ICMI Tutorials

Call Center Metrics: Key Performance Indicators (KPIs)

Edited by Brad Cleveland and Debbie Harne

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Call Center Metrics: Key Performance Indicators (KPIs)

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Identifying Key Performance Indicators

Key Points

- **Key performance indicators (KPIs) are high-level measures of call center performance.**
- **KPIs generally include:**
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  - **First-Call Resolution/Errors and Rework**
  - **Service Level and Response Time**
  - **Average Speed of Answer**
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Explanation

A significant amount of information is required to effectively manage a call center. You need, for example, data on caller needs and expectations, the queue and caller tolerance, the load on the system, agent satisfaction and performance, call patterns, cost components, the activities of other parts of the organization, and conditions in the external environment. But you also must be able to climb above the detail and assess overall performance without having to review dozens of reports.

Acquiring the data required to track some key performance indicators is straightforward and comes directly from system reports; other KPIs require many more data sources and much more assembly. Given the variety of

systems, reports and statistics available, the emerging solution is to use CTI/middleware to pull disparate sources of information into consolidated reports.

The question, then, is, "What measures adequately summarize the numerous activities of a call center?" While any measure by itself has the potential to mislead, the following key performance indicators typically provide a good picture of the call center's performance when they are interpreted together.

The following table summarizes:

- Common call center performance objectives
- The formula or approach for measuring each objective
- Sources of data and tracking methodologies
- A summary of suggested applications and relevant role

Objectives Related to Quality:	
Call (Contact) Quality Approach: Assigns a value to the quality of individual contacts. Data typically comes from samples via monitoring and/or recording contacts; however, some criteria may also be generated from ACD-based call coding or reports from customer information systems. Either supervisors or quality assurance specialists review monitored/recorded contacts for initial data capture.	Application: Appropriate in all environments as both a high-level objective (overall summary of the results of individual contacts) which is generally tracked monthly, and as the basis for specific objectives for agents and supervisors, contact by contact. Notes: The quality of each contact is essential to successful call center performance. Quality should be defined to reflect the needs and objectives of both the organization and customers. Criteria generally include such things as interpreting customer requirements correctly, entering data accurately, providing the correct information, accurate call coding, capturing needed and useful information, etc. These criteria should be an inherent part of monitoring and coaching processes.
First-Call Resolution Formula: Calls resolved upon initial contact ÷ total calls. First-call resolution is generally tracked through a database system (customer infor-	Application: Appropriate in all environments as a high-level objective, which is generally tracked monthly (however, with the right systems, can be viewed at any time). Components that lead to first-call resolution should also be built into specific

mation system) or by ACD call coding. How first-call resolution is defined drives tracking – e.g., does it refer to a call not being transferred or to an issue that is resolved even if it must be escalated or transferred? Ideally, first-call resolution should be defined as an issue resolved on first contact (the caller doesn't have to contact the center again or vice versa), even if escalated or transferred during the contact; transferred/escalated calls can be tracked as supporting data.	quality objectives for agents (however, because not all aspects are within their control, these components must be selected carefully). Notes: Studies indicate that organizations incur many types of additional expenses (some hidden and difficult to track) when callers' issues are not fully resolved with the first contact. There is significant value in analyzing relative increases and decreases in first-call resolution, in response to changes in call center processes, systems and customer requirements.
Errors and Rework Approach: The percent (and types) of errors and rework that are occurring. Data generally comes from a database system (customer information system) and/or by ACD call coding.	Application: Appropriate in all environments as high-level objective, reported monthly or (with the right systems) as often as the manager chooses. Specific components of errors and rework are often built into quality objectives for agents (however, because not all errors are within their control, variables must be selected carefully). Notes: Errors lead to rework, unreliable data and potential interpretation problems downstream. As with first-call resolution, there is significant value in analyzing increases and decreases in errors and rework, in response to changes in processes, systems and other factors.
Objectives Related to Accessibility:	
Service Level and Response Time Formula, service level: X percent of contacts answered in Y seconds. Formula, response time: 100% of contacts handled within N days/hours/minutes. Service level is available directly from ACD reports. Response time reports may come from additional systems, e.g., email response management systems (ERMS), Web servers, workforce management systems (WFMS), etc.	Application: Service level and response time are key accessibility measures and are appropriate high-level objectives. They should be reported by "reporting intervals" (e.g., the number of half-hours within, above and below objectives) NOT as averages across days, weeks or months. Managers should be able to identify recurring problematic intervals. These objectives are also key planning targets, used for base staff calculations. Notes: Establishing concrete service level and response time objectives is a prerequisite to the solid planning necessary to ensure that the organization is accessible through whatever channel customers use.

Average Speed of Answer (ASA) Formula: Total delay ÷ total number of calls. Available directly from ACD reports and the WFMS.	Application: ASA comes from the same set of data as service level. It is not necessary to have both service level and ASA objectives. If service level data is not available, ASA can be a substitute. ASA does have important operational applications; e.g., it is a component of trunk load. Notes: ASA is often misinterpreted as a "typical" experience, but the average is skewed by many callers who get answered before ASA and some who wait far longer than ASA.
Abandoned and Blocked Calls Formula, abandoned calls: Calls abandoned ÷ calls received. Formula, busy signals: Number or percent of attempts that received busy signals. Abandoned calls are available directly from ACD reports. Reports on busy signals may come from the ACD (if using ACD controlled busies), the local telephone company and the interexchange (long distance) company (IXC).	Application: Abandoned and blocked calls are caused by insufficient staffing or trunking resources. They should be supporting information to service level and response time reports, not primary objectives. Notes: Abandonment rate, though often a primary objective, is not a concrete measure of call center performance, because it is driven by caller behavior which the center cannot directly control; it should be of secondary importance to service level. Busy signals may be due to insufficient trunks, but are often the result of inadequate staffing and the resulting queues of waiting callers.
Objectives Related to Efficiency:	
Forecasted Call Load vs. Actual Approach: The percent variance between the call load forecasted and the call load actually received. Forecasted call load is available from the system used for forecasting, e.g., workforce management system or spreadsheets. Actual call load is tracked by the WFMS, ACD, ERMS, fax servers, Web servers, etc.	Application: Appropriate in all environments as a high level objective, reported by interval; it is also used for ongoing tactical adjustments. Notes: Forecasting the workload is a high-leverage activity that is fundamental to managing a call center effectively. Underestimating demand will mask and defeat all other efforts to provide good service. And overestimating demand results in waste. As a high level objective, forecasting accuracy should NOT be reported as a summary of forecasted versus actual calls across a day, week or month, but an illustration of accuracy for each reporting interval (typically, half-hours).

Scheduled Staff vs. Actual Approach: A comparison of the number of agents scheduled versus the number actually in the center. Scheduled staff is available from the system used for scheduling, e.g., WFMS or spreadsheets. Actual staff available is reported primarily by the ACD. May also be tracked by the WFMS, with some components available from ERMS and other systems.	Application: Appropriate in all environments as a high level objective for a center and for teams. As with forecasts, reports should show each interval. Notes: The purpose of the objective is to understand and improve staff adherence and schedules.
Adherence to Schedule Approach: A measure of how much time and when, during the agents' shifts, they are taking or available to take calls. Data comes from the WFMS and/or ACD reports.	Application: Appropriate in all environments as a high-level objective. Is also a common and recommended objective for individuals and teams. Notes: Adherence consists of time spent in talk time, after-call work, waiting for calls to arrive, and placing necessary outbound calls. The two terms most often associated with adherence include availability (how much time agents were available) and compliance (when agents were available to take calls). In today's environment, it is more important than ever for agents to be "in the right places at the right times, doing the right things." The measure is independent of whether the call center actually has the staff necessary to achieve a targeted service level and/or response time; it is simply a comparison of how closely agents adhere to schedules.
Average Handling Time (AHT) Formula: The sum of average talk time + average after-call work. Available from ACD reports for incoming calls, and from ERMS and Web servers for those contacts. May also be available from a WFMS.	Application: Appropriate in all environments for high-level purposes and for ongoing tactical planning; it is generally not recommended as a strict agent standard. Notes: In many centers, AHT is increasing as contacts become more complex and as objectives focus on building relationships and capturing needed and useful information. However, all things equal, reductions in AHT through better processes, technologies and training will create significant efficiencies. Creating strict AHT targets at the individual level often backfires, resulting in repeat calls, lower quality or in agents using work modes incorrectly (which skews reports).

