<div align="center">**Michelin Contest Whitepaper by LocalMicro**</div>

Please see the README.md for an explanation of the process. This paper is additional information not in the README. https://github.com/LocalMicro/dc-michelin-challenge/blob/master/submissions/LocalMicro/README.md

Using the Bib Gourmand press release to set limits

The Michelin press release of October 6, 2016 named 19 restaurants in Washington DC as Bib Gourmands:

http://www.prnewswire.com/news-releases/michelin-reveals-washington-dcs-bib-gourmand-selections-ahead-of-inaugural-michelin-guide-debut-next-week-300340721.html#continue-jump

<div align="center">**Michelin 2016 Bib Gourmand restaurants in Washington DC**</div>

Bad Saint	Jaleo	Pearl Dive Oyster Palace
Bidwell	Kyirisan	Red Hen
Boqueria	Lapis	Royal
Chercher	Maketto	Thip Khao
China Chilcano	Ottoman Taverna	2Amys
Das	Oyamel	Zaytinya
Doi Moi		

This list suggested to me that an estimate/prediction of the number of starred restaurants could be determined from the ratio of starred restaurants to BGs in the three other U.S. cities: New York, Chicago, San Francisco.

Ratios of restaurants with Stars to BG:

New York 71 starred to 133 Bib Gourmand = 0.53 | Chicago 22 to 58 = 0.38 | San Francisco 50 to 74 = 0.68 For DC, the most likely ratio is Chicago (0.38), which would mean 19 BGs x 0.38 = 7.22 starred. But if we use NY then it's 19 BGs x 0.53 = 10.07 starred. And using SF it's 19 BGs x 0.68 = 12.92

The ratios for these three US cities suggests that DC will probably range **between 7 and 13** restaurants receiving stars. In any case, the number of BGs is always greater than the number of restaurants receiving stars. Therefore, the number of restaurants receiving stars **must be 18 or less.**

Reasons for using reviews from the Washingtonian, international food bloggers, Tom Sietsema (Washington Post), Bon Appetit

Reviews from online sources like Yelp and Zagat are crowdsourced opinions from 'the masses.' For a conservative and world-renowned publication like the Michelin Guide, I felt it was better to use reviews from professional restaurant reviewers. The **Washingtonian restaurant review database** was chosen because it is very easy to access and filter. I used an online visual web scraping tool (ParseHub) to scrape the Washingtonian and output a .csv file of restaurants in Washington DC that have 3 or more stars. There were approximately 40 restaurants that were narrowed down to 9.

Weights of the external sources

This analysis adds value to the original Washingtonian star rating if the restaurant is reviewed by the bloggers. I gave higher value to Hayler and Plotnicki (+0.4 stars) than to Sietsema (+0.15) and Bon Appetit (+0.2). I think the nationally/internationally known bloggers have more influence on Michelin.

Summary of Blogger Reviews

Andy Hayler, who is a British foodie who travels the world reviewing restaurants, wrote 10 restaurant reviews in 2012. Five restaurants are now closed, the other five are: Komi, Makoto, Marcel's, Sushi Taro, Corduroy. I was not concerned with what the food bloggers had to say, as long as the evaluation wasn't strongly negative. Any restaurant reviewed by a professional food blogger will probably be considered by Michelin.

http://www.andyhayler.com/restaurant/komi   http://www.andyhayler.com/restaurant/sushi-taro
http://www.andyhayler.com/restaurant/makoto   http://www.andyhayler.com/restaurant/corduroy
http://www.andyhayler.com/restaurant/marcels

Steve Plotnicki, another respected restaurant blogger (OpinionatedAboutDining.com) compiled Top 100 (and more) lists for 2014, 2015, and 2016. He rated four of the restaurants that were in the initial scrape of Washingtonian restaurant reviews:

Sushi Taro [2016 #8, 2015 #21, and in 2014 #28]
Minibar [2016 #11, 2015 #6, and in 2014 #9]
Komi [2016 #53, 2015 #47, 2014 #33]
Rose's Luxury (only in 2015 at #89)
http://www.opinionatedaboutdining.com/2016/us.html

Bon Appetit mentioned the following DC restaurants:
Bad Saint (#2 out of Top 10 U.S.) 2016 http://www.bonappetit.com/best-new-restaurants
Rose's Luxury (#1 of Top 10 U.S.) 2014 http://www.eater.com/2014/8/19/6168941/bon-appetit-announces-ten-best-new-restaurants-2014
The Dabney and Tail Up Goat among 50 finalists for Top 10 in 2016
There were several restaurants mentioned in an August 2016 article, quoted below:

"My list of new D.C. restaurants that I can't wait to return to is a long one. There's the live-fire cooking at The Dabney; the bold Filipino food at Bad Saint; the relentless hospitality at Rose's Luxury and its sister restaurant, Pineapple and Pearls; the top-notch cocktails at Columbia Room; the inventive Southern Mediterranean-inspired food at Tail Up Goat (the goat lasagna is my favorite pasta of the year); the Asian street food at Maketto; all the food stalls packed into Union Market; Kinship; Metier; Whaley's; Daikaya; Convivial; Espita Mezcaleria; Masseria; and a bunch of others I've probably missed (but I'm sure you'll let me know—find me on Twitter at @AndrewOKnowlton)." http://www.bonappetit.com/story/washington-dc-restaurant-city-of-the-year

Tom Sietsema had the following Top 10 lists for the past 3 years:

2014 top 10:

1. Rasika
2. Mintwood Place
3. Rose's Luxury
4. The Red Hen
5. Inn at Little Washington
6. Little Serow
7. Fiola Mare
8. The Partisan [reviewed 2014, #70 of 100 in 2015 Washingtonian]
9. Le Diplomate [Tom's Oct 2015 review only 2.5 stars]
10. Boss Shepherd's

http://www.washingtonpost.com/sf/guides/guide/2014-fall-dining-guide/

2015 top 10:

1. Rose's Luxury
2. Rasika/Rasika West End
3. Masseria
4. Little Serow
5. Inn at Little Washington
6. The Riggsby
7. Garrison
8. G by Mike Isabella [sandwiches plus evening tasing menu, first reviewed 2014]
9. Komi
10. The Grill Room / Capella Hotel G'twn [reviewed April 2015]

https://www.washingtonpost.com/news/going-out-guide/wp/2015/10/07/how-tom-sietsema-chose-his-2015-top-10-restaurants-list/?0p19G=c

2016 Top 10

1. All-Purpose
2. Pineapple and Pearls
3. Bad Saint (Bib Gourmand)
4. Kinship
5. Convivial
6.. Minibar
7. Inn at Little Washington
8. Little Serow
9. Rasika
10. Komi
https://www.washingtonpost.com/lifestyle/food/all-purpose-review-the-neighborhood-restaurant-of-your-dreams/2016/09/06/05c1f95a-5a48-11e6-831d-0324760ca856_story.html

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