

Case Study of the Effects of the Keynomics Performance System

Call Center Operations



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Introduction

More than half of contact center operation expenses are associated directly with labor. Therefore, getting the most production from your contact center personnel as possible becomes essential for success. Doing more with less can only be realized by improving core and advanced skills as they relate to agent productivity on the front line.

The Keynomics Performance System provides permanent improvements in productivity and quality. Keynomics equips and empowers agents with the skills necessary to interface properly within their work environment, whether they are fielding calls in a customer service center, or processing transactions in the data entry arena. Keynomics provides a wide spectrum of training modules that are continually updated to reflect industry shifts - achieving results that are independent of the underlying technology in the contact center.

So often, agents operate in a continually distracted mode, revealing inadequate listening skills as they "hunt and peck" (using only one or two fingers on either hand) their way across the keyboard. This inefficiency drives a company's productivity down, impairs customer service, and creates unnecessary stress in the workforce as employees struggle to meet increasingly rigorous corporate goals and objectives.

This Average Handle Time (AHT) study was designed to test the effectiveness of the Keynomics Performance System on contact center agents. Based on previous case studies (at other companies), we expected to see a minimum productivity gain of 5% and we saw gains up to 11.23%. This data solely focuses on handle time, while Keynomics will also impact overall quality gains with extensive error reductions. We will examine the data under multiple scenarios.

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Method

Team members were hand selected to take part in the study. The chosen agents were selected to complete training using the Keynomics Performance System, while a Control group, consisting of over 300 agents, who received no additional training, was established for comparison purposes.

The Keynomics Performance System consists of a set of proprietary modules. 21 completed agents from the Keynomics Pilot group are included in this study. Handle time data was collected for calls that were fielded by both groups of participants (Keynomics Pilot & Control) for two time periods (pre-training, referred to as “before,” and post-training, referred to as “after”). The type of each call (or skill) was also collected.

With our in-depth analysis and call center expertise, we have found that in a call center with at least 350 agents, a time savings of just 1 second per call can result in the equivalent savings of 1 headcount. In other words, that for every second saved on a call, one less agent needs to be hired to support the current call volume.

However, it is also important to point out that all data supplied to Keynomics is purely focused on time savings. It does not take into consideration the improvements and savings that Keynomics provides from a quality standpoint. Throughout the Keynomics training, agents are measured based on both their speed and their accuracy as they enter data from call simulations. The importance of quality in a call center can often be masked by the emphasis placed on AHT and other timing metrics.

For this analysis we used the following date ranges:

<u>Time Frame</u>	<u>Start Week</u>
Pre-Training	30 Days Pre-Pilot
Training	30 Days in Pilot Program
Post-Training	30 Days Post-Pilot



Scenario 1: All Available AHT Data

The following table summarizes the results of using all available data.

Control Pre-Training Average: 329.0 seconds	Keynomics Pre-Training Average: 336.8 seconds
Control Post-Training Average: 326.4 seconds	Keynomics Post-Training Average: 310.3 seconds
Improvement: 2.6 seconds	Improvement: 26.5 seconds

The Keynomics Pilot group improved by 23.9 seconds (7.10%) more than the Control group as a direct result of the Keynomics Performance System.

To analyze most datasets, one would normally assume that all collected data is appropriate to include. This data includes the complete call list and records for all the available agents. We will focus on the effect that the training had on the Keynomics Pilot group in comparison to the Control group, so we will disregard the time period during which the training took place. Additionally, we will be including all call types in this scenario.

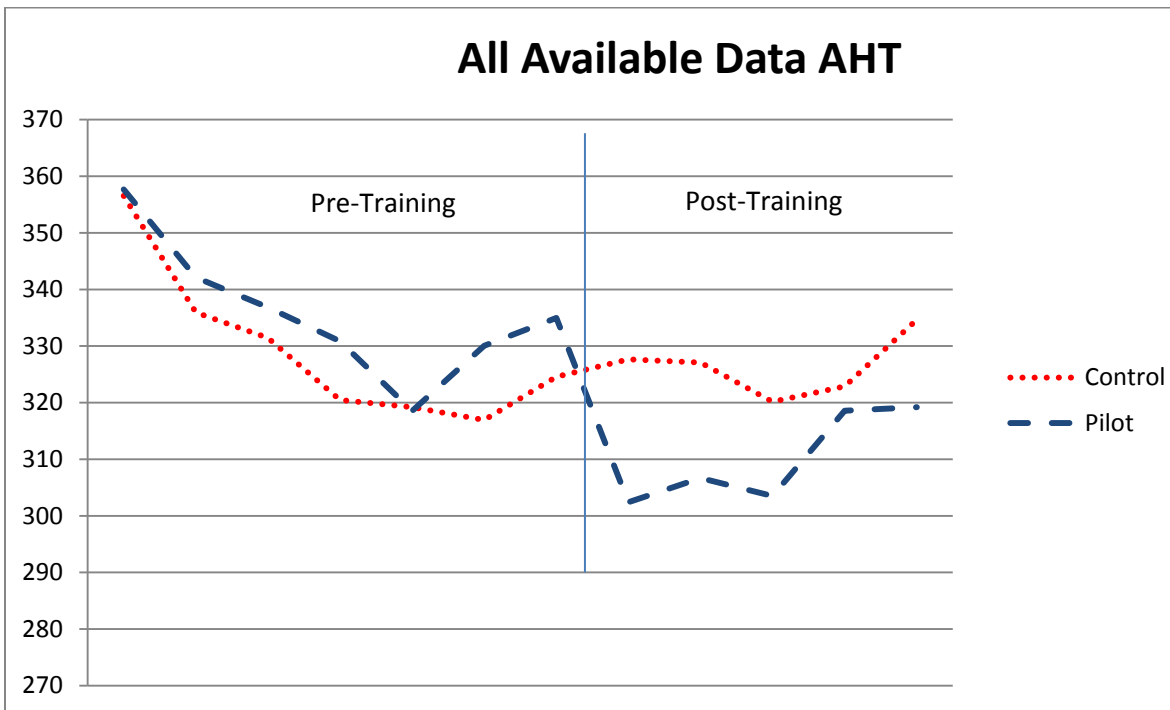


Figure 1: Weekly Handle Time Changes Using All Available Data.