Occupancy and Productive/ Nonproductive Approach, occupancy: The percentage of time agents spend handling calls. The rest of the time agents are waiting for calls to arrive. The inverse of occupancy is often referred to as available time or availability. Approach, productive and nonproductive: Generally measures the volume of work (e.g., number of contacts) that agents produce. Reports on occupancy and contacts handled come directly from the ACD and ERMS, as well as the WFMS.	Application: These figures are not appropriate objectives, other than as a part of high-level analysis, because occupancy and contacts handled are driven by random call arrival, call type, caller communication skills and many other variables outside the control of agents. It is important that the manager understand and account for the influence of occupancy in these measures. Notes: When adherence to schedule improves (goes up), occupancy – as well as average contacts handled per person – goes down. Adherence to schedule is within the control of individuals, whereas occupancy is determined by the laws of nature, which are outside of an individual's control.
Objectives Related to Cost Performance:	
Cost Per Call (Cost Per Contact) Formula: Total costs ÷ total calls. Volume of contacts requires ACD reports, and potentially other systems that track contacts, e.g., the ERMS, fax servers, Web servers, etc. Cost data comes from several reports/sources; e.g., payroll for staffing costs; budget for equipment, building depreciation, etc.; telecommunications reports for toll and line usage costs.	Application: Appropriate in all environments as a high-level objective, but must be interpreted carefully' e.g., a climbing cost per call can be a good sign (process improvements may result in fewer calls, spreading fixed costs over fewer calls and driving up cost per call). Notes: Cost per call should ideally be differentiated by each channel or combination of channels of contact (i.e., inbound call, IVR only, IVR to agent, Web only, Web to agent, etc.).
Average Call Value Formula: Total revenue ÷ total number of calls. Revenue information requires data from several reports/sources; e.g., sales reports, total orders, CRM system reports, etc. In other words, any report that indicates revenue generated by the call center. Volume of contacts requires ACD reports, and potentially other systems that track contacts; e.g., the email ERMS, fax servers, Web servers, etc.	Application: Appropriate for revenue-generating environments, such as reservation centers and catalog companies, where calls have a measurable value. Notes: Average call value is tough to apply (and generally not recommended) in call centers where the value of calls is difficult to measure; i.e., customer service centers and help desks.
Revenue Approach: Tracks revenues attributed to call center services.	Application: As with average call value, is appropriate for revenue-generating environments.

Revenue information requires data from several reports/sources; e.g., sales reports, total orders, CRM system reports, etc. In other words, any report that indicates revenue generated by the call center.	Notes: Results are often correlated with other variables such as call center costs, market conditions and revenues through other channels of contact (e.g., retail or direct sales force) to gauge the call center's impact on the organization's profits.
Budget/Cost Objectives Approach: The difference between projected and actual expenditures, for various budget categories. Budget vs. actual information can be formulated from corporate accounting systems, or developed in a spreadsheet.	Application: Is appropriate in all environments as a high-level objective, assuming it is considered within the context of changing workload variables and call center responsibilities. Notes: Is generally produced both quarterly and annually, and is available monthly in some environments.
Objectives for Outbound [(1)] Approach: The number or percentage of attempted calls, connected calls, contacts, abandoned calls, contacts per hour, contact rate, cost per contact, cost per minute and penetration rate.	Application: These objectives are appropriate and necessary in outbound environments. Notes: Call blending literally combines inbound and outbound work, making integrated KPI measures for inbound and outbound work a necessity.
Objectives Related to Strategic Impact:	
Customer Satisfaction Approach: Measures the percentage of all customers who felt satisfied with the service they received. Data can come from a variety of sources; e.g., customer satisfaction surveys, mystery shopping, automated IVR surveys, focus groups, etc.	Application: Appropriate in all environments as an overall objective. Customer satisfaction data is often presented quarterly or monthly, broken down by channel of contact and customer segment. Notes: Studies have linked customer satisfaction to customer loyalty, repeat purchases and word-of-mouth advertising. If customer satisfaction drops, both customers and agents are great sources of information on how to improve results. Customer satisfaction has greatest value as a relative measure and in conjunction with other objectives (e.g., when policies, service level performance, system enhancements and other changes take place, what happens to customer satisfaction).
Employee Satisfaction Approach: Assigns a value to how satisfied call center employees are with their jobs. Data is captured via surveys, focus groups or one-on-one interviews.	Application: Appropriate in all environments as a high-level objective. Generally produced once or twice per year. Notes: Studies have demonstrated that customer satisfaction increases as agent job satisfaction increases. Further, retention, pro-

	ductivity and quality often have a definable, positive correlation to agent satisfaction. Results of surveys to gauge agent satisfaction should be compared to job satisfaction levels in other parts of the organization. Results are typically provided in summarized hard copy, and are often compiled by parties outside of the call center.
Turnover Formula: (number of agents exiting the job ÷ avg. actual number of agents during the period) x (12 ÷ number of mos. in the period). Data is captured via a entry into a HR records and/or a WFMS, and retrieval is typically a manual calculation or a report from the WFMS.	Application: Appropriate in all environments as a high-level objective. Turnover reports are often produced monthly (calculated on an annualized basis), and should be categorized as voluntary (natural) or involuntary (unnatural). Notes: Retention is an increasingly important objective as call centers become more complex and agent and management skill and experience requirements escalate. Reductions in turnover can typically be translated into financial savings for the organization, and overall improvements in quality and productivity.
Overall Call Center ROI Approach: Objectives related to the call center's overall return on investment (ROI) seek to identify, measure, track, improve and communicate the call center's impact on the organization. These objectives include: • Customer satisfaction • Improved quality and innovation • Innovative products and services • Highly leveraged marketing and CRM initiatives • Efficient delivery of services • Supporting self-service systems • Revenue/sales (in commercial organizations) These measures are a synthesis of samples and analysis, and data comes from a variety of sources.	Application: ROI-related objectives are appropriate in all environments as high-level objectives. Notes: Revenue and profit related measures will not apply to non-commercial organizations (e.g., government, non-profits) but the call center's impact on things like innovation, quality, etc., can and should be measured through samples and analysis.

(1) Outbound is categorized with cost performance, but can feasibly fall in any other area depending on the reasons for and effectiveness of outbound.

Call (Contact) Quality

Key Points

- **Quality should be defined to reflect the needs and objectives of both the organization and customers.**
- **Call (or contact) quality is appropriate as both a high-level objective and an individual performance measurement.**
- **If qualitative measurements are refined enough to ensure that agents are spending the appropriate amount of time handling calls, then adherence to schedule and qualitative measurements make a powerful pair of key performance objectives for individuals.**

Explanation

The quality of each contact is essential to successful call center performance. Quality should be defined to reflect the needs and objectives of both the organization and customers. Criteria generally include such things as interpreting customer requirements correctly, entering data accurately, providing the correct information, accurate call coding, and capturing needed and useful information.

Call (or contact) quality is appropriate as both a high-level objective and an individual performance measurement. Call center-wide quality data can be used to assess the effectiveness of call center programs and processes (e.g., if training and coaching programs are effective, if data entry systems support accurate data capture, etc.). Individual quality assessment is typically done through some form of monitoring (i.e., silent, with a beep tone, side-by-side, or record and review) to evaluate individual performance and identify individual training and coaching needs.

An important and developing aspect of quality is that agents take the necessary time to do the job right – no more, no less. This means not rushing calls, but also not spending excess time on calls over and above what is necessary to satisfy callers and handle them completely and correctly. If qualitative measurements are refined enough to ensure that agents are spending the appropriate amount of time handling calls, then adherence to schedule and call quality make a powerful pair of key performance objectives for individuals. (See Adherence to Schedule, pp. 22-23.)

This is easier said than done in environments where qualitative measurements are vague and indeterminate. And many managers still believe that tracking production outputs, such as calls per hour or average handling time, is necessary. But the trend is clear: well-defined qualitative measurements are beginning to erode reliance on measurements that are after-the-fact outputs.

Identifying Call Quality Standards

The right quality measurements create a reasonable and valid set of standards that can be fairly applied to all interactions and to all agents.

Articulating standards that define a minimum level of acceptable performance while encouraging agents to continually evolve and improve their performance is a challenge. Also, to inspire new-hires and veteran agents alike, you will need a combination of objective and subjective measurements.

There are two basic standards that encourage accuracy and consistency, while allowing for individual styles and variations in performance. These measurements – called foundation and finesse standards – provide your monitors with the means to accurately and realistically measure the quality of interactions. Following is a description of each standard (see box, below, for examples).

• Foundation standards. Foundation or cornerstone standards are exactly what the name implies. These are the basic skills we expect agents to demonstrate during every customer interaction – regardless of their experience or level.

Foundation standards are easy to observe – they are measured by whether or not an agent demonstrated a particular skill (e.g., "agent stated his name during the greeting"). Foundation standards often address those skills that contribute to consistency and procedure completion, such as providing accurate information to the caller, or following the correct opening and closing steps. Typically, these are the skills that can be measured using black-and-white, quantitative standards ("skill was achieved" or "skill was not achieved").

Foundation standards are often preferred by managers and agents because they're so simple to measure and leave no room for judgments, which can be challenged. Disputes are easily resolved by listening to call recordings (either the agent completed the task or didn't).

