

# WHAT BABY NAMES TELL US

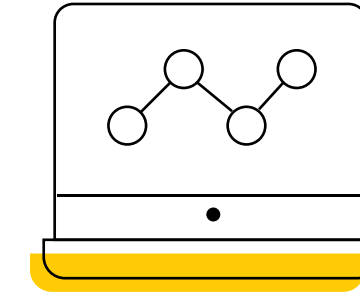
About Ethnic and Gender Trends



Our name tells a story about us. It can determine our career. It can influence how smoothly we navigate through life or, alternatively, how hard it can be for us to get ahead (1,4).

Over the last 70 years, for example, researchers have tried to gauge the effect of having an unusual name on a person. It is thought that our identity is partly shaped by the way we are treated by other people - a concept psychologists call the "looking-glass self" (2) - and our name, therefore, has the potential to color our interactions with society (3,4). More recent studies present a mixed picture (1,3,4), showing children with unusual names may learn to control impulses because they may be teased and then get used to people repeatedly asking them about their name. Some scholars have explained that children with unusual names actually benefit from that experience by learning to control their emotions or their impulses (1,3,4).

Various names are popular among different social classes, and these groups have different opportunities and goals (1). The name we give our baby can stem from traditional, regional, historical or religious sources (5). In addition, a child's name can also hint at what his or her parents' expectations are for their children within the particular society in which they live. Therefore, it is very interesting to explore baby names in a multi-cultural society like New York City, which has distinct ethnic groups: White, Hispanic, Black, and Asian. Baby names in a multi-cultural society reflect the sociological process of integration or segregation between minority ethnic groups and the majority ethnic group (in New York City's case, the White ethnic group) (5). Also, it is enlightening to reflect upon the popularity of male and female baby names during this period of progression in gender equality (6).



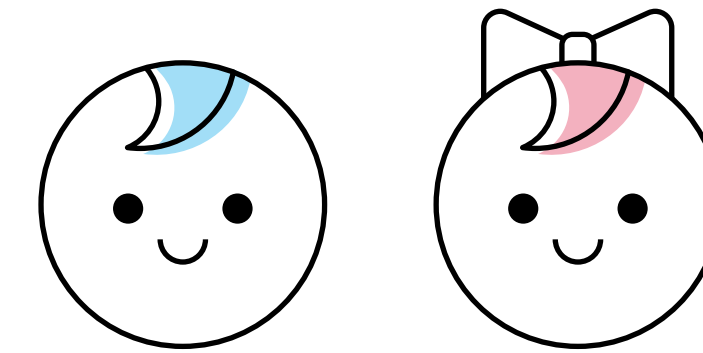
[View our interactive dashboard](#) to explore the baby names in a multi-cultural society.



## This report sheds light on the following questions:

- Do parents of different ethnic groups choose specific ethnic names for their children or do they prefer more ethnically neutral names for their descendants? Which minority ethnic group - Hispanic, Black or Asian - chooses neutral names for their children and to what extent does the majority ethnic group, the White ethnic group, choose distinct names for their children?
- To what extent are the children's names in New York City mostly ethnically specific or ethnically neutral?
- Which are the names that are given equally between White, Hispanic, Black and Asian ethnic groups (**ethnically neutral names**), and which are mostly given to children of a specific ethnic group; White, Hispanic, Black or Asian (**ethnically specific names**)? The ethnically neutral and specific names can indicate to what extent social integration or segregation is taking place among the next generation raised in New York City.
- Do parents choose specifically female or male names, or do they prefer unisex names for children of each gender? Does gender equality start with children's names? Is it a popular trend to give unisex names?
- Which are the names that are mostly **gender neutral** or the most **gender specific**? Which are the names that were given almost equally to both males and females? These measurements can indicate to what extent names are unisex.

To answer these questions, we analyzed a data set from Kaggle that included 1,571 names of 164,965 female babies, and 1,417 names of 207,569 male babies born in New York City between 2011 and 2016 (7). The dataset included the ethnic group of each baby.



Ethnicity		Number of Different Names	Number of Children	% of Children	Avg. Num of Children per Name
● Asian	Female	286	22,105	13%	77
● Black	Female	282	22,981	14%	81
● Hispanic	Female	463	52,225	32%	113
● White	Female	536	67,654	41%	126
	Female Total	973	164,965	44%	170
● Asian	Male	262	28,580	14%	109
● Black	Male	290	31,000	15%	107
● Hispanic	Male	400	70,580	34%	176
● White	Male	460	77,409	37%	168
	Male Total	829	207,569	56%	250
	Total	1,802	372,534		207

## Variables

- **Ethnically specific male names:** Baby names given to males in one ethnic group only (White, Hispanic, Black or Asian).
- **Ethnically specific female names:** Baby names given to females in one ethnic group only (White, Hispanic, Black or Asian).
- **Ethnically neutral male names:** Baby names that were chosen for males in two or more ethnic groups.
- **Ethnically neutral female names:** Baby names that were chosen for females in two or more ethnic groups.
- **Gender-specific names:** Baby names given only in one gender group (male or female).
- **Gender neutral names:** Baby names given to both female and male babies.

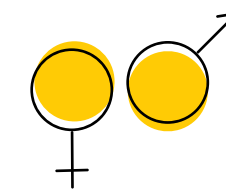


## Ethnically Neutral and Specific Name Index

In order to understand if a name was ethnically neutral or specific, we created a **neutrality** index (8,9) and defined this index as:

$$1 - (P_{White\ Male}^2 + P_{Hispanic\ Male}^2 + P_{Black\ Male}^2 + P_{Asian\ Male}^2),$$

where *P White Male* is the proportion of White male baby names in the whole group of babies with the same name. The ethnically neutral baby name index can range from 0.00, when a male (or female) name was given in one ethnic group (**Ethnically specific names**), to 0.75, when a male name appeared equally in each one of the 4 ethnic groups (**Ethnically neutral names**, 25% in each one of the ethnic groups). This ethnically specific name index was computed for males and females.



## Gender Neutral and Specific Name Index

In order to understand if a name was gender neutral or specific, we created a **neutrality** index (8,9) and defined this index as:

$$1 - (P_{Male}^2 + P_{Female}^2),$$

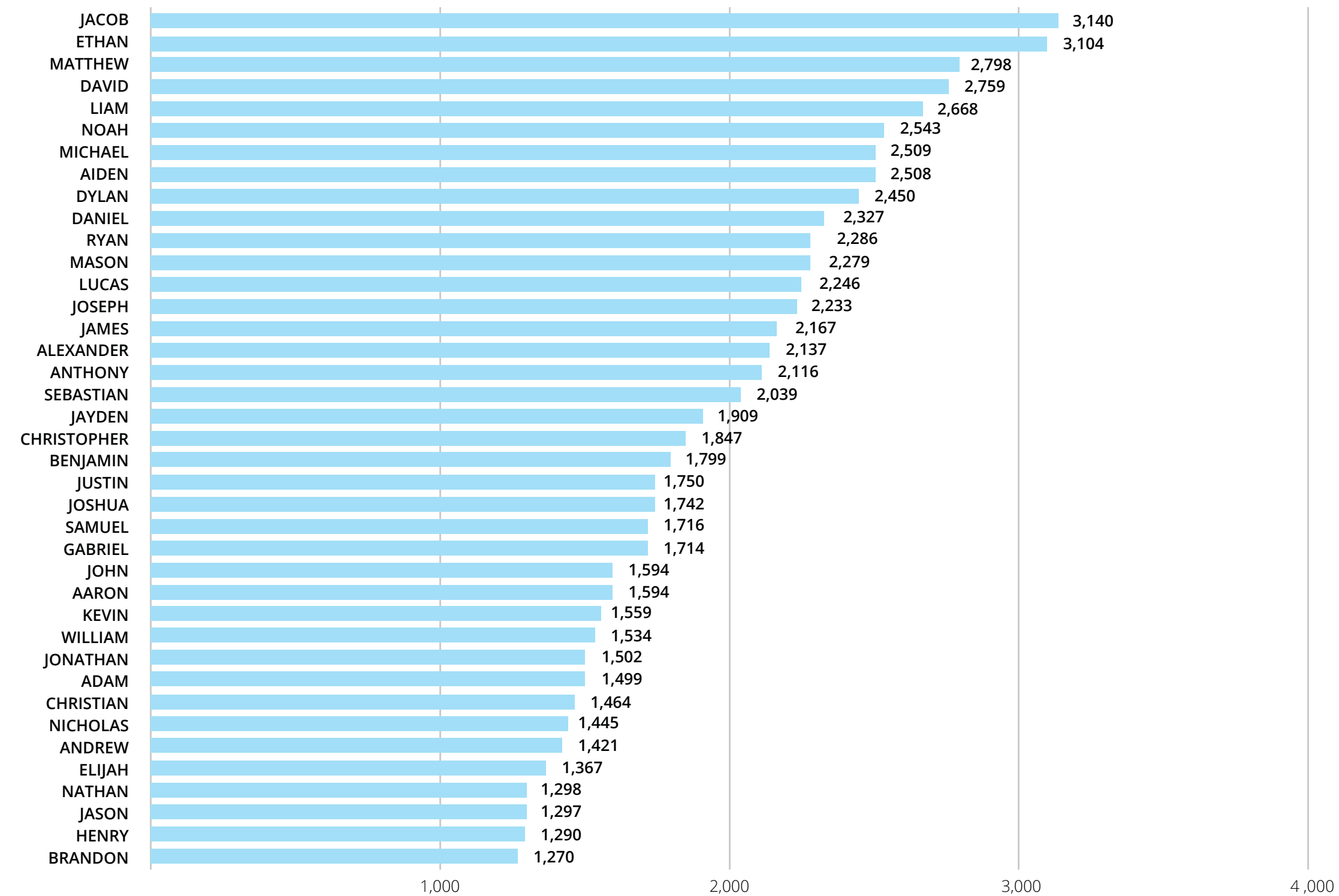
where *P Male* is the proportion of male baby names in all the population of babies with the same name. The gender-neutral baby names index can range from 0.00, when a baby male (or female) name has appeared only in one given gender group (**Gender specific names**), to .50, when a baby name has appeared equally in both gender groups (**Gender neutral names** where 50% of the given name is female, and 50% of the same name is male).

# Main Findings

## Most Popular Male Baby Names

In New York City during the researched years, the top 5 most popular names for males were **Jacob**, **Ethan** (more than 3,000 names), **Matthew**, **David**, and **Liam** (2500-2750 names). (See Graph 1.1).

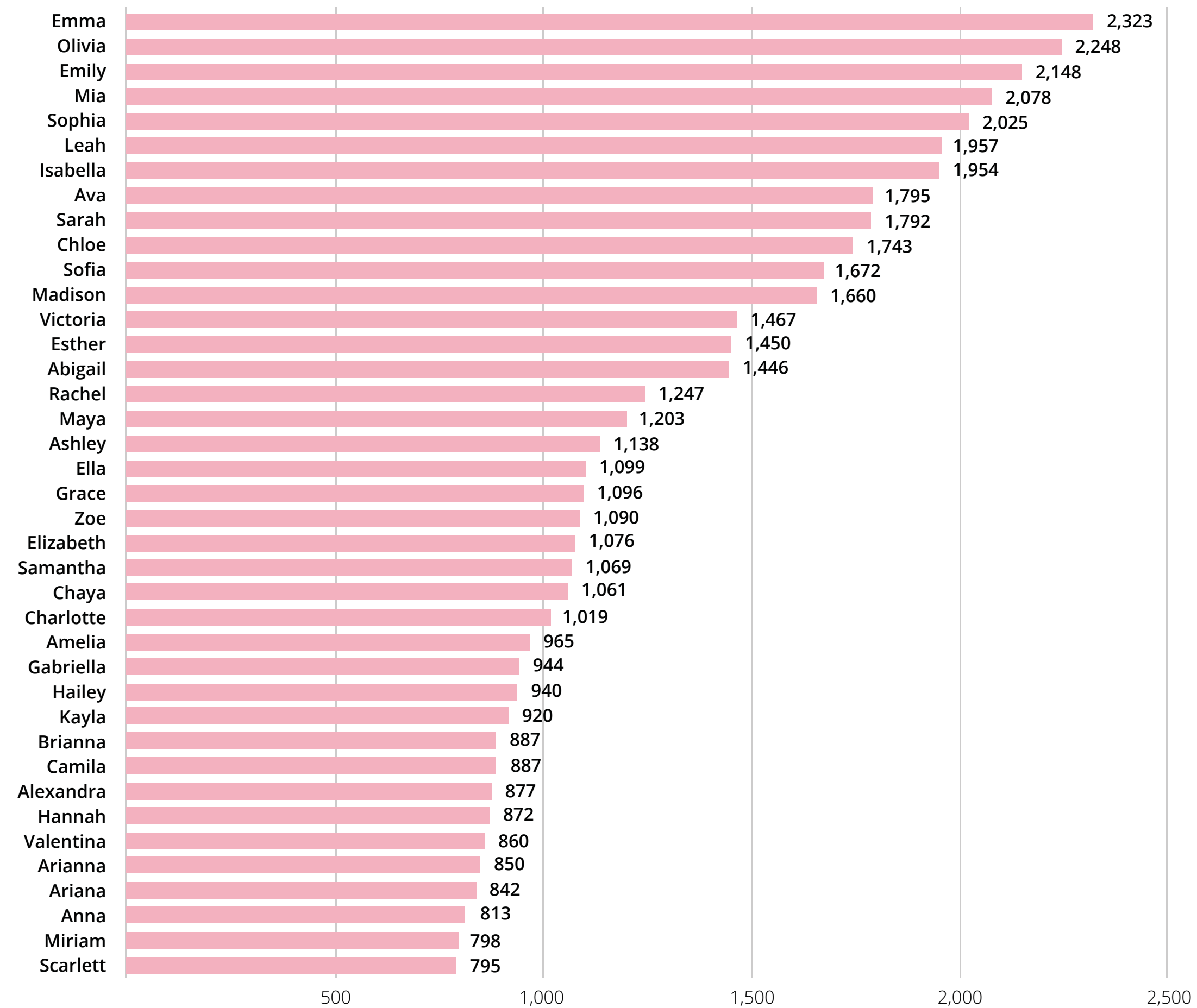
Graph 1.1: Popular Male Baby Names New York City 2011-2016



# Most Popular Female Baby Names

The top 5 female names were **Emma**, **Olivia**, **Emily**, **Mia**, and **Sophia** (more than 2000 names) (See Graph 1.2).