Figure 1 displays the ongoing trend and relationship of the two groups. We can see that those in the Keynomics Pilot group were consistently slower than the Control group before training. After training, the weekly mean handle times of the Keynomics Pilot group was consistently faster than the Control group’s weekly mean handle times.

Handle Time Distribution of Control Group Using All Available Data

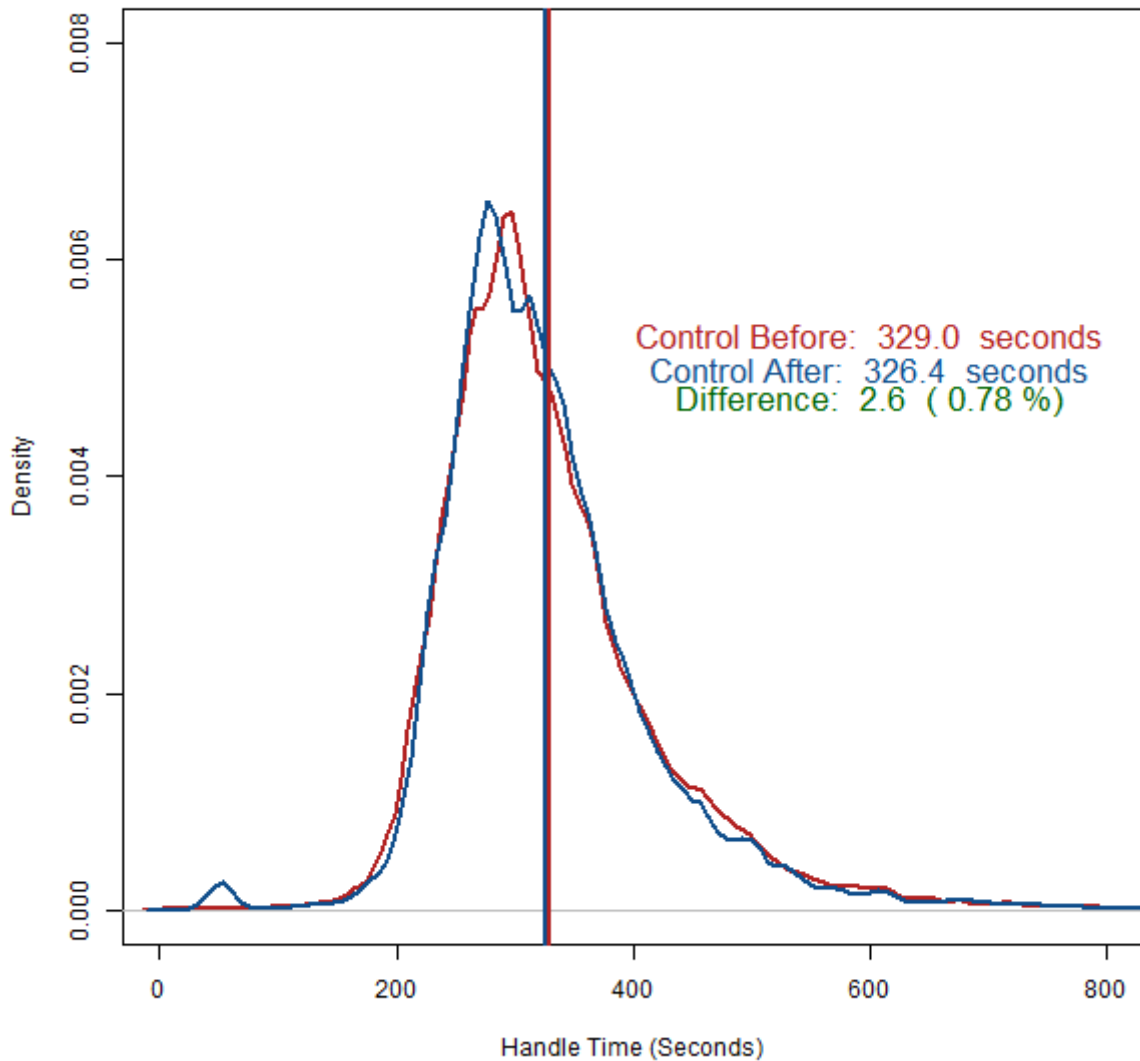


Figure 2: Handle Time Distribution of Control group Using All Available Data.

As shown in Figure 2, the Control group had a mean handle time of 329.0 seconds before training and a mean handle time of 326.4 seconds after training. The difference of 2.6 seconds (or a 0.78% improvement in favor of post-training) represents the minimal outside effects on the call center environment. The important point to make is that the two distributions of the Control group are very similar. After all, the Control group did not take part in any training.

