How Have U.S. Restaurant Tips Changed Over Time?

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Abstract

This research note analyzes tipping percentages from academic studies of restaurant tipping and finds that tipping rates have increased over the past half century. This finding provides some evidence that tipping benefits tippers beyond helping them avoid social disapproval (Azar, 2004) and that tipping is used by consumers to compete for positional (zero-sum) benefits such as exceptional service and high status (Lynn, 2015). Since rising tipping rates increase the costs to consumers of dining out as well as pay-disparities between front-of-house and back-of-house staff, this is a trend the restaurant industry may want to try to end.

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1. Introduction

In many countries around the world, consumers often give voluntary sums of money (called "tips") to service workers who have served them. Tipping is particularly common in the restaurant industry, where an estimated 70 percent of tipping occasions in the United States occur. Accurate data on the total amount tipped is unavailable, but estimates place the aggregate tips to U.S. restaurant workers alone at $47 billion a year (Azar, 2011). As a voluntary cost to consumers and a source of income for service workers, tipping is of both theoretical and practical interest and has been the subject of research in behavioral economics, consumer psychology, hospitality management, human resources management, marketing, social psychology, sociology, and tourism management (for reviews, see Azar, 2020; Lynn, 2015).

Scholars have noted that it is customary to tip a percentage of the bill in U.S restaurants and that the customary percentage has increased over time (Azar, 2004, 2020; Clifton, et. al., 2017; Lynn, 2015; Shy, 2024). This increase is of both theoretical and practical importance. Theoretically, Azar (2004) argues that it provides evidence tippers receive some benefit other than avoidance of social disapproval and Lynn (2015) argues that it suggests tipping is a form of consumer competition for positional (zero-sum) benefits such as exceptional service and high status. Practically, it increases the costs to consumers of dining out as well as pay disparities between front-of-house and back-of-house staff, both of which the industry may want to prevent. All of these ideas will be explained in more detail in the discussion and conclusion section.

Despite its importance, empirical support for the claim that tip percentages have increased over time is weak. The primary evidence for this claim comes from descriptions of tipping norms in a small number of etiquette books and other historical sources (see Azar, 2004, 2020; Lynn, 2015). However, Emily Post's etiquette books advocated tipping 15 to 20 percent in restaurants as far back as 1959 and continue to do so today (Teleburst, 2010). Furthermore, it is not clear where this information about tipping norms ultimately comes from or how accurately it describes actual tipping behavior.

In a rare exception to reliance on etiquette books, Clifton, et.al. (2017) used average tips from NPD Diaries and Zagat surveys to document an increase in tips from 14.4% in 1982 to 18.9% in 2016. However, this analysis involves comparisons of dissimilar tip estimates while using only one observation per year. Additionally, its popular press sources are imprecise or inconsistent - I found two different national Zagat tip averages for 2000 and three for 2006 – and often become unavailable over time. Furthermore, from the set of observations I could find, the Zagat national restaurant tip averages in 1997, 2000, 2001, 2006, 2008, 2011, 2016 and 2018 were 17.1%, 17.9%, 16.5%, 18.8%, 19.0%, 19.2% 18.9% and 18.1% respectively (sources available upon request). This produces a non-significant correlation of .63 ($p < .10$).

I believe Clifton, et. al.'s (2017) finding has some value, but given the issues described above, replicating it with a different, larger, and more diverse data set would increase confidence in it. The current research note attempts to fill that need. It assembles data on tipping percentages from academic studies of restaurant tipping across several decades and uses it to reassess trends over time in those tip percentages.

2. Method/Data Set

Academic research on restaurant tipping in the U.S. that involved real tipping situations (not hypothetical scenarios or surveys of general attitudes and behaviors) was identified from personal knowledge of the tipping literature together with a Google Scholar search of "restaurant tipping." Information about the average percent tip, as well as year and state of data collection, was extracted from those papers or from the data sets behind those papers. A total of 64 observations were obtained from 56 published articles or theses and dissertations. More details about the variables recorded are presented below and the complete data set (including source citations) is available at https://doi.org/10.7910/DVN/NATBOD .