### Graph 1.2: Popular Female Baby Names New York City 2011-2016

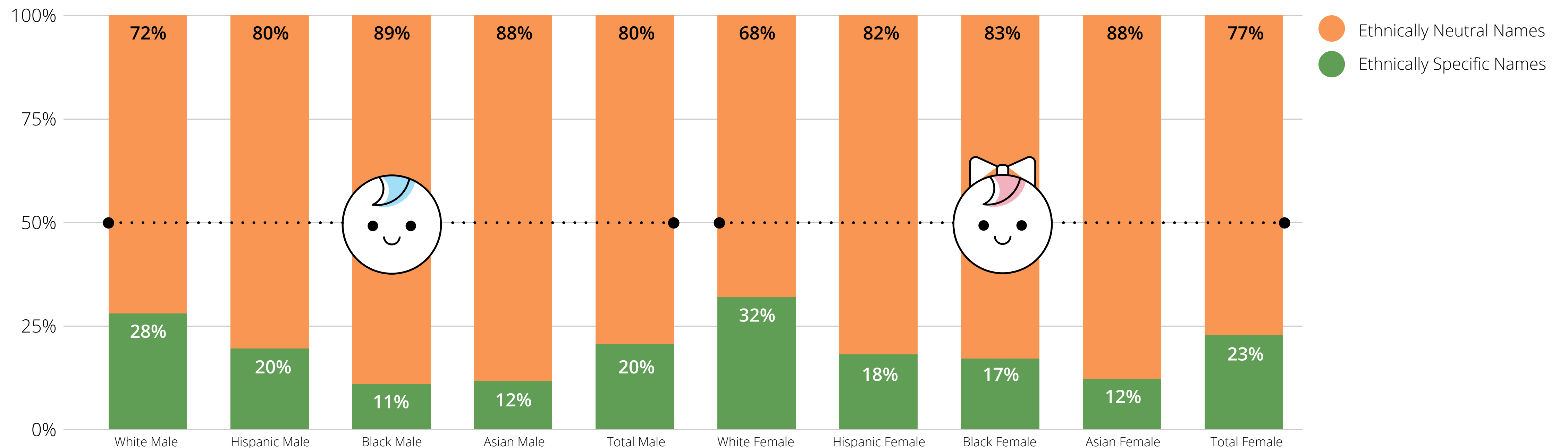


## Baby names in a multi-cultural society

The choice of baby names within ethnic groups hints that parents from distinct ethnic groups would prefer their descendants to integrate socially into the mainstream population rather than have them identify specifically and exclusively in their ethnic groups. 80% of the male baby names and 77% of the female baby names were ethnically neutral baby names (names have appeared in two or more ethnic groups (see Graph 2). Only 20% of the male baby names and 23% of the female baby names were specific in a given ethnic group. The findings also reveal that Black and Asian parents have a

stronger intention to choose ethnically neutral female baby names than Hispanic parents. 88% of Asian male babies and 89% of the Black male babies, compared to 80% of Hispanic male babies, were given ethnically neutral male baby names. Indeed, most White parents (72%) choose neutral names for their male babies. However, 28% of their baby names were specific to a White ethnic group. We found the same trends for female baby names, except for the Asian ethnic group which chose more neutral names (88%) for their female babies than Black and Hispanic ethnic groups (82%-83%).

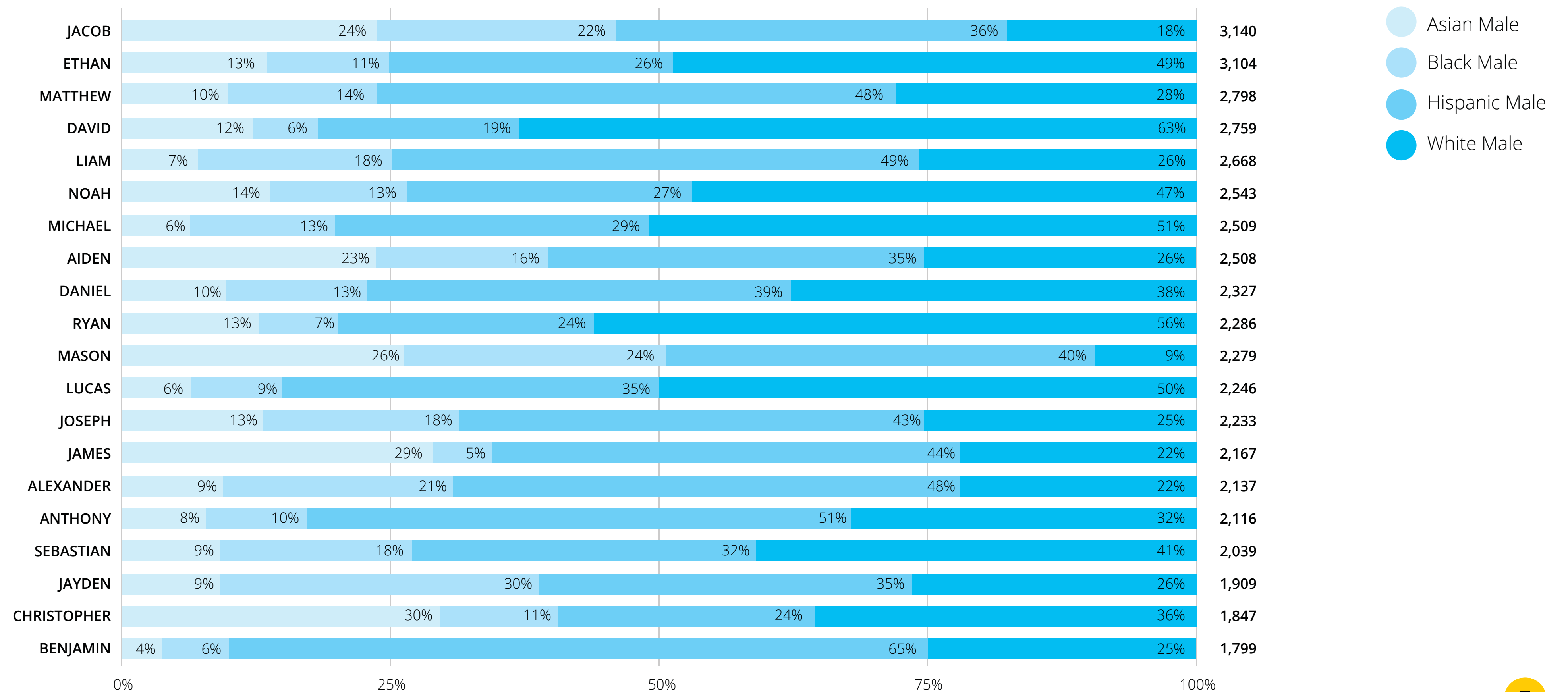
Graph 2.0: % Ethnically Specific Names vs. % Ethnically Neutral Names by Ethnic Group and Gender



## Popular ethnically neutral baby names that crossed ethnic groups (each appeared at least once in a given ethnic group):

The top 5 most popular **ethnically neutral** male baby names that appeared (at least for one baby) in all ethnic groups - White, Hispanic, Black and Asian - were **Jacob, Ethan, Matthew, David, Liam**, and **Michael**.

Graph 2.1: Popular Ethnically Neutral Male Names by Ethnic Group





Graph 2.2: Popular Ethnically Neutral Female Names by Ethnic Group

For female baby names, the top 5 most popular **ethnically neutral** names that appeared (at least for one baby) in all ethnic groups were **Emma, Olivia, Emily, Mia,** and **Sophia** (See Graph 2.2).

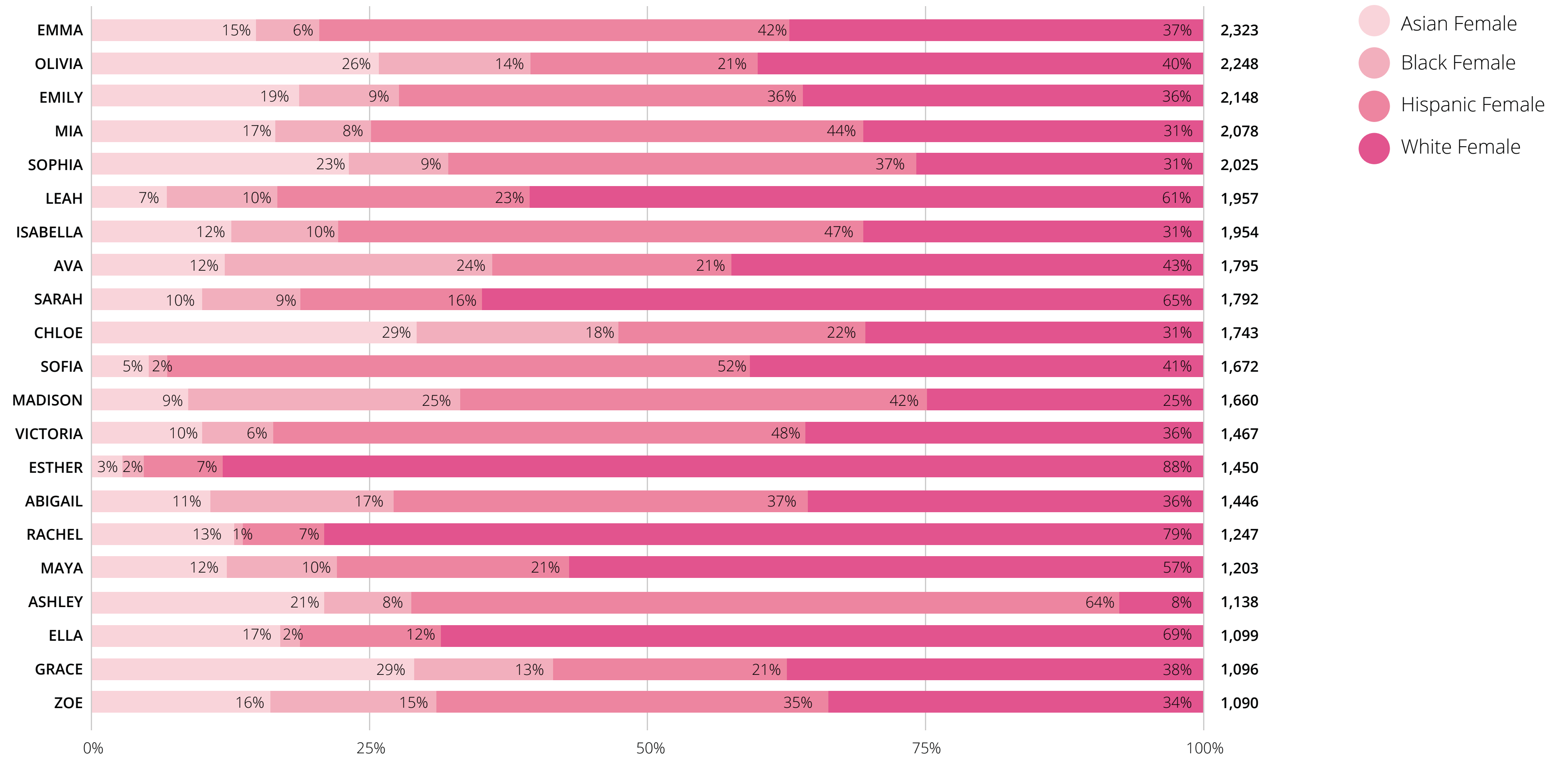


Table A: Most Ethnically Neutral Male Baby Names  
(on a scale of 0-0.75, where 0.75 = very ethnically neutral male names)