However, this approach can be problematic because it doesn't allow for variations in skill level or incremental performance improvements. Although foundation standards can encourage performance consistency and efficiency, they don't inspire agents to use the more subjective skills that have a more positive effect on the overall interaction. Agents who skillfully handle interactions with "finesse" can create a "wow" experience for customers.

• Finesse standards. These standards address the human interaction element of customer service. They're typically referred to as "soft skills" (i.e., listening skills, handling difficult callers, demonstrating empathy).

Unlike foundation standards, which measure whether or not a skill was demonstrated, finesse standards measure the quality of the skill or how it was demonstrated. It uses performance ranges to encourage continual and incremental performance improvement.

Finesse skills are measured using a graduated scoring method, which reflects the range of acceptable performance (e.g., 1 = needs improvement, 2 = achieves skill satisfactorily, 3 = exceeds skill expectation). With proper coaching, agents can see improvements in specific skills (moving through the range from 1 to 3), which motivates them toward continued performance improvement. On the other hand, if soft skills were measured using a yes/no scale, agents would be rated by whether or not they attempted the skill, not how well they performed it. That would also restrict opportunities to offer ongoing coaching to achieve higher levels of skills.

When trying to find the right mix of foundation and finesse standards for your particular call center, try not to emphasize one over over the other. A balanced combination of standards clearly defines and models the desired behaviors while leaving breathing room for agents to reveal their personalities and provide a meaningful human interaction. While foundation skills provide the basis for consistency and accuracy, finesse skills allow for a customer experience that goes beyond the basic expectations and provide agents with the opportunity to stretch and improve.

Excerpt from "A Five-Step Performance Development Plan for Revving Up Call Quality" by Rebecca Gibson, *Call Center Management Review*, July 2002.

(For a complete discussion of monitoring, coaching and call/contact quality, see ICMI's *Call Center People Management Handbook and Study Guide*.)

First-Call Resolution/Errors and Rework

Key Points

- **First-call resolution is the percentage of calls that do not require any further contacts to address the customer's reason for calling (calls resolved upon initial contact divided by total calls).**
- **Defining and measuring "resolved" and "total calls" in the formula is difficult.**
- **Despite the challenges and costs of measuring first-call resolution, it has great value as a relative measure over time.**

Explanation

First-call resolution (first-contact resolution) is the percentage of calls that do not require any further contacts to address the customer's reason for calling. The customer does not need to contact the call center again to seek resolution, nor does anyone within the organization need to follow up.

First-call resolution and the related measure of "errors and rework" are a lasting outgrowth of the quality movement. Studies indicate that companies incur all sorts of additional expenses (many hidden and difficult to track) when callers' issues are not fully resolved with the first call. First-call resolution can be used as a management indicator to drive down costs and improve operational efficiency.

However, as with any objective, there is always a point of diminishing returns. Few call centers, for example, would find 100 percent first-call resolution to be a cost-effective way to operate. Analysis of each call center's particular data, cost-structure, other KPI's and competitive environment will be required to set an appropriate first-call resolution target. Often, first-call resolution measures can indicate the need for targeted training programs (e.g., training may be needed for certain types of contacts that have high transfer rates).

The Issues of "Resolved" and "Total Calls"

There is wide variation in the call center industry on how first-call resolution is actually calculated. The basic concept is simple (calls resolved upon initial contact divided by total calls), but the definition of "resolved" or "total calls" can change the results significantly. Because the definition of "resolved on the first call" will vary from call center to call center, benchmarking data on first-call resolution present interpretation challenges for call center managers.

Some of the definitions of "resolved" include:

- Caller states, upon being asked, that his/her reason for calling was resolved.
- Agent has no followup work to do as a result of the call.
- Agent does not need to transfer the call.
- Agent resolves all of the caller's concerns that fall within the call center's defined responsibility.
- One of the call tracking codes designated to count as "resolved" is associated with the call.

There are also differences in ways of measuring total calls, including:

- Calls answered.
- Calls answered plus calls abandoned.
- Calls offered.
- Calls answered that meet certain criteria (e.g., omit wrong numbers, calls with invalid data from a call tracking system, calls handled entirely by IVR or calls that the call center is not authorized to resolve).

Worth the Effort

Although it may seem there are more questions than answers when it comes to setting up a first-call resolution calculation, this KPI's greatest value is likely to be as a relative measure over time.

Definitions and Use of Service Level, Response Time and Quality

Key Points

- **Service level and response time objectives are concrete targets for planning and budgeting.**
- **For planning and management purposes, all contacts must be categorized into either service level or response time buckets:**

  1. Contacts that must be handled when they arrive are measured by service level. Service level is "X percent of contacts answered in Y seconds."

  2. Contacts that can be handled at a later time are measured by response time. Response time is "100 percent of contacts handled within N days/hours/minutes."
- **Service level/response time and quality work together, and are not at odds.**

Explanation

The principle of service level (sometimes generally referred to as "accessibility") is at the heart of effective call center management. Without service level objectives, answers to many important questions would be left to chance, e.g., How accessible is the call center? How many staff do you need? How do you compare to the competition? Are you prepared to handle the response to marketing campaigns? How busy are your agents going to be? What are your costs going to be?

Service level and response time objectives tie the resources you need to the results you want to achieve. They measure how well you are getting the transactions "in the door" and to agents so that you can get on with the business at hand, and are stable, concrete targets for planning and budgeting.

Definition of Service Level

Service level is defined specifically as: "X percent of contacts answered in Y seconds," e.g., 90 percent answer in 20 seconds.

Service level is NOT:

- Average speed of answer, although average speed of answer is a related measure which, when reported, is derived from the same set of data.

- X percent of all calls answered, which is the inverse of abandonment. For example, a 97 percent answer rate would inherently mean a 3 percent abandonment rate.
- Longest delayed call.

Definition of Response Time

Response time is the equivalent of service level for transactions that don't have to be handled the moment they arrive. Response time is defined as "100 percent of contacts handled within N days/hours/minutes," e.g., all email will be handled within 120 minutes or all faxes will be responded to within 24 hours.

Categorization of Contacts

Contacts that must be handled when they arrive require a service level objective, and those that can be handled at a later time require a response time objective:

	Use Service Level	Use Response Time
Inbound calls	X	
Outbound calls		X
Email		X
Text chat	X	
Web "call me back now"	X	
Web "call me back later"		X
Web call through	X	
Fax		X
Postal Mail		X

The Differences Between Service Level and Response Time

In application and function, service level and response time are similar. Both provide the necessary linkage between base staff required and the results you would like to achieve. However, there are important differences between service level and response time. Most notably, base staff calculations are different. Service level is used in situations with randomly arriving traffic, and requires Erlang C or computer simulation. Response time contacts can be held for later processing, and thus can rely on more traditional methods of industrial planning.

When Response Time Becomes Service Level

There is a point at which response time objectives are so quick that they belong in the service level category. For example, to raise the bar of customer service, an organization may decide to improve response time objectives for customer email

from same-day or next-day response to, say, within 15 minutes. Most queuing experts agree that with an objective of less than an hour, base staff requirements should be calculated using either Erlang C or computer simulation programs that account for random contact arrival.

Some assumptions and definitions must also change. Service level, when applied to telephone calls, is based on when the calls reach agents and the conversations begin. But in the case of email, customer perceptions are geared around when they receive the responses. If you want to respond to email messages within 15 minutes and they require an average five minutes of handling time, they must reach agents 10 minutes after customers send them. That becomes the threshold for which staffing requirements must be calculated.

Example Objectives

Example service level objectives:

General Comparisons*	Service Levels (X percent/Y seconds)
Emergency Services (e.g., 911 call centers)	100/0
SL objectives that are comparatively "high"	90/20, 85/15
SL objectives that are comparatively "moderate"	80/20, 90/60
SL objectives that are comparatively "modest"	90/120, 80/300

* from industry surveys

Example response time objectives:

Type of Transaction	Low end of range	High end of range
Customer email	48 to 72 hours	Less than one hour
Fax	Three days	Three hours
Voicemail	Next day	Within one hour
Letter by mail	One week	Same day

* from industry surveys

When establishing and assessing either service level or response time objectives, remember that it's not just how high your overall stated objectives are, but how consistently you hit them throughout the day.

Service Level and Quality Work Together

Obviously, you can achieve your service level objectives, and still be creating waste, extra work and low quality. But long term, service level and quality work together. Accessibility is an enabler – it means that contacts are getting in and being answered/handled so that the call center can accomplish its mission.

When quality is poor, repeat calls, unnecessary service calls, escalation of calls and complaints to higher management, callbacks, etc., will drive service level down even more. Service level and quality are complementary – an important theme that will be covered in more detail later in this section, and in Section 5

Why Service Level?

Why service level and not percent answered, percent abandoned, average speed of answer or other alternatives? The answer is "X percent answered in Y seconds" gives the clearest indication of what callers experience when they attempt to reach the call center. You know exactly what happens to the percentage of callers you define. Service level is the most stable measurement of the queue.

