

FORECAST FOCUS



The Value of Knowing Your Contact Rate

By: Tiffany LaReau, Human Numbers

Finding the correlation between your contact rate and customer base can have a notable impact on forecast accuracy.

Incorporating contact rate into your armory of forecast methods can add more dimension to your formulas. Correlating historical contact volumes to your customer population, and then overlaying your forecasts with that data, allows you to identify volume changes caused by shifts in your customer base.

The most common interpretation of contact rate gauges time-of-day, day-of-week and month-of-year distributions, but you can also use contact rate to measure how, when and why your customers reach you. This can provide you with considerable insights into your long-term forecasts, especially if you take the time to study each element individually.

Drilling down your history into seasonal, daily and interval levels is a necessary practice for scheduling properly. For instance, knowing that your heaviest volumes arrive on Monday afternoons can help you to avoid scheduling meetings or training during that time span. An accurately modeled report shows you where those peaks will happen, and it's data that you may need to look at in different ways. (Figures 1 and 2, on page 2, illustrate reports depicting day-of-week patterns and time-of-day patterns.)

Learn How Customers Contact You

In the 1990s, email opened a new avenue for customers to reach contact centers. But even in the '80s,

customers had access to alternate channels, such as snail mail and fax. Collect data on any method that leads to workload, even those that do not require Erlang staff inflations.

For contact rate to work as a correlation to your customer base, you need to consider that one customer may use more than one contact channel. In the example in Figure 3, on page 2, email comprises 22% of the contact attempts for a particular contact center, while phone accounts for 49%. But keep in mind that an individual customer may be present in both categories. This is why it's better to get a true understanding of the total number of customers that you have instead of taking a slice from each channel category.

Identify a Pure Data Group

In addition to understanding how customers contact you, another step for analysis is to evaluate why they're contacting you. First-call resolution is the purest data to assign directly to contact rate. If a customer has to call a second time about the same problem, contact rate begins to increase. If a customer calls, abandons due to long wait times and then places a second call, contact rate increases. These can be unavoidable in your contact center, so it's best to choose a range of time that represents the purest environment before drawing your final correlations.

Continued on page 2

Figure 1: Example of Day-of-Week Patterns

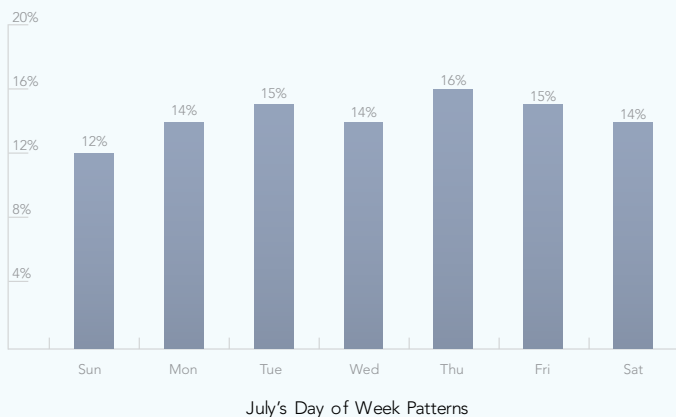
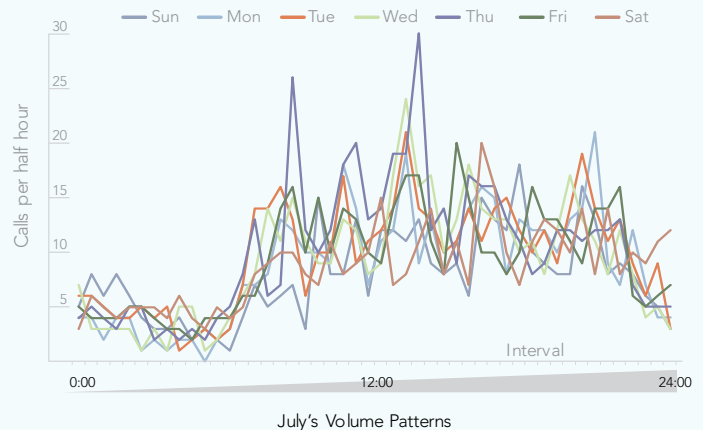


Figure 2: Example of Volume Patterns

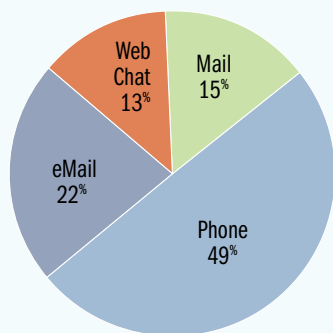


Continued from page 1

Define Your Customer Base

After you've identified a pure data group, find out how big your customer base is. If you obtain your reports from marketing and sales, make sure that they define your customer base accurately. For commercial customers, there should be a clear distinction between companies vs. employees; for consumer customers, between households vs. "belly buttons" (number of people living at a single residence). If you have a customer that is a single company with 500 employees (potential for 500 calls), that will generate more workload than five companies with 10 employees would (potential for 50 calls).