Name	Number of Babies	Asian Male %	Black Male %	Hispanic Male %	White Male %	Total Male %	Ethnic Neutrality Index of Male Babies' Names
RICHARD	514	28%	20%	29%	24%	100%	0.75
MARCUS	458	34%	26%	22%	18%	100%	0.74
NATHAN	1,298	22%	22%	21%	36%	100%	0.74
ETHAN	3,104	23%	16%	35%	26%	100%	0.73
AIDEN	2,508	24%	22%	36%	18%	100%	0.73
CALEB	864	15%	33%	31%	22%	100%	0.73
TIMOTHY	301	26%	19%	18%	37%	100%	0.73
NATHANIEL	1,019	13%	29%	33%	25%	100%	0.73
HUNTER	560	12%	28%	26%	34%	100%	0.73
JOSHUA	1,742	13%	25%	36%	27%	100%	0.72
TRISTAN	639	15%	38%	27%	21%	100%	0.72
JORDAN	747	12%	36%	27%	24%	100%	0.72
DEVIN	287	34%	19%	33%	14%	100%	0.72
RYAN	2,286	30%	11%	24%	36%	100%	0.72
TYLER	1,184	14%	40%	23%	23%	100%	0.71
AARON	1,594	18%	14%	39%	29%	100%	0.71
NOAH	2,543	9%	30%	35%	26%	100%	0.71
AIDAN	528	24%	9%	30%	37%	100%	0.71
BRIAN	572	40%	11%	27%	22%	100%	0.71
KAI	392	31%	29%	7%	33%	100%	0.71
JAYDEN	1,909	26%	24%	40%	9%	100%	0.70
EVAN	1,155	36%	7%	31%	26%	100%	0.70
SEAN	497	23%	20%	14%	43%	100%	0.70
JASON	1,297	39%	12%	33%	16%	100%	0.70
LIAM	2,668	13%	18%	43%	25%	100%	0.70
GAVIN	538	28%	9%	21%	42%	100%	0.69
LOGAN	1,246	12%	27%	44%	17%	100%	0.69
MICHAEL	2,509	9%	18%	32%	41%	100%	0.69
PRESTON	221	12%	46%	22%	20%	100%	0.69
WILLIAM	1,534	25%	8%	22%	44%	100%	0.68
AUSTIN	810	46%	14%	24%	15%	100%	0.68
JONATHAN	1,499	12%	14%	45%	29%	100%	0.68
BRAYDEN	254	27%	4%	40%	29%	100%	0.68
KYLE	650	44%	31%	10%	14%	100%	0.68
JACOB	3,140	10%	13%	39%	38%	100%	0.67
DANIEL	2,327	14%	13%	27%	47%	100%	0.67
LUCAS	2,246	29%	5%	44%	22%	100%	0.67
ALEX	780	29%	5%	44%	22%	100%	0.67
Overall Male Names	207,569	14%	15%	34%	37%	100%	0.70

Each name has a different distribution across ethnic groups. We computed the ethnic neutrality and specificity index for each one of the male and female baby names. Table A presents the most ethnically neutral male baby names (on a scale of 0-0.75, where 0.75 = very ethnically neutral male names), and Table B presents the most ethnically neutral female baby names (on a scale of 0-0.50, when 0.50 = very ethnically neutral female names).

The most ethnically neutral male baby names are **Richard, Marcus,** and **Nathan** (neutrality index 0.75-0.74). Following those are **Ethan, Aiden, Caleb, Timothy,** and **Nathaniel** (Table A).

Table B: Most Ethnically Neutral Female Baby Names  
(on a scale of 0-0.75, when 0.75 = very ethnically neutral female names)

On the other hand, the most ethnically neutral female baby names are **Aria**, **Michelle**, **Chloe**, and **Isabelle** (index 0.75-0.73) (Table B).

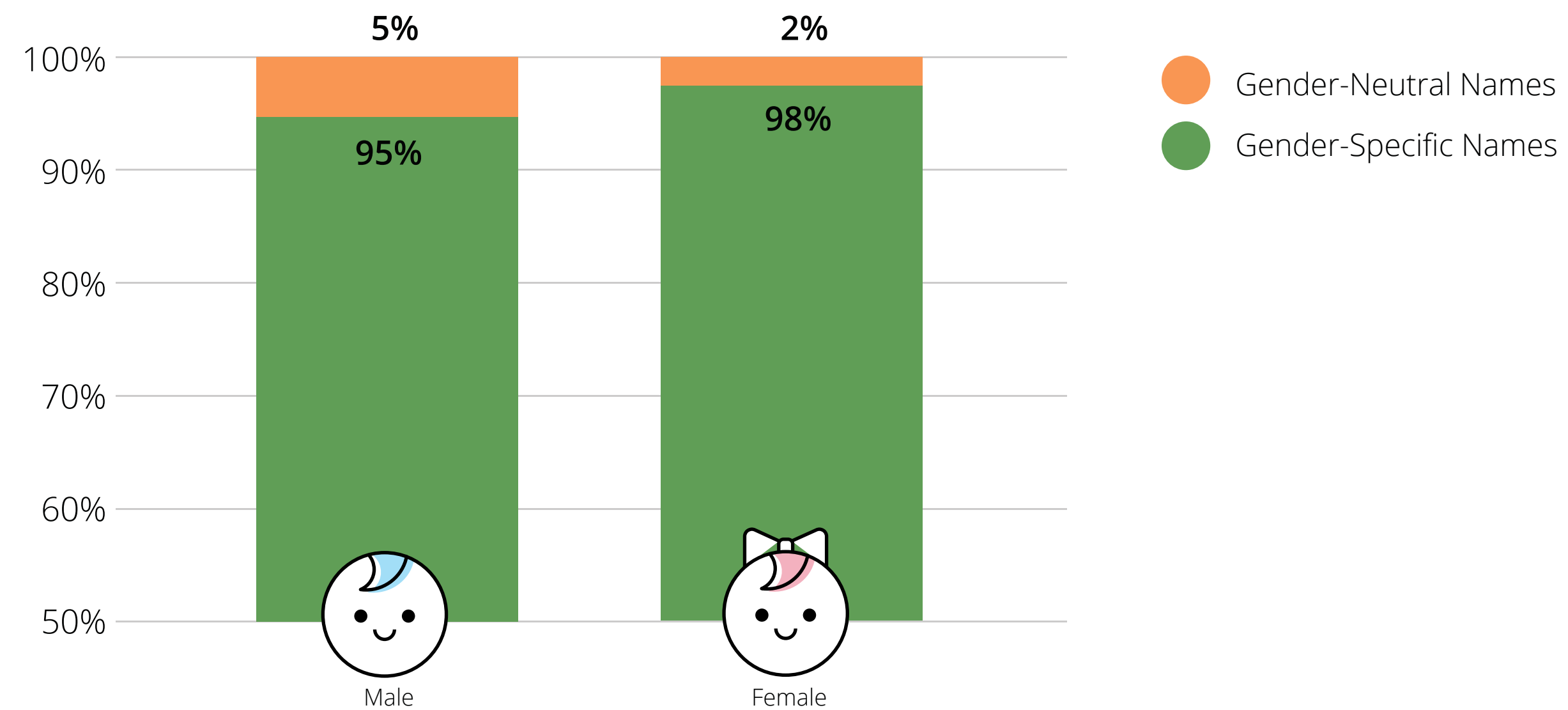
Name	Number of Babies	Asian Female %	Black Female %	Hispanic Female %	White Female %	Total Female %	Ethnic Neutrality Index of Female Babies' Names
ARIA	561	26%	23%	21%	30%	100%	0.75
MICHELLE	632	29%	17%	26%	28%	100%	0.74
CHLOE	1743	29%	18%	22%	31%	100%	0.74
ISABELLE	378	23%	20%	21%	37%	100%	0.73
CHRISTINA	265	35%	25%	12%	28%	100%	0.72
SUMMER	239	19%	37%	15%	29%	100%	0.72
LAUREN	405	12%	36%	23%	29%	100%	0.72
ALYSSA	636	16%	21%	39%	23%	100%	0.72
KAYLA	920	11%	34%	31%	24%	100%	0.72
ZOEY	539	16%	31%	37%	16%	100%	0.72
GRACE	1096	29%	13%	21%	38%	100%	0.72
ZOE	1090	16%	15%	35%	34%	100%	0.71
OLIVIA	2248	26%	14%	21%	40%	100%	0.71
KAITLYN	383	29%	21%	38%	11%	100%	0.71
BELLA	592	26%	9%	38%	28%	100%	0.71
SOPHIA	2025	23%	9%	37%	31%	100%	0.71
JASMINE	559	30%	29%	34%	7%	100%	0.70
AVA	1795	12%	24%	21%	43%	100%	0.70
NAOMI	681	7%	30%	26%	38%	100%	0.70
ABIGAIL	1446	11%	17%	37%	36%	100%	0.70
MADISON	1660	9%	25%	42%	25%	100%	0.70
EMILY	2148	19%	9%	36%	36%	100%	0.70
AMELIA	965	19%	11%	28%	43%	100%	0.69
ARIANA	842	18%	15%	46%	21%	100%	0.69
ARIANNA	850	10%	27%	43%	20%	100%	0.69
RILEY	584	8%	31%	21%	41%	100%	0.69
FATIMA	454	39%	38%	11%	12%	100%	0.68
HANNAH	872	28%	10%	16%	46%	100%	0.68
MIA	2078	17%	8%	44%	31%	100%	0.67
LAYLA	708	5%	19%	37%	39%	100%	0.67
EVA	759	20%	5%	31%	44%	100%	0.67
ARIEL	424	17%	49%	21%	12%	100%	0.67
JESSICA	427	44%	5%	32%	19%	100%	0.66
ANGELINA	655	21%	4%	44%	31%	100%	0.66
ELENA	381	28%	0%	37%	35%	100%	0.66
AVERY	579	17%	13%	20%	50%	100%	0.66
ISABELLA	1954	12%	10%	47%	31%	100%	0.66
MILA	543	17%	6%	32%	45%	100%	0.66
HAILEY	940	19%	15%	51%	15%	100%	0.66
EMMA	2323	15%	6%	42%	37%	100%	0.66
SAVANNAH	662	5%	41%	39%	15%	100%	0.66
NATALIE	521	26%	0%	34%	41%	100%	0.66
AMANDA	342	29%	8%	48%	15%	100%	0.66
Overall Female Names	164,965	13%	14%	32%	41%	100%	0.69

## The Age of Gender Equality

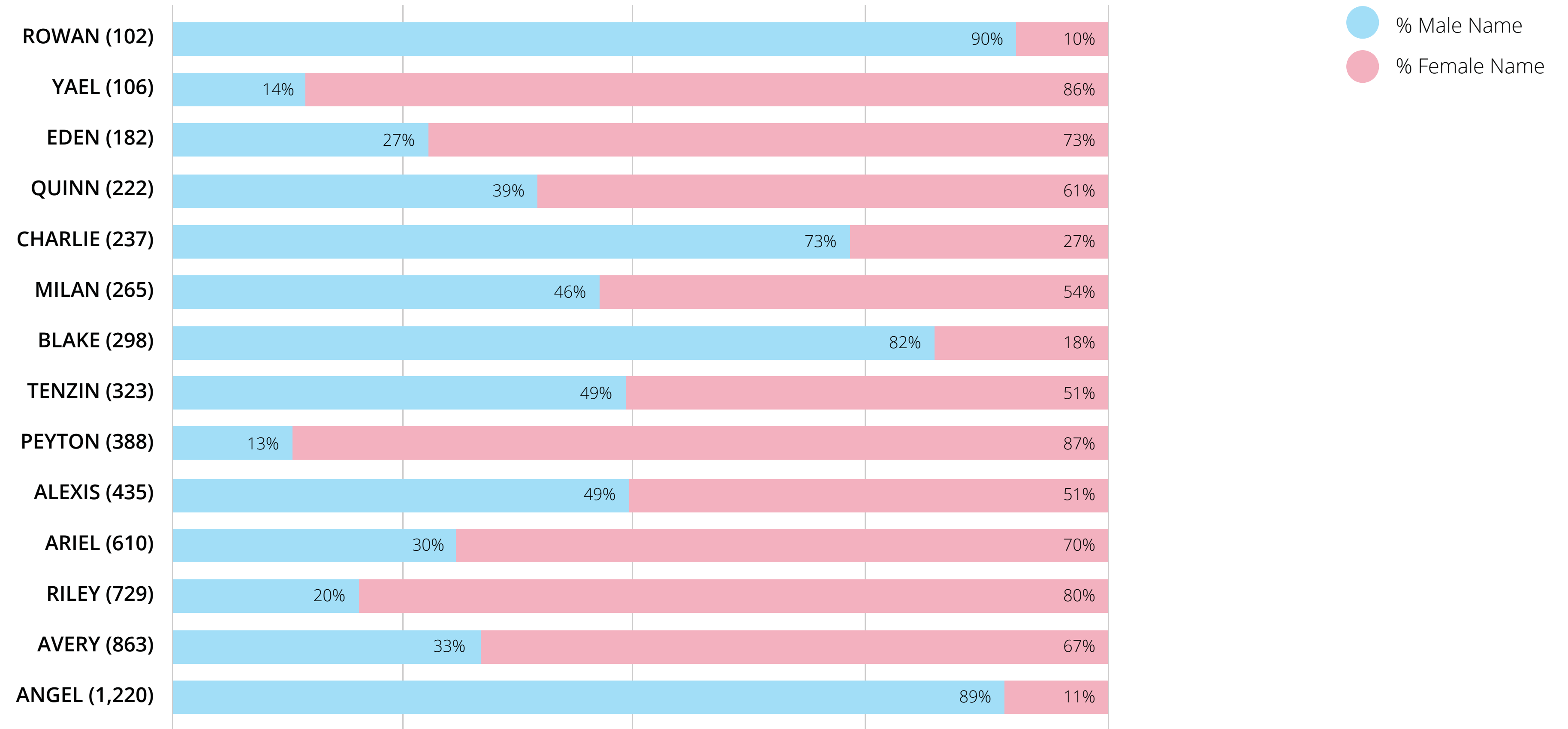
Most parents choose gender-specific names for their babies. 98% of female baby names were specifically feminine, and 95% of the male baby names were specifically masculine. However, we found seeds of "gender-revolution" in some baby names. 2% of the baby girls' names and 5% of the baby boys' names were unisex (See Graph 3.0). The most popular babies' names that appeared

at least once amongst boys and girls were; **Angel, Avery, Riley, and Ariel**. However, **Alexis, Tenzin, and Milan** are baby names which were almost chosen equally for baby boys and girls (see Graph 3.1). Also, **Quinn** (39% boys vs. 61% girls), **Avery** (33% boys vs. 77% girls), and **Ariel** (30% boys vs. 70% girls) are names given to both boys and girls.