Average speed of answer (ASA) is a close cousin of service level and is derived from the same set of data. But a big problem with ASA is that it is often misinterpreted. Most of us assume that the average lies somewhere in the middle of a set of data, or that average represents a "typical experience." Not so with ASA! It is mathematically correct, but does not represent what happens to individual callers.

Most callers get connected to a rep much quicker than the average, but some wait far beyond the average. For example, with an average speed of answer at 15 seconds, about 70 percent of callers get answered immediately, but a small percent of callers will wait three or four minutes in queue. Many people forget that reality when they look at ASA. ASA has its uses (e.g., in calculating trunk load), so don't throw it out the window. But service level is a more reliable and more telling measure of what callers experience.

What about abandoned calls? Looking solely at abandonment rates as a measure of whether staffing levels were appropriate can be highly misleading. We aren't suggesting that you ignore abandonment. A high abandonment is probably a symptom of staffing problems. But a low abandonment doesn't necessarily mean everything is fine.

Further, if abandonment is beyond acceptable, what are you going to do? You are going to look at when it's out of whack, and why. You will likely run smack into a low service level. When service level is appropriate, abandonment tends to take care of itself.

A good question to ask for any service level is, "What happens to the calls that don't get answered in Y seconds?" Most Erlang C and computer simulation software programs will calculate the answers to that and other questions. For a service level of 80 percent answered in 20 seconds, you will discover that about 30 percent of your callers end up in queue, that the longest wait will be around three minutes, and that average speed of answer will be around 10 to 15 seconds.

All of this brings up an important point: Different callers have different experiences with your call center, even if they are part of the same set of data measured by service level, ASA and other reports. Why? Random call arrival! Because of this reality, you will need an understanding of what happens to different callers. At a high level, service level is the single best measure of these experiences.

Excerpt from *Call Center Management on Fast Forward: Succeeding In Today's Dynamic Inbound Environment* by Brad Cleveland and Julia Mayben, Call Center Press, 1999.

Average Speed of Answer

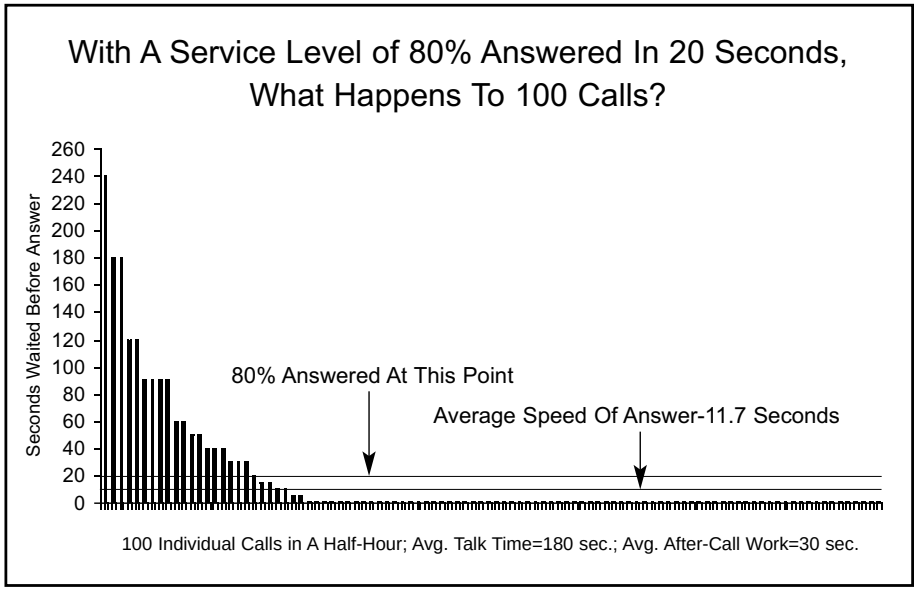
Key Points

- **Average speed of answer (ASA) is total delay divided by total number of calls.**
- **Average speed of answer is a "close cousin" of service level and is derived from the same set of data.**
- **It makes little sense to have both service level and average speed of answer objectives.**

Explanation

Average speed of answer reflects the average delay of all calls, including those that receive an immediate answer. ASA is often compared to an objective or goal established by the call center (such as 10, 20 or 30 seconds).

Some call centers set targets for both ASA and service level (e.g., a service level goal of 80 percent answered within 20 seconds and an ASA goal of 15 seconds). However, as illustrated, for an 80/20 service level (or any other service level objective), ASA will *be what it will be.* Further, it does not reflect a "typical caller's experience," as some incorrectly assume. Most calls get answered more quickly than ASA, and some wait far beyond ASA.



Average speed of answer is calculated by taking the total time all answered calls have waited and dividing it by the number of answered calls. This calculation is usually made over a specific timeframe. For example, if your reports can be generated for every half-hour of the day, the ASA would be for a specific half-hour. Since it is an average, the average speed of answer for the whole day is not a very meaningful measurement.

The timing of ASA by the ACD generally should begin as soon as the call has queued and is waiting to be answered. With some ACD systems, a message may be played prior to queuing the call, but this time should not be part of the ASA measurement. If your ACD is using overflow, the ASA should reflect the caller's point of view, that is, timing should begin as soon as the call has queued, not at the time the call overflowed.

Abandoned and Blocked Calls

Key Points

- **Abandoned calls are calculated as percent abandonment rates using one of the following two formulas:**
  - **All calls abandoned ÷ (all calls abandoned + all calls answered)**
  - **Calls abandoned after objective ÷ (calls abandoned after objective + all calls answered)**
- **Abandoned calls and blocked calls (busy signals) are components of offered calls, which are all of the attempts callers made to reach the call center.**
- **Abandoned calls and blocked calls are often symptoms of other problems, e.g., insufficient staffing and system resources.**
- **Abandonment rate, though often a primary objective, is not a concrete measure of call center performance.**

Explanation

Abandoned and blocked calls are components of offered calls. Offered calls are all of the attempts callers make to reach the call center. There are three possibilities for offered calls:

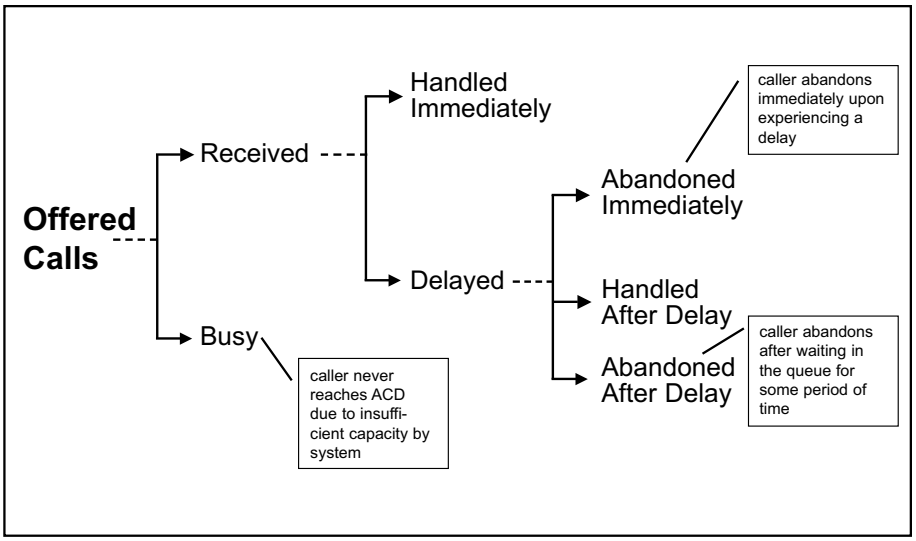
1. They can get busy signals.

2. They can be answered by the system, but hang up before reaching an agent.

3. They can be answered by an agent.

Forecasting Data

Offered calls are the foundation for the planning process, so if you ignore abandoned and busy calls, you will underestimate demand. Offered calls become the basis for forecasting future demand. Busy signals should be discounted for retries so that the forecast accurately reflects the actual number of individuals who attempted to reach you.



In principle, blocked calls will result when you don't have enough physical capacity to handle the call load or when you've programmed your ACD system to reject calls from entering the queue if the wait backs up beyond a threshold you define. Consequently, data on busy signals may come from your ACD, local telephone company and long-distance provider.

In reality, call load balloons when service level drops, so adding staff can eliminate busy signals.

Calculating Abandonment Rate

Abandoned calls are calculated as percent abandonment rates using one of the following two formulas:

1. All calls abandoned ÷ (all calls abandoned + all calls answered)

2. Calls abandoned after objective ÷ (calls abandoned after objective + all calls answered)

The second formula does not include any calls that abandoned before your service level objective, so you are not penalized by those callers. Deciding which formula is best for your center to use will depend on many factors including your service level objective and how important it is for you to answer every call. For example, most sales environments would want to use the first formula since lost calls may result in callers choosing to use a competitor's services.