Figure 3: Possible Contact Channels



Find the Relationships

Once you have your pure data set and your customer base, you can start drawing preliminary correlations. This is a simple process of dividing the number of contacts you receive by the number of customers you have, and then repeating that until you see consistent results.

In Figures 4 and 5, it's easy to see the relationship between the contacts received and the customer base. Each household averages 1.82 potential adult callers, and that translates into approximately 2.5 consistent calls per household each month.

Your results may not be this clean in the beginning. In this example, pure calls represent single, first-call resolution contacts per household, so we would calculate contact rate based on households instead of belly buttons. Also, if the number of dependents has an impact on the number of calls, you will need to track your average dependent ratio on a recurring basis. Since, in this case, pure calls is already a cleaned number, it is easy to calculate the contact ratio at the monthly level. When you initially start calculating this, you may need to use quarterly metrics instead.

I recommend waiting until you have at least four consistent data points before using the results from the contact rate calculation. Even with consistent results, it should be used as an overlay to your existing forecast — not as a replacement. Exceptions to this rule include brand-new call centers that do not yet have enough credible historical data, and existing centers that are forming brand-new service offerings. In these cases, you can substitute contact rate for time-series forecasting until you can collect enough data to let you migrate to the time-series method. Once you have enough historical data, the two methods can be merged together, giving you a boost in your forecast performance with that extra tweaking.

Contact Rate Correlation Benefits

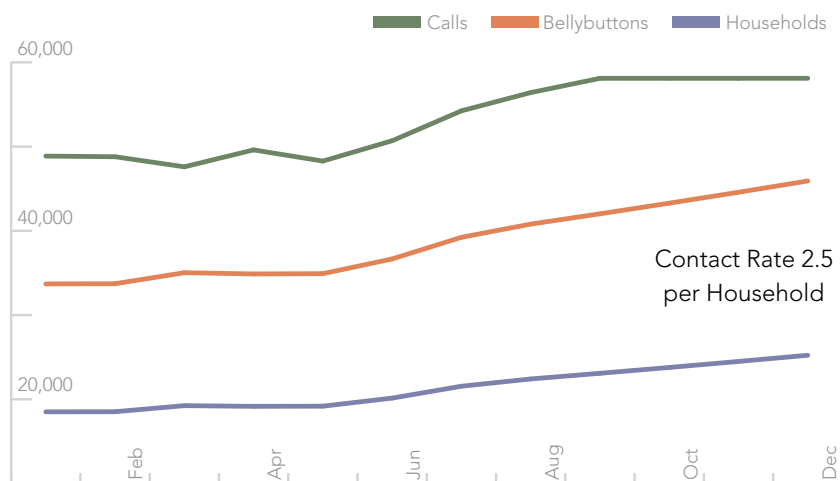
Identifying the correlation between the contact rate and your customer base requires extra work, but the effort will reward you with three key benefits:

1. It identifies whether certain changes in your call center are driven together or separately from a change in your customer base. This information can prepare you for when similar changes are repeated in the future. For example, the marketing department sends a mailing inviting members to join at a discounted rate. This increases volumes to activate membership, and also increases total customer base. Both changes occur simultaneously.
2. It identifies the changes to your contact rates that are causal vs. changes that are benign. This information comes in handy when you know a change is coming and you're trying to determine what to expect based on the impact of similar changes in the past. For example, the finance department has decided to increase the fees for a service being offered. This creates additional volumes, and also loses some customers who are unwilling to pay the higher fees. The result is a new contact ratio with no historical precedent.
3. The contact rate can be overlaid on longer-term forecasts. Any additional efforts to fine-tune a long-term forecast will pay off, especially because these forecasts are, by nature, a lot more art than science.

Figure 4: Determining Contact Rate Correlation to Customer Base

Month	Pure Calls	Households	Bellybuttons	Contact Rate
Jan	48,870	18,515	33,698	2.6
Feb	48,794	18,527	33,720	2.6
Mar	47,597	19,247	35,029	2.5
Apr	49,605	19,165	34,881	2.6
May	48,278	19,185	34,916	2.5
Jun	50,692	20,144	36,662	2.5
Jul	54,240	21,554	39,228	2.5
Aug	56,410	22,416	40,797	2.5
Sep	58,102	23,088	42,021	2.5
Oct	58,103	23,781	43,282	2.4
Nov	58,104	24,495	44,580	2.4
Dec	58,105	25,229	45,917	2.3

Figure 5: Relationship between Contacts Received and Customer Base



Tiffany LaReau is the Workforce Manager and Owner of *Human Numbers*, a forecasting and scheduling service provider.

✉ Tiffany@HumanNumbers.com
☎ 678-494-1506

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PO Box 3467, Annapolis, MD 21403

443-909-6951 | info@contactcenterpipeline.com | www.contactcenterpipeline.com

