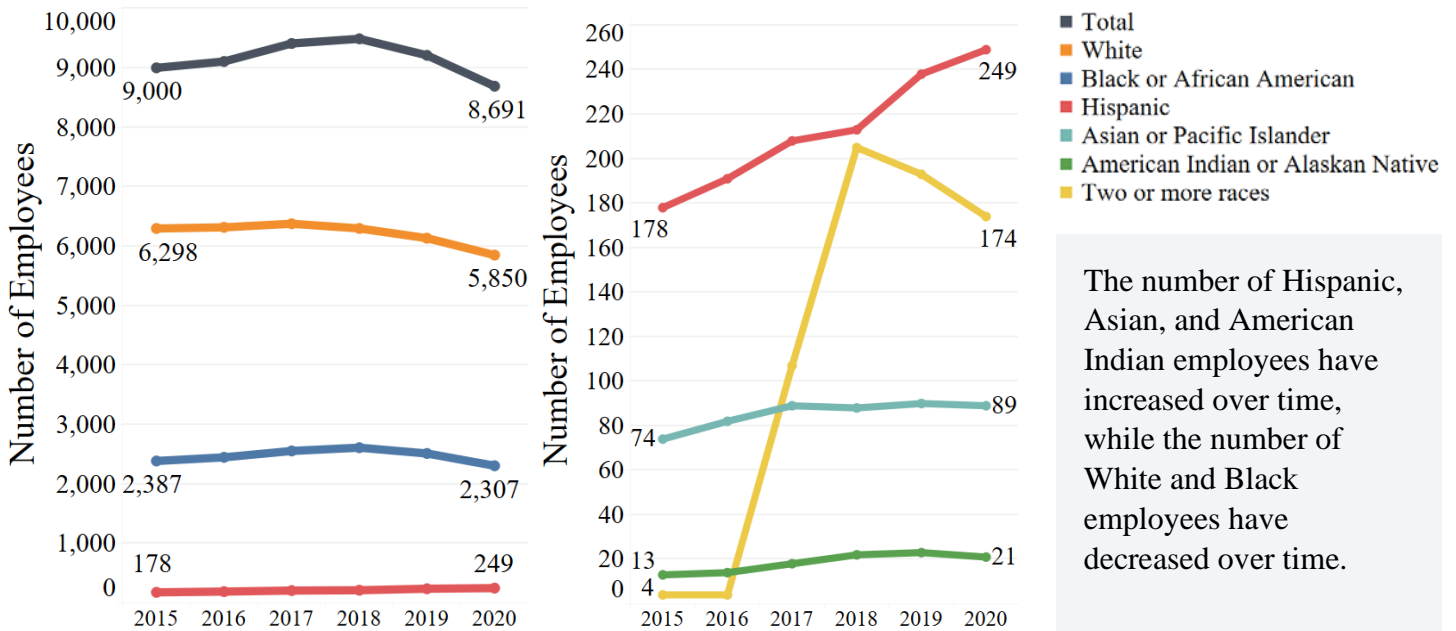
Demographic information on metro general government employees stems from twenty merged datasets, each of which captures different time points ranging from April 2015 to January 2020. When appropriate, datasets from the same year were aggregated, and variables were averaged. The total number of employees during this timeframe ranged from around 8,700 to around 9,760.

Variables in the final dataset include employee's salary, department, status (e.g. full-time, part-time, etc.), job category (e.g. professional, administrative, etc.), gender, year started, and race and ethnicity. Categories of race and ethnicity include White; Black or African American; Hispanic/Latino; Asian or Pacific Islander; American Indian or Alaskan Native; and two or more races. For brevity, the report may interchangeably use abbreviated names for the race and ethnicity categories (i.e. Black, Asian, American Indian). The earliest start-year for an employee is 1964, and the latest start-year is 2020. For all salary calculations, only full-time employees were used.

The appendix contains tables with the results of regression analyses predicting salary by other variables. The analyses have several important limitations. Due to lack of data, the statistical models are unable to control for other, potentially significant variables, such as education level, age, family income, years of experience, etc. Omission of these variables may result in biased estimates. For a more accurate analysis, future demographic surveys are suggested to include these other, potentially relevant variables. Furthermore, future surveys should consider issuing a distinct ID for each employee. These individual IDs would not only be helpful for merging and cleaning data but would also allow future analysts to examine the same employees over time.

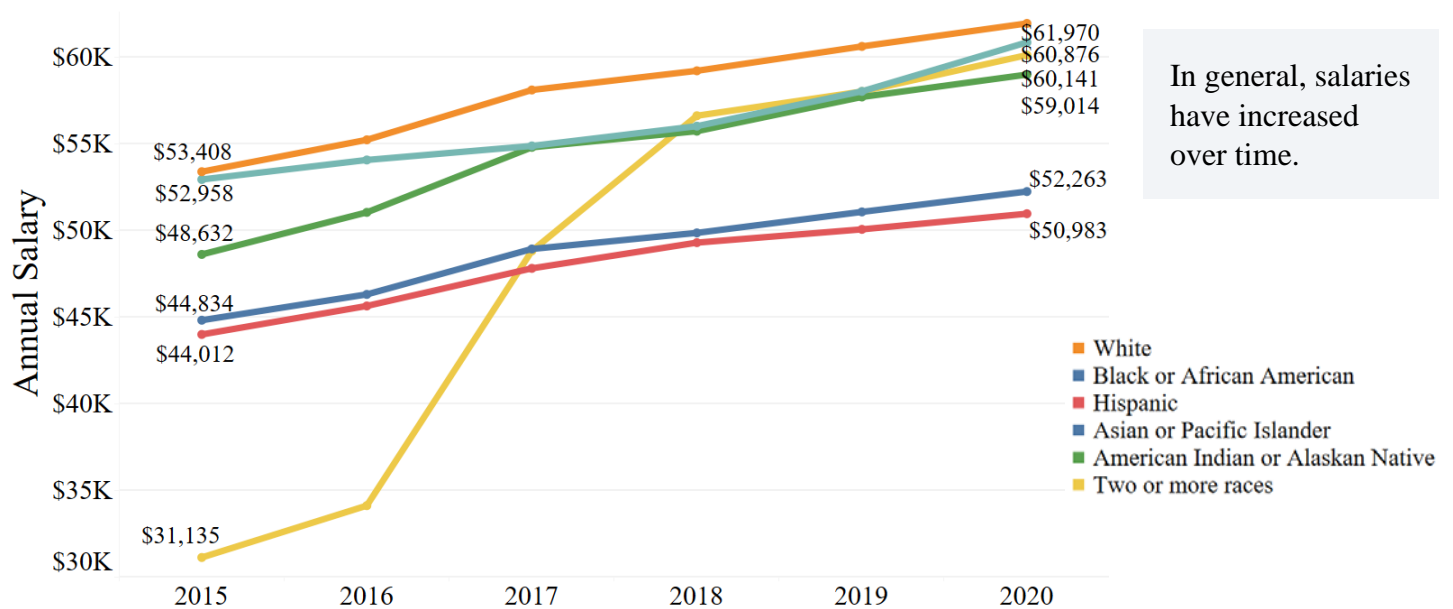
Changes Over Time

Average Number of Employees by Race Over Time, 2015-2020



The number of Hispanic, Asian, and American Indian employees have increased over time, while the number of White and Black employees have decreased over time.

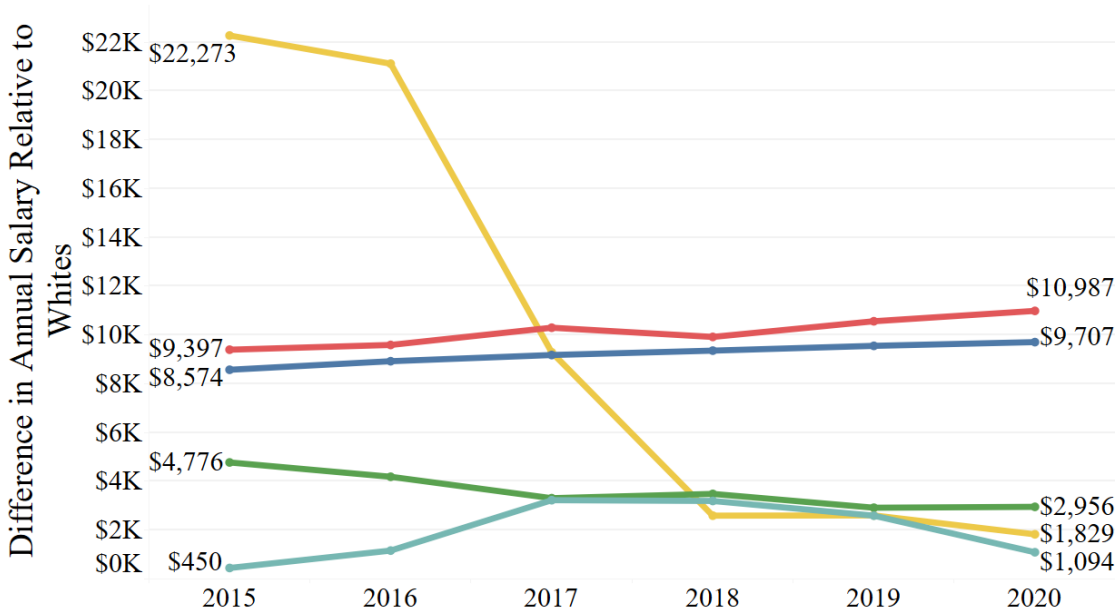
Average Salary of Full-Time Employees by Race and Ethnicity Over Time, 2015-2020



In general, salaries have increased over time.

On average, White employees remain the highest paid over time, while Hispanic employees are generally the lowest paid over time. Average salaries for Black or African American employees are only slightly higher than Hispanics.

Salary Differences between Full-Time White Employees and all other Full-Time Employees by Race and Ethnicity Over Time

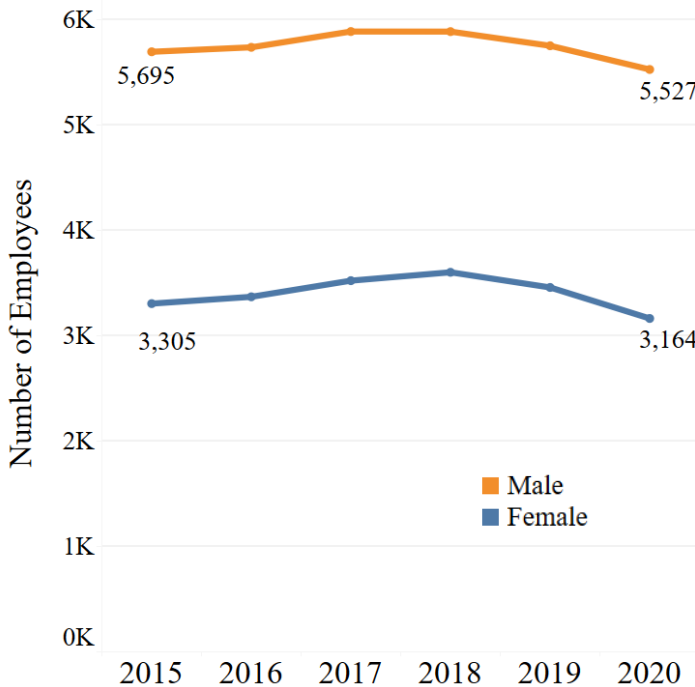


The salary gap between White and Hispanic employees (\$9.4K to \$11K) and White and Black employees (\$8.6K to \$9.7K) are relatively consistent with a slight increase over time.

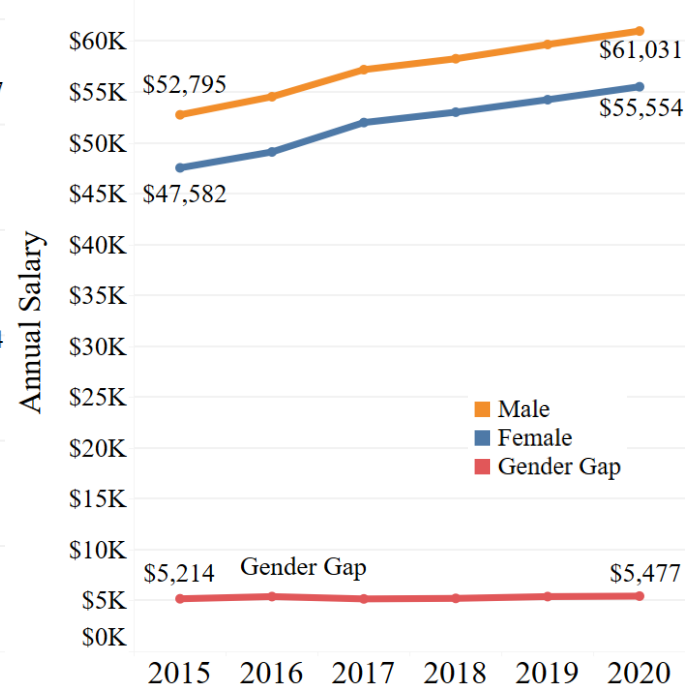
- Black or African American
- Hispanic
- Asian or Pacific Islander
- American Indian or Alaskan Native
- Two or more races

In terms of salaries, the most similar to White employees are the American Indians, Asians, and employees with two or more races.