Calculating abandonment rate is fairly straightforward. The following table illustrates an example using the first abandonment rate calculation.

	Calls Answered	Abandoned Calls	Abandonment Rate
Monday	1551	149	8.7%
Tuesday	1429	93	6.1%
Wednesday	1364	28	2.0%
Thursday	1300	57	4.2%
Friday	1363	183	11.8%
Total for the Week	7007	510	6.8%

You will notice that the abandonment rate for the week is not calculated by averaging averages (which would incorrectly add the five abandoned rates together and divide by five). Instead, totals for calls answered and calls abandoned are first determined, and then the abandonment rate for the week is calculated.

Considerations of Abandoned Calls as a KPI

In quite a few call centers, abandonment rate is viewed as a key measure of how adequately the call center is staffed. The usual assumptions are: a) There must be industry "standards" for abandonment, and b) abandonment is a good indicator of call center performance. But neither is true.

For one thing, abandonment is tough to forecast, at least, with any consistent level of accuracy. That would mean you would be able to accurately predict the seven factors that affect caller tolerance. This is very difficult given that conditions are constantly changing and there are an almost unlimited number of variables than can impact abandonment.

Further, abandonment can be a misleading measure of call center performance. The conventional wisdom is that longer queues translate into higher abandonment. But the factors of tolerance can help explain apparent paradoxes.

For example, when the stock market swings significantly, financial organizations get a flood of calls. Even though service level may drop, abandonment also goes down because callers have a higher degree of motivation – and are willing to wait longer, if necessary.

In the final analysis, you can control how accessible you are through: 1) How many trunks you have, and 2) how many skilled agents are plugged in. But you can't control how callers will react or the myriad circumstances that influence their behavior. Too many call center managers are being held accountable for abandonment, which is something they cannot directly control. It is much more equitable and productive to hold them accountable for things they can control, such as service level.

Forecasted Call Load vs. Actual

Key Points

- **Forecasted call load vs. actual call load is the percent variance between the call load forecasted and the call load actually received.**
- **Forecasts that are off by more than 3 percent to 5 percent for large centers and 10 percent for small centers, generally point to problems with the forecasting process.**

Explanation

Forecasting the workload is a high-leverage activity that is fundamental to managing a call center effectively. Underestimating demand will mask and defeat all other efforts to provide good service. And overestimating demand results in waste. Good forecasting comes from constantly tracking results and making improvements to the forecasting process.

Common practice is to blend quantitative "time series" forecasting with judgmental forecasting, e.g., what is the expected impact of a new marketing campaign? If your forecasts are routinely off by more than 3 percent or 5 percent for large centers and 10 percent for small centers, you will need to identify the variables causing the inaccuracies and work on better anticipating or resolving them.

Call centers that produce accurate forecasts are not necessarily those that have the most stable environments; rather, they have a group of people (or an individual) who have made accurate forecasting a priority. They have taken responsibility, established good ties with other departments, pulled in the data required and established a forecasting process they are continually improving. They set accuracy goals and monitor progress. They consider accurate forecasting to be mission-critical.

Scheduled Staff vs. Actual

Key Points

- **Scheduled staff to actual is a comparison of the number of agents scheduled vs. the number actually in the center.**
- **This measure is independent of whether or not you actually have the staff necessary to achieve a targeted service level and/or response time.**

Explanation

Scheduled staff to actual is a comparison of the number of agents scheduled vs. the number actually in the center, involved in the activities specified by the schedule. This measure is independent of whether or not you actually have the staff necessary to achieve a targeted service level and/or response time; it is simply a comparison of how closely reality aligned with the schedules you established.

If this measurement indicates a problem, root cause analysis may point to one or more areas, such as:

- Adherence to schedule. (See Adherence to Schedule, pp. 25-26.)
- Inaccurate or unrealistic schedules (e.g., nonphone work is greater than accounted for).
- Conflicting priorities, e.g., supervisors encourage their groups to deviate from schedules as circumstances unfold. (Either schedules need to better reflect workload realities or supervisors need training/coaching on adhering to planned schedules.)
- Inaccurate workload and shrinkage forecasts. If these forecasts are off the mark, schedules will be improvised by groups and individuals.

Adherence to Schedule

Key Points

- **In today's environment, it is more important than ever for agents to be "in the right places at the right times, doing the right things."**
- **Adherence to schedule is a measure of how much time and when, during the agents' shifts, they are taking or available to take calls. For example, if adherence is expected to be 85 percent, agents should be available to take calls 51 minutes (.85 x 60 minutes) per scheduled hour – at the right times.**
- **The two terms most often associated with adherence include availability (how much time agents were available) and compliance (when agents were available to take calls).**

Explanation

Adherence to schedule is a measure of how much time and when, during the agents' shifts, they are taking or available to take calls. It generally consists of all plugged-in time, including the time spent waiting for transactions to arrive. More specifically, adherence consists of time spent in talk time, after-call work, waiting for calls to arrive, and placing necessary outbound calls.

Adherence should incorporate the issue of timing – when a person was available to take calls. This is sometimes called "schedule compliance." The idea is to ensure that agents are plugged in for the amount of time required, as well as when required. The two terms most often associated with adherence include:

- Availability – *How much time* agents were available.
- Compliance – *When* they were available to take calls.

Because of the need to have the right number of staff available at the right times, it is important that agents know adherence to schedule is a matter of not just how much time they are plugged in, but also when they are available. For example, staying 15 minutes longer to make up for getting started 15 minutes late is not a viable solution in a call center environment.

Adherence to schedule should be established at levels that are reasonable and reflect the many things that legitimately keep agents from the phones. It should also be flexible (i.e., adjustable downward) when the workload is light.

Adherence vs. Occupancy

Adherence to schedule and occupancy are two different things. In fact, when adherence to schedule goes up, service level will go up, which drives occupancy down. (See Occupancy and Productive/Nonproductive, pp. 29-31.)

A primary advantage of adherence factor is that it is a reasonably objective measurement. Agents cannot control how many calls are coming in, the mood of callers, the types of calls they will handle, how accurate resource planning is, and so on. But they can be in the right places at the right times.

Growing Importance

Today, with multiple channels of contact and growing responsibilities, it is more important than ever for agents to be "in the right places at the right times, doing the right things." Not all systems provide seamless reports across all channels of contact, so some piecing together of data may be necessary.

Average Handling Time (AHT)

Key Points

- **Average handling time (AHT) is the sum of average talk time plus average after-call work.**
- **Like volume, average handling time for a group must be forecasted for specific times of day; daily averages do not work.**
- **In many centers, AHT is increasing as contacts become more complex and as objectives focus on building relationships and capturing needed and useful information.**
- **All things equal, reductions in AHT through better processes, technologies and training will create significant efficiencies.**

Explanation

Average handling time (AHT), the sum of average talk time plus average after-call work (wrapup), is as important as call volume in terms of establishing the workload in a call center. Average handling time, when coupled with volume, makes up call load, and call load is what matters; volume alone is insufficient for planning and management.

Average handling time, like call volume, is generally incorporated into planning by half-hour. Assuming the same average handling time all day for forecasting purposes will not accurately reflect the environment.

Repeating Patterns

As with call volume, average talk time and average after-call work usually fall into predictable, repeating patterns. For forecasting purposes, you begin by looking at the average handling time for a recent week, broken down by half - hour. If the week is "typical," the data represented by this pattern are what will likely continue.

Patterns for each answer group will likely emerge. You may also discover patterns by day of the week, season of the year, billing cycles and marketing campaigns. AHT is often useful for identifying improvement opportunities, trends, training needs, the impact of changes in call type mix, group structure, billing dates, etc.

Resource Requirements

AHT has a direct relationship to the resources required to meet service level and response time objectives. All other things equal, reducing either call volume or the handling time will decrease costs and increase profitability. However, reductions should not come at the expense of quality. In fact, AHT in many centers continues to increase as contacts become more complex, and as objectives focus on taking the time to build relationships and capture needed and useful information. Effective reductions in average handling time can be achieved by making real improvements in people, processes and technology.

It is essential that for staffing purposes the "real or true" average handling time be utilized not the "goal." Using the goal, if it is lower than the true AHT, will lead to understaffing, low service level and high occupancy. If the goal is higher than reality, the reverse will be true. In either case, the objective of utilizing resources efficiently and effectively will not be met.

Occupancy and Productive/Nonproductive

Key Points

- **Occupancy is the percentage of time agents spend handling calls, vs. waiting for calls to arrive.**
- **When service level goes up, occupancy goes down; when adherence to schedule goes up, occupancy goes down.**
- **Occupancy is a result of random call arrival and cannot be directly controlled by agents.**
- **High occupancy can negatively affect quality, since agents may be stressed without sufficient breaks between calls; low occupancy can lead to agent boredom.**
- **Raw calls per agent can be converted to true (normalized) calls per agent for a more fair productivity assessment.**

Explanation

Occupancy is the percentage of time agents spend handling calls, vs. waiting for calls to arrive. More specifically, occupancy for a given half-hour is (call volume x average handling time in seconds) ÷ (number of agents x 1800 seconds). The inverse of occupancy is the time agents spend waiting for contacts, plugged in and available. It is important to remember that occupancy is a result of service level and random call arrival and is not a driver of service level or budgets. The service level that you are achieving at any given time will dictate the resulting occupancy rate.

