

# Google searches for famous actors

Bethany Lacina

Associate Professor of Political Science,  
University of Rochester  
blacina@ur.rochester.edu

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In a forthcoming *Washington Post* article I discuss Google search traffic related to actors nominated for Oscars, Golden Globe awards, and Screen Actors' Guild awards in 2020.

This document provides some additional details on the research reported in that article.

## 1 Google search traffic

[Google Trends](#) provides information on the volume of Google searches for terms or topics over time and by location. Google transforms its search volume data in two ways before release. First, searches in a geographic area are adjusted for population. Second, data is only provided in the form of comparisons: one time period to another, one location to another, etc. The volume that these comparisons represent is proprietary.

I examined Google Trends estimates at the level of Nielsen media market. There are 210 media markets in the US. Like US counties and states, media markets vary hugely by population. The largest—New York and Los Angeles—each hold about 20 million people. The smallest is Glendive, Montana, with a population of 13,000. 28 media markets have less than 200,000 inhabitants apiece.

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## 2 Searches for “Adam Driver marine”

Research in communications and advertising suggests that people appreciate finding affinities between themselves and famous individuals. When a media market has a large number of people who share a particular trait with a film star, you would expect interest in that part of the actor’s biography to be higher.

I used Google searches for actor Adam Driver to give an example of how people look for overlap between their own lives and the lives of celebrities. Driver was in the US Marine Corps before he became a professional actor. That piece of his biography proves useful because there is detailed information about where other people who have served in the US armed forces live.

I used Google Trends to estimate the intensity of searches for “Adam Driver Marine” by media market in the period 12/15/19 to 1/15/20. (The one month period leading up to the announcement of the Oscar nominations). The search is not case sensitive.

The data are provided as a relative scoring. The market with the most per capita searches for “Adam Driver Marine” in this period was Greenville, NC. It scores a 100. Other markets are scored with a percentage of that best market, ranging from 0 to 99.

In Figure 1, the horizontal axis is the percentage of the population in a media market that is composed of veterans of the US armed services. The vertical axis is search intensity. The relationship is positive: as the veteran share of the population climbs, so does per capita search traffic.

In an ordinary least squares (OLS) model, the estimated coefficient on veteran’s population share is 1.05 (Table 1). That implies a media market with a 1% higher veteran population share has about 1% more search activity per capita for the phrase ‘Adam Driver Marine.’

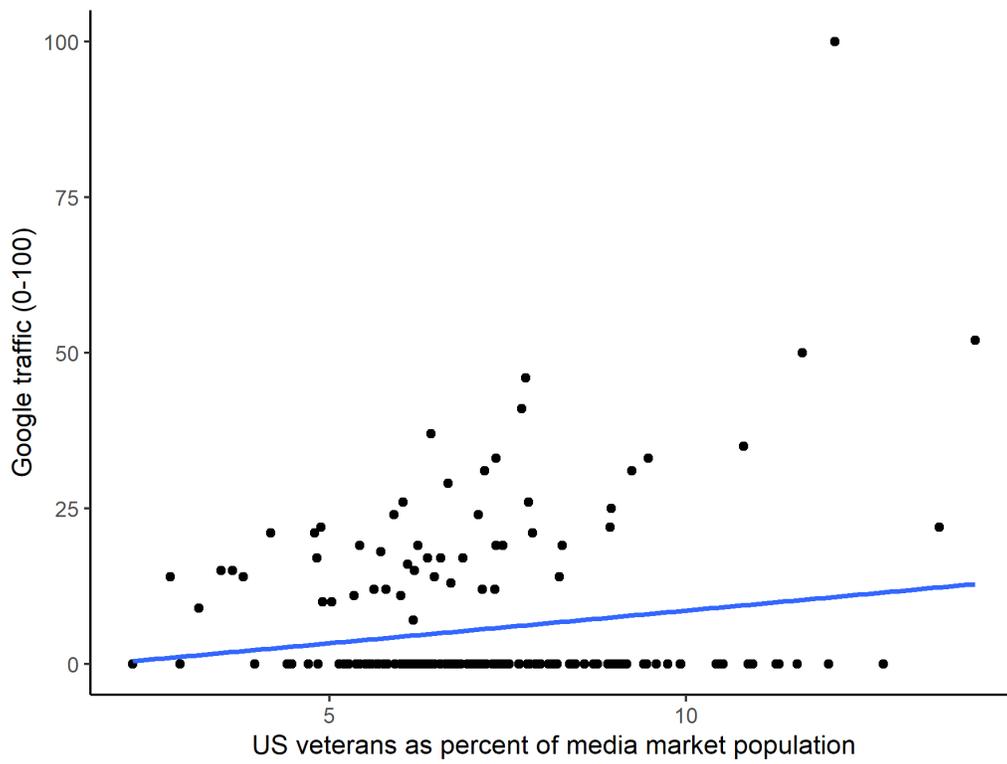
The next column of Table 1 adds a variable for the total amount of Adam Driver search traffic in each media market to an OLS regression. The relationship between the veteran population and searches related to Driver’s military service is unchanged.