Graph 3.0: Gender-Specific Names vs. Gender Neutral Names for Both Males and Females



Graph 3.1: Popular Unisex Baby Names



To discover the most gender-neutral names, we calculated a gender-specific baby name index (see variables, Table C), and found that **Alexis, Tenzin, and Milan** are the most gender-neutral baby names, chosen almost equally for baby boys and baby girls. After these, **Quinn, Avery, Ariel, and Charlie** (index 0.48-0.4) are names quite popular for both boys and girls.

Table C: Most Gender Neutral Baby Names  
(on a scale of 0-0.5, when 0.5= very gender neutral)

Baby Names	Total	FEMALE (%)	MALE (%)	Gender Neutrality Index of Baby Names
ALEXIS	435	51%	49%	0.50
TENZIN	323	51%	49%	0.50
MILAN	265	54%	46%	0.50
QUINN	222	61%	39%	0.48
AVERY	863	67%	33%	0.44
ARIEL	610	70%	30%	0.42
CHARLIE	237	27%	73%	0.40
RILEY	729	80%	20%	0.32
BLAKE	298	18%	82%	0.30
PEYTON	388	87%	13%	0.22
ANGEL	1,220	11%	89%	0.19
JORDAN	802	7%	93%	0.13
DYLAN	2,596	6%	94%	0.11
TAYLOR	539	96%	4%	0.07
LOGAN	1,281	3%	97%	0.05
KAI	402	2%	98%	0.05
RYAN	2,339	2%	98%	0.04
CAMERON	559	2%	98%	0.04

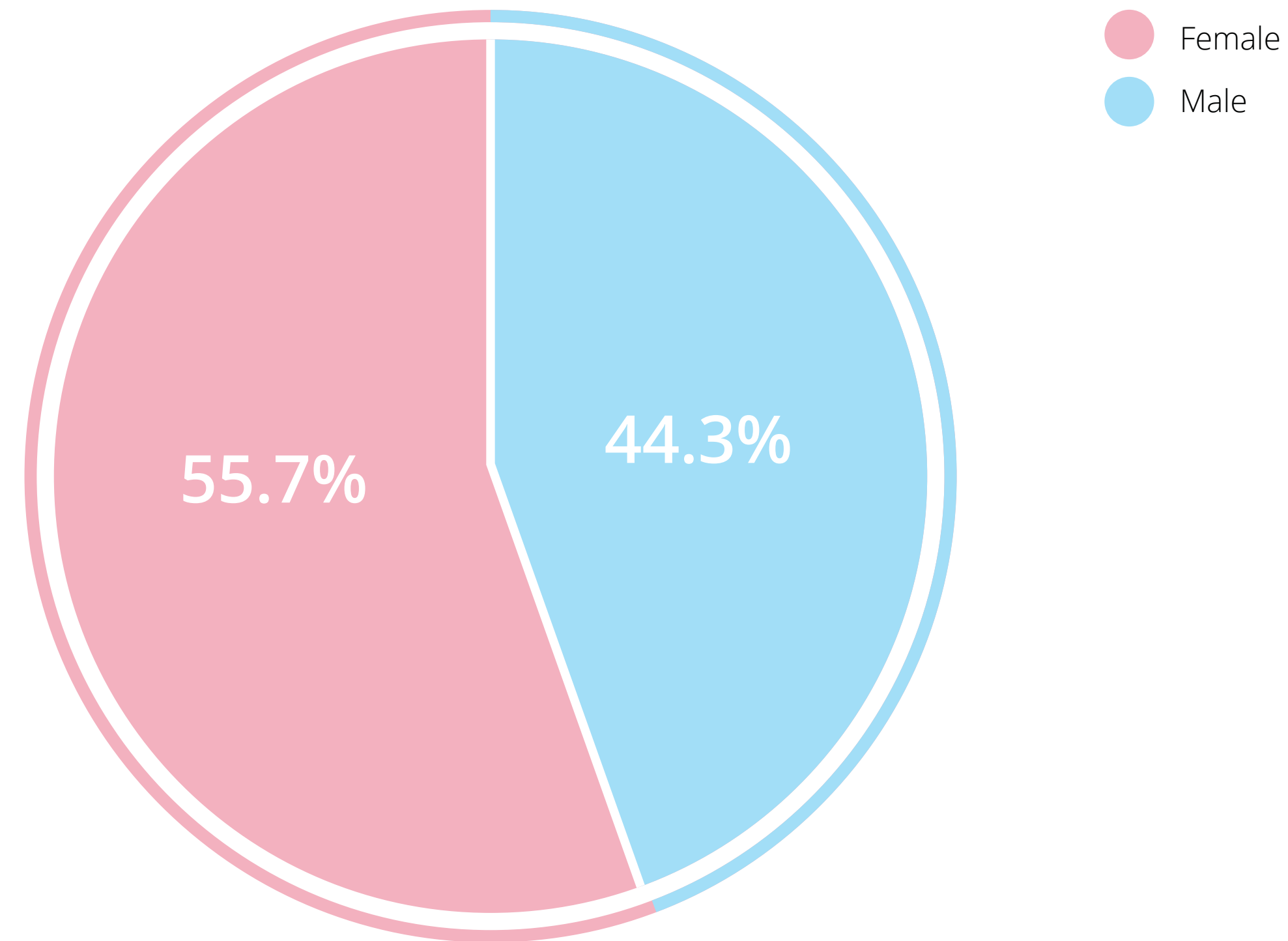
# Important Insights from the Dataset

Of the 372,534 babies born in New York City between 2011 and 2016, 56% of them were male, and 44% of them were female (Graph 4.0).

The top 5 most popular names for males in New York City between 2011 and 2016 were **Jacob, Ethan** (more than 3,000 names), **Matthew, David,** and **Liam** (2500-2750 names).

For female baby names, the top 5 most popular names, were **Emma, Olivia, Emily, Mia,** and **Sophia** (more than 2000 names) (See Graphs 1.1, 1.2 on pages 4 and 5).

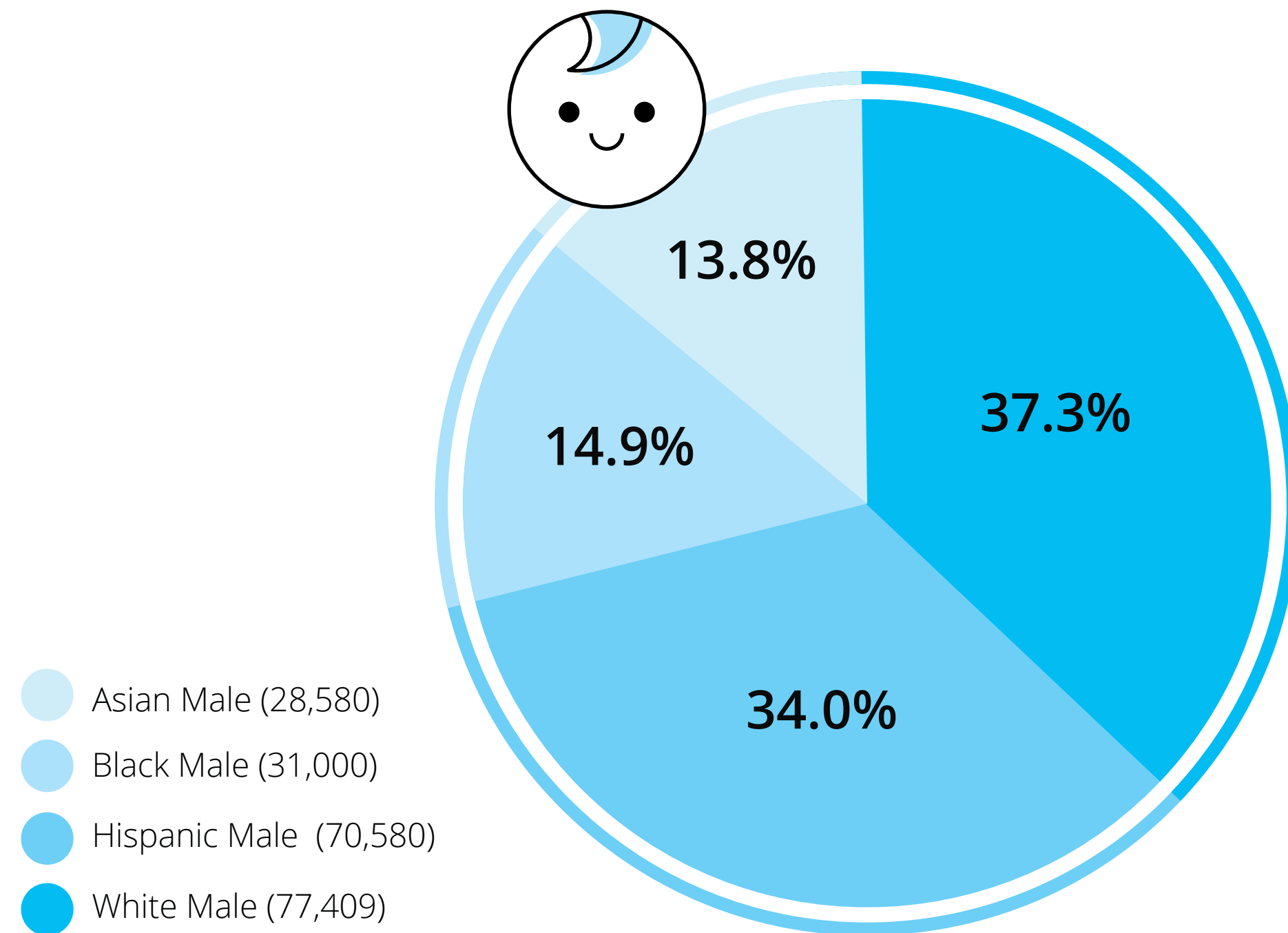
Graph 4.0: Babies born in New York City 2011-2016 by Gender (372,534 Babies)



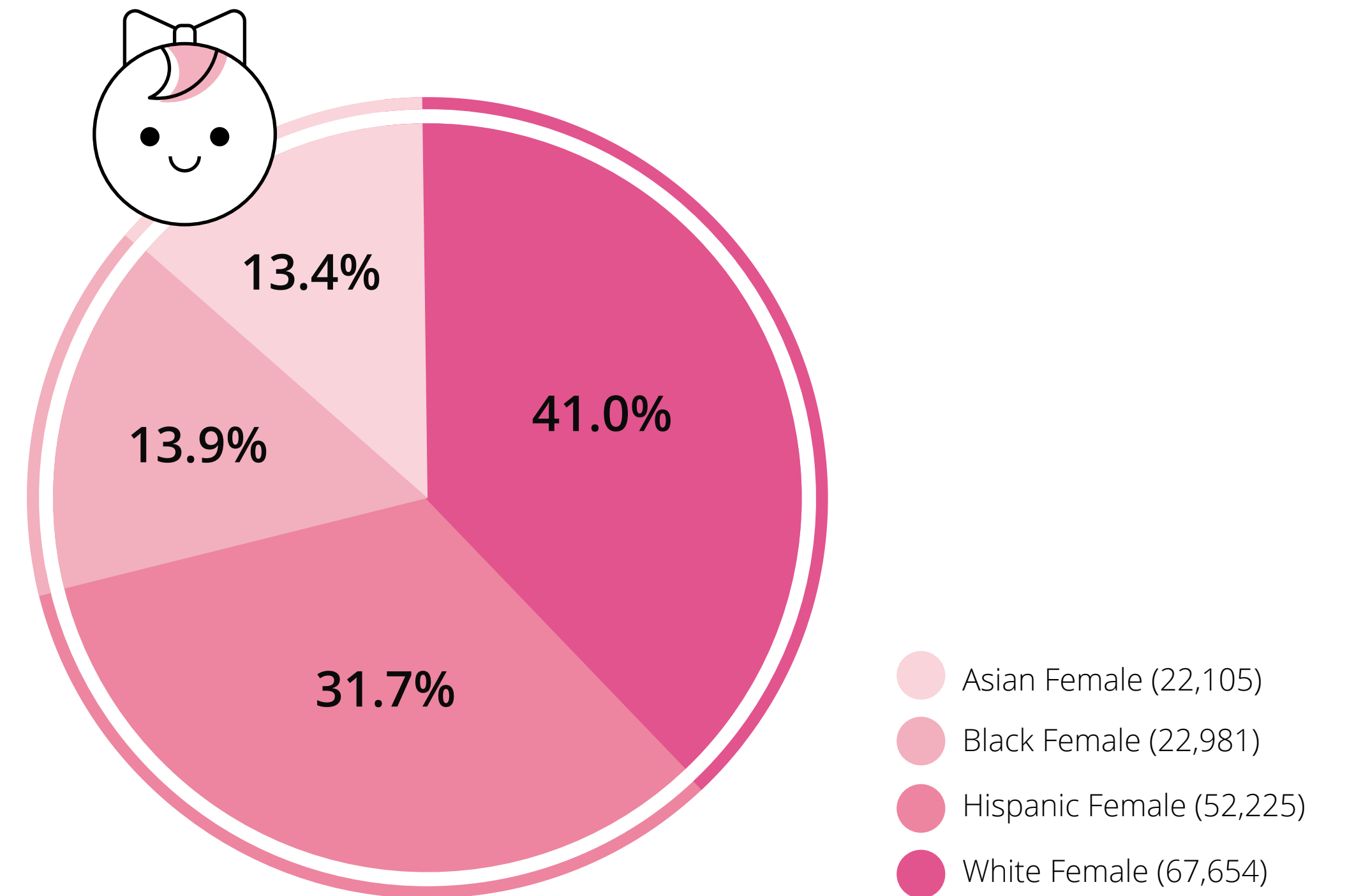
# Males and Females Born by Ethnic Groups

From 207,459 male babies born in NYC during 2011-2016, 36% of them were White, 34% Hispanic, 15% Black and 14% Asian (See Graph 4.1). A similar distribution was found for females. From 164,965 female babies, 41% were White, 32% Hispanic, 14% Black, and 13% Asian. (See Graph 4.2).