Handle Time Distribution of Pilot Group Using All Available Data

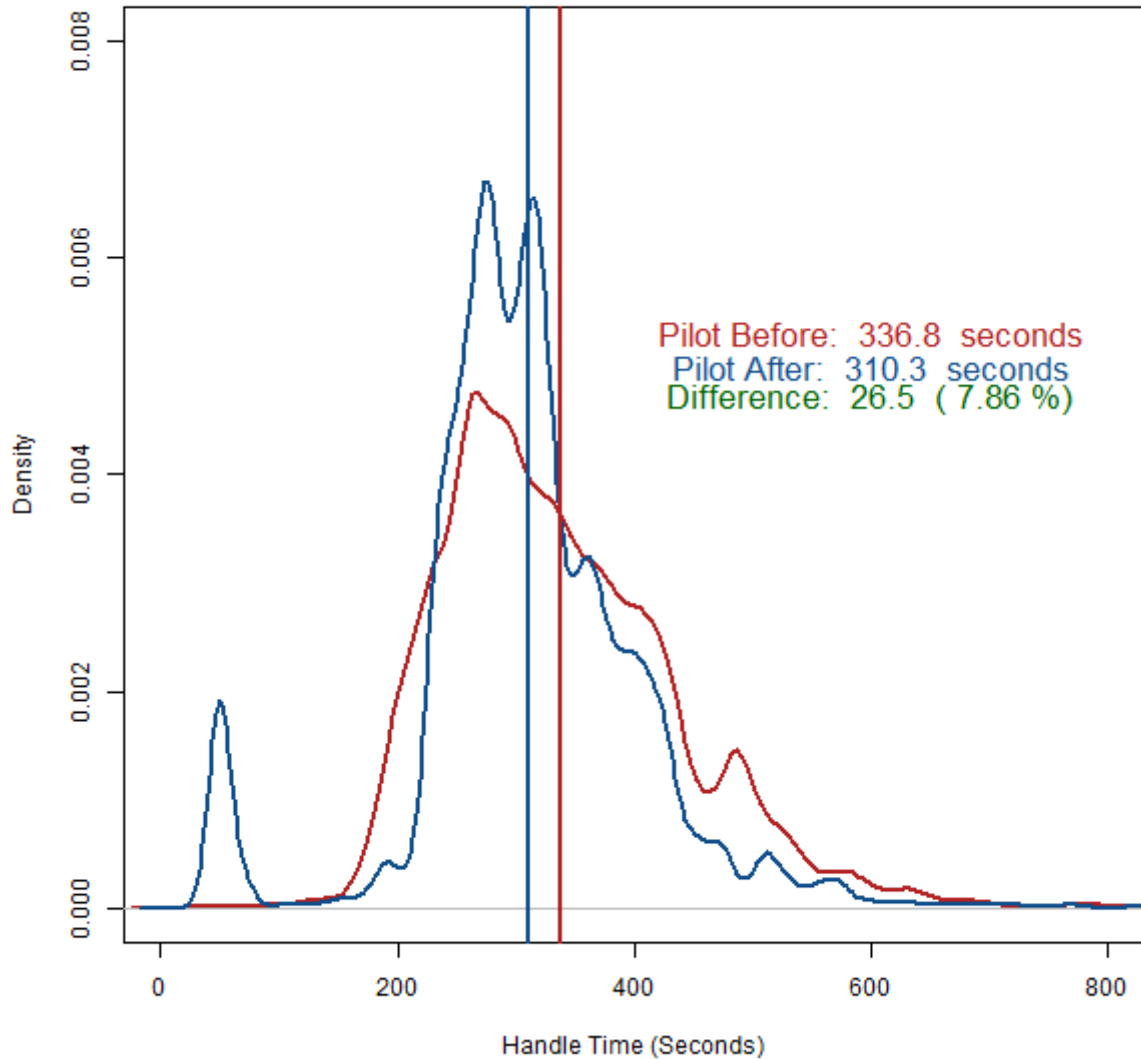


Figure 3: Handle Time Distribution of Keynomics Pilot group Using All Available Data.

Figure 3 represents the distribution of data from the Keynomics Pilot group. Before training, mean handle time was 336.8 seconds. After training, the Keynomics Pilot group’s mean handle time dropped to 310.3 seconds. They experienced an improvement of 26.5 seconds (or 7.86%). However, we must attribute 2.6 seconds of the 26.5 second improvement to external influences (such as seasonality). Hence, the overall productivity improvement due to the Keynomics Performance System was 23.9 seconds (or 7.10%).



Scenario 2: Most Frequent Call Types AHT

The following table summarizes the results of using only the most frequent call types, representing over 97% of all calls.

Control Pre- Training Average:	327.8 seconds	Keynomics Pre- Training Average:	336.2 seconds
Control Post- Training Average:	327.4 seconds	Keynomics Post- Training Average:	322.3 seconds
Improvement:	0.4 seconds	Improvement:	13.9 seconds
<i>The Keynomics Pilot group improved by 13.5 seconds (4.02%) more than the Control group as a direct result of the Keynomics Performance System.</i>			

For Scenario 2, we will focus on the effect that the training had on the Keynomics Pilot group in comparison to the Control group, so we will disregard the time period during which the training took place.

Furthermore, we will focus our analysis strictly on the skills which make up the vast majority of calls in this contact center. While agents can field calls from any one of 41 different call types, only 15 types make up over 97% of all calls processed. The basis for not including all call types is further supported by the fact that the Control group and the Keynomics Pilot group did not field equal proportions of call types.