As the example illustrates, a service level at 82 percent of calls answered in 20 seconds equates to an occupancy of 86 percent. If service level drops to 24 percent answer in 20 seconds, occupancy goes up to 97 percent.

Avg. Talk Time: 180 sec; Avg. Work Time: 30 sec; Calls: 250		
Agents	SL% in 20 Sec.	Occ.
30	24%	97%
31	45%	94%
32	61%	91%
33	73%	88%
34	82%	86%
35	88%	83%
36	92%	81%
37	95%	79%
38	97%	77%
39	98%	75%
40	99%	73%
41	99%	71%
42	100%	69%

In most call centers, agents handle various nonphone tasks when the inbound call load slows down. In fact, blended environments make a lot of sense because no one has a perfect forecast all of the time, and schedules don't always perfectly match staff to the call load. But don't be misled. When nonphone work is getting done, there are either: a) more agents on the phones than the base line staff necessary to handle the call load at service level, at that time, or b) the service level objective is sacrificed. In other words, don't try to force occupancy higher than what base staffing calculations predict it should be.

Anyone in a call center knows extended periods of high occupancy are stressful. Studies suggest that from 88 percent to 92 percent occupancy is where agents begin to burn out, if the condition lasts for an extended time (i.e., several half-hours in a row). Most call center managers agree, but unfortunately, a low occupancy tends to feed on itself. Taking breaks is a natural reaction to high occupancy, and this tends to compound the problem.

Occupancy vs. Adherence To Schedule

The terms adherence to schedule and occupancy are often incorrectly used interchangeably. They not only mean different things, they move in opposite directions. When adherence to schedule improves (goes up), occupancy goes down. Further, adherence to schedule is within the control of individuals, whereas occupancy is determined by the laws of nature, which are outside of an individual's control. (See Adherence to Schedule, pp. 25-26.)

Calls per Agent

Traditionally, calls per agent has been an almost universal productivity measurement. There always have been concerns about sacrificing quality for quantity, but in practice, calls per hour has been the preferred benchmark for establishing productivity standards, comparing performance among agents and groups, and assessing the impact of changes to call center processes. However, calls per hour has always been problematic. In any inbound environment, there are mathematical realities at work that are not within the control of an individual. For example, smaller groups are less efficient, meaning they have lower occupancy than larger groups at a given service level, as illustrated by the table.

Calls in 1/2 Hour	Service Level	Agents Required	Occupancy	Avg. Calls Per Agent	True Calls Per Agent
50	80/20	9	65%	5.6	8.6
100	80/20	15	78%	6.7	8.6
500	80/20	65	90%	7.7	8.6
1000	80/20	124	94%	8.1	8.6

Assumption: Calls last an average 3.5 minutes.

Since the number of calls is changing throughout the day, so does average calls per hour or half-hour for a group or individuals in a group.

True Calls (Normalized Calls) per Agent

Although occupancy is not within the control of an individual or group of agents, it can be "neutralized" by dividing calls handled by percent occupancy. For example, using the numbers in the table, 5.6 average calls per agent divided by 65 percent is 8.6 normalized calls, as is 6.7 calls divided by 78 percent, 7.7 calls divided by 90 percent and 8.1 calls divided by 94 percent. The result is essentially a measurement of average handling time and is relatively more fair and meaningful than calls per hour.

However, as a productivity standard, some age-old problems remain. Type of calls, knowledge and communication ability of callers, call routing, distribution and other factors lead to inherent variability in call handling time. In the end, normalized calls per hour is an improvement on "raw" calls per hour, but is not an infallible productivity standard. As the next-generation call centers take shape, marked by growing complexity and a greater variety of transactions, call center managers will increasingly focus on: a) Getting the right people in the right places at the right times, and b) providing the tools, training and environment that enable them to handle workload with quality.

Cost per Call (Cost per Contact)

Key Points

- **Cost per call is total costs divided by total calls for a given period of time.**
- **You will need to agree on assumptions related to assigning costs (i.e., how to allocate equipment and facilities).**
- **A rising cost per call may be a good sign.**

Explanation

There are various ways to calculate cost per call (i.e., determining which factors to include in staff costs, how to allocate equipment, how to value the building), but the basic formula is to divide total costs by total calls received for a given period of time, usually a month. The potential in following cost per call is to identify the variables that are driving it upward or downward, and the impact they have.

A climbing cost per call can be a good sign, depending on the variables driving it up. For example, process improvements may result in fewer calls than would otherwise be necessary (e.g., eliminating the need for customer callbacks, improving the IVR and coordinating with other departments to eliminate problems that generate calls). As a result, the fixed costs (in the numerator) get spread over fewer calls (in the denominator), driving up cost per call. But, of course, total costs will drop over time, because the elimination of waste and rework will drive down variable costs. Similarly, cost per call usually goes down during the busy times of the year, and up during the slower times of year.

Cost per call should be differentiated by each channel of contact. Figures should also be broken out by types of services provided (i.e., placing orders, changing orders, checking account status, problem resolution, etc.).

Average Call Value

Key Points

- **Average call value is total revenue divided by total number of calls.**
- **Average call value has been traditionally applied in revenue-generating environments (such as reservation centers and catalog companies) where calls have a measurable value.**
- **Average call value is much tougher to use in call centers where the value of calls is difficult to measure, such as customer service centers and help desks.**

Explanation

At a basic level, average call value can be used effectively as a KPI to put the value of a revenue-generating call center on a unit basis. However, any metric based on volume of calls, rather than the workload required to handle the calls, presents a trade-off between ease of understanding and depth of understanding. Changes in average talk time or average after-call work affect call center costs, but will not be reflected in an average call value calculation. An alternative would be to measure average value per minute of handle time:

Total Revenue ÷ [Number of calls x (Average Talk Time + Average After-Call Work)]

Variations on the average call value calculation may be applicable in different call centers, depending on the data available. For example, average call value could be calculated for new customers separately from repeat customers, or for customers of different product lines.

Revenue

Key Points

- **Revenue is an appropriate key performance indicator in revenue-generating centers. These centers may be primarily sales centers or they may be customer service centers with sales objectives.**
- **The indirect impact of customer satisfaction and customer retention can also be included as part of the revenue impact of the call center.**

Explanation

Revenue is an appropriate key performance indicator in revenue-generating centers. These centers may be primarily sales centers or they may be customer service centers with sales objectives. Results are often correlated with other variables such as call center costs, market conditions and revenues through other channels of contact (e.g., retail or direct sales force) to gauge the call center's impact on the organization's profits.

The indirect impact of customer satisfaction and customer retention can also be included as part of the revenue impact of the call center. Studies continue to show the power of customer loyalty as a way to boost long-term profits. The call center's role in achieving these objectives should not be ignored.

(For more information on the call center's role in revenue goals, see ICMI's *Call Center Leadership and Business Management Handbook and Study Guide*.)

Budget/Cost Objectives

Key Points

- **Budget/cost objectives look at the difference between projected and actual expenditures, for various budget categories.**
- **The variances between budgeted and actual expenditures can be expressed as percentages or in actual currency and are typically broken down into subcategories such as labor expenses, telecom costs, technology charges, and rent and utilities.**

Explanation

Budget/cost objectives look at the difference between projected and actual expenditures, for various budget categories. Often called variance reports, these measures are appropriate in all environments as a high-level objectives, assuming they are considered within the context of changing workload variables and call center responsibilities.

The variances between budgeted and actual expenditures can be expressed as percentages or in actual currency and are typically broken down into subcategories such as labor expenses, telecom costs, technology charges, and rent and utilities. A typical budget variance report may run many pages. The following illustrates a typical format for these reports.

	Month				Year to Date			
	Budget	Actual	$ Variance	% Variance	Budget	Actual	$ Variance	% Variance
Salary								
Team 1	36,434	33,079	-3,355	-9.21%	101,497	94,331	-7,166	-7.06%
Team 2	39,502	41,441	1,939	4.91%	116,595	120,037	3,442	2.95%
Team 3	31,117	34,508	3,391	10.90%	95,021	102,595	7,574	7.97%
Team 4	34,049	35,089	1,040	3.05%	101,314	101,010	-304	-0.30%
Salary Subtotal	**141,102**	**144,117**	**3,015**	**2.14%**	**414,427**	**417,973**	**3,546**	**0.86%**
Building Expenses								
Rent	9,000	9,000	0	0.00%	27,000	27,000	0	0.00%
Utilities	3,988	4,161	173	4.34%	12,131	12,337	206	1.70%
Security	11,150	13,000	1,850	16.59%	33,450	37,150	3,700	11.06%
Building Subtotal	**24,138**	**26,161**	**2,023**	**8.38%**	**72,581**	**76,487**	**3,906**	**5.38%**
Total	**165,240**	**170,278**	**5,038**	**3.05%**	**487,008**	**494,460**	**7,452**	**1.53%**

(For more information on call center budgeting, see ICMI's *Call Center Leadership and Business Management Handbook and Study Guide*.)