Graph 4.1: Male Babies by Ethnicity  
(207,459 babies, NYC 2011-2016)



Graph 4.2: Female Babies by Ethnicity  
(164,965 babies, NYC 2011-2016)

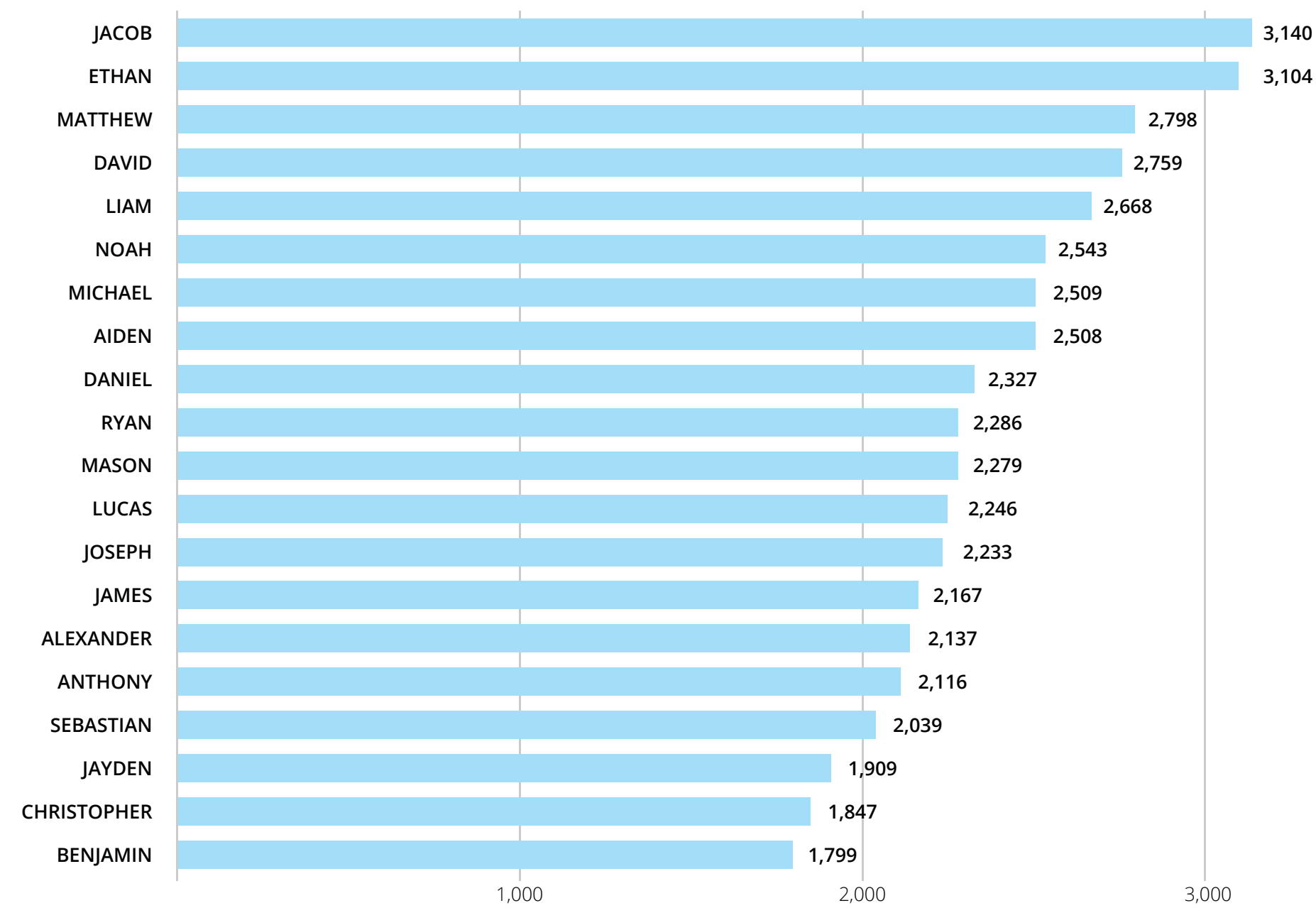




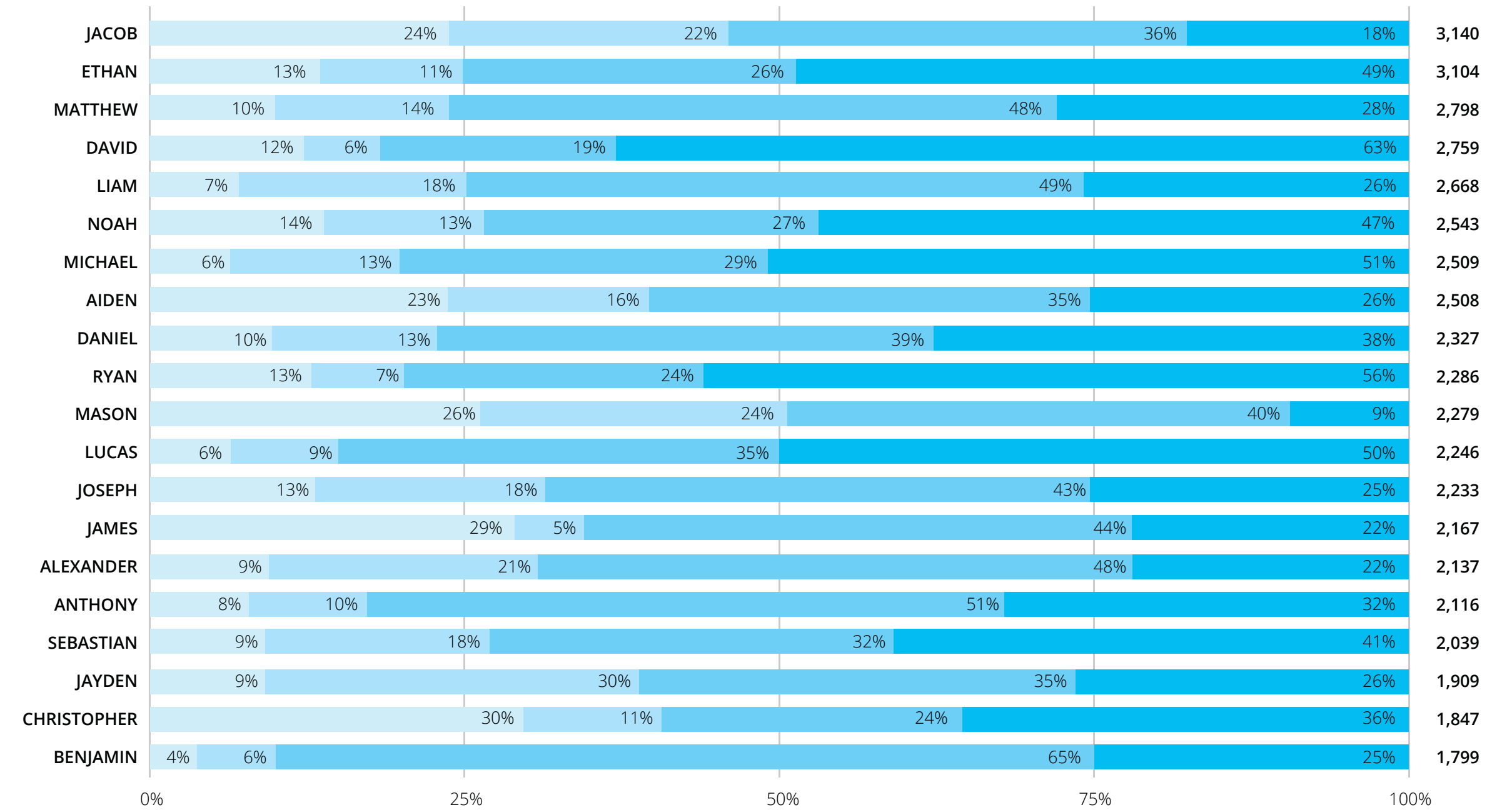
The top 5 most popular **ethnically neutral** names for males that appeared (at least once) in all ethnic groups - White, Hispanic, Black and Asian - were **Jacob, Ethan, Matthew, David, Liam,** and **Michael.** (See Graph 5.0). The most ethnically specific names were **Moshe, Chaim,** and **Yosef**

for White male babies and **Jose, Carlos,** and **Luis** for Hispanic male babies. In addition, the most ethnically specific names were **Malachi, Nasir,** and **Mamadou** for Black male babies and **Ayaan, Eason,** and **Tenzin** for Asian male babies (See Graph 5.1 on the next page).

