

Comparing City Attractiveness: Eau Claire, La Crosse, and Madison Food Index



Callum Beadles, Erin Grim, Professor Oleksandr Lugovskyy • Department of Economics • University of Wisconsin-Eau Claire

INTRODUCTION

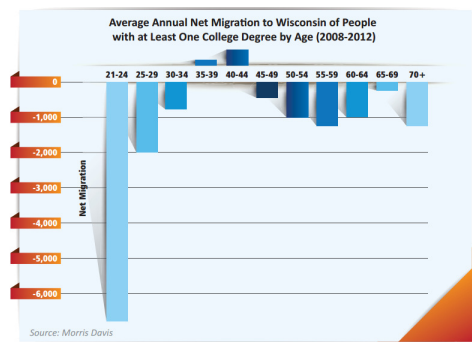
In recent years, Wisconsin has experienced a net outflow of college graduates. This net outflow is expected to create future economic issues for the state. Wisconsin must find a way to retain this skilled labor outflow. This research specifically looks at and measures how an area's food scene might play a role in retaining college graduates. The cities that are specifically measured in this research are Eau Claire, La Crosse, and Madison.

COLLEGE GRADUATE OUTFLOW

In 2013, the Wisconsin Council on Workforce Investment submitted the 2014-2018 Workforce and Talent Development Strategic Plan to Governor Scott Walker. The goal of this publication was to ensure that careers with high market value and in demand skill sets are filled with the most qualified individuals to provide Wisconsin with a competitive advantage for attracting and retaining businesses.

Wisconsin's workforce is facing a quantity and quality challenge. As the economy improves, many traditional and new economy sectors are realizing a need for additional employees, including replacement workers as the Baby Boom generation retirements accelerate. This additional demand in skilled labor will have to be met by recent college graduates.

However, data on age and job growth from Professor Morris Davis of the University of Wisconsin-Madison Business School indicates that between 2008 and 2012, Wisconsin exported an average of 14,000 college graduates per year. More than 8,700 of those were between the ages of 21 to 29.



FOOD INDEX



In order to retain college graduates in a certain area, we hypothesized that food is a detrimental part of retention. According to the Wisconsin Council on Workforce Investment, Millennials are looking for a acceptable quality of life and a broad sense of culture when choosing where to live. Therefore, an adequate food scene would increase attractiveness and retention. The process of creating the Food Index will be explained below.

Food Index: Measures on a scale of 0-100 the attractiveness of an area's food scene (0 meaning the worst and 100 meaning the best).

Data: All data concerning the Food Index came from the crowd sourced website Yelp.com. Yelp provided a variety of data concerning restaurants in all three cities. Data from Yelp was put in to Excel spreadsheets so further data analysis was possible. For each restaurant that was represented on Yelp, we recorded the following information:

- Price
- Rating
- Number of Reviews
- Name of Restaurant

Restaurants were also categorized by genres in the Excel spreadsheets (i.e. Italian, Japanese, Mexican). Yelp had a predetermined list of 120 common food genres. We assumed that any restaurant, in any city, would fall under at least one of the genres. Below is an example of data in an Excel spreadsheet.

Categories	Number of Restaurants	Price	Rating	Number of Reviews
Afghan	1			
Kabul Restaurant			2	3.5
African	0			
American (New)	69			
Forequarter			3	4.5
				142

Data Assumptions/Errors:

- Crowd sourced data is not necessarily accurate which could lead to inaccurate results
- Many restaurants had multiple genres, therefore many restaurants were counted more than once (i.e. Pizza Hut = Italian and Pizza).
- Data for Eau Claire only included restaurants in the City of Eau Claire, data for La Crosse included restaurants from both the City of La Crosse and Onalaska, the data for Madison only included restaurants in the City of Madison.
- Not all restaurants included had reviews, a price, or rating. For these instances, we left the cells blank.

Calculating the Index: When calculating the index, we used five different variables and weighted them evenly so our results would fall in between 0 and 100. A benchmark was necessary for each variable so that results could be interpreted and computable. The five variables used were:

- **Number of Restaurants:** We summed up the total number of restaurants in each city, divided it by 4,000, and then multiplied it by 20. We used 4,000 as a benchmark for this variable because we assumed that most popular food scenes such as New York or San Francisco have at least 4,000 restaurants.
- **Average Rating:** Users of Yelp rate each restaurant on a scale of 1 to 5 stars (1 stars being absolute worst and 5 stars being absolute best). We took the total average rating, divided it by 5, and then multiplied it by 20.
- **Average Number of Reviews:** We included average number of reviews for basic statistical purposes. In statistics, a basic rule of thumb is to have $n > 30$ so sampling distribution is normal. We calculated it by the average number of reviews, divided by 30, and then multiplied by 20. A score of 20 in this variable represents the presence of no bias in the average rating variable.
- **Variety:** We assumed that a wider variety of restaurants increases the attractiveness of a food scene. This variable is calculated by the number of different genres, divided by the bench mark of 120, and then multiplied by 20.
- **Average Price:** We added up all the prices for the restaurants and then divided it by the total number of restaurants to obtain the average price. The average price benchmark is unique because it depends on an individual's willingness to pay (WTP). If an individual's WTP \geq Average Price, then we can assume an individual can afford the average restaurant. To obtain the score from this variable, you must take $(WTP / \text{Average Price}) \times 20$. Therefore, the entirety of the food index is not static and could very well differ from one person to the next.

RESULTS/CONCLUSION

We found that Madison had the highest Food Index score of 71. However, when we compared the results of the two similar sized cities of La Crosse and Eau Claire, we found that La Crosse had a score of 48 and Eau Claire had a score of 46. We concluded, that in terms of a city's food scene, Madison would be the most attractive city for college graduates and more than likely have a higher retention rate. When comparing the two similar sized cities, we concluded that La Crosse would be more attractive to college graduates. We believe that our Food Index could be used by college graduates as an aide in deciding where to locate after college. Cities could use this index if they are in the process of attracting and retaining college students. We want this index to help increase the attractiveness of Wisconsin cities to college graduates so the state does not encounter future economic dilemmas.