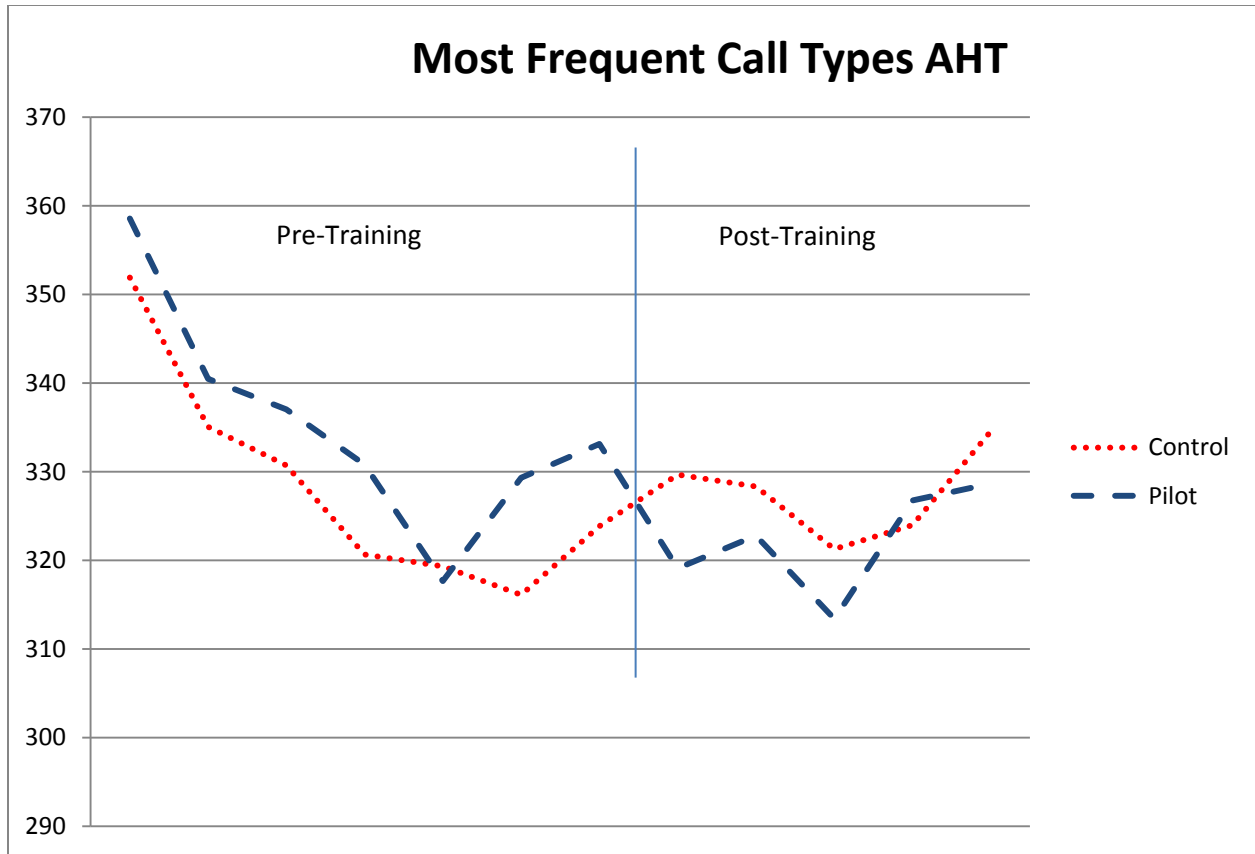


Figure 4: Weekly Handle Time Changes Using Most Frequent Call Type by Volume.

Figure 4 displays the ongoing trend and relationship of the two groups. We can see that those in the Keynomics Pilot group were consistently slower than the Control group before training. After training, the weekly mean handle times of the Keynomics Pilot group was consistently faster than the Control group’s weekly mean handle times.

Handle Time Distribution of Control Group Using Most Frequent Call Types

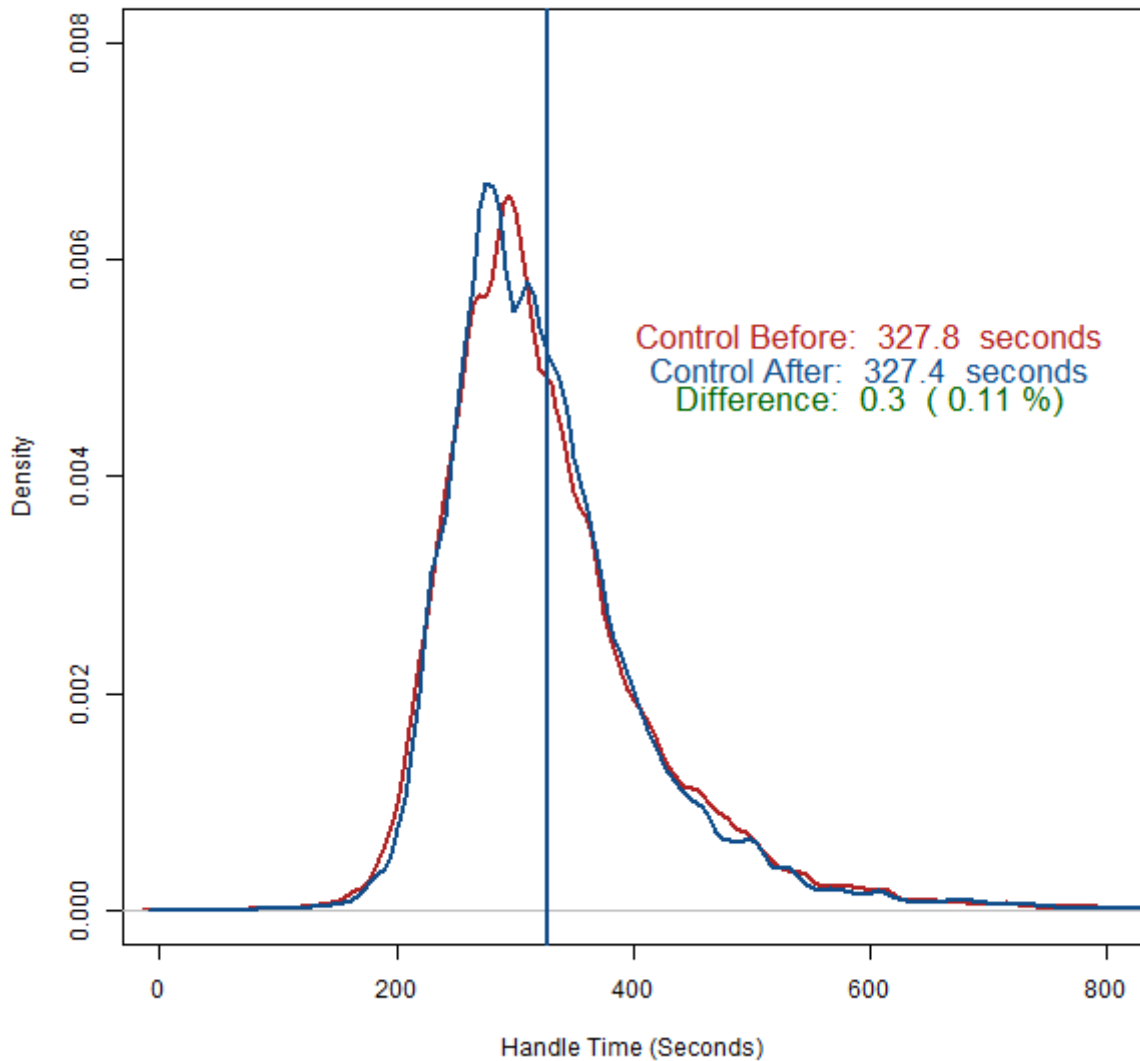


Figure 5: Handle Time Distribution of Control group Using Most Frequent Call Types.