Percent tip. In the vast majority of cases, average percent tip was calculated from individual transaction-level tip and bill amounts. However, in rare cases it was calculated from study-level (Cho, 2014: Lynn and Graves, 1996:S1) or server-level (Jiang and Galm, 2014; Lynn and Simons, 1998; Pierce, Snow and McAfee, 2015) mean tip and bill/sales amounts. In one case it was calculated by averaging state level median percent tips (Lynn, 2022). Means included tips of zero for most studies, but were based only on non-zero tips for Flynn and Greenberg (2012), Lynn (2023), McCrohan and Pearl (1991), Olson (2017), and Susskind and Curry (2016). Fortunately, stiffing in U.S. restaurants is rare, so inclusion versus exclusion of tips of zero is unlikely to strongly bias the resulting means. Articles/papers with more than one study, or with means reported for each of multiple years, contributed more than one observation to the dataset.

[Note: Many of the studies included in this dataset were experiments. Experiments involve manipulations that may be more common in the experiment than in the world, so average percent tip across all the observations in an experiment may be biased. Therefore, a second measure of percent tip based on observations from the control condition of experiments rather than all observations from those experiments was also recorded.]

Year. When it was reported, the year of data collection was recorded. If data was collected across multiple years, the temporal midpoint was recorded. In some cases, the current author did not have the exact year of data collection, but did have evidence that it was substantially earlier than the publication date of the article. In those cases, the year of data collection was recorded as the most recent date consistent with known facts. Otherwise, it was assumed to be one year prior to date of publication for articles and the same year as defense for theses and dissertations

State. The state from which each observation came was recorded to label points in a graph with the purpose of highlighting the many differences other than year of data collection between

observations. If not explicitly reported, state of data collection was inferred from the author's affiliation or other information. Data from multiple states were recorded as national.

Insert Figure 1 about here

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3. Results

Average tip percentages by year are graphed in Figure 1. An ordinary least-squares (OLS) regression of average tip percentage on year of data collection produced a significant positive coefficient for year (B = .16, SE = .03, $p < .001$, $R^2 = .345$, intercept = -295.86). Adding a quadratic term from which the linear trend was removed produced a non-significant effect for that quadratic trend (B = .000, SE = .002, p = .92). The linear effect was robust and remained significant in analyses that: (i) clustered error terms within source (B = .16, SE =.03, $p < .001$, $R^2 = .345$), (ii) used median regression instead of OLS (B = .17, SE = .04, $p < .001$; Pseudo $R^2 = .223$), (iii) replaced average tip percentages based on all conditions of experiments with average tip percentages based only on the control condition of experiments (B = .17, SE = .03, $p < .001$, $R^2 = .372$), (iv) retained only observations from individual-level data that included tips of zero (B = .17, SE = .03, $p < .001$, $R^2 = .347$), and (v) retained only observations from 1980 to 2019 (B = .13, SE = .03, $p < .001$, $R^2 = .215$). Overall, these results indicate that tip percentages increased by about 1.5 points per decade over the last half century.

In the Zagat data discussed in the introduction, tip percentages increased until the year 2008 and then flattened out around 19% afterwards. However, such a halt in the linear temporal trend should have produced a quadratic temporal trend in the current data and it did not. Furthermore, tip percentages increased with year in the current data even when limiting the analysis to the years from 2008 onward (B = .32, SE = .12, $p < .02$, $R^2 = .302$). Thus, it appears that the temporal trend in tip percentages was not halted in 2008 as the Zagat data suggests.

4. Discussion and Conclusions

The results of this study conceptually replicate those of Clifton, et. al. (2017) in finding that restaurant tip percentages have increased over time. This should bolster confidence in that temporal trend. According to Azar (2004), this increase implies that tippers must be seeking some positive benefit and not just avoiding negative consequences. He argues that the vagueness and imprecision of tipping norms mean that slight deviations from those norms do not cause a noticeable harm to the tipper. In that case, avoidance motivated tippers should leave tips just below the norm, which would cause it to get smaller over time. By this reasoning, the finding that tip percentages increase, rather than decrease, over time confirms the widespread belief that tipping is motivated by more than just fear of social disapproval.

Unfortunately, exactly why the increase in tip percentages occurred is unclear. One theoretically interesting explanation for the observed rise in tip percentages over time is that competition increases the price of positional (zero-sum) goods over time (Lynn, 2015). Consumers must leave above average tips to buy better than typical service and/or high status and these above average tips cause servers to give less attention and status to average tippers who must then increase their tips to avoid loss of service and/or status. Avoiding such losses among the masses by tipping more raises the average tip, which requires high-position seekers to tip even more – thus starting the cycle over again. Thus, tip rates may increase over time because (i) tips buy positional (zero-sum) benefits and (ii) loss aversion means that there are more people seeking higher service/status than people willing to accept declining service/status. Other possibilities are that rising tip percentages reflect macro-economic trends such as increases over time in U.S. gross domestic product per capita or in use of credit cards and other forms of electronic payment. Testing these different potential explanations for the temporal trend in restaurant tip percentages is something future researchers should try to do.