## 3 Race and Google traffic for nominees

I next turn to the relationship between the race of film actors and public interest in them. As I noted, I collected Google search traffic for 83 nominees. In Figures 2–4, I plotted each person’s Google traffic by media market against the population

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Figure 1: Google search traffic related to actor Adam Driver, 12/15/19–1/15/20 by media market compared to population share of US veterans



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Table 1: Google search traffic related to actor Adam Driver, 12/15/19–1/15/20 by media market compared to population share of US veterans

	Google traffic (0-100)	
	‘Adam Driver marine’ search traffic	‘Adam Driver marine’ search traffic
Veteran population share (%)	1.05* (0.44)	1.12* (0.44)
‘Adam Driver’ traffic		1.13* (0.05)
N	210	210
R <sup>2</sup>	0.03	0.06

\*\* $p < 0.01$  \* $p < 0.05$

share in the media market that is white. (This population share includes Hispanic whites.)

Figure 2 shows these scatter plots for actors of color. Searches for their names are flat or fall as the white population share of a media market increases. Figures 3–4 show the corresponding scatter plots for each white actor. Some white actors have more search traffic in whiter markets and some have less or unchanged traffic. The consistent negative correlation between white population share and search traffic seen in Figure 2 does not obtain.

These graphs do not take into account at least two important factors. First, predominantly white media markets include many rural areas where film stars and movies generally attract less attention. Second, there are wide differences in the visibility of each actor—the median white nominee has 52 movie acting credits on IMDB compared to 23 for the median non-white nominee. To some extent, the data already takes that into account. The search data for each actor’s name are scaled from 0 to 100, with 100 being the market that is the actor’s “personal best.” Thus, the data have already been adjusted to reflect the higher average traffic for the best known individuals. However, more famous actors may also have lower variance in traffic across media markets as well as a higher average amount of traffic. That would give them a higher average Google Trends score across media markets.

Figure 2: Google search traffic related to actors of color nominated for Golden Globe, SAG, and Oscar acting awards, 12/15/19–1/15/20, predicted by media market demographics