Graph 5.0: Popular Ethnically Neutral Male Names



Graph 2.1: Popular Ethnically Neutral Male Names by Ethnic Group

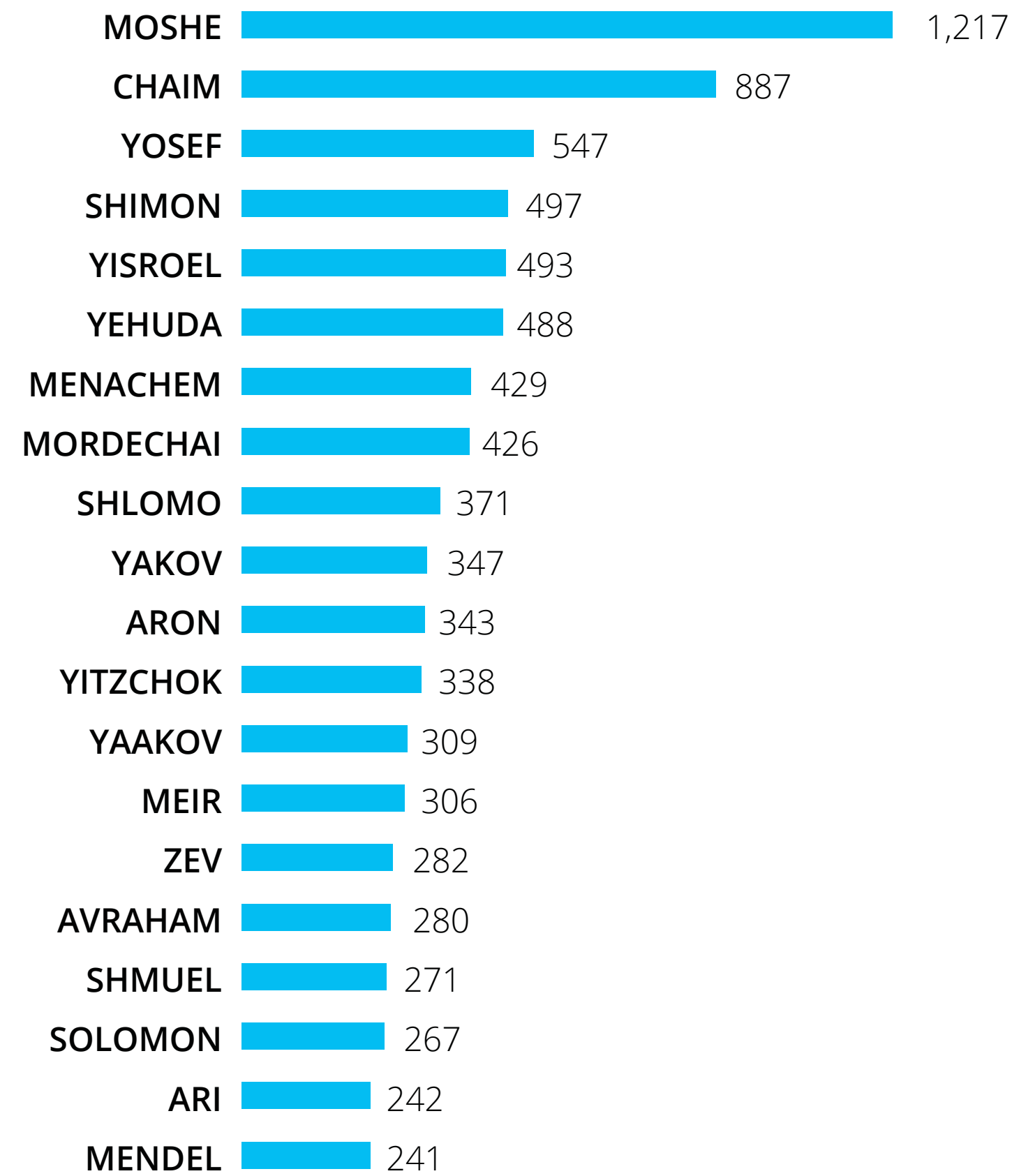


● Asian Male
 ● Hispanic Male  
● Black Male
 ● White Male

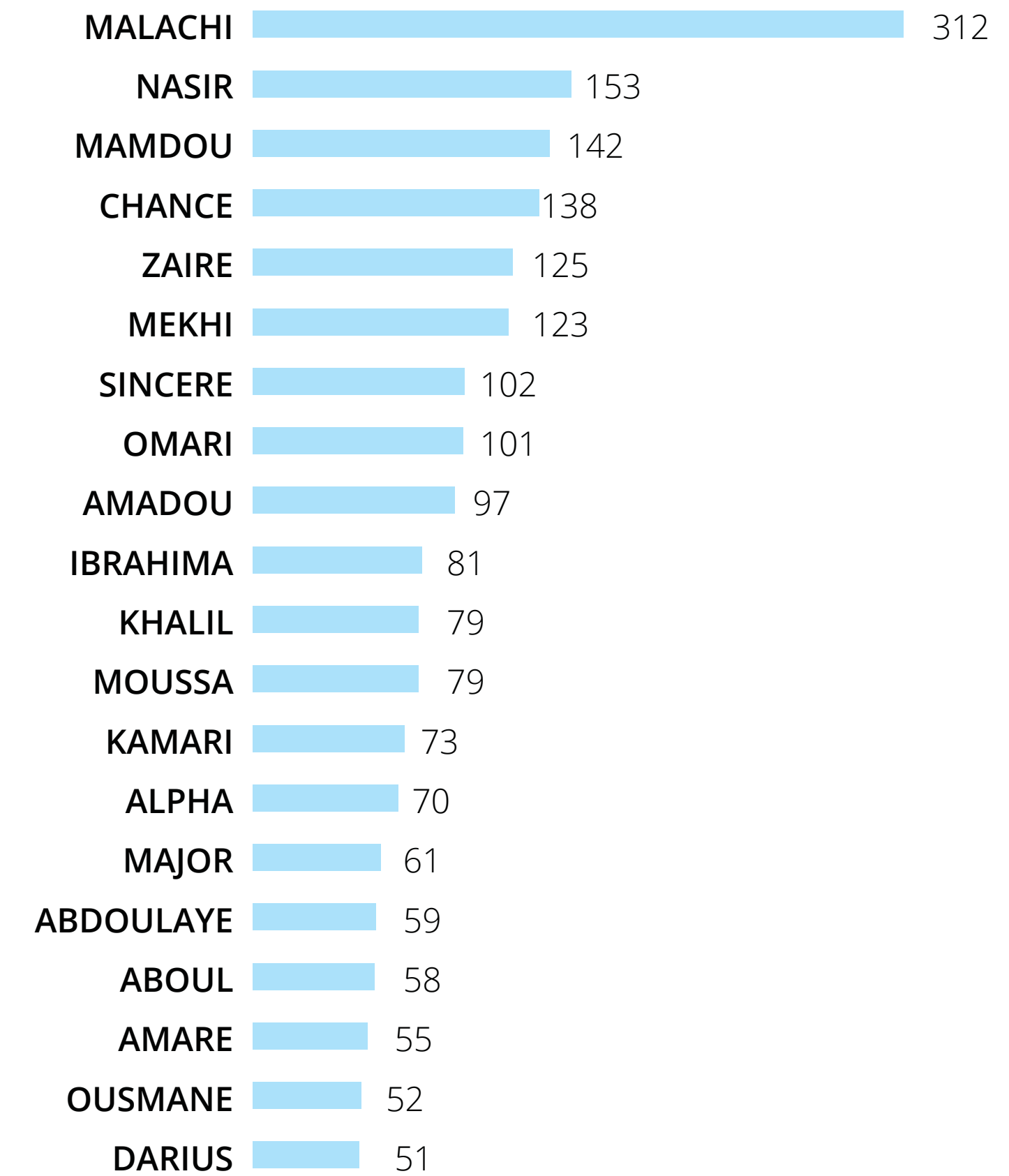


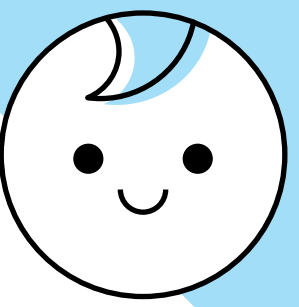
Graph 5.1: Popular Ethnically Specific Names by Ethnic Group - Males

### Ethnically Specific White Male Names Given in NYC 2011-2016



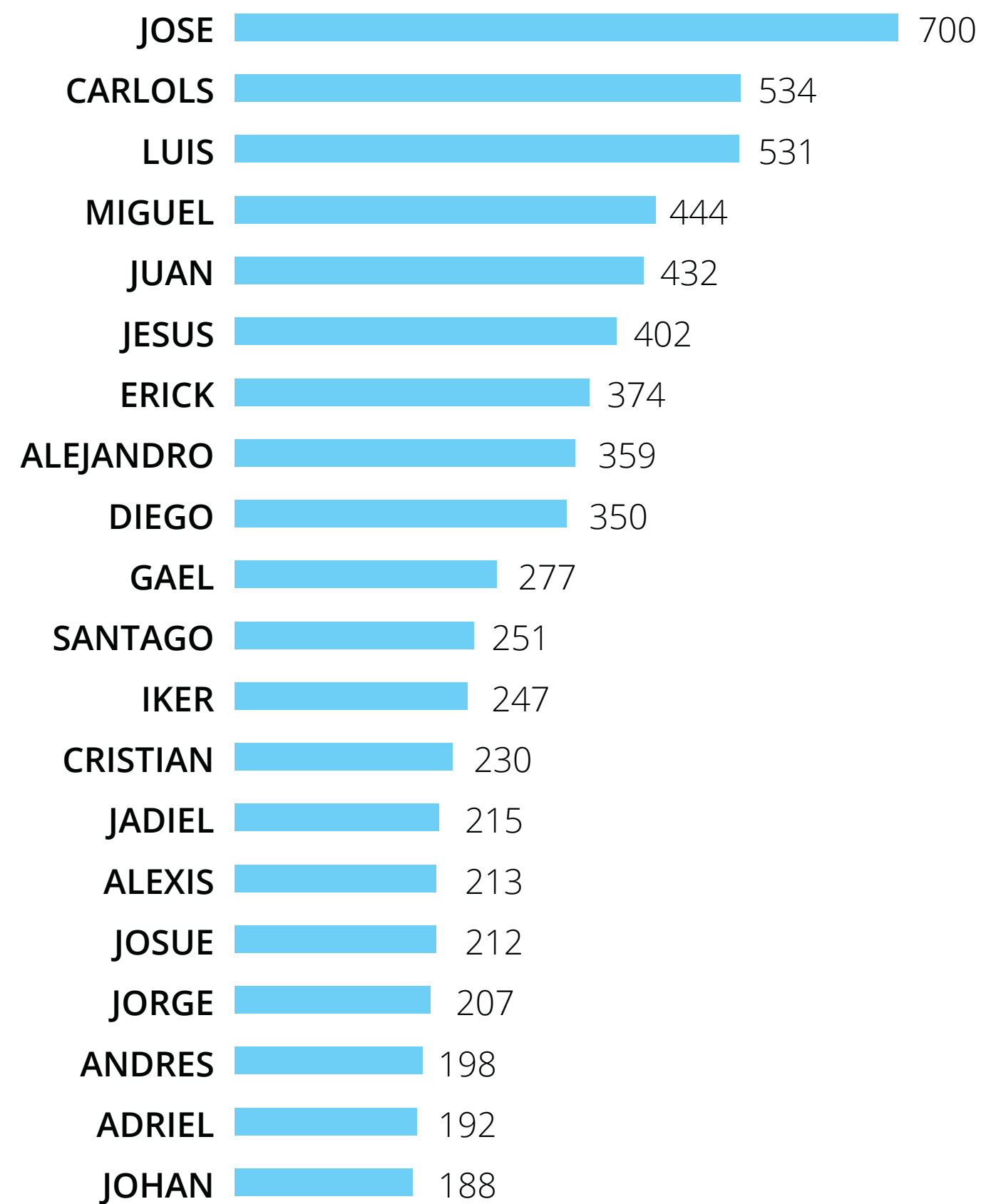
### Ethnically Specific Black Male Names Given in NYC 2011-2016