Objectives for Outbound

Key Points

- **Many terms and concepts are similar for inbound and outbound environments. However, there are important differences.**
- **Key objectives/measures in the outbound environment include:**
  - **Abandon rate**
  - **Attempted calls**
  - **Connected (completed) calls**
  - **Contacts**
  - **Contacts per hour**
  - **Contact rate**
  - **Cost per contact**
  - **Cost per minute**
  - **Penetration rate**
  - **Time of day effectiveness**
- **It is important to understand the context of a term, because ACD vendors and dialer vendors sometimes use the same terms to mean different things.**

Explanation

KPIs for the outbound environment build upon many of the same KPI's that apply to the inbound environment. Work is work, agents are agents, and getting more work done with fewer resources while maintaining quality remains the goal in both environments. Call blending literally combines inbound and outbound work, making integrated KPI measures for inbound and outbound work a necessity.

Unique Terms/Objectives

Despite overlap with inbound terms and concepts, there are KPIs unique to the outbound environment. (Note: Different outbound dialing systems may use different terminology for these concepts and may differ in the way that they track or calculate them.) Key terms and objectives include:

- **Abandon rate**: In predictive dialing mode, this is the percentage of calls connected to a live person that are never delivered to an agent. If no agent is available when the phone is answered, the person called hears silence (or the outbound version of a "please hold" message) and either hangs up or is

disconnected by the dialer after a set amount of time if no agent becomes available.

- **Attempted Calls**: Calls made, regardless of results.
- **Connected (Completed) Calls**: Calls that reached a live person (or answering machine, if leaving a message is acceptable).
- **Contacts**: Calls that reached the intended person (e.g., Mrs. Smith, not her five-year-old).
- **Contacts per Hour**: The number of contacts divided by agent hours on the dialer.
- **Contact Rate**: The percentage of attempts that result in a contact (contacts divided by attempts).
- **Cost per Contact**: Total expenses divided by contacts.
- **Cost per Minute**: Total expenses divided by agent workload minutes (talk time plus after-call work).
- **Penetration Rate**: The percentage of the call list that has been called.
- **Time of Day Effectiveness:** The periods of the day when the most contacts are made. This is the most important driver of optimum staffing in an outbound environment.

Improvement Drivers

Automating the outbound dialing process is often the best way to improve productivity in the outbound environment. However, decreasing the abandon rate when dialing automatically requires decreasing operational efficiency. Predictive dialing is just what it sounds like (guessing), so, inevitably, the dialer guesses wrong at times and calls will be answered for which no agent is available. The more aggressively the pacing is set on the dialer, the more often this will happen. However, aggressive pacing will result in less staff idle time, so that is the trade-off.

The quality of the list being called can have a significant impact on outbound efficiency. In contrast to inbound environments, even relatively straightforward KPIs can be affected. For example, lists with many invalid phone numbers will result in a low contact rate. Contacts per hour can also be depressed by a poor quality list.

Unlike the inbound environment, where callers call whenever they wish, the call center manager can control when calls are made in the outbound environment.

The interval-level analysis that helps inbound call center managers determine when to have staff ready applies a bit differently. In the outbound environment, the most productive intervals of the day are sought so that schedules ensure as many staff as possible available to place calls when they will yield the greatest results.

Unit Cost Measures

Due to the additional complexities presented by outbound dialing, unit cost measures offer particular appeal as high-level KPIs. Cost per contact gets right to the point and is simple to communicate, but cannot be compared across different types of outbound campaigns because valid differences in call length (e.g., a brief "welcome" call compared to an intricate "retention" call) directly affect cost per contact. Using cost per minute allows efficiency comparisons across programs, as well as overall for the organization, and provides an urgent warning to investigate further when there are significant changes.

Customer Satisfaction

Key Points

- **Customer satisfaction, simply stated, measures the percentage of all customers who felt satisfied.**
- **Customer satisfaction has greatest value as a relative measure (significant increases or decreases serve as a barometer) and in conjunction with other KPIs (e.g., when service level performance decreases, what happens to customer satisfaction?).**
- **Studies have linked customer satisfaction to customer loyalty, repeat purchase behavior and word-of-mouth advertising.**

Explanation

Customer satisfaction long has been a priority of well-run call centers. However, there is a trend today to go beyond satisfaction, to measure and improve customer loyalty.

A prerequisite to accurately assessing satisfaction/loyalty is to collect data on a representative sample of customer experiences and perceptions across the full range of contact channels and issues. Accordingly, many firms conduct ongoing customer satisfaction surveys via outbound calls, mail and fax even as they add email, Web and automated IVR-based samples.

Assessing loyalty – a burgeoning art and science that, by nature, involves predictions of consumer behavior – is more difficult than gauging customer satisfaction. However, a growing number of organizations are providing resources related to defining and measuring loyalty.

There is often a conflict within organizations between the desire for an organization (and those who run it) to look good and the need to learn what is going wrong. Designing a customer satisfaction measure that consistently yields 99 percent satisfaction ratings may make the organization feel good, but likely will fail to provide information that could be valuable to the organization.

No Industry Standard

There is no industry standard method for calculating customer satisfaction. The great variety of customers served by different call centers, for many different reasons, makes it unlikely that there ever will be one standard. However, a variety of industry studies have detailed the behavior of dissatisfied customers.

By collecting appropriate data and modeling the impact that changes in the call center could make upon dissatisfied customers, call center managers can cost-justify investments that improve service.

Some organizations outsource the measurement of customer satisfaction because:

- employing an outside organization avoids internal conflicts of interest in tallying results, and
- the expert statistical and survey resources usually required may be less expensive to hire than to set up in-house.

(For a complete discussion of customer satisfaction and loyalty, see ICMI's *Call Center Customer Relationship Management Handbook and Study Guide*.)

Employee Satisfaction

Key Points

- **How employees feel about their jobs can have a significant impact on:**
  - **Absenteeism**
  - **Turnover**
  - **Customer satisfaction**
  - **Productivity**
  - **Overall call center performance**
- **Employee satisfaction is typically measured through surveys or focus groups.**

Explanation

Optimizing employee satisfaction is an important success factor in any call center. How employees feel about their jobs can have a significant impact on:

- Absenteeism
- Turnover
- Customer satisfaction
- Productivity
- Overall call center performance

Employee satisfaction surveys are typically conducted once or twice a year and are good ways to gather feedback quickly and, if desired, anonymously. It is advisable to ask quantitative questions that are easily summarized as well as qualitative questions that may help explain some of the quantitative results.

Conducting focus groups can also be an effective way to get feedback on employee satisfaction. However, it may be best to bring in an unbiased, outside firm to conduct the feedback sessions since employees may be less than candid in front of call center management.

Before surveys or focus groups take place, employees should be aware of how the results will be communicated and whether or not actions to improve problems will be taken. Collecting this type of feedback from employees typically produces an expectation that management will take action to improve job satisfaction.

(Employee satisfaction is discussed in detail in ICMI's *Call Center People Management Handbook and Study Guide*.)

Turnover

Key Points

- **Turnover is typically defined as the percentage of frontline staff that leave their positions. This may include voluntary turnover (e.g., internal promotions, employee resignations, retirement) or involuntary turnover (e.g., dismissals and layoffs).**
- **Call center managers should calculate an annualized turnover rate using the following formula:**
  Turnover = (number of agents exiting the job ÷ avg. actual number of agents during the period) x (12 ÷ number of mos. in the period)

Explanation

Since the largest call center expense is usually labor costs, the impact of turnover as a key performance indicator is significant. For example, high turnover can drive down quality, drive up cost per call, drive up errors and rework, and drive up average handling time. The list could go on. Traditionally, however, moderate to high turnover has been the norm in many call centers because frontline agent positions often involve repetitive work, and may offer little room for career advancement and require strict adherence to schedules. As call centers have become more sophisticated and more central to effective strategy, the nature of call center work is changing, which has had a positive impact on recruitment and retention. Retention strategies are discussed in ICMI's *Call Center People Management Handbook and Study Guide*.)

Turnover is typically defined as the percentage of frontline staff that leave their positions. This may include voluntary turnover (e.g., internal promotions, employee resignations, retirement) or involuntary turnover (e.g., dismissals and layoffs).