While increasing tip percentages are a short-term boon to tipped workers, they are a potential long-term problem for the restaurant industry, because they contribute to increasing costs to consumers of dining out. Other things held constant, increasing tip percentages also exacerbate pay disparities between front-of-house (FOH) workers who get the increasing tips and back-of-house (BOH) workers who do not. [Note that attempts to reduce FOH and BOH pay disparities by increasing wages to BOH workers end up increasing tips to FOH workers as well, because wage increases are typically paid for with price increases and consumers generally tip a percentage of the bill. Rising tip percentages only make reduction of the pay disparities more difficult.]

Although year-to-year increases in tip percentages are unlikely to have significant negative consequences, their cumulative effects over several years may be more consequential. Certainly, tip percentages cannot increase forever without significant repercussions. It is possible there is a ceiling on how much consumers will tip, so the upward trend in tip percentages observed in this study may dissipate on its own. However, to be certain of avoiding the potential problems stemming from continued growth in tip percentages, I believe the restaurant industry should take active measures to limit that growth – perhaps by communicating traditional and stable tipping expectations to their customers. [Note that tip percentage increases are not needed to help FOH workers keep up with inflation because tips will increase with inflated bill sizes even if tip percentages remain constant.] Restaurant tip percentages have increased over the past half century, but it is time for the industry to put a halt to those increases before it is too late.

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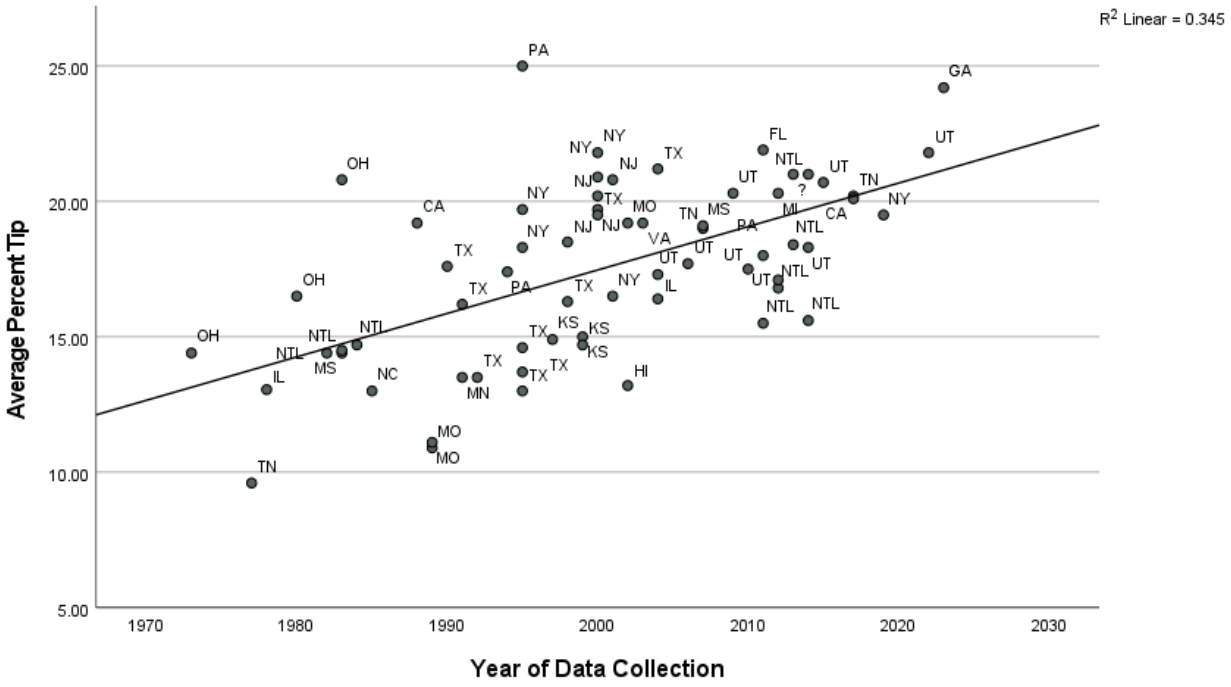

Figure 1. Scatterplot of average percent tip in academic studies by year of data collection.