As shown in Figure 5, the Control group had a mean handle time of 327.8 seconds before training and a mean handle time of 327.4 seconds after training. The difference of 0.3 seconds (or a 0.11% improvement in favor of post-training) represents the minimal outside effects on the call center environment. The important point to make is that the two distributions of the Control group are very similar. After all, the Control group did not take part in any training.

Handle Time Distribution of Pilot Group Using Most Frequent Call Types

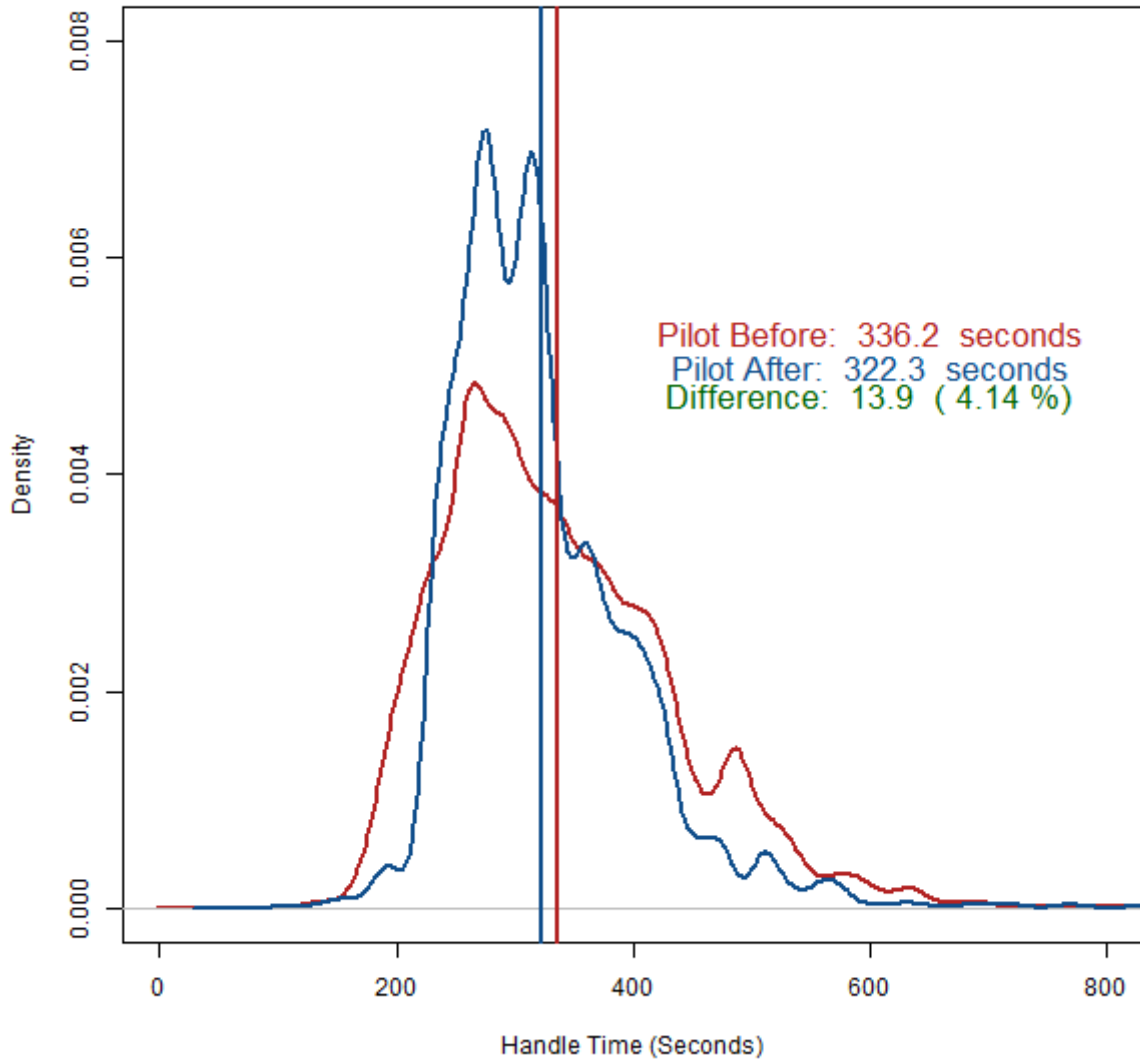


Figure 6: Handle Time Distribution of Keynomics Pilot group Using Most Frequent Call Types.

Figure 6 represents the distribution of data from the Keynomics Pilot group. Before training, mean handle time was 336.2 seconds. After training, the Keynomics Pilot group’s mean handle time dropped to 322.3 seconds. They experienced an improvement of 13.9 seconds (or 4.14%).

However, we must attribute 0.4 seconds of the 13.9 second improvement to external influences (such as seasonality). Hence, the overall productivity improvement due to the Keynomics Performance System was 13.5 seconds (or 4.02%).



Scenario 3: Most Frequent Call Types AHT Excluding General

The following table summarizes a subset of the previous Scenario's results, excluding general calls.

Control Pre- Training Average: 363.3 seconds	Keynomics Pre- Training Average: 385.7 seconds
Control Post- Training Average: 364.1 seconds	Keynomics Post- Training Average: 343.2 seconds
Improvement: -0.8 seconds	Improvement: 42.5 seconds
<i>The Keynomics Pilot group improved by 43.3 seconds (11.23%) more than the Control group as a direct result of the Keynomics Performance System.</i>	

For Scenario 3, we will focus on the effect that the training had on the Keynomics Pilot group in comparison to the Control group, so we will disregard the time period during which the training took place.