Average Number of Employees by Gender Over Time, 2015-2020

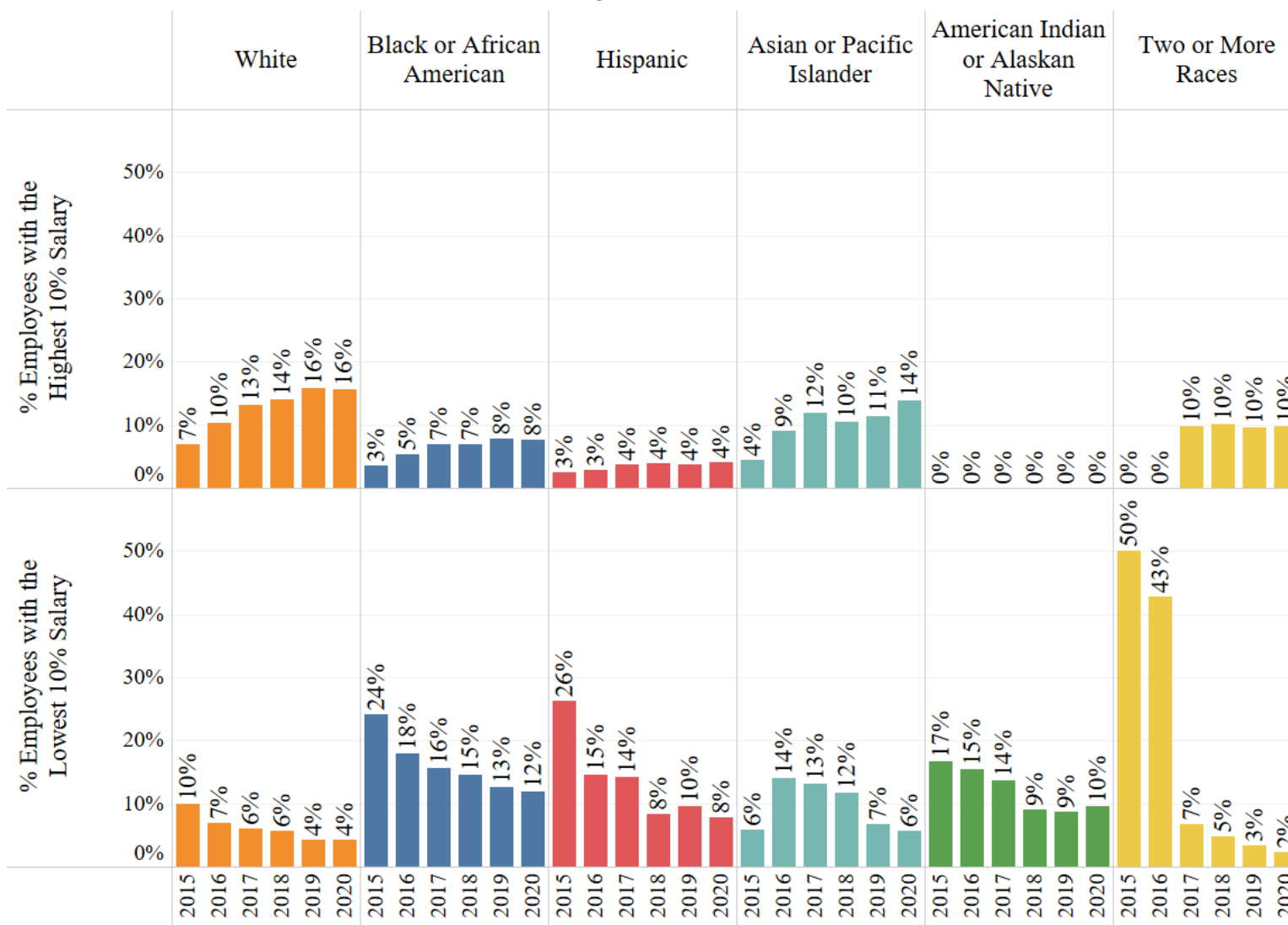


Average Salary of Full-Time Employees by Gender Over Time, 2015-2019



Female workers consistently make up around 35% of all employees. The average salary gap between male and female employees remain generally consistent over time, with male employees being paid on average \$5,000 more than female employees.

Percentage of Employees with the Highest and Lowest 10 Percent Salaries by Race and Ethnicity Over Time, 2015-2020



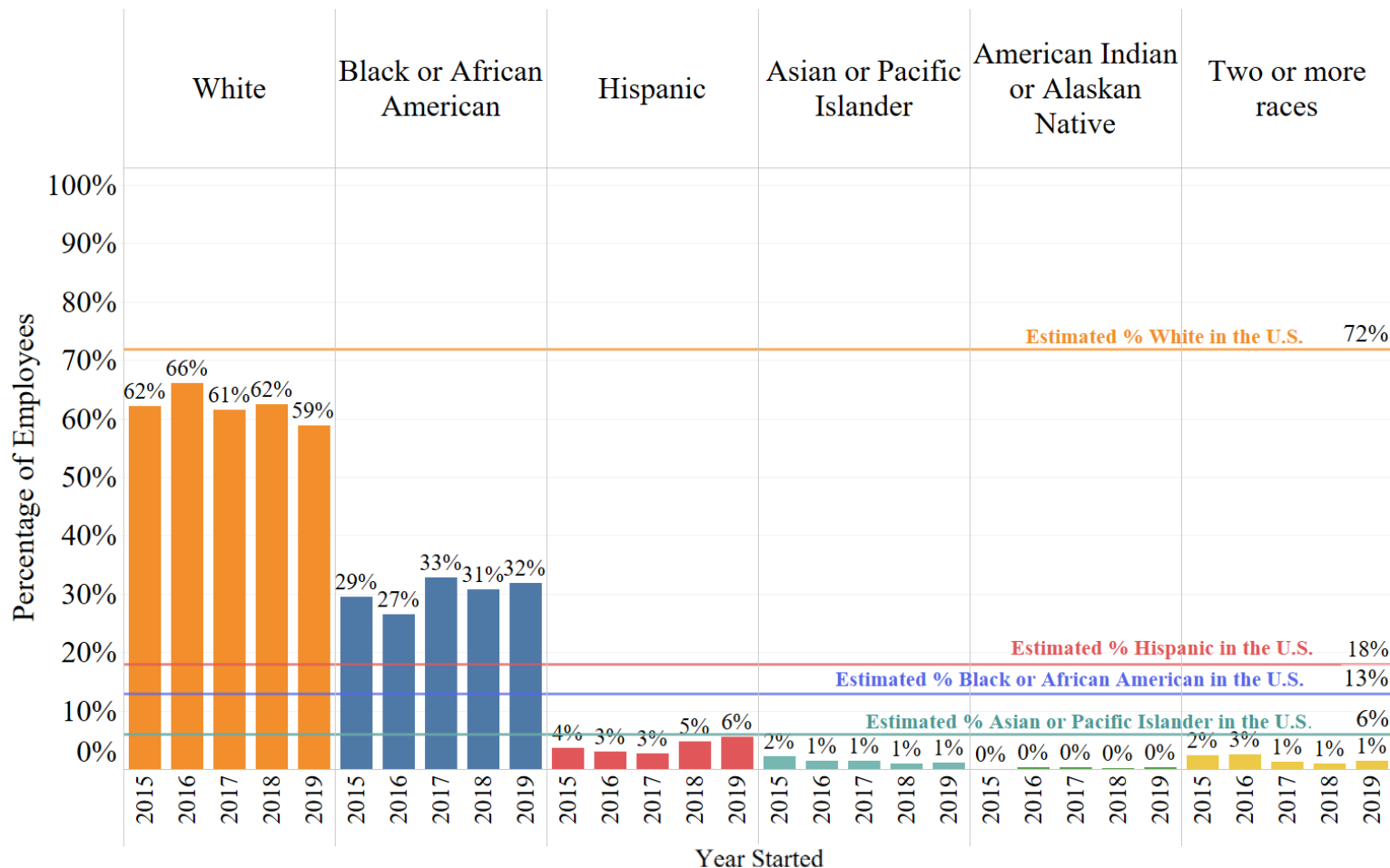
White and Asian employees tend to be relatively overrepresented within the highest paid 10%.

Black and Hispanic employees as well as employees with two or more races tend to be the most overrepresented within the lowest paid 10%.

*The graph only uses the last dataset within a given year. Percentages over 10 suggest overrepresentation, while percentages under 10 suggest underrepresentation.

Demographic of Employees Hired from 2015 to 2019

Percentage of Employees by Year Started (2015-2019) and Race and Ethnicity



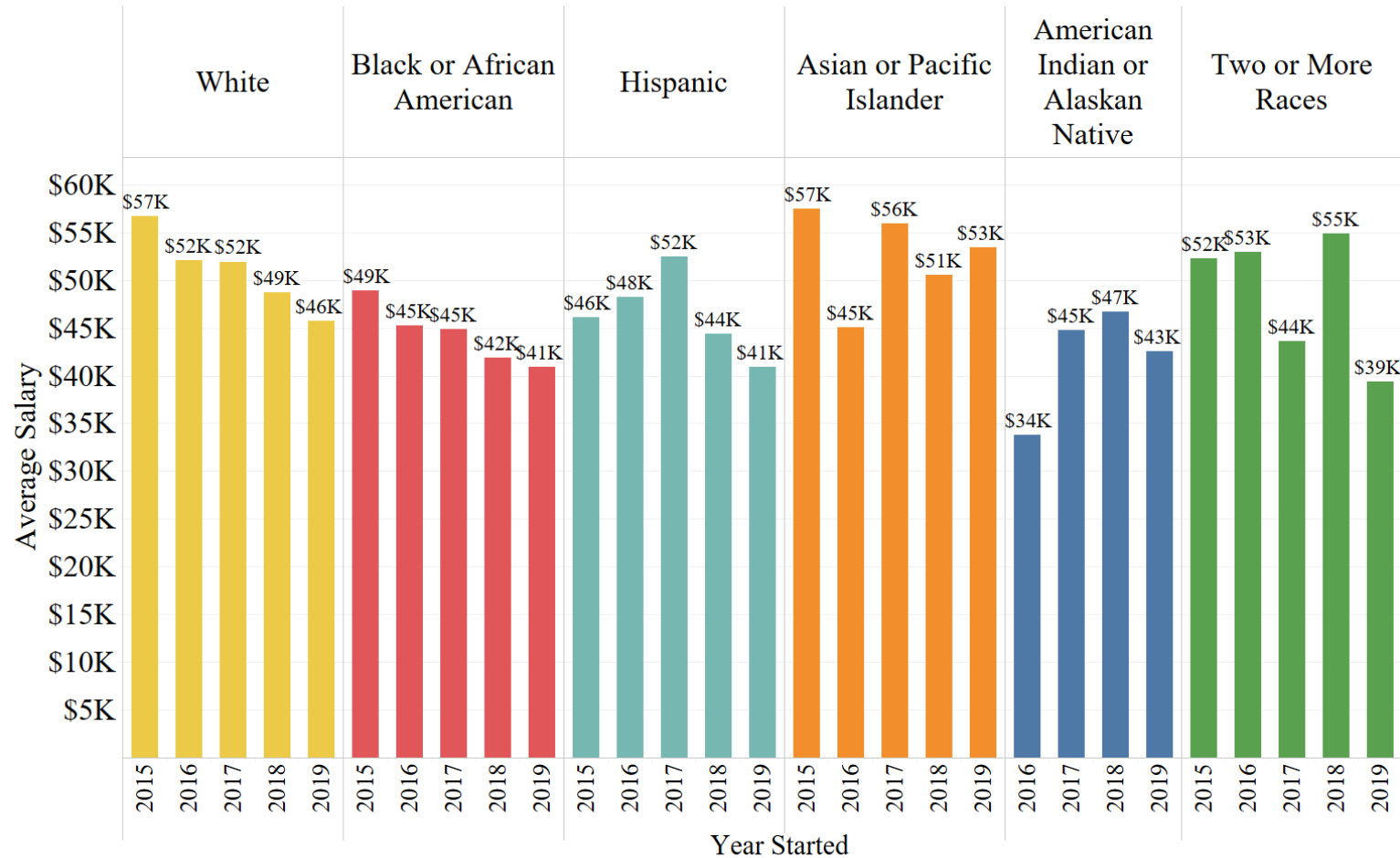
The graph shows the percentage of newly hired employees by race and ethnicity from 2015 (i.e. the year the last Includivics report was published) to 2019.

Compared to national statistics, Black employees are overrepresented within the newly hired. All other race and ethnicities are underrepresented, with Hispanic employees being the most underrepresented of the newly hired (around 12 to 15 percent under the national average).

*The reference statistics are all from the 2017 American Community Survey 1-year estimates. The estimated percentage of American Indian or Alaskan Native in the U.S. is 0.8%. The estimated percentage of people with two or more races in the U.S. is 3%. Both of these percentages are not shown in the graph. The graph only uses data from the 2019-10 dataset.

Compared to 2015, the percentage of newly hired employees by race and ethnicity remain mostly consistent with slight changes over the last five years.

Average Salary of Full-Time Employees by Year Started (2015-2019) and Race and Ethnicity

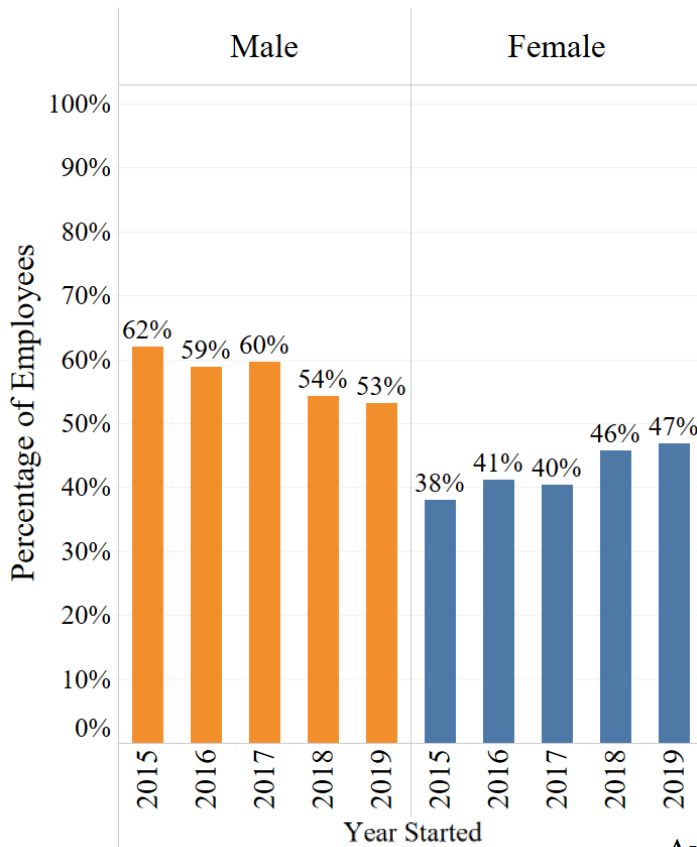


*The graph only uses data from the 2019-10 dataset.