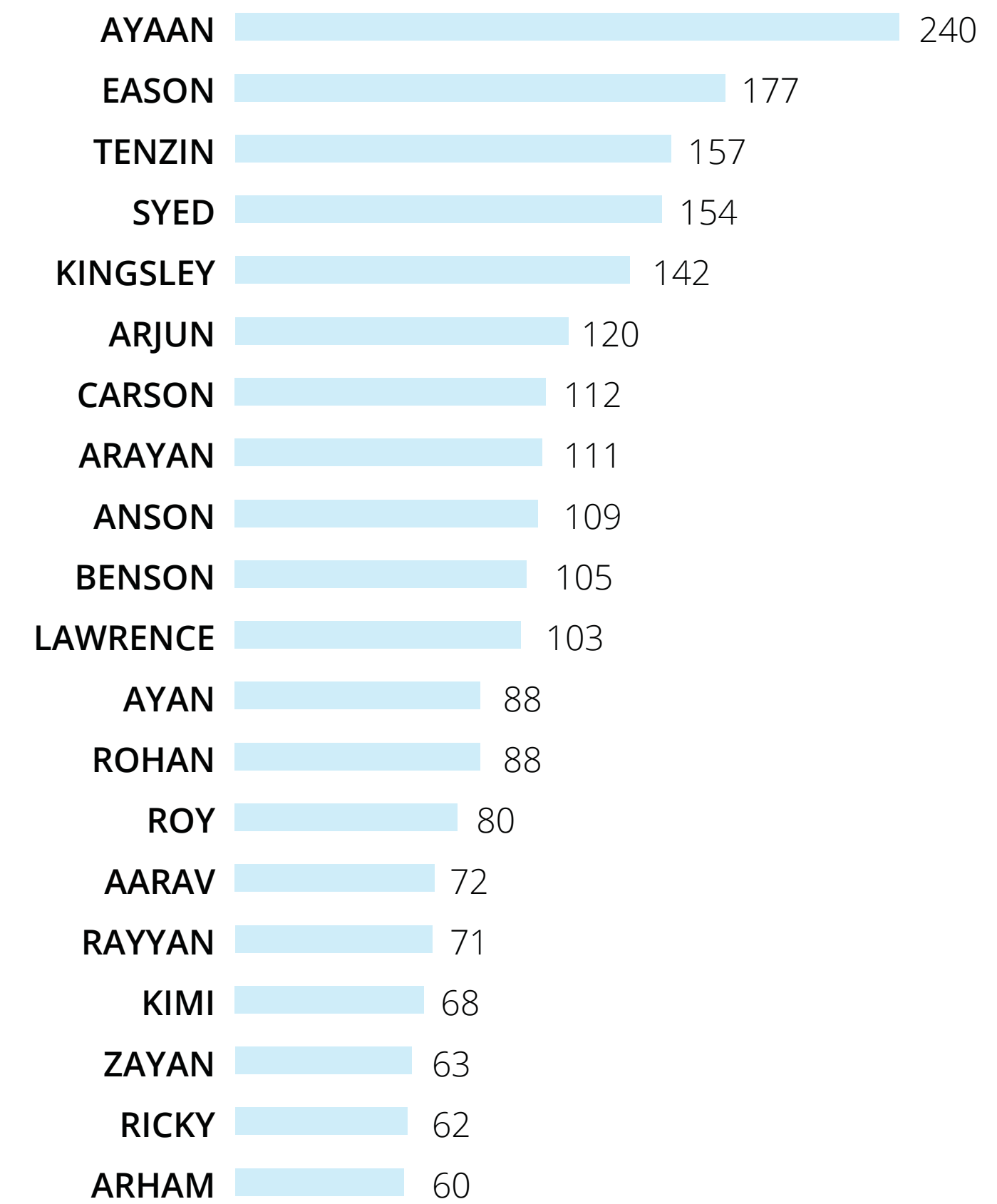


Graph 5.1: Popular Ethnically Specific Names by Ethnic Group - Males

### Ethnically Specific Hispanic Male Names Given in NYC 2011-2016



### Ethnically Specific Asian Male Names Given in NYC 2011-2016

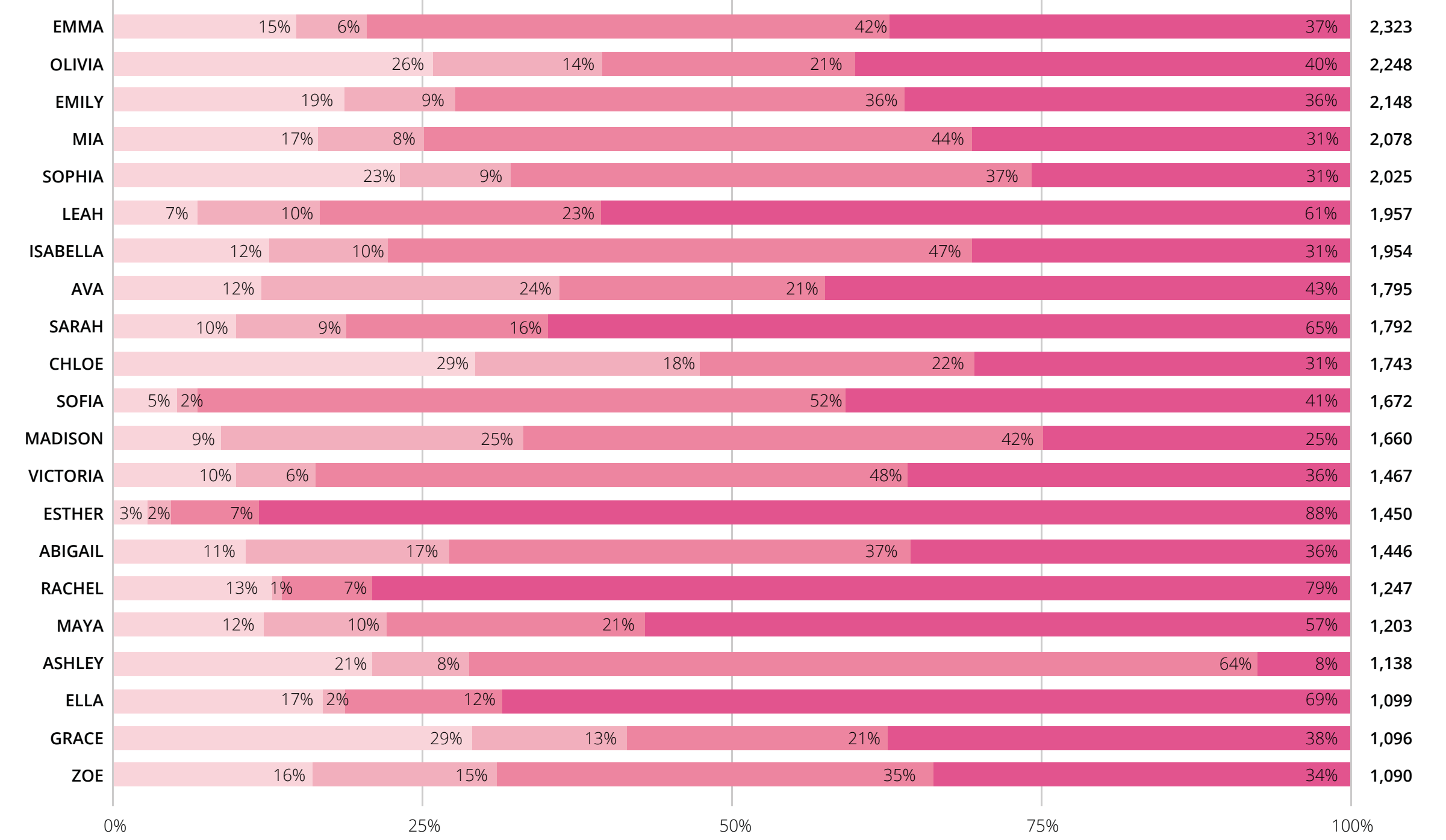
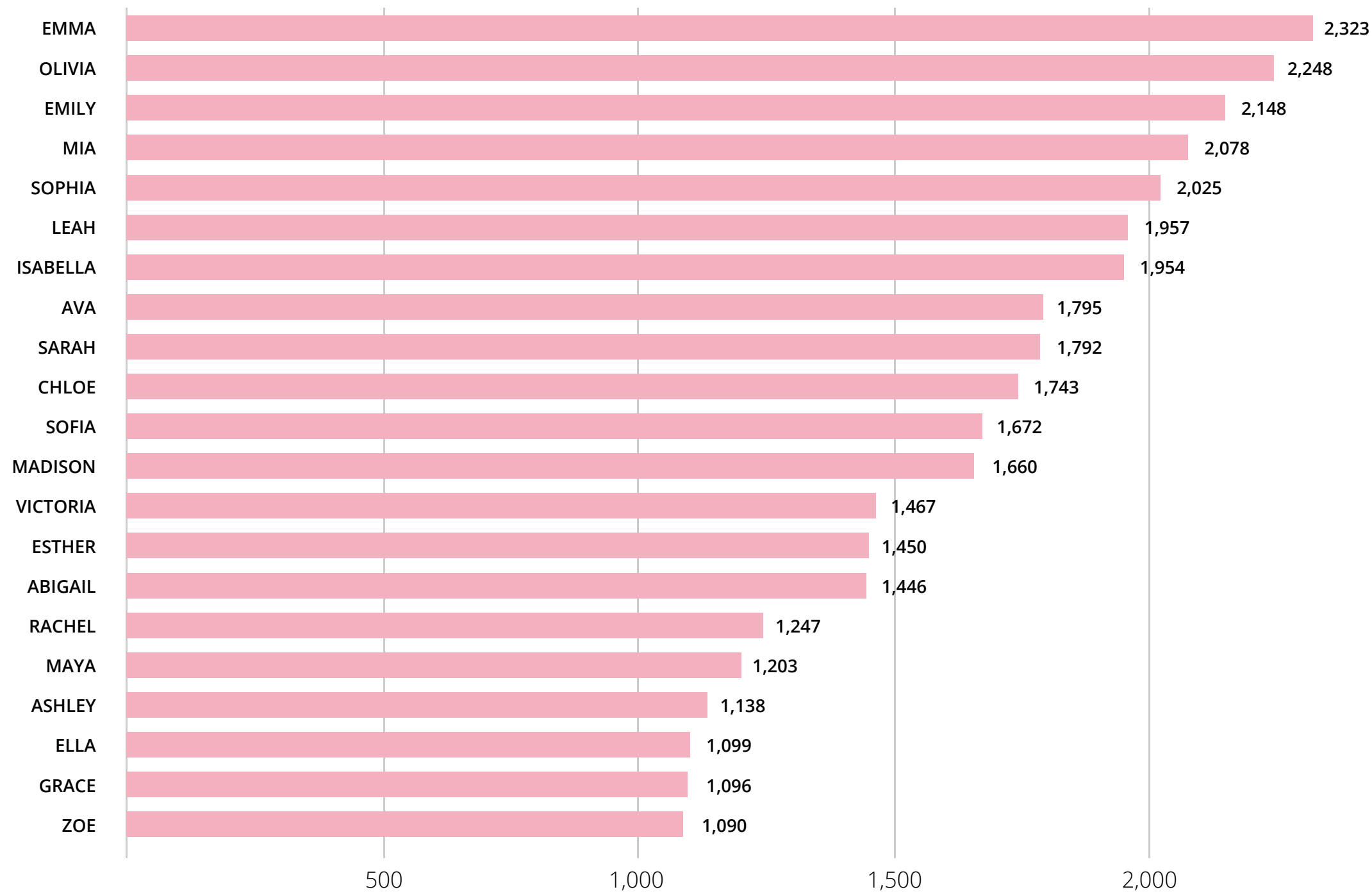


For female babies, the top 5 most popular **ethnically neutral** names which appeared (at least once) in all ethnic groups were **Emma, Olivia, Emily, Mia, and Sophia** (See Graph 6.0). The most ethnically specific names were **Chaya, Rivka, and Chana** for White female babies and **Emely, Leslie,**

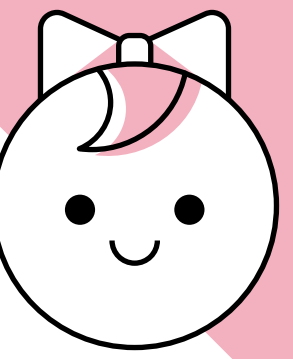
and **Andrea** for Hispanic female babies. In addition, the most ethnically specific names for Black female babies were **Fatoumata, Aminata, and Amiyah** and **Tenzin, Selina, and Ayesha** for Asian female babies (See Graph 6.2 on the next page).