To measure turnover in a way that provides a consistent basis for comparison and trending, call center managers should calculate an annualized turnover rate. An annualized number does not require 12 months worth of data. The calculation is as follows:

Turnover = (number of agents exiting the job ÷ avg. actual number of agents during the period) x (12 ÷ number of mos. in the period)

Input for Turnover Calculation

	# of agents exiting the job during month	Avg. # of agents on staff during month*
January	2	104
February	1	103
March	4	101
April	0	101
May	3	109
June	5	106
July	2	105
August	3	103
Total/Average	20	104

*The average number of agents on staff during the month is often calculated by taking an average of the counts at the end of each week of the month. Alternatively, an average can be taken of the trained staff count at the beginning and end of the month.

Using the data from the table above, the calculation yields the following result:

(20 ÷ 104) x (12 ÷ 8) = 28.8%

Consequently, the call center has an annualized turnover rate of about 29 percent.

Overall Call Center ROI

Key Points

- **Determining the call center's overall return on investment (ROI) begins with recognizing the center's value proposition, or the set of specific benefits it provides to the organization and customers.**
- **The call center's overall ROI seeks to summarize the benefits to both the organization and customers.**

Explanation

Determining the call center's overall return on investment (ROI) begins with recognizing the center's value proposition, or the set of specific benefits it provides to the organization and customers. There are many viable call center value propositions, but most comprise contributions to one or more of the following:

- Business unit strategies
- Customer satisfaction and loyalty
- Improved quality and innovation
- Highly leveraged marketing and CRM initiatives
- Innovative products and services
- Efficient delivery of services
- Support of self-service systems
- Revenue/sales (in commercial organizations)

The call center's overall ROI seeks to summarize the benefits to both the organization and customers. Typically, these areas can be measured through data sampling and analysis of a variety of sources.

Call center managers need to be aware of the totality of benefits a call center can provide to customers and the organization. (For models and discussions of the call center's value proposition and impact, see ICMI's *Call Center Customer Relationship Management Handbook and Study Guide* and ICMI's *Call Center Leadership and Business Management Handbook and Study Guide*.)

KPIs as Interrelated Outcomes

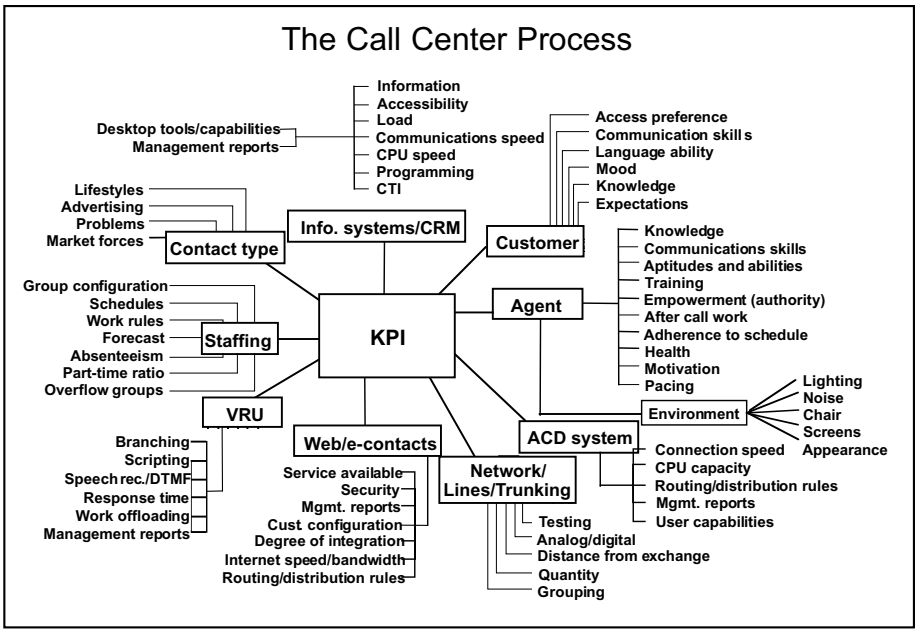
Key Points

- **There are three important things to keep in mind about key performance indicators:**
  1. **As with any measure, you must ensure that they are as accurate, complete and unbiased as possible.**
  2. **These reports should be interpreted in light of how they relate to each other. By themselves, any can lead to erroneous conclusions, but together they paint a fairly complete, high-level picture of call center performance.**
  3. **Tracking high-level measurements won't inherently improve them. To make improvements, you have to work on the factors that cause these outputs to be what they are.**

Explanation

An incoming call center is a "process" or "system of causes." Taking a larger view, the call center is part of a larger process, the organization. In a lesser view, each agent group in a call center is a system of causes unto itself, as are individual agents in a group.

The central focus of the process can be any KPI or virtually any other measure or objective. Note that just about everything is interrelated, so the causes of performance problems are often difficult to isolate and measure.



Tracking high-level measurements won't inherently improve them. To make improvements, you have to work on the factors that cause these outputs to be what they are. In other words, you have to work at a deeper level, the root causes.

The Interrelated Nature of KPIs

KPIs should not be viewed in isolation. Consider a few examples:

- Cost per call going down may be a bad sign. Viewed alone, a dropping cost per call may seem like a positive indication. However, if call volume, errors and rework are going up, cost per call will naturally decrease as fixed costs are spread over more calls. This is not a good sign.
- Average handling time going up may be a positive indication. Viewed alone, an increasing AHT may seem to indicate inefficiencies. However, agents may be improving on cross-selling and upselling opportunities, and improving average call value.
- A high service level is not necessarily all positive. In isolation, a great service level may seem very positive. However, if schedules are assigning too many agents to service level contacts while short-changing response time work, adjustments need to be made to forecasting and scheduling processes.

In sum, KPIs are interrelated and viewing them as a whole is a prerequisite to understanding the environment.

How KPIs Relate to Customer Expectations

Key Points

- **There are 10 primary customer expectations:**
  1. **Be accessible**
  2. **Treat me courteously**
  3. **Be responsive to what I need and want**
  4. **Do what I ask promptly**
  5. **Provide well-trained and informed employees**
  6. **Tell me what to expect**
  7. **Meet your commitments; keep your promises**
  8. **Do it right the first time**
  9. **Be socially responsible and ethical**
  10. **Follow up**
- **An important strategic responsibility is to understand and manage the connections between KPIs and customer expectations.**

Explanation

One of the most critical – and difficult – aspects of managing a call center in coming months and years will be to provide services that satisfy changing consumer demands. Those who fall behind will pay a brutal price: dissatisfied customers, insufficient support from the organization and low morale in the call center. But those who stay ahead of the curve will enjoy strong customer loyalty and the many of benefits that come with it.

Ten key customer expectations include:

1. Be accessible
2. Treat me courteously
3. Be responsive to what I need and want
4. Do what I ask promptly
5. Provide well-trained and informed employees
6. Tell me what to expect
7. Meet your commitments; keep your promises
8. Do it right the first time
9. Be socially responsible and ethical
10. Follow up

Category/KPI	Customer Expectation
Customer Perception Measures • Customer Satisfaction • Errors and Rework/First Call Resolution	• Be accessible • Treat me courteously • Do it right the first time • Do what I ask promptly • Be responsive to what I need and want • Tell me what to expect • Provide well-trained and informed employees • Meet your commitments; keep your promises • Be socially responsible and ethical • Follow up
Call Center Accessibility Measures • Service Level • Average Speed of Answer • Abandoned and Blocked Calls	• Be accessible • Be responsive to what I need and want • Meet your commitments; keep your promises
Efficiency/Planning Measures • Forecasted Call Load vs. Actual • Scheduled Staff to Actual • Average Handling Time • Occupancy and Productive/ Nonproductive	• Be responsive to what I need and want • Ensure that I deal with trained and equipped employees • Meet your commitments; keep your promises • Be accessible
Agent Performance Measures • Adherence to Schedule • Quality (Errors and Rework/First-Call Resolution)	• Be accessible • Treat me courteously • Do it right the first time • Meet your commitments; keep your promises • Follow up

The table above represents one way to categorize KPIs, and suggests the customer expectations impacted by category. Note, some KPIs and some expectations appear in more than one category.

An important strategic responsibility is to understand and manage the connections between KPIs and customer expectations. This involves:

- Tracking and comparing both KPIs and customer expectation trends.
- Educating all levels of call center staff on how KPIs and customer expectations are interrelated.
- Ensuring that specific objectives, systems, processes and technologies support and enable the call center to meet customer expectations and continuously improve KPIs.

(Customer expectations are covered in greater detail in ICMI's *Call Center Customer Relationship Management Handbook and Study Guide*.)

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Establishing Agent Performance Objectives that Drive Call Center Results Web Seminar, presented by Incoming Calls Management Institute.

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This ICMI Tutorial is an excerpt from ICMI's *Call Center Operations Management Handbook and Study Guide*. Part of a four-volume series developed to prepare call center management professionals for CIAC Certification, these encyclopedic resources cover virtually every aspect of call center management. The other titles in the series are

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