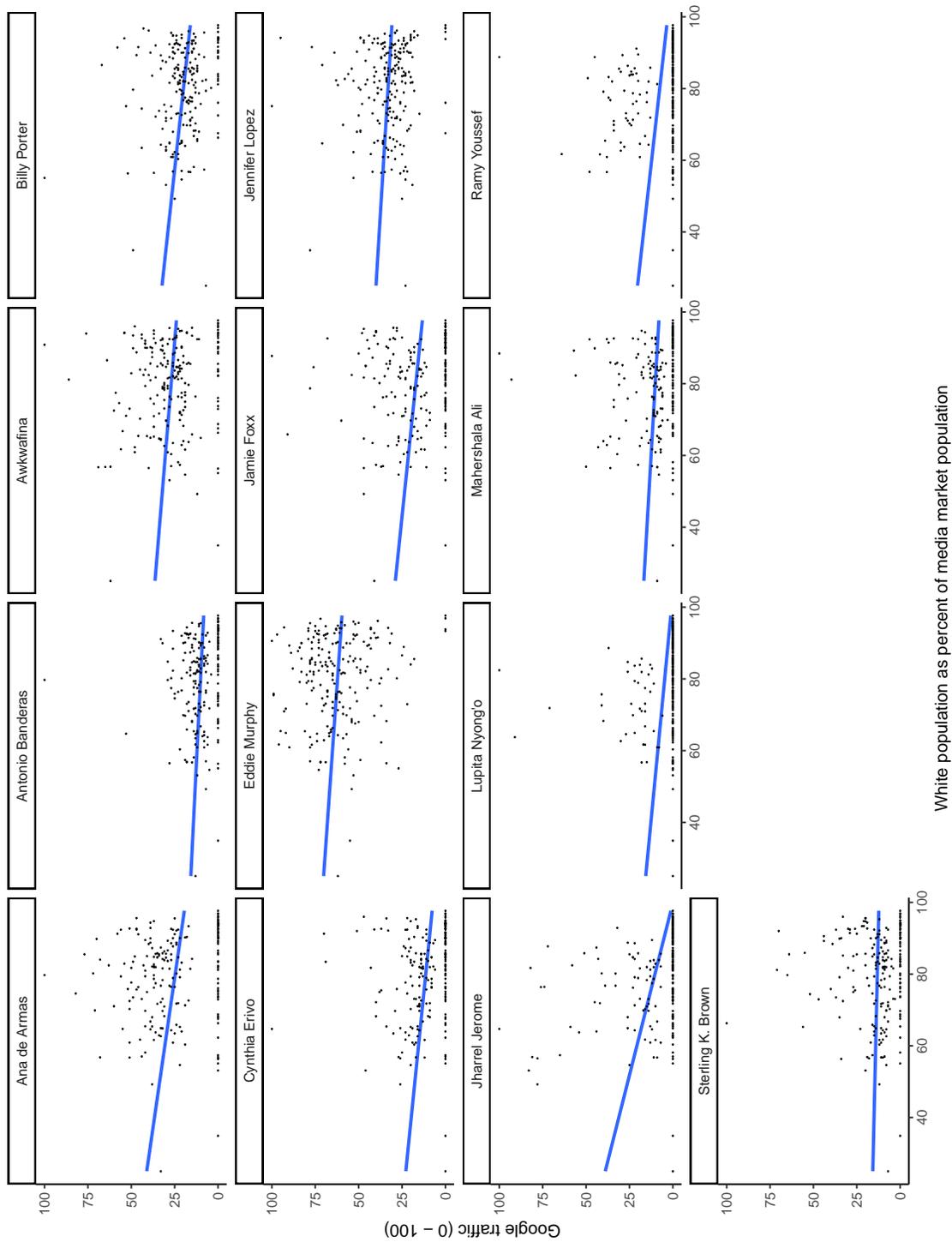


Figure 3: Google search traffic related to white actors nominated for Golden Globe, SAG, and Oscar acting awards, 12/15/19–1/15/20, predicted by media market demographics (Part I)