Graph 6.1: Popular Ethnically Neutral Female Names

Graph 2.2: Popular Ethnically Neutral Female Names by Ethnic Group

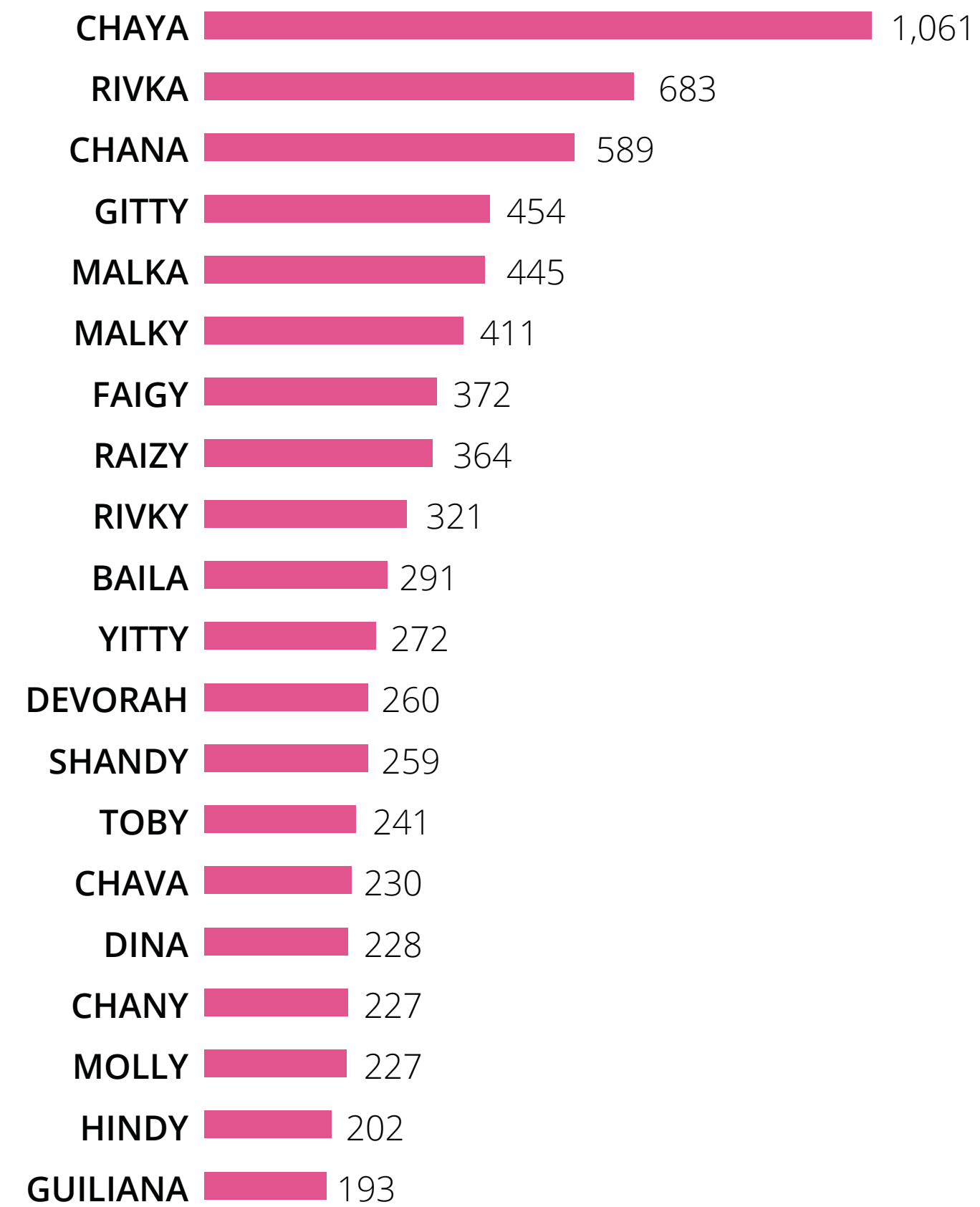


Asian Female
  Hispanic Female  
 Black Female
  White Female

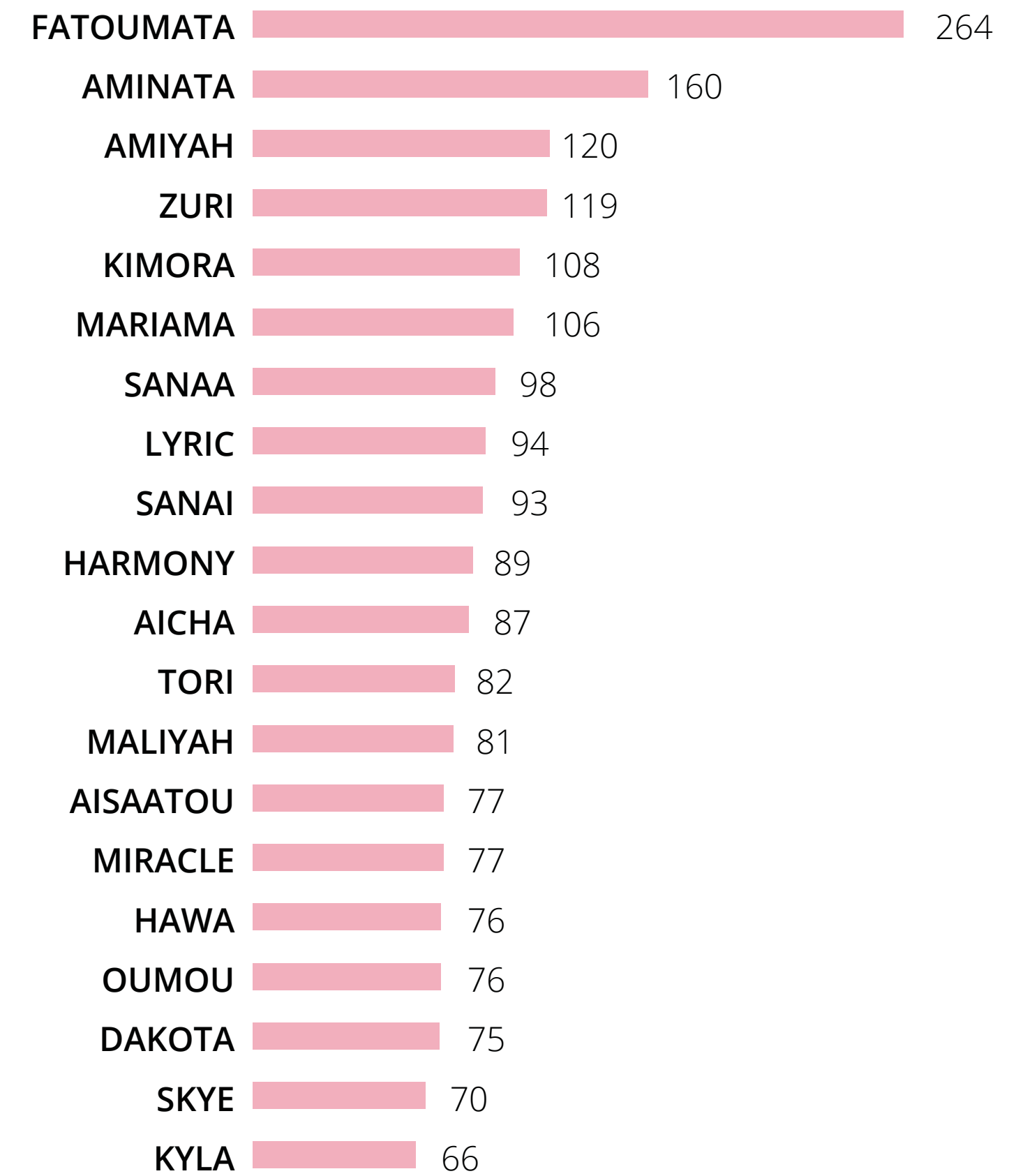


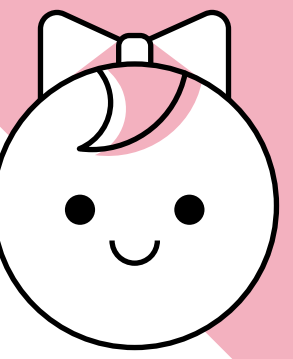
Graph 6.2: Popular Ethnically Specific Female Names by Ethnic Group - Females

### Ethnically Specific White Female Names Given in NYC 2011-2016



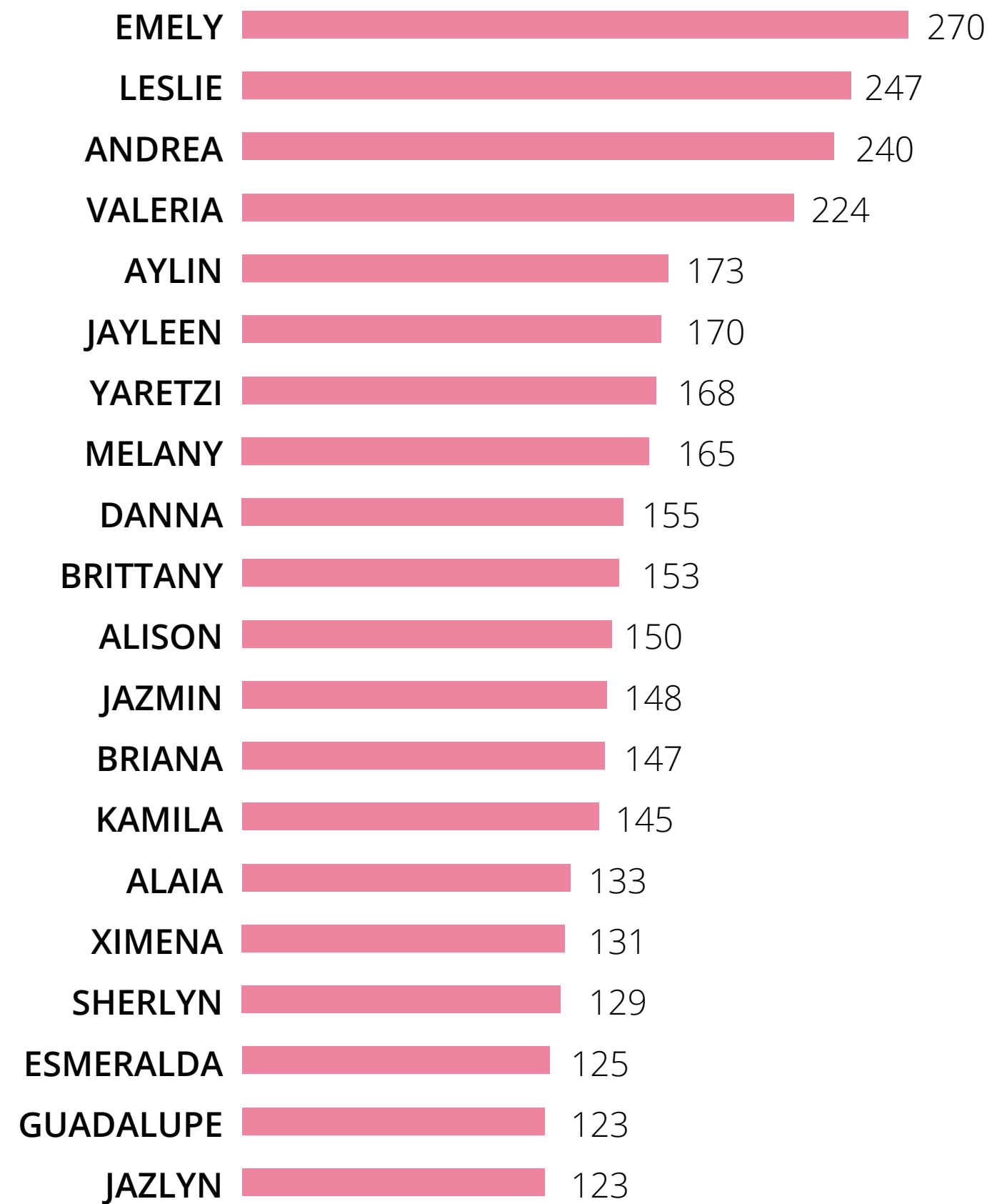
### Ethnically Specific Black Female Names Given in NYC 2011-2016



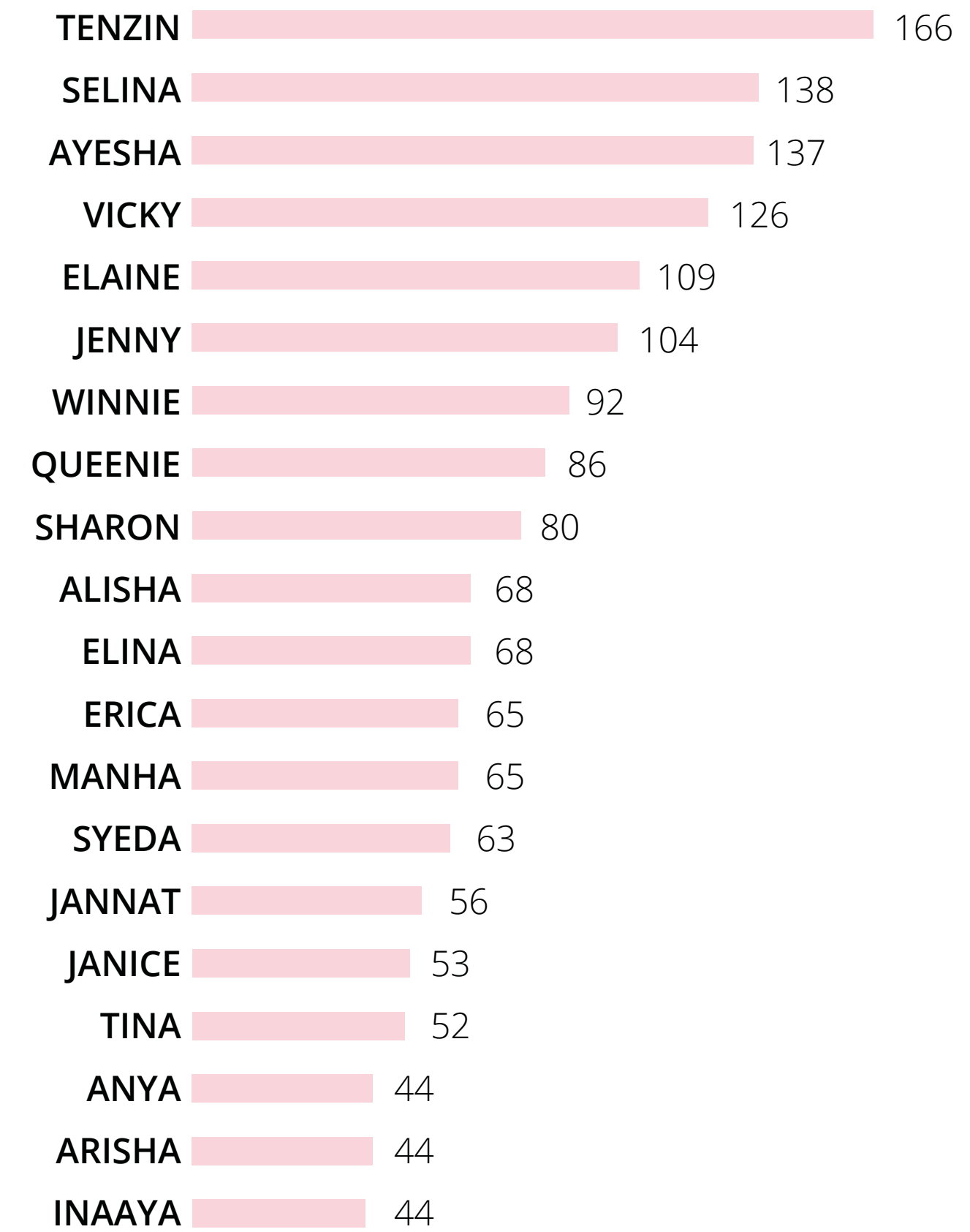


Graph 6.2: Popular Ethnically Specific Female Names by Ethnic Group - Females

### Ethnically Specific Hispanic Female Names Given in NYC 2011-2016



### Ethnically Specific Asian Female Names Given in NYC 2011-2016



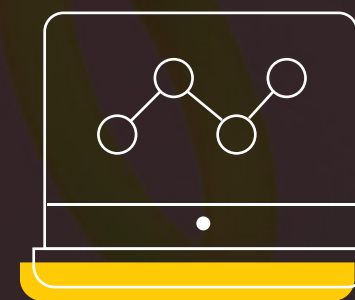
# Summary

Our study has shown a fascinating overarching fact. When it comes to baby-naming trends, New Yorkers are very sure about two choices in particular. They want to clearly differentiate the boys and the girls (the most popular names are given either to boys or to girls and generally not to both), but in general, they prefer names that cross cultural boundaries and don't differentiate by ethnicity.

In an age when gender equality is in the spotlight more than ever before, and with the issue of imposing expectations on boys and girls more widely discussed than ever, it's surprising to find that more children don't have names that are unisex. Maybe it's something that many parents, consciously or unconsciously, just aren't comfortable with yet. Nevertheless, for those less traditional parents who have entertained the idea of giving their child a gender-neutral name, we've identified the most popular.

One of these names is Angel, which is an interesting case in point from an ethnic and cultural perspective. It's likely that the masculine version is Hispanic, while the feminine version of the name is anglicized. However, regarding the way different communities name their children, the trend is towards names that all groups like and use, although Hispanic parents are a little more inclined to give their children ethnically specific names than Black or Asian parents.

When it comes to baby naming, like New York City itself, it's one big melting pot. Our results have shown that you can no longer assume someone's background simply by hearing their name because there is less differentiation between ethnic groups now. The truth is reflected in this research, which shows that the multi-cultural environment of the Big Apple is one in which assimilation and integration between communities is an increasing trend, which contributes to such a vibrant atmosphere in one of the world's most iconic cities.



View our [interactive dashboard](#) for full visualization of the research data.

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