Furthermore, we will focus our analysis on the top unique call types. Just over half of the calls fielded are of the General call type. With the tremendous volume of general calls processed on a daily basis, agents tend to handle these mundane calls relatively efficiently. The results of the Keynomics Performance System can best be seen when handling slightly more unique calls. The top 13 unique call types account for over one third of all calls handled at this contact center. The basis for not including other call types is supported by the fact that the Control group and the Keynomics Pilot group did not field equal proportions of these types.

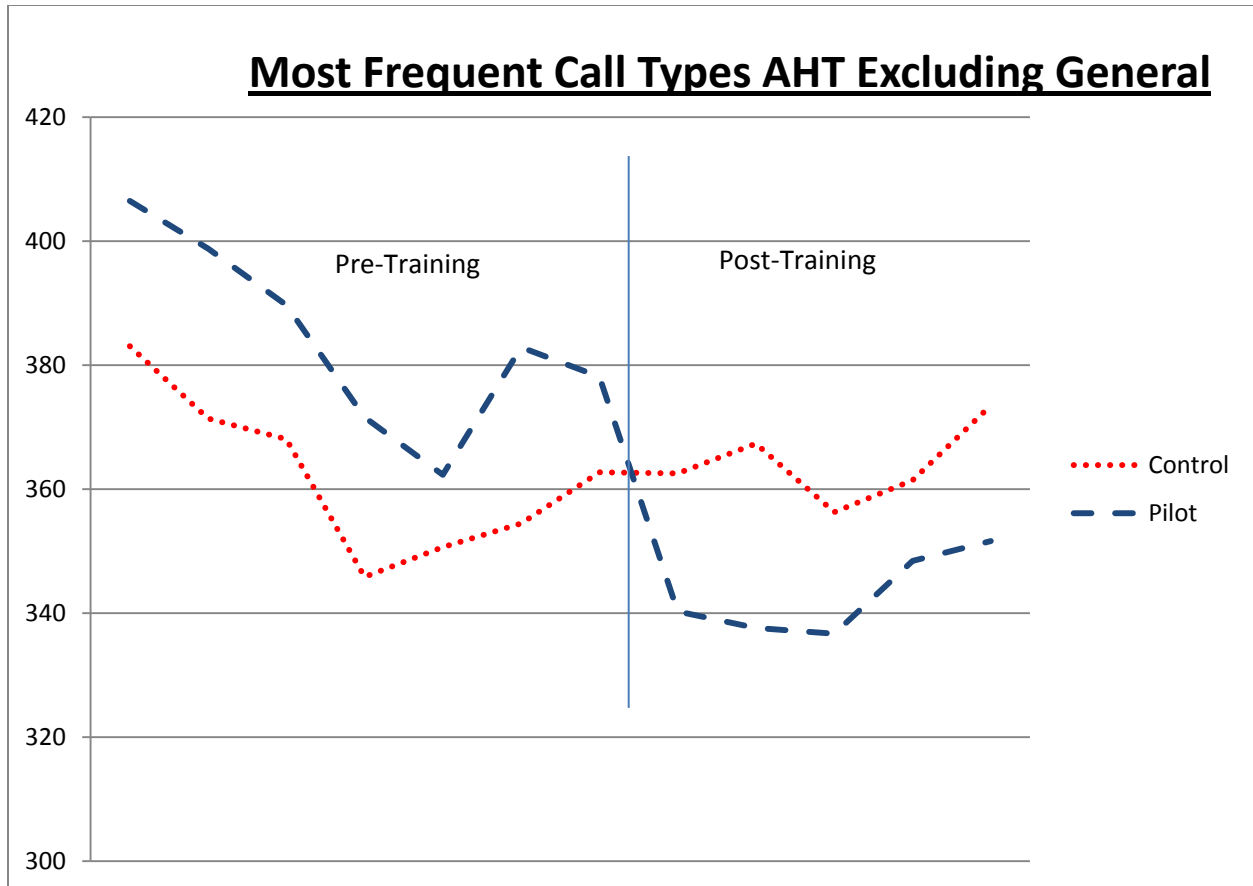


Figure 7: Weekly Handle Time Changes Using Most Frequent Call Type by Volume (excluding general calls).

Figure 7 displays the ongoing trend and relationship of the two groups. We can see that those in the Keynomics Pilot group were consistently slower than the Control group before training. After training, the weekly mean handle times of the Keynomics Pilot group was consistently faster than the Control group's weekly mean handle times.

It should also be noted that as agents complete their Keynomics training, they develop skills that help them adapt and adjust to the ever-changing call center procedures. Keynomics allows agents to hone-in on these particular skills to ensure they are better prepared, more comfortable, more confident in approaching changes in procedure, and handling more complicated call types.