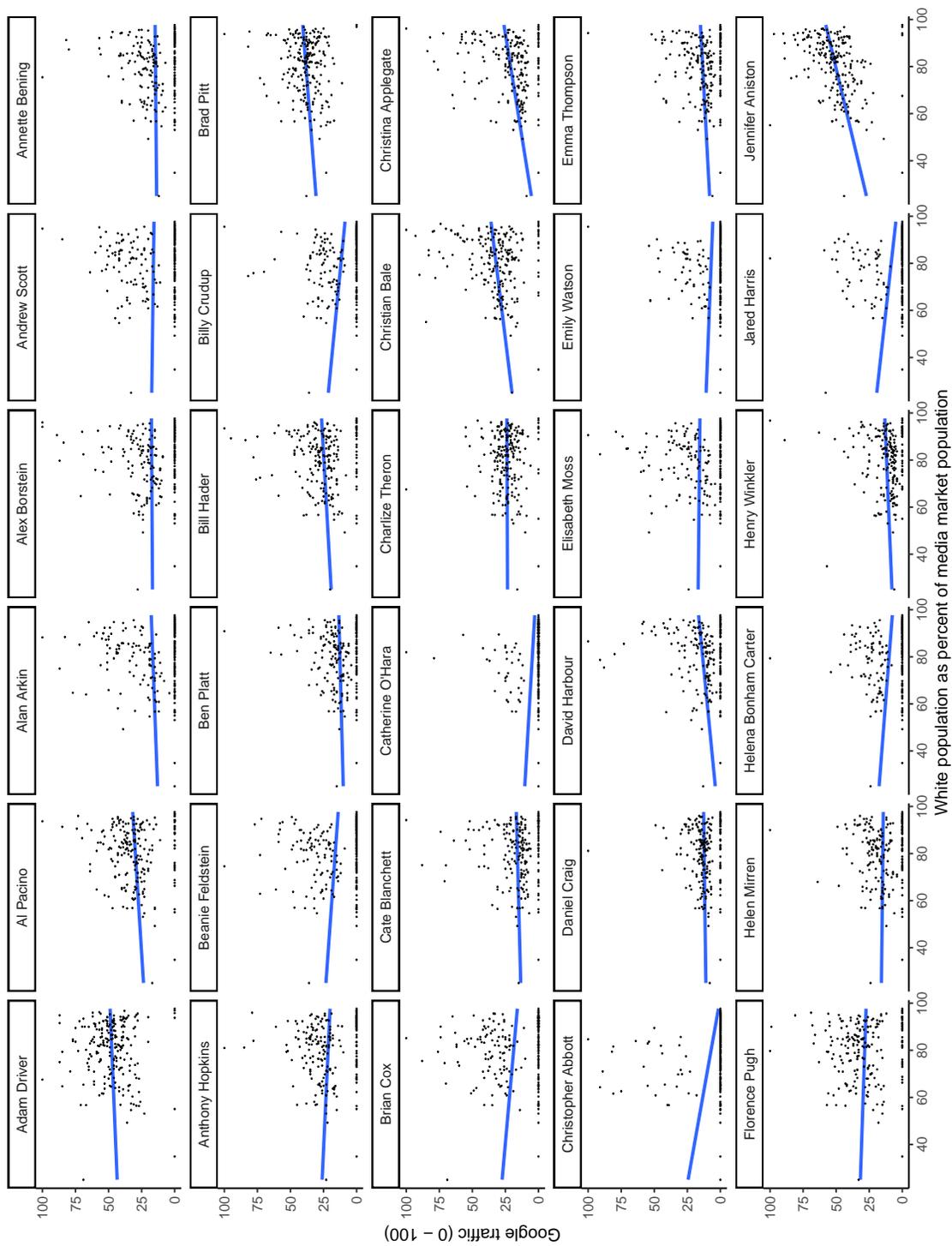
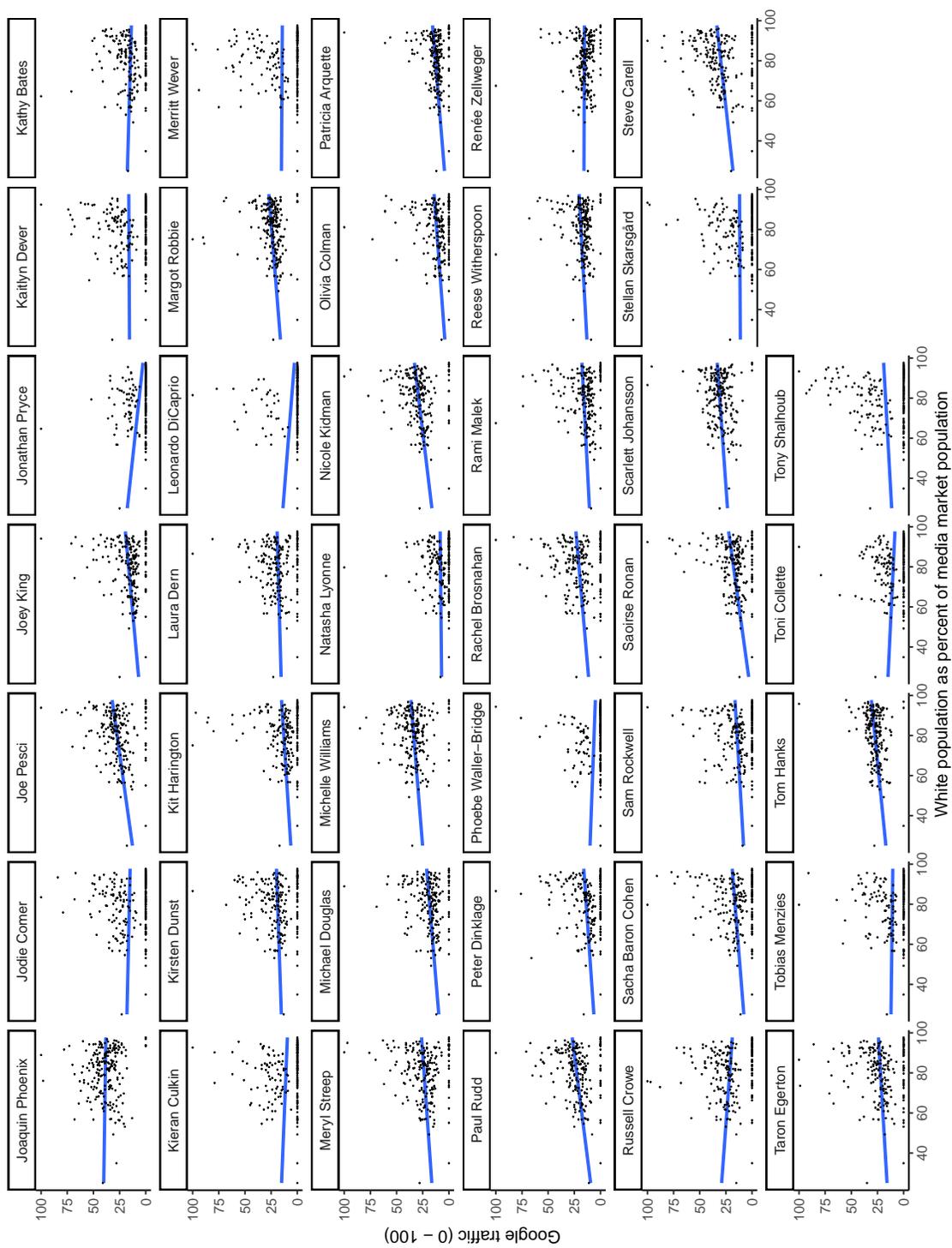