The average salary of new White and Black employees has decreased over time, while the average salaries of new Hispanic, and American Indian employees have increased then decreased over time.

The salary gap between White employees and employees of all other races appear to be generally decreasing over time. Asian workers tend to be the highest paid newly hired employees.

Percentage of Employees by Year Started (2015-2019) and Gender

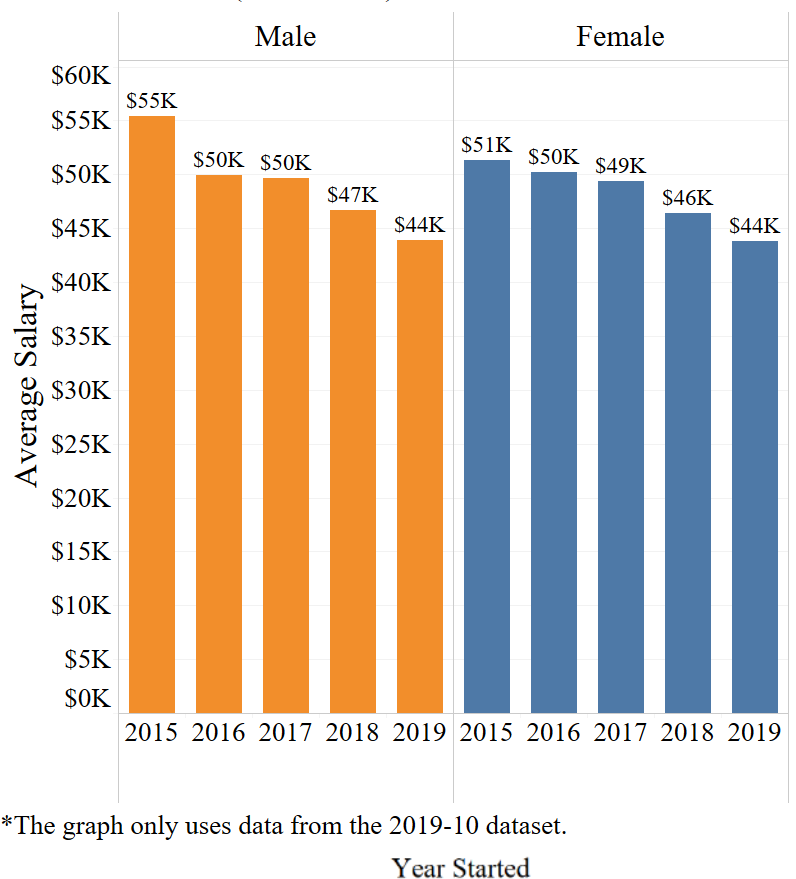


The percentage of new female employees have increased over time.

In 2019, the percentage of new female employees was only 3% under parity (i.e. 50%).

*The graph only uses data from the 2019-10 dataset.

Average Salary of Full-Time Employees by Year Started (2015-2019) and Gender



Average salaries of newly hired employees have generally decreased over time.

The average salaries of newly hired male and female employees are relatively equal after 2015.

*The graph only uses data from the 2019-10 dataset.

Year Started

2019 Department Statistics

Number of Employees

- The police, fire, and sheriff departments employ the most workers.

Median Salaries

- The median salaries of all departments are over the estimated median income of *individual workers* in the U.S. (\$33,646).¹ In contrast, the median salary of 12 of the 59 departments are over the median *household* income in the U.S. (\$60,336).
- The department with the highest median salary has over twice the median salary of the department with the second highest median salary.
- The lowest median salary is around three times less than the second highest median salary.

White

- Compared to the Nashville and Davidson County average, White employees are overrepresented in 41 of the 59 departments.
- White workers are the only employees in 4 of the 59 departments, including the department with the highest median salary (MTA).

Black or African American

- Compared to the city average, Black or African American employees are overrepresented in 25 of the 59 departments.
- Black or African American employees are not represented in 5 of the 59 departments.

Hispanic

- Compared to the city average, Hispanic employees are underrepresented in all but one (Community Education Commission) of the 59 departments.

All other races

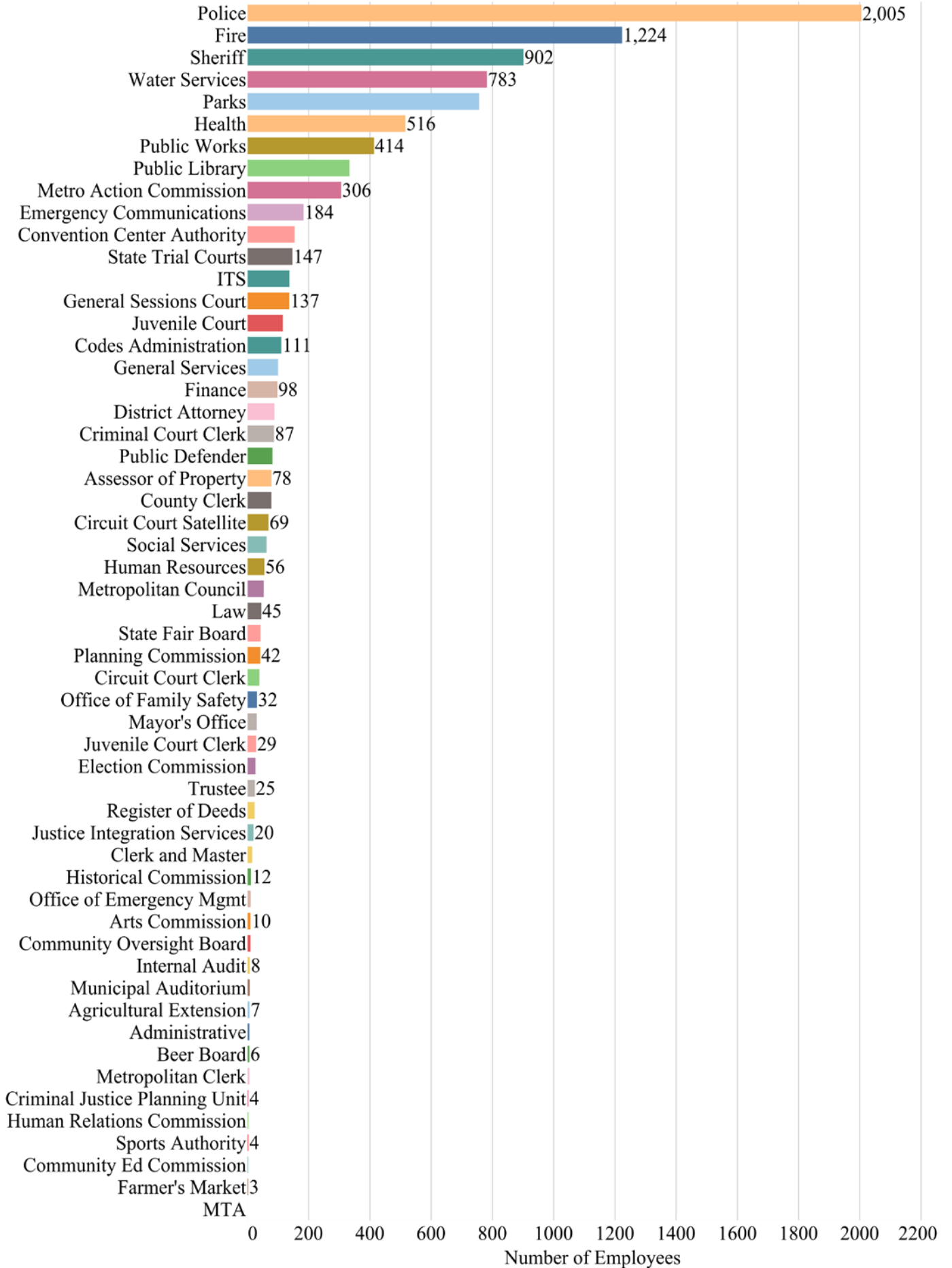
- Compared to the city average, Asian or Pacific Islander employees are underrepresented in all but one (Internal Audit) of the 59 departments.
- Compared to the city average, American Indian or Alaskan Native employees are underrepresented in all but 3 of the 59 departments.
- Compared to the city average, employees with two or more races are on par in 1 of the 59 departments but are underrepresented in all other departments.

By Gender

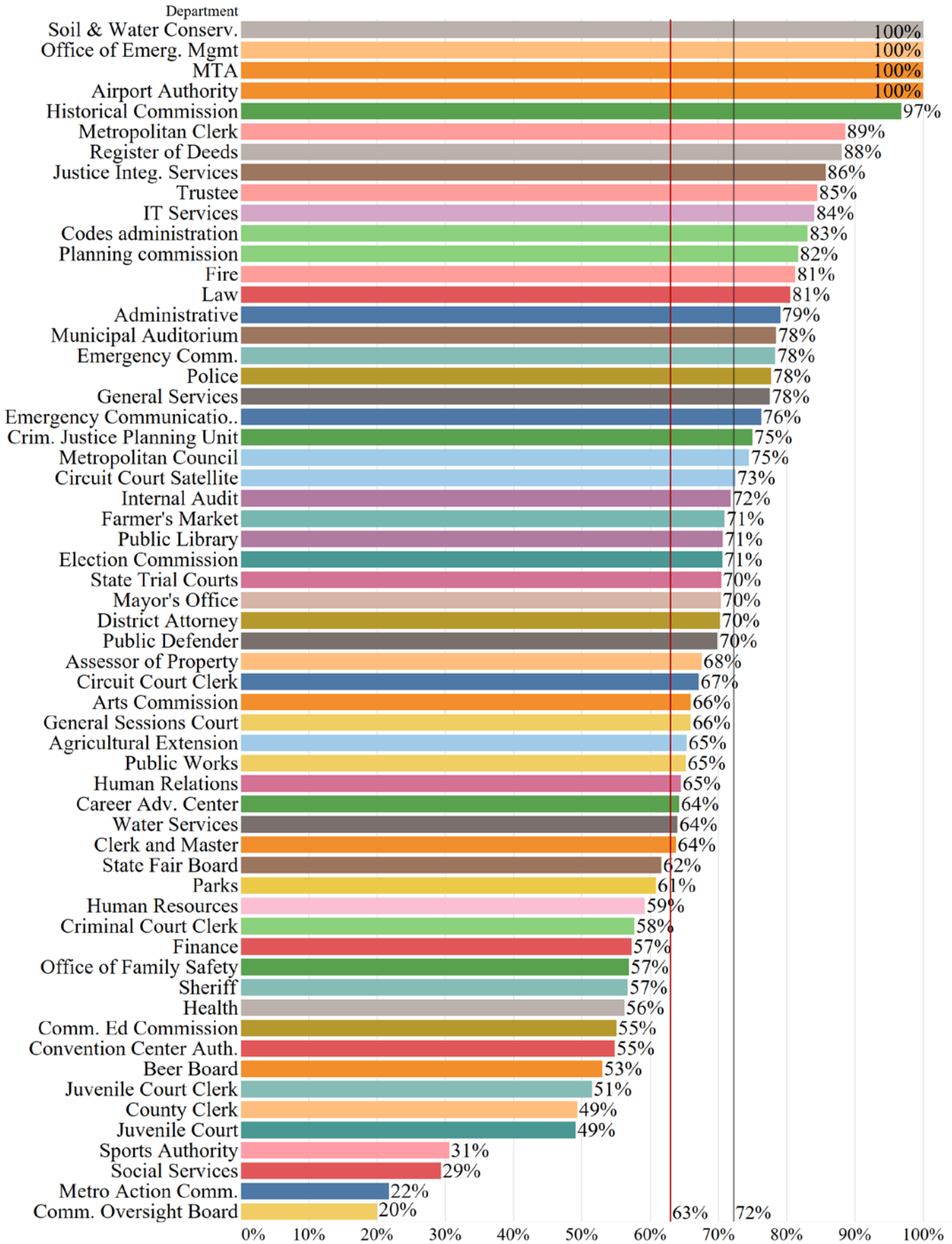
- Male employees make up the majority of workers in 22 of the 59 departments.
- Male workers are the only employees in 2 of the 59 departments, including the department (MTA) with the highest median salary.
- Female employees make up the majority of workers in 37 of the 59 departments.
- Female workers are the only employees in 2 of the 59 departments.

¹ All national statistics come from the 2017 American Community Survey 1-year estimates.