HT Distribution of Control Group Using Most Frequent Call Types w/o General

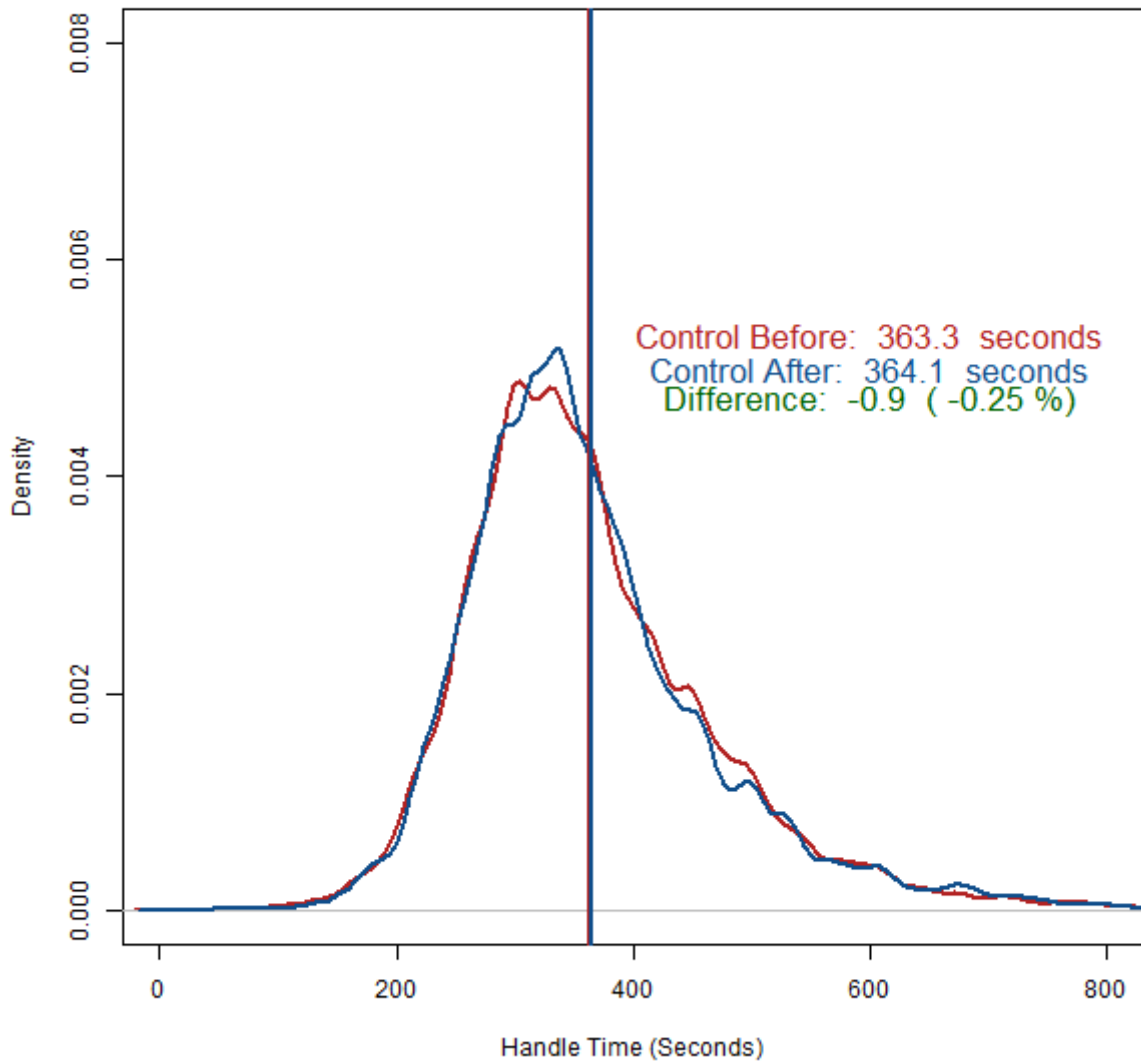


Figure 8: Handle Time Distribution of Control group Using Most Frequent Call Types (excluding general calls).

As shown in Figure 8, the Control group had a mean handle time of 363.3 seconds before training and a mean handle time of 364.1 seconds after training. The difference of -0.9 seconds (or a -0.25% improvement in favor of post-training) represents the minimal outside effects on the call center environment. The important point to make is that the two distributions of the Control group are very similar. After all, the Control group did not take part in any training.