Figure 4: Google search traffic related to white actors nominated for Golden Globe, SAG, and Oscar acting awards, 12/15/19–1/15/20, predicted by media market demographics (Part II)



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Table 2: Google search traffic related to nominees for Golden Globe, SAG, and Oscar acting awards, 12/15/19–1/15/20, predicted by media market demographics

	Google traffic (0-100)		
	Actor's name (1)	Actor's name and personal search term (2)	Actor's name and personal search term (3)
Actor of color * White population (%)	-0.25** (0.03)	-0.06** (0.02)	-0.05* (0.02)
Actor's name traffic			0.02** (0.00)
Actor fixed effects?	Yes	Yes	Yes
Media market fixed effects?	Yes	Yes	Yes
N	17430	13230	13230
R <sup>2</sup>	0.37	0.28	0.28

\*\* $p < 0.01$  \* $p < 0.05$

To take both differences in media markets and actor's personal fame into account, I pooled the data for all actors, producing an actor-by-media-market dataset. Table 2 reports OLS regressions comparing traffic for actors' names to media market demographics while also estimating actor and media market fixed effects. This model averages out the popularity differences between actors and media markets.

The model produces an estimate of the difference between how changing demographics influence searches for white actors compared to how changing demographics influence searches for actors of color. Column 1 of Table 2 implies that a 10% increase in the white population share in a media market creates a gap of about 2.5% between search traffic for white actors and non-white actors, favoring the former.

## 4 Searches for personal information

I also checked whether the greater curiosity about white actors and actresses extended to searches about their personal lives. This was an interesting question for two reasons. First, as noted, the white actors in the data have appeared in many more films, on average, than the actors of color. Questions about a star's personal life are conceptually independent of the size of their filmography.

Second, interest in celebrity's personal lives is frequently an important part of emotional investment in their future success. The popular demand for news about celebrities' personal lives is often ascribed to voyeurism. However, it also reflects the desire to find commonalities between our lives and famous people's lives. Celebrities' families and romances—sensationalism and artificiality notwithstanding—are among the more relatable parts of their lives.

I paired each nominee's name with each of the following words or phrases: "boyfriend", "brother", "cat", "children", "dating", "daughter", "dog", "engagement", "engagement ring", "family", "father", "fiance", "friends", "girlfriend", "how many children does have", "husband", "is married", "kids", "marriage", "married", "mom", "mother", "partner", "pregnant", "son", "twin", "who is dating", "who is fiance", "who is married to", "wife." I obtained a nominee-by-term-by-media-market dataset, with a measure of traffic for the actor/term pair in each market. I dropped nominee/term pairings that had null results in every media market.

In whiter media markets, curiosity about the lives of actors of color trails curiosity about white actors' lives. A 10% increase in the white population share opens a half-percent gap between white actors and performers of color (column 2, Table 2). The estimate is similar if a control for the volume of search traffic for an actor's name is added (column 3).

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### **Data Sources**

US population, race, ethnicity, and education: 2010 American Community Survey: 5-Year Data. Downloaded through IPUMS NHGIS. <https://www.nhgis.org/user-resources/data-availability>

US media markets: Nielsen. <https://www.nielsen.com/intl-campaigns/us/dma-maps.html>

Veteran population: US Department of Veterans Affairs. <https://www.va.gov/vetdata/Veteran.Population.a>