Number of Employees by Department, 2019

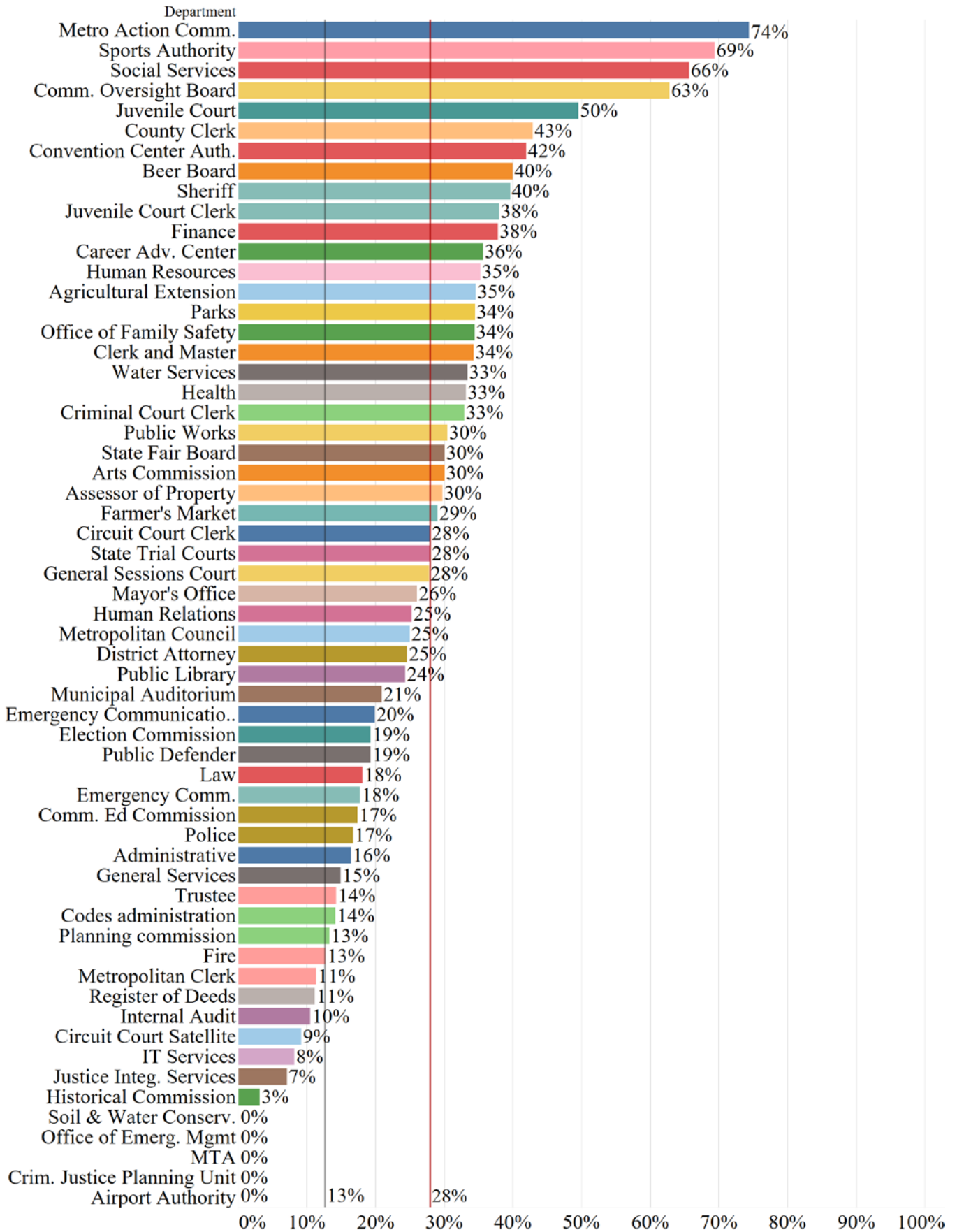


Percentage of White Employees by Department, 2019



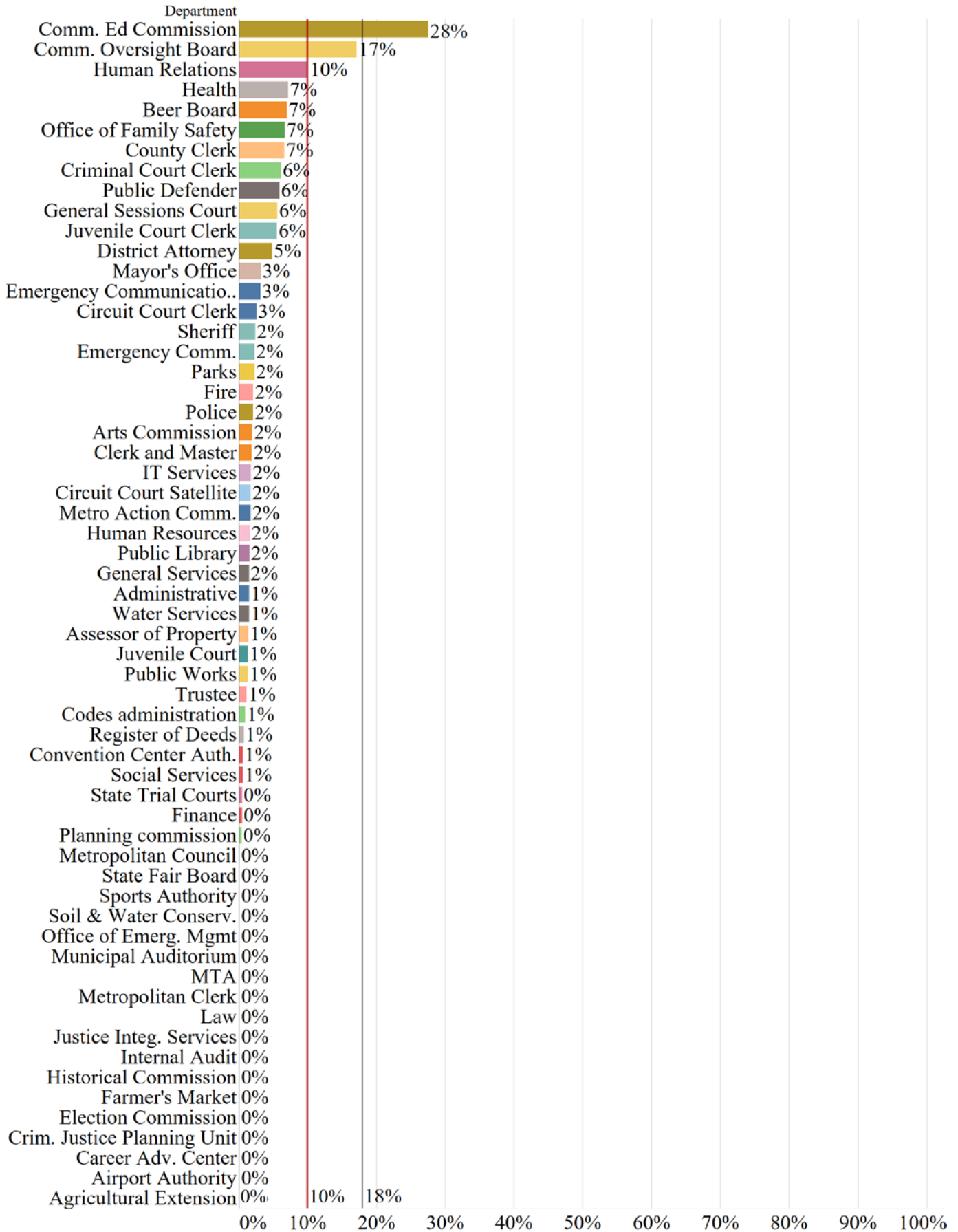
*The gray line indicates the 2017 American Community Survey (ACS) 1-year estimate of the percentage of whites in the U.S. The red line indicates the 2018 ACS 5-year estimate of the percentage of whites in Nashville and Davidson County.

Percentage of Black or African American Employees by Department, 2019



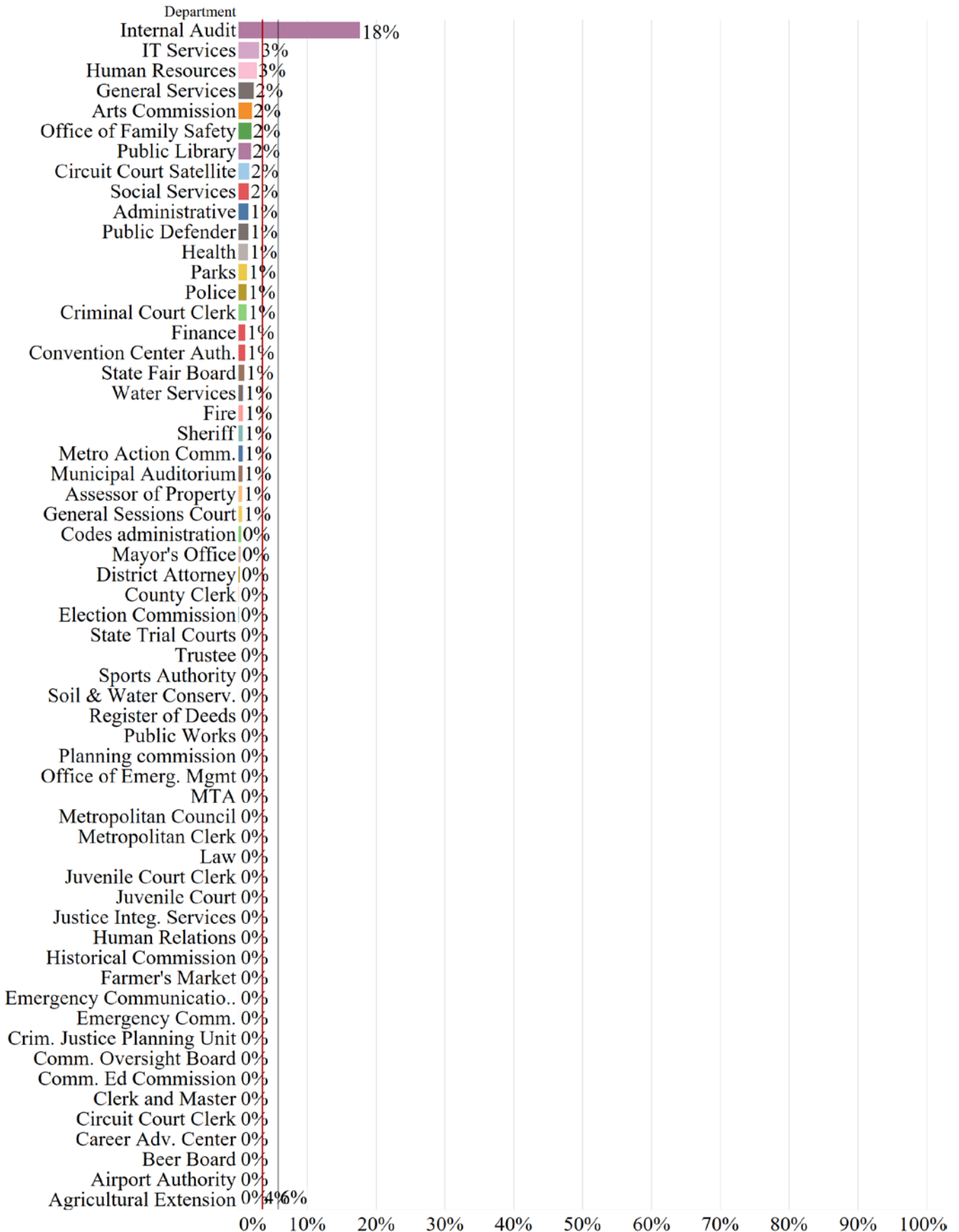
*The gray line indicates the 2017 American Community Survey 1-year estimate of the percentage of Blacks and African Americans in the U.S. The red line indicates the 2018 ACS 5-year estimate of the percentage of Blacks and African Americans in Nashville and Davidson County.

Percentage of Hispanic Employees by Department, 2019



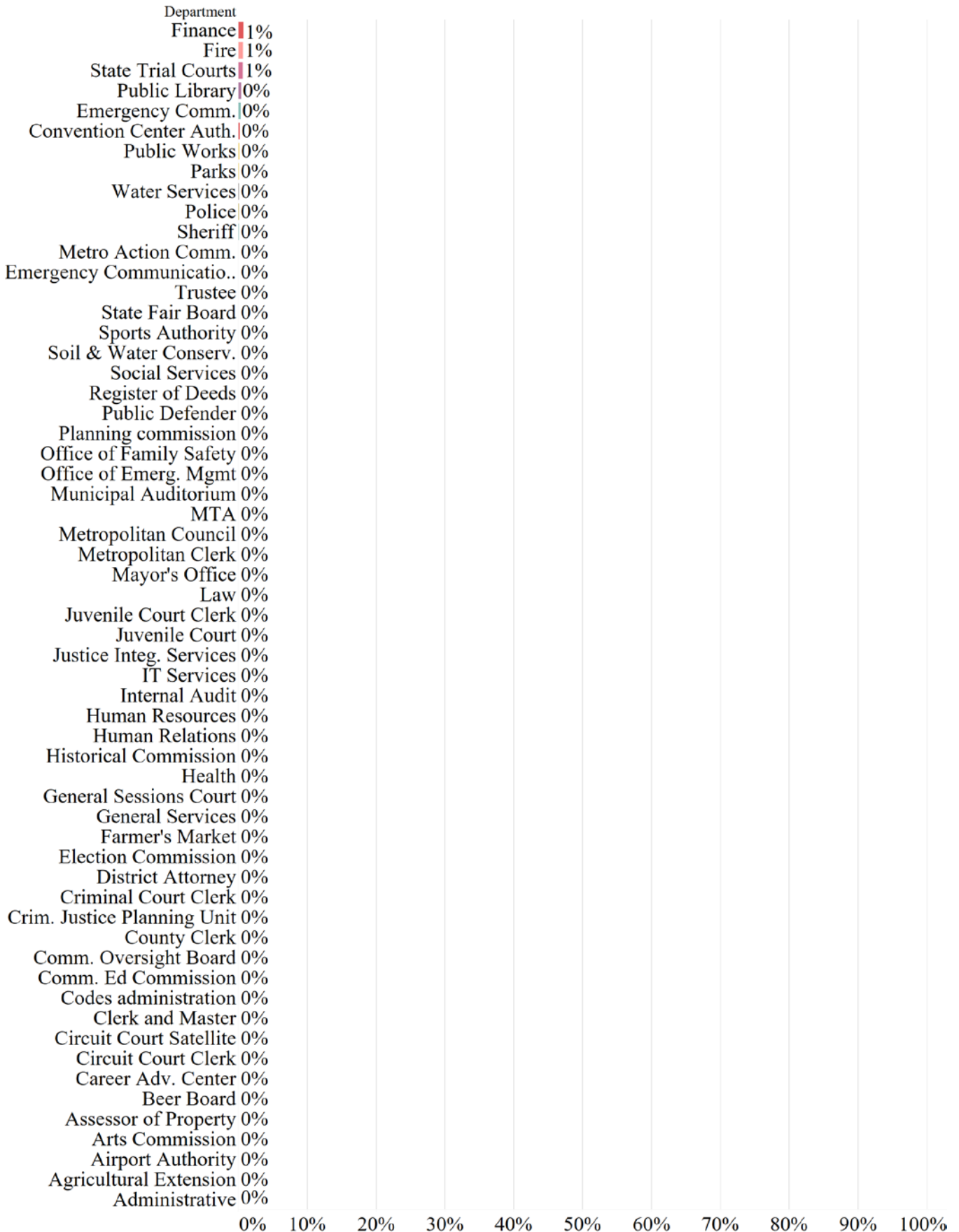
*The gray line indicates the 2017 American Community Survey 1-year estimate of the percentage of Hispanics in the U.S. The red line indicates the 2019-2020 estimated percentage of Hispanics in Nashville.