HT Distribution of Pilot Group Using Most Frequent Call Types w/o General

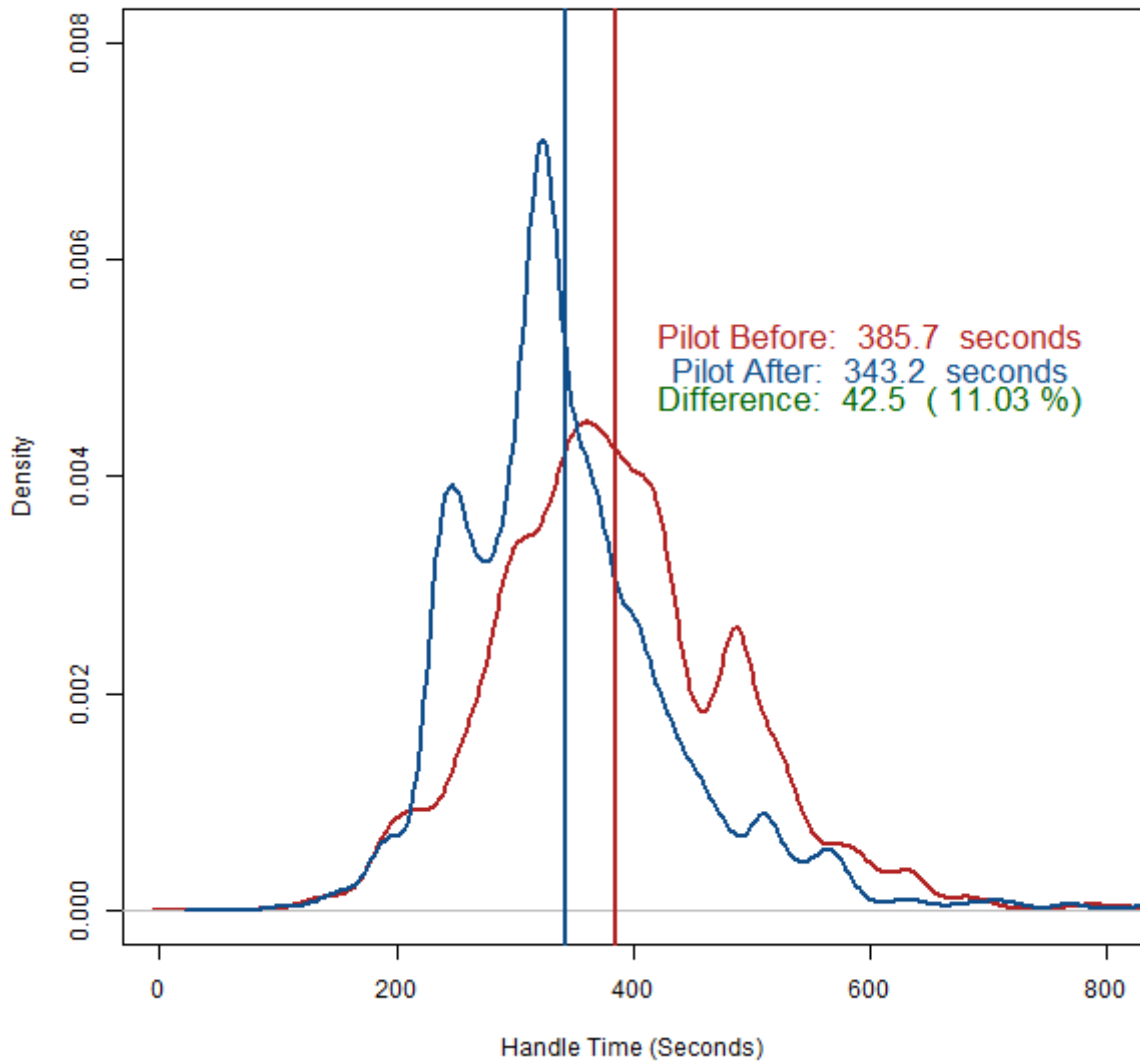


Figure 9: Handle Time Distribution of Keynomics Pilot group Using Most Frequent Call Types (excluding general calls).

Figure 9 represents the distribution of data from the Keynomics Pilot group. Before training, mean handle time was 385.7 seconds. After training, the Keynomics Pilot group’s mean handle time dropped to 343.2 seconds. They experienced an improvement of 42.5 seconds (or 11.03%).

However, we must attribute -0.8 seconds of the 42.5 second improvement to external influences (such as seasonality). Hence, the overall productivity improvement due to the Keynomics Performance System was 43.3 seconds (or 11.23%).



Conclusion & Summary

In conclusion, we have proven that with the training provided by the Keynomics Performance System, the Pilot group has continually shown an improvement in productivity, up to 11.23%.

The following tables represent all of the Keynomics Data compiled in the three different Scenarios:

Scenario 1: All Available AHT Data

Control Pre- Training Average:	329.0 seconds	Keynomics Pre- Training Average:	336.8 seconds
Control Post- Training Average:	326.4 seconds	Keynomics Post- Training Average:	310.3 seconds
Improvement:	2.6 seconds	Improvement:	26.5 seconds
<i>The Keynomics Pilot group improved by 23.9 seconds (7.10%) more than the Control group as a direct result of the Keynomics Performance System.</i>			

In Scenario 1, the analysis includes all the data that has been supplied to Keynomics by the customer. Our findings portray that the Keynomics Pilot group has improved by a net of 23.9 seconds, or 7.10%, when compared to the Control group. The 23.9 seconds of savings would also result in a savings of 23 agents in headcount.

Scenario 2: Most Frequent Call Types AHT

Control Pre- Training Average:	327.8 seconds	Keynomics Pre- Training Average:	336.2 seconds
Control Post- Training Average:	327.4 seconds	Keynomics Post- Training Average:	322.3 seconds
Improvement:	0.4 seconds	Improvement:	13.9 seconds
<i>The Keynomics Pilot group improved by 13.5 seconds (4.02%) more than the Control group as a direct result of the Keynomics Performance System.</i>			

Scenario 2 is comprised of data from the Most Frequent Call Types used by both the Keynomics Pilot group and the Control group. We have chosen to use the Most Frequent Call Types because it is representative of over 97% of all calls handled. The other calls have been excluded because they are not equally distributed between the Pilot group and Control group. Many other calls are heavily weighted towards one group or the other, resulting in skewed data analysis. When ruling out the remaining Call Types, the Keynomics Pilot group has still proven to achieve a net improvement over the Control group of 13.5 seconds, or 4.02%. The 13.5 seconds of savings would also result in a savings of 13 agents in headcount.



Conclusion (cont'd)

Scenario 3: Most Frequent Call Types AHT Excluding General

Control Pre- Training Average: 363.3 seconds	Keynomics Pre- Training Average: 385.7 seconds
Control Post- Training Average: 364.1 seconds	Keynomics Post- Training Average: 343.2 seconds
Improvement: -0.8 seconds	Improvement: 42.5 seconds
<i>The Keynomics Pilot group improved by 43.3 seconds (11.23%) more than the Control group as a direct result of the Keynomics Performance System.</i>	

From our data analysis, we believe that Scenario 3 best represents the gains of Keynomics. We chose to exclude the “General” call type from our investigation because we believe that the agents have learned to handle those calls in a much easier and more routine fashion. Where Keynomics has its biggest impact is on calls that would cause an agent to be stretched from their comfort zone, resulting in the use of more complicated skills and analysis. Keynomics allows agents to be better prepared for the ever-changing call center environment. In doing so, we found that the Keynomics Pilot group improved their AHT by 43.3 seconds, or 11.23%.

We strongly believe that through the use of the Keynomics Performance System, there is an excellent opportunity to increase the productivity and efficiency of all call center agents.

Keynomics not only focuses on reducing the length of calls, but also on the quality and performance of each individual agent. The Keynomics Performance System constantly tracks the speed and accuracy while participants listen to pre-recorded calls and enter data into the system. For many of our clients, the potential savings that can be achieved from the Keynomics quality and accuracy improvements often out-weigh the time savings benefits. Keynomics dramatically improves not only the speed, but the accuracy of the agents as well. These accuracy gains are reflected in the overall quality metrics. Attached are the Keynomics Pilot Results.

With the investment of just 15 hours of training, Keynomics has shown improvements in the core skills and competencies of the call center agent, while providing the necessary tools for continuous improvement and major production gains.



Appendix A – Keynomics Data

The following data shows the Pilot results, by module, using Keynomics’ internal metrics. The results show the average of the group of users who completed each module in full.

KeyTraining+

<u>PILOT DEPARTMENTS</u>	<u>PRE-TRAIN KSPH</u>	<u>PRE-TRAIN ERR%</u>	<u>POST-TRAIN KSPH</u>	<u>POST-TRAIN ERR%</u>	<u>KSPH INC</u>	<u>ERROR DEC</u>
Pilot	11,911	0.64%	13,100	0.18%	9%	73%

KeyAudio

<u>DEPT</u>	<u>PRE-KSPH</u>	<u>PRE-ERR%</u>