Percentage of Asian or Pacific Islander Employees by Department, 2019



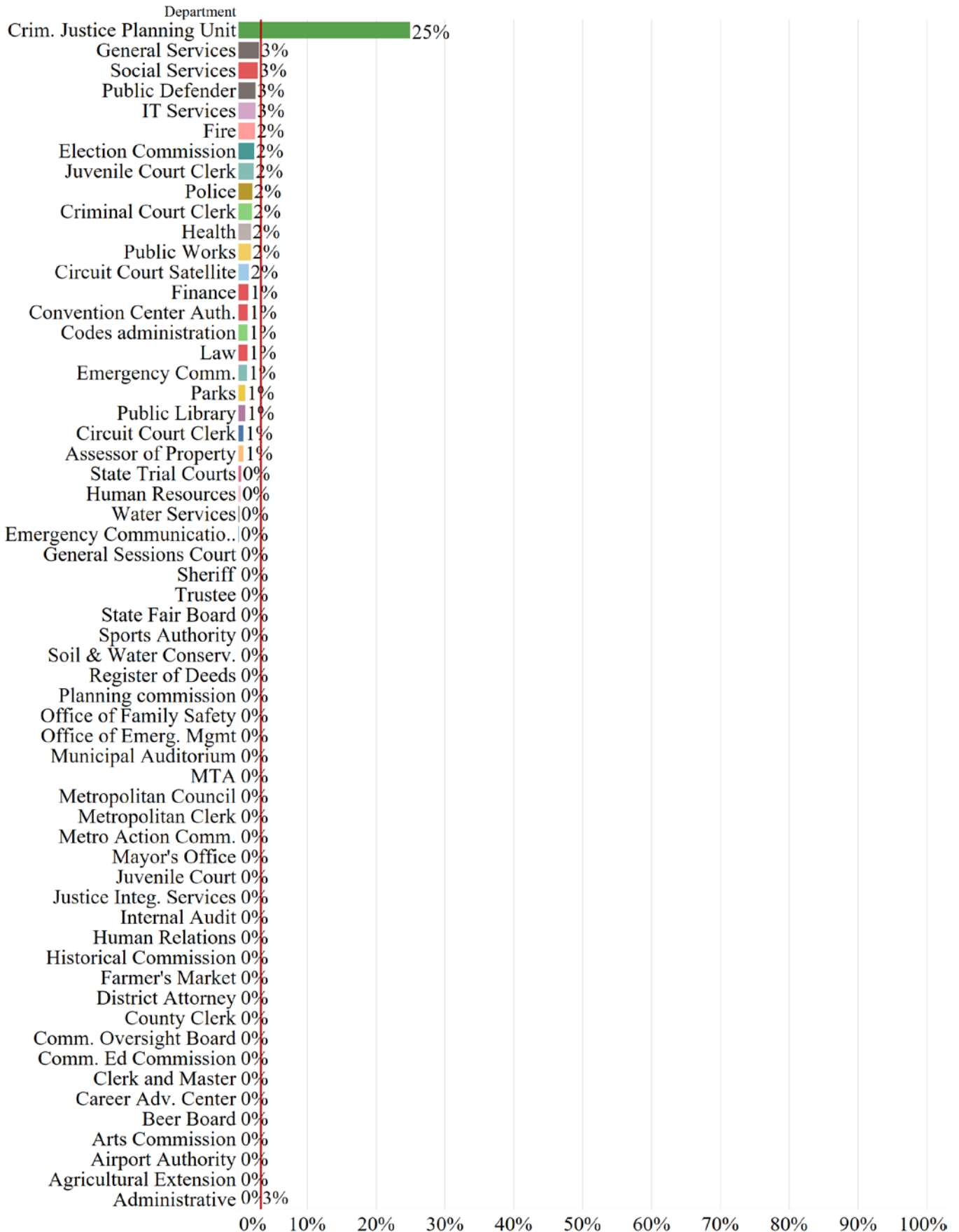
*The gray line indicates the 2017 American Community Survey 1-year estimate of the percentage of Asians or Pacific Islanders in the U.S. The red line indicates the 2018 ACS 5-year estimate of the percentage of Asians in Nashville and Davidson County.

Percentage of American Indian or Alaskan Native Employees by Department, 2019



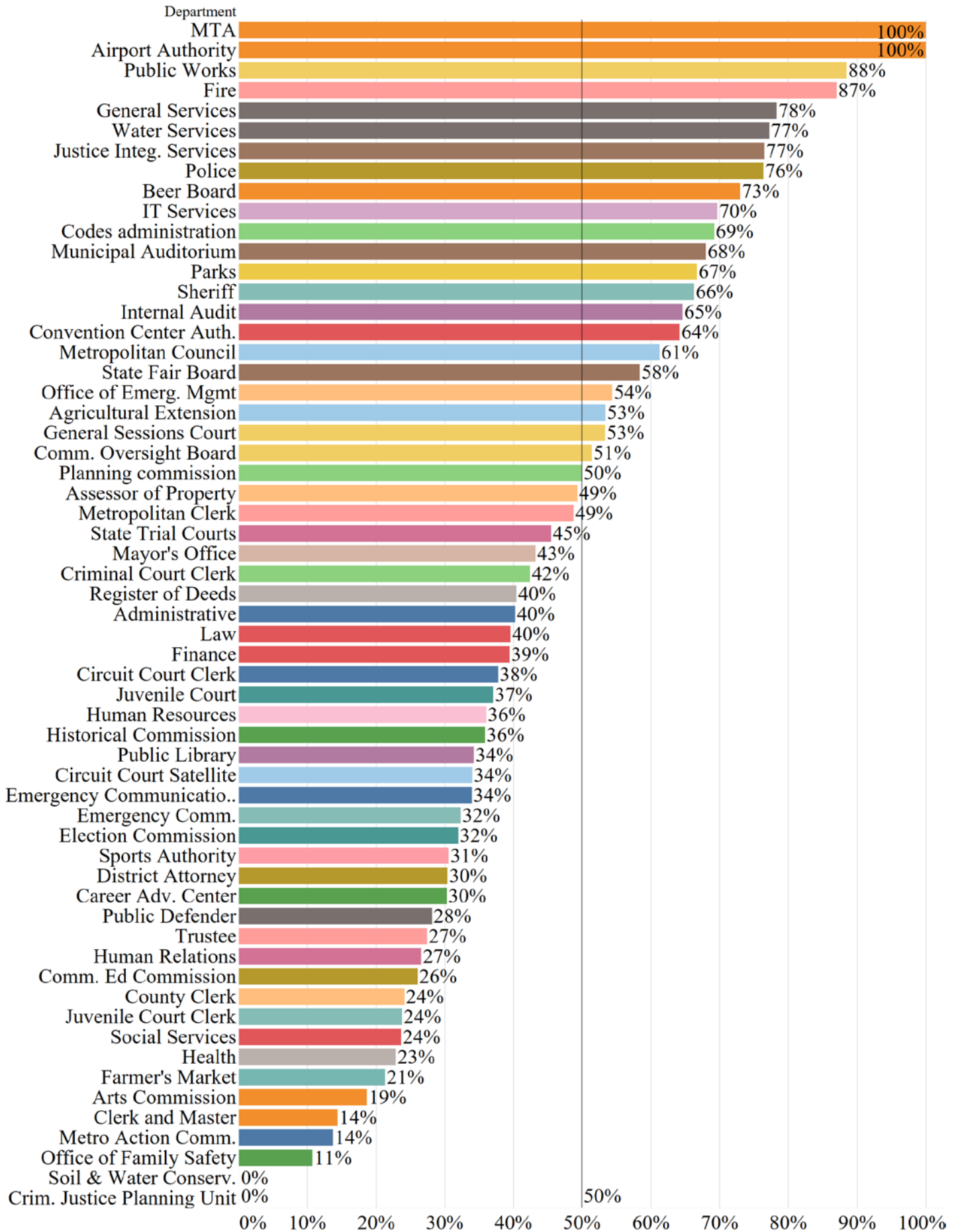
*The 2017 American Community Survey 1-year estimate of the percentage of American Indian or Alaskan Native in the U.S. is 0.8%, which is not shown in the graph. The 2018 ACS 5-year estimate of the percentage of American Indian or Alaskan Natives in Nashville and Davidson County is 0.22%, which is not shown in the graph.

Percentage of Employees with Two or More Races by Department, 2019

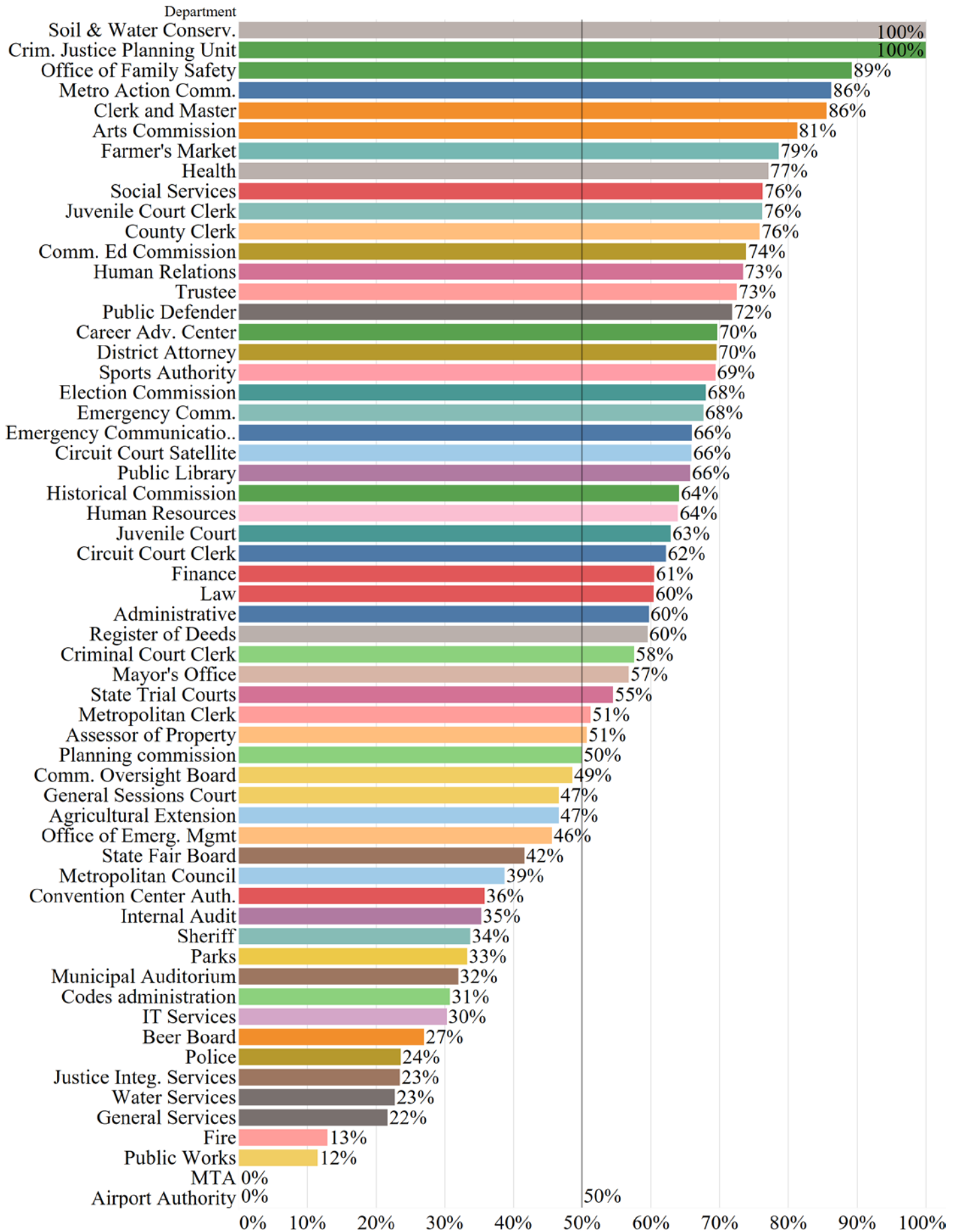


*The red line indicates the 2017 American Community Survey 1-year estimate of the percentage of people with two or more races in the U.S. as well as the 2018 ACS 5-year estimate of the percentage of people with two or more races in Nashville and Davidson County.

Percentage of Male Employees by Department, 2019



Percentage of Female Employees by Department, 2019

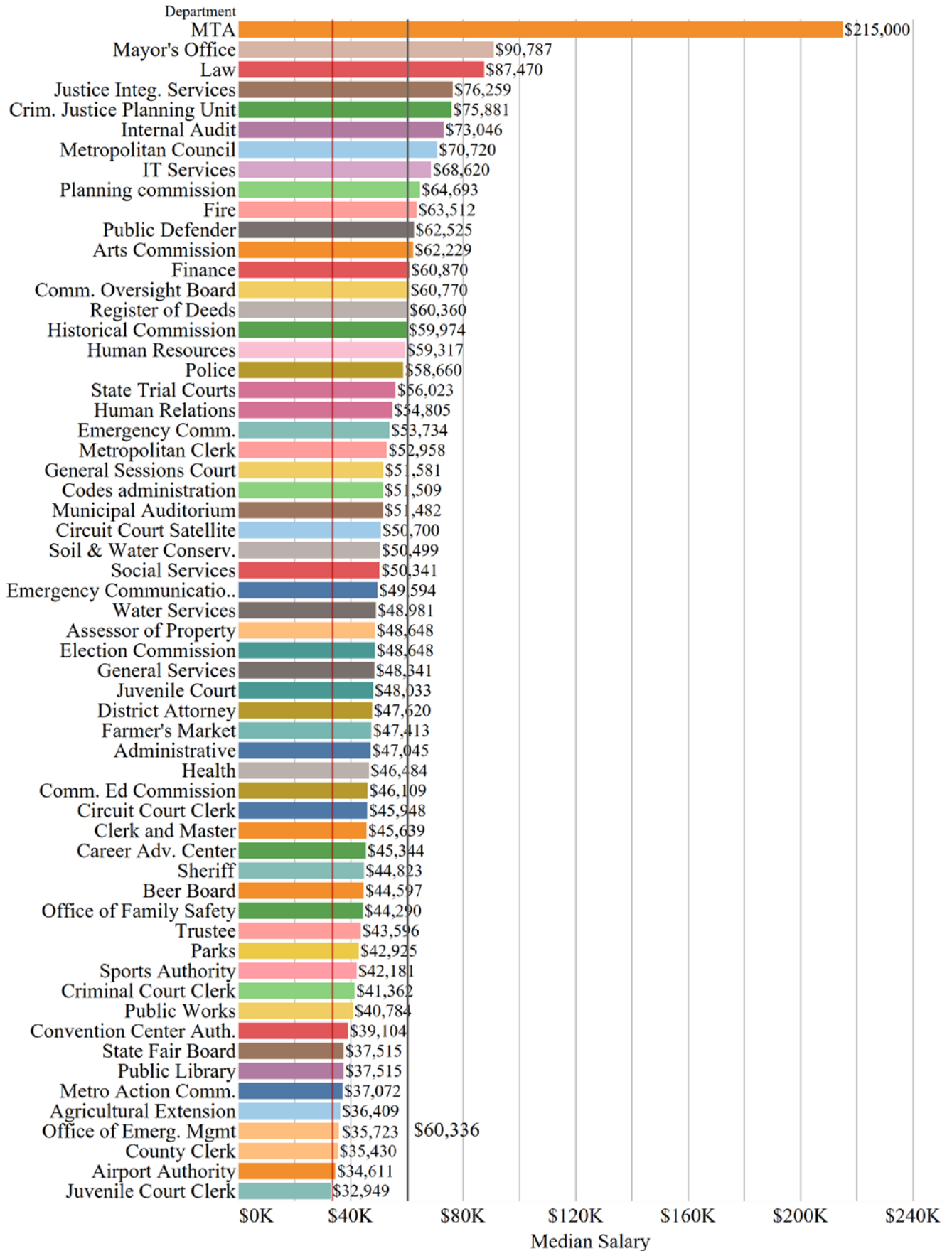


The graphs above show that two groups in particular stand out in terms of being overrepresented in a number of departments, while being underrepresented in others: Black employees and female employees.

What are the factors that lead to possible racial and gender stereotyping in some departments?

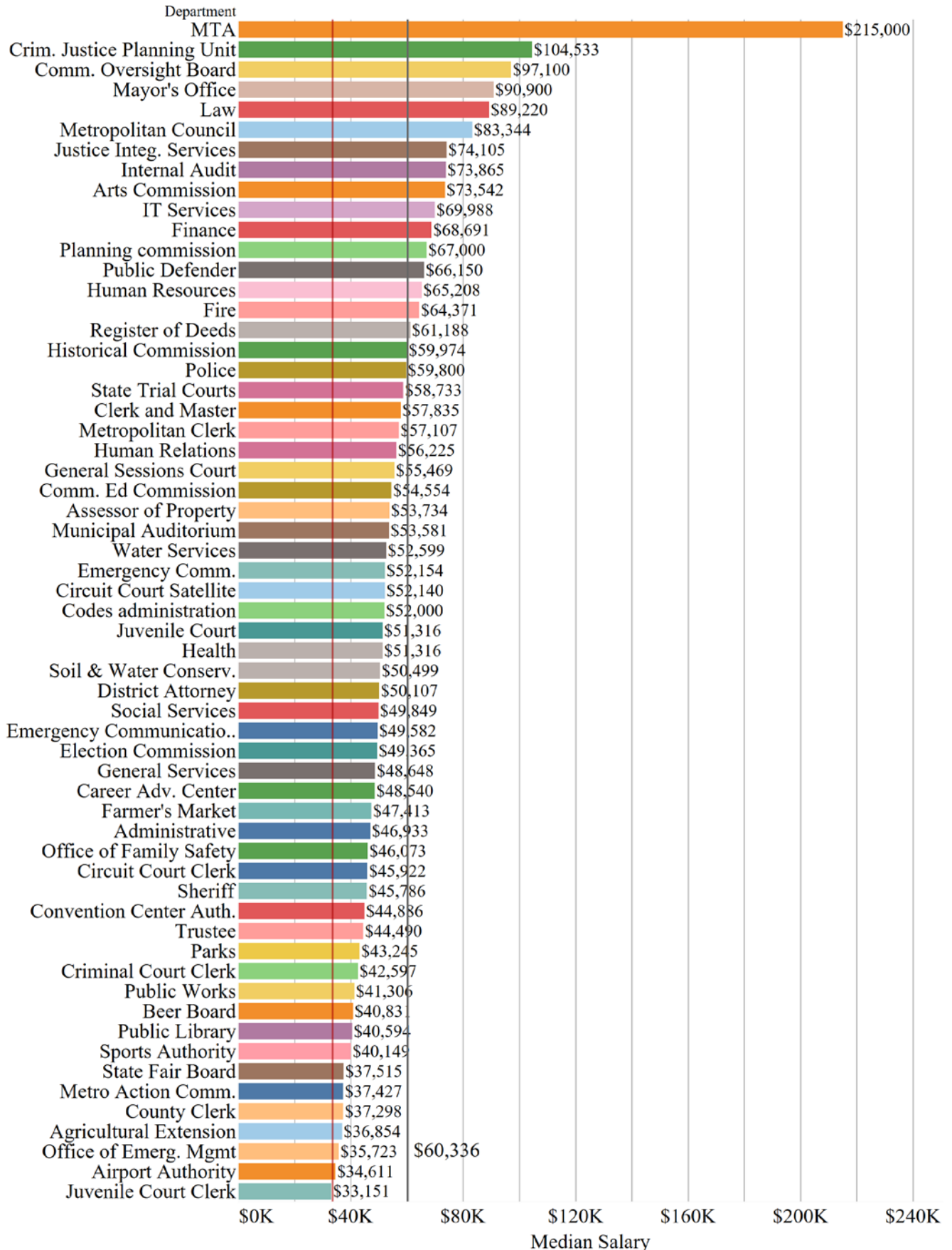
- Why are Black employees overrepresented in some departments and underrepresented in others?
 - This report finds that some of the departments where Black or African American employees are **underrepresented** include Airport Authority, MTA, IT Services, Historical Commission, Police and Fire. There can be many historic and systemic reasons to explain this. A study conducted by Associated Press analyzed government data and found that black workers are chronically underrepresented compared with whites in high-salary jobs in technology, business, life sciences, and architecture and engineering, among other areas. Also, Blacks and Hispanics are underrepresented in science, technology, engineering and math jobs, relative to their presence overall in the U.S. workforce and are often underrepresented in IT departments. Minority underrepresentation in law enforcement in the Nashville are also follows a nationwide trend.
 - On the other hand, some of the departments where Black or African American employees are **overrepresented** include the Metro Action Commission, Sports Authority, Social Services, Community Oversight Board and Juvenile Court.
- Why are female employees overrepresented in some departments and underrepresented in others?
 - This report finds that some of the of the departments where women are **underrepresented** include Airport Authority, MTA, Public Works, Fire, Police, IT Services and the Sherriff's office. This can be explained in large part by stubborn trends in the perception of "masculine" and "feminine" work. Research shows that the percentage of women in law enforcement has remained relatively stagnant for the past few decades. Across the US, women constitute less than 13% of total officers and a much smaller proportion of leadership positions.
 - On the other hand, the report finds that some of the departments where female employees are **overrepresented** include Office of Family Safety, Metro Action Commission, Arts Commission, Farmer's Market, Social Services, and the Community Education Commission. Research shows that women tend to be over-represented in service sector jobs, especially social service and education. Social work and social services have traditionally been seen as "caring" professions. This caring nature could lead people to view it as a feminized profession, which historically has led to people assuming it's a "woman's job". This explains why there is an overrepresentation of women in the sphere of social services.

Median Salary of Full-Time Employees by Department, 2019



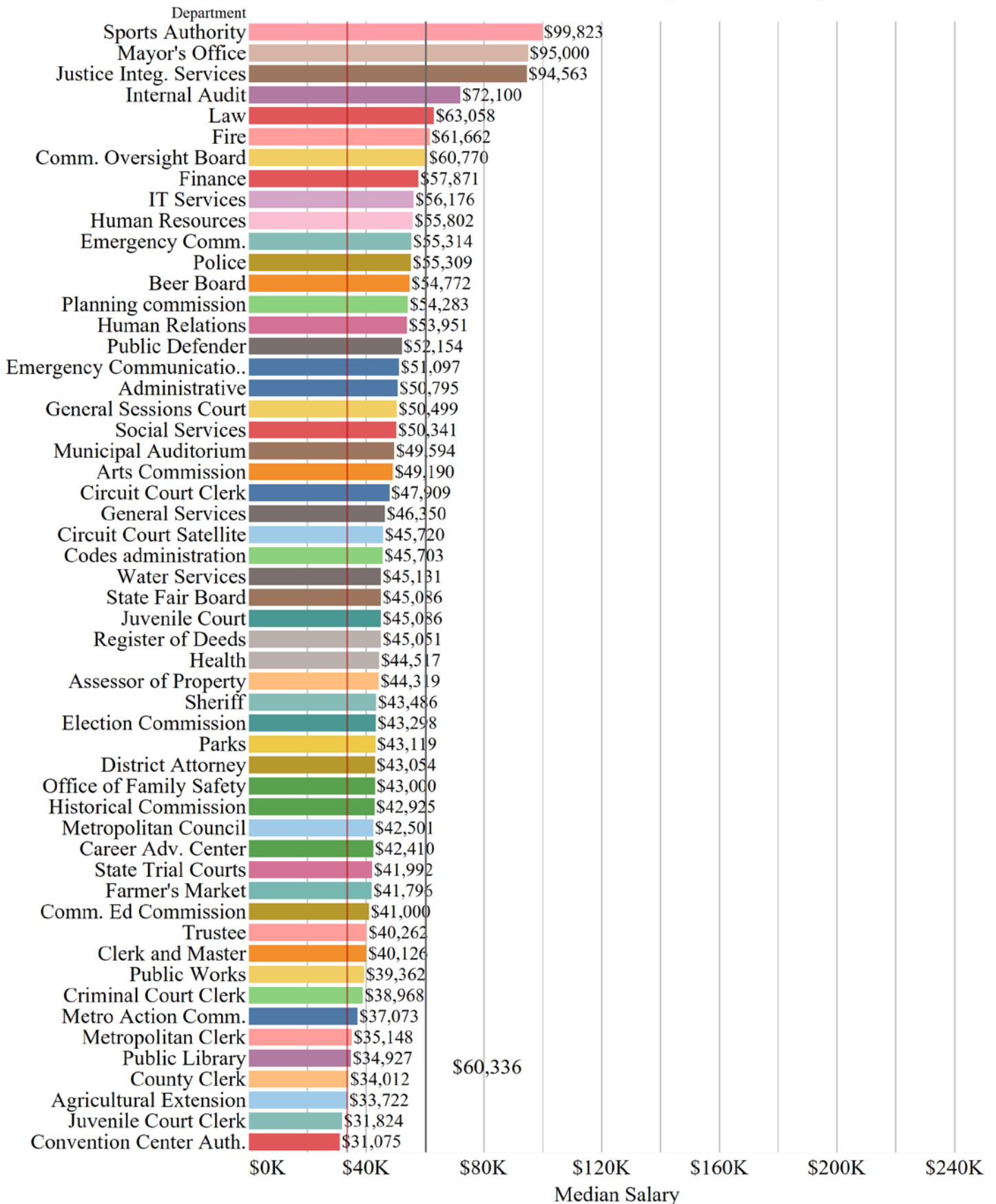
*The red line indicates the 2017 American Community Survey 1-year estimate of the median earnings of individual workers in the U.S., which is \$33,646 (not labeled). The gray line indicates the 2017 American Community Survey 1-year estimate of the median household income in the U.S.

Median Salary of Full-Time, White Employees by Department, 2019



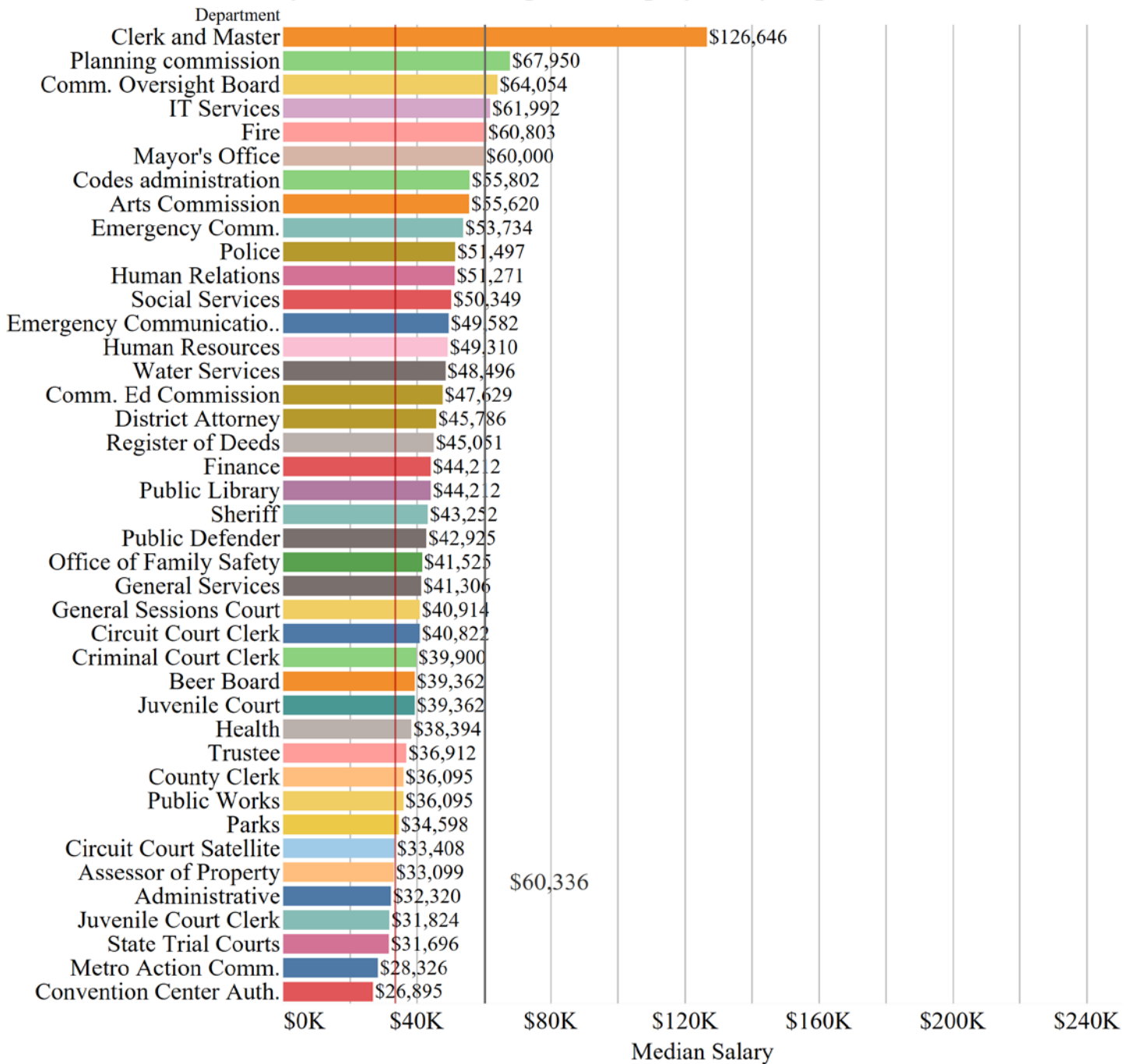
*The red line indicates the 2017 American Community Survey 1-year estimate of the median earnings of individual workers in the U.S., which is \$33,646 (not labeled). The gray line indicates the 2017 American Community Survey 1-year estimate of the median household income in the U.S.

Median Salary of Full-Time, Black or African American Employees by Department, 2019



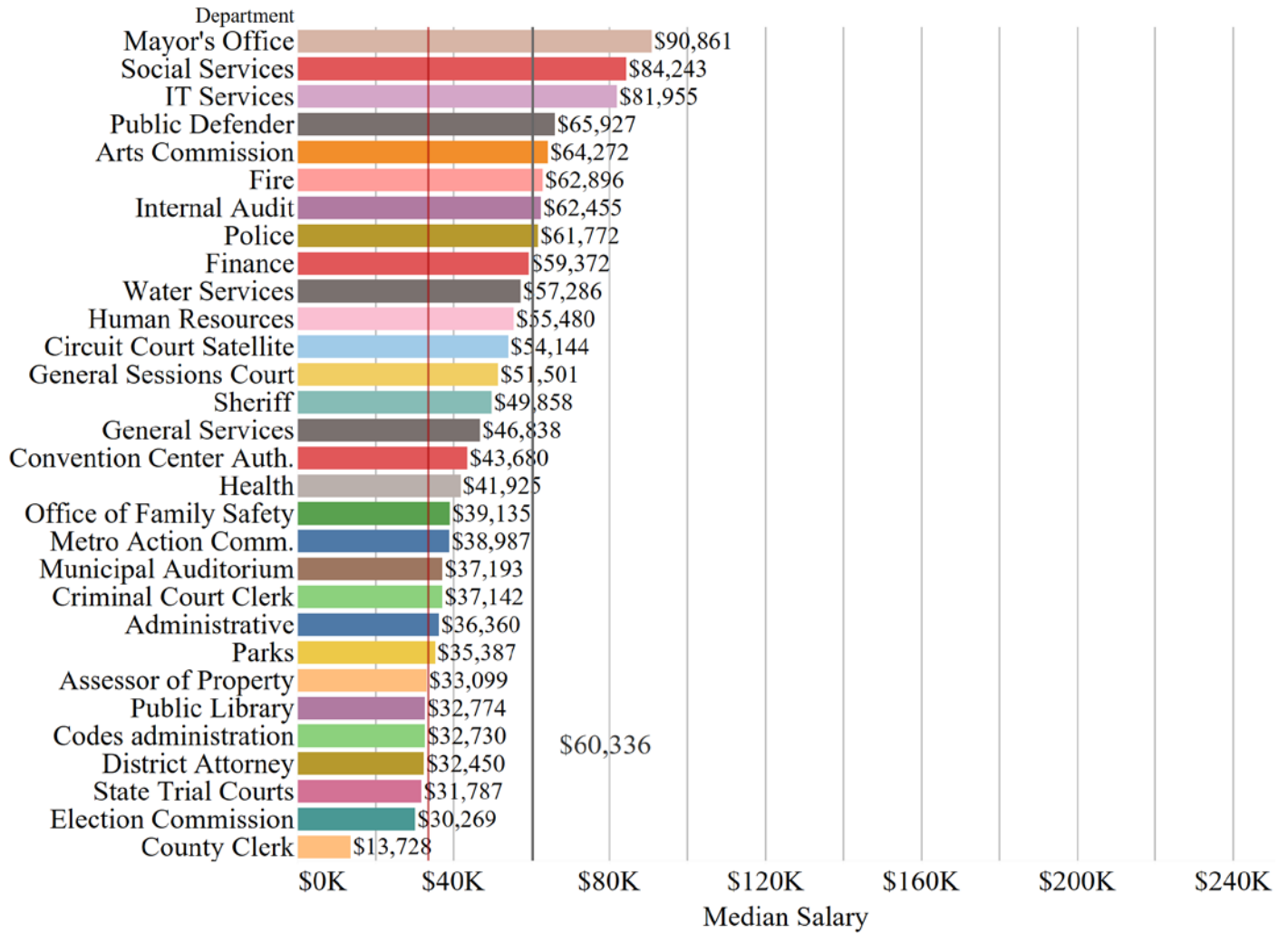
*The red line indicates the 2017 American Community Survey 1-year estimate of the median earnings of individual workers in the U.S., which is \$33,646 (not labeled). The gray line indicates the 2017 American Community Survey 1-year estimate of the median household income in the U.S.

Median Salary of Full-Time, Hispanic Employees by Department, 2019



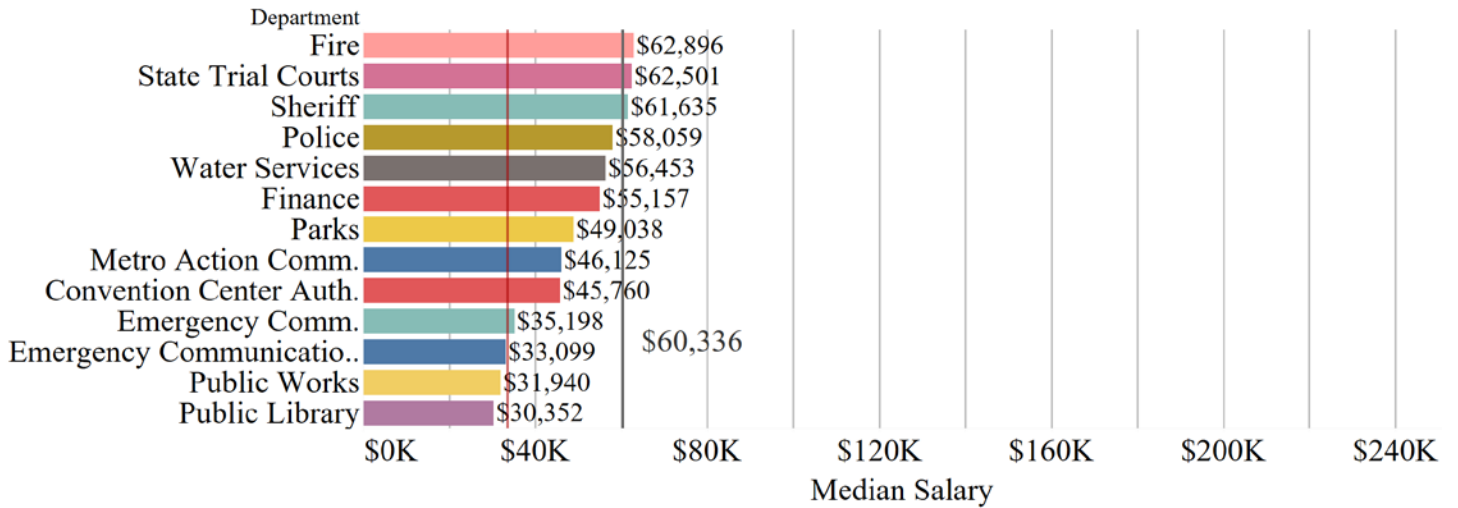
*The red line indicates the 2017 American Community Survey 1-year estimate of the median earnings of individual workers in the U.S., which is \$33,646 (not labeled). The gray line indicates the 2017 American Community Survey 1-year estimate of the median household income in the U.S.

Median Salary of Full-Time, Asian or Pacific Islander Employees by Department, 2019



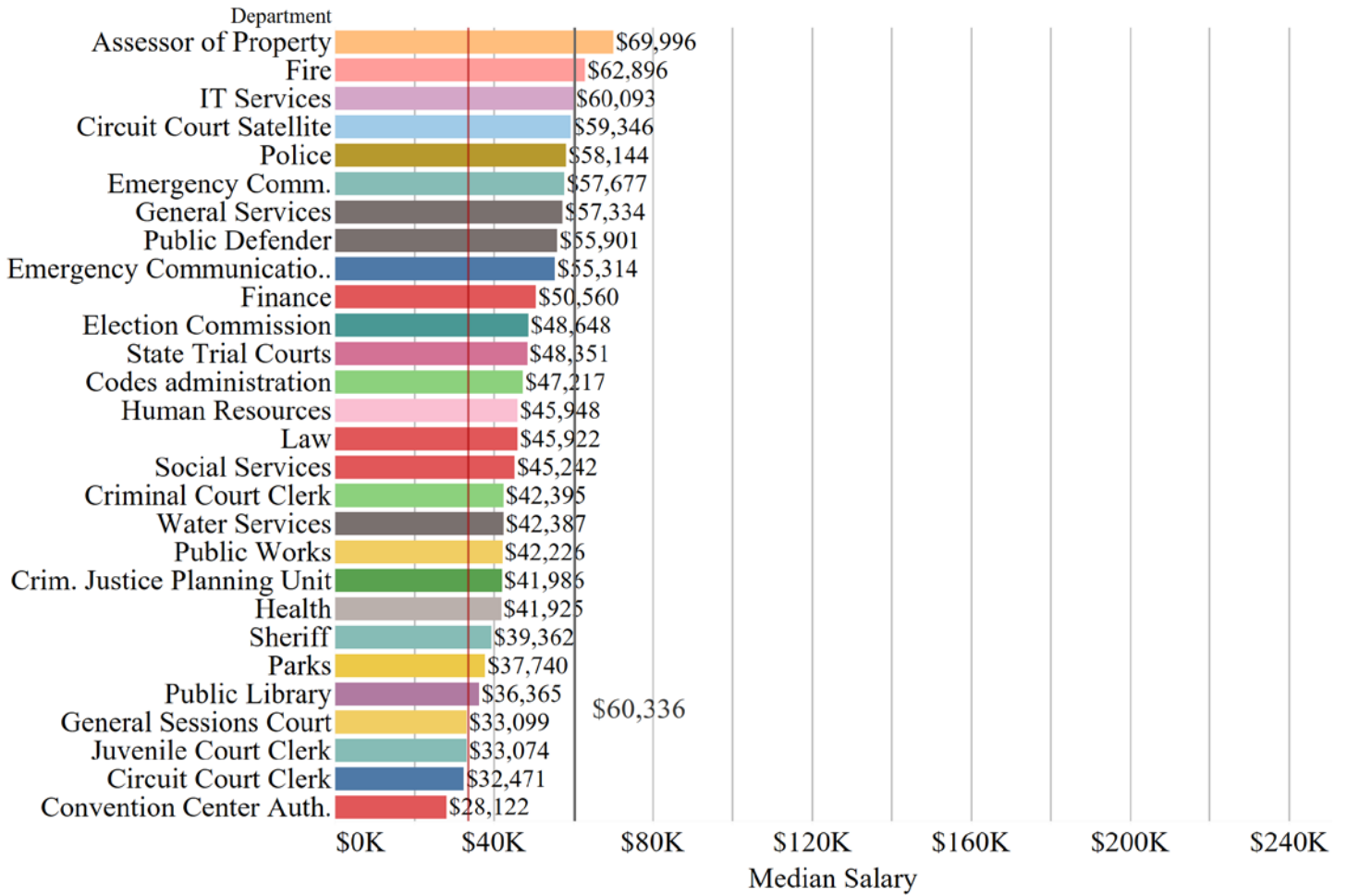
*The red line indicates the 2017 American Community Survey 1-year estimate of the median earnings of individual workers in the U.S., which is \$33,646 (not labeled). The gray line indicates the 2017 American Community Survey 1-year estimate of the median household income in the U.S.

Median Salary of Full-Time, American Indian or Alaskan Native Employees by Department, 2019



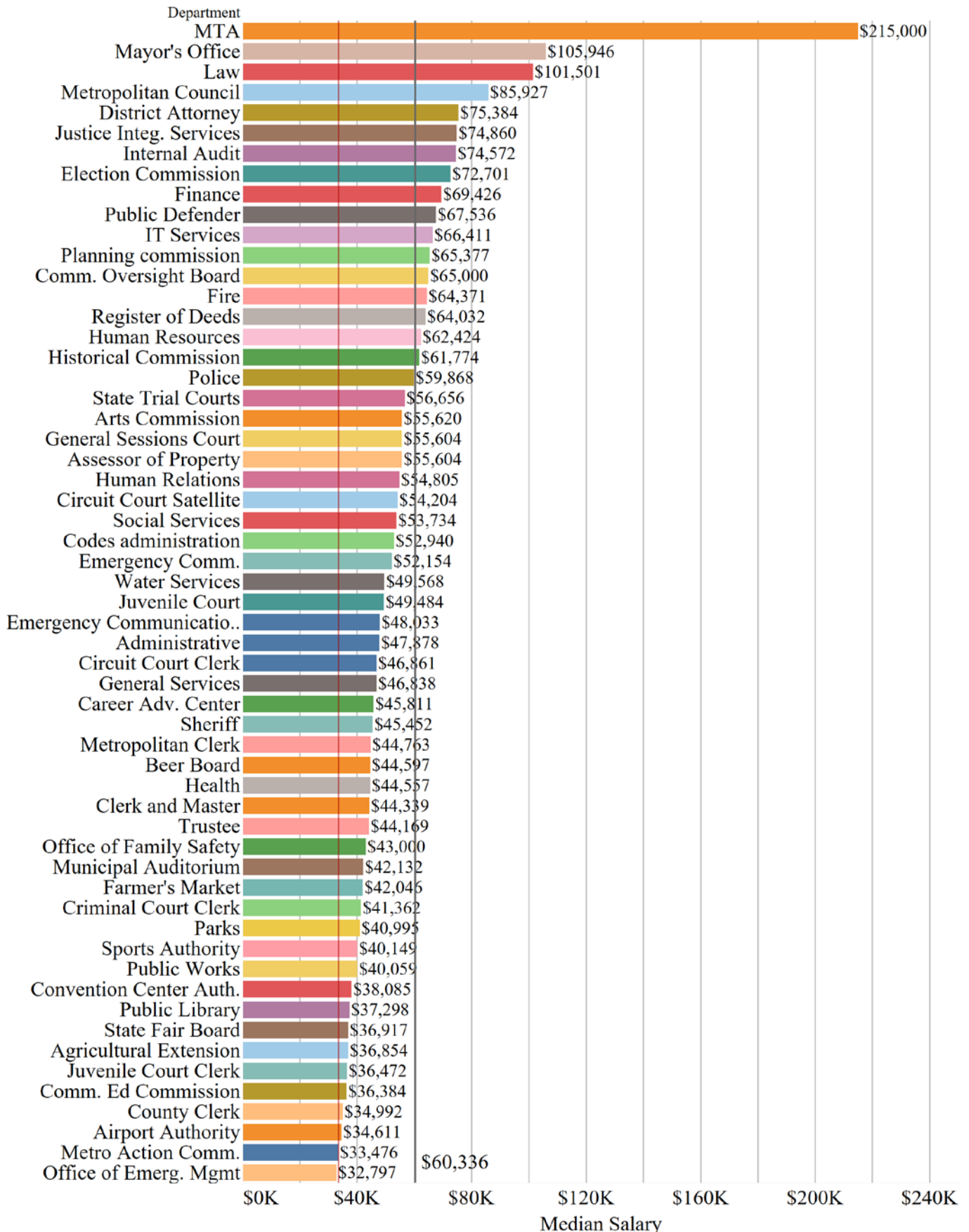
*The red line indicates the 2017 American Community Survey 1-year estimate of the median earnings of individual workers in the U.S., which is \$33,646 (not labeled). The gray line indicates the 2017 American Community Survey 1-year estimate of the median household income in the U.S.

Median Salary of Employees with Two or More Races by Department, 2019



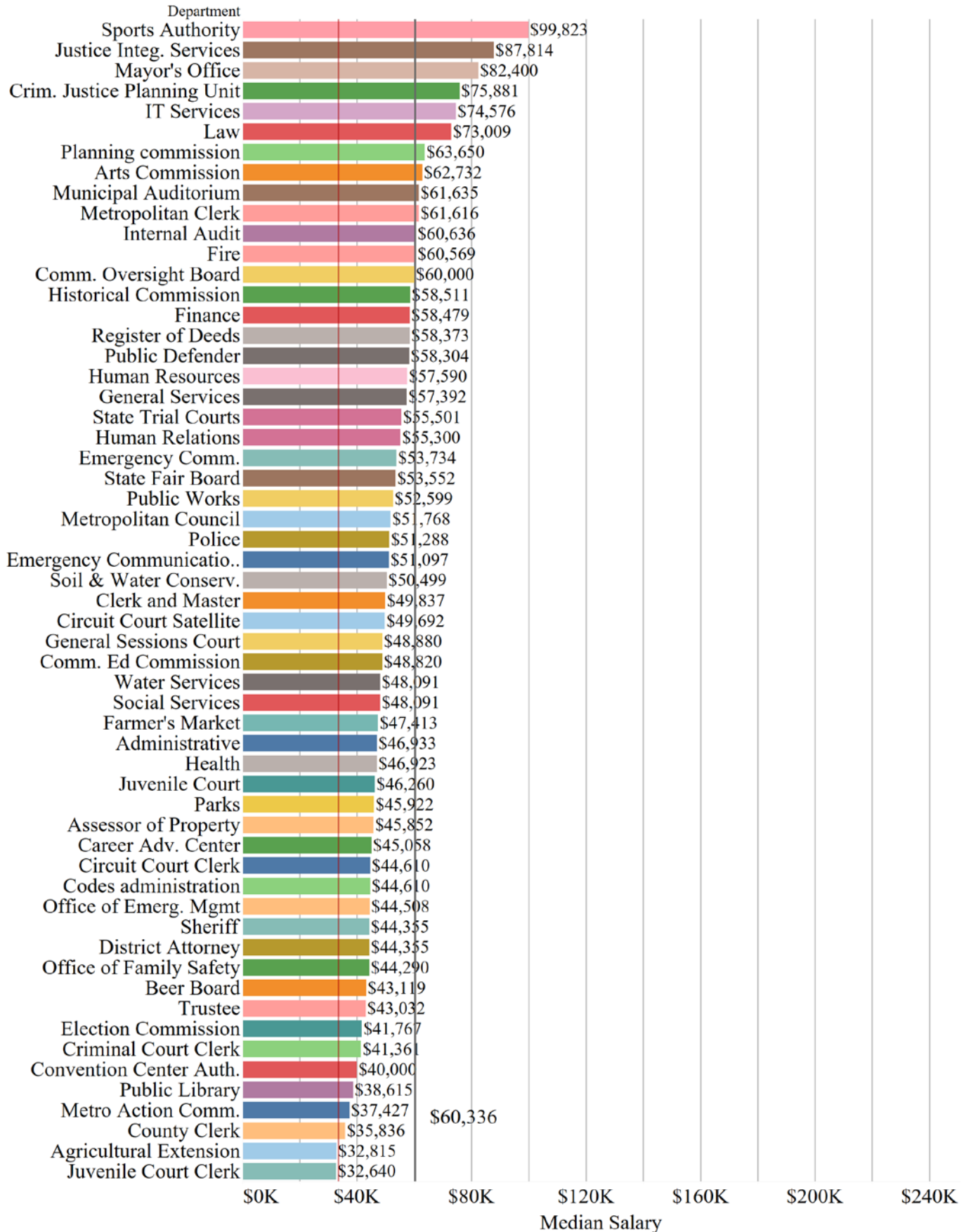
*The red line indicates the 2017 American Community Survey 1-year estimate of the median earnings of individual workers in the U.S., which is \$33,646 (not labeled). The gray line indicates the 2017 American Community Survey 1-year estimate of the median household income in the U.S.

Median Salary of Full-Time, Male Employees by Department, 2019



*The red line indicates the 2017 American Community Survey 1-year estimate of the median earnings of individual workers in the U.S., which is \$33,646 (not labeled). The gray line indicates the 2017 American Community Survey 1-year estimate of the median household income in the U.S.

Median Salary of Full-Time, Female Employees by Department, 2019



*The red line indicates the 2017 American Community Survey 1-year estimate of the median earnings of individual workers in the U.S., which is \$33,646 (not labeled). The gray line indicates the 2017 American Community Survey 1-year estimate of the median household income in the U.S.

Appendix²

Table 1 Summary

- Controlling for only race and ethnicity and year started, female employees tend to be paid less than male employees.
- Controlling for only gender and year started, Black or African American, Hispanic, and American Indian or Alaskan Native employees tend to be paid less than White employees.
- The salaries of Asian or Pacific Islander employees and employees with two or more races are not statistically different from the salaries of White employees.
- Controlling for gender and race and ethnicity, salaries tend to decrease over time.

Table 2 Summary

- Multilevel modeling considers that there may be groupings in the data. In this case, the model considers that employees in the same department may be grouped together.
- Controlling for only race and ethnicity and year started, female employees are significantly paid less than male employees.
- Controlling for only gender and year started, Black or African American, Hispanic, and American Indian or Alaskan Native employees are paid significantly less than White employees. In contrast to the previous table, employees of two or more races also tend to be paid less than White employees.
- In contrast to the first model, only Asian or Pacific Islander employees are not statistically different from White employees in terms of their salaries.
- Controlling for gender and race and ethnicity, salaries tend to decrease over time.

² Please refer to the discussion of the limitations of these analyses under the Data and Methods section.

Table 1 Linear Regression Analysis of Metro Employee Salaries by Department³

	<i>Dependent variable:</i>	
	Salary	
	b	(CI)
Female	-2,858.117***	(-3,043.337, -2,672.898)
Black or African American ^a	-7,684.127***	(-7,887.790, -7,480.464)
Hispanic	-6,252.778***	(-6,833.297, -5,672.260)
Asian or Pacific Islander	121.396	(-787.434, 1,030.226)
American Indian or Alaskan Native	-2,214.870*	(-4,092.083, -337.656)
Two or More Races	471.572	(-284.297, 1,227.441)
Year started	-738.655***	(-747.273, -730.037)
Constant	1,540,082.000***	(1,522,805.000, 1,557,359.000)
Observations	167,786	
R ²	0.187	
Adjusted R ²	0.187	
Residual Std. Error	18,167.830 (df = 167777)	
F Statistic	4,824.905*** (df = 8; 167777)	

*p<0.05; **p<0.01; ***p<0.001

^aThe reference category for all race and ethnicity variables are White employees**Table 2⁴ Multilevel Regression Analysis of Metro Employee Salaries by Department^a**

	<i>Dependent variable:</i>	
	Salary	
	b	(CI)
Female	-2,007.101***	

³ Please refer to the discussion of the limitations of these analyses under the Data and Methods section.⁴ Please refer to the discussion of the limitations of these analyses under the Data and Methods section.

	(-2,194.626, -1,819.575)
Black or African American ^b	-4,771.934*** (-4,964.161, -4,579.706)
Hispanic or Latino of any race	-5,554.035*** (-6,080.779, -5,027.290)
Asian or Pacific Islander	-729.045 (-1,550.134, 92.044)
American Indian or Alaskan Native	-3,015.234*** (-4,707.752, -1,322.715)
Two or More Races	-1,427.726*** (-2,111.171, -744.281)
Year started	-741.599*** (-749.577, -733.621)
Constant	1,550,731.000*** (1,533,573.000, 1,567,888.000)
<hr/>	
Observations	167,786
Log Likelihood	-1,866,202.000
Akaike Inf. Crit.	3,732,426.000
Bayesian Inf. Crit.	3,732,537.000

*p<0.05; **p<0.01; ***p<0.001

^a The intercorrelation coefficient for the data is over 0.6, which is high enough to warrant a multilevel analysis.

^b The reference category for all race and ethnicity variables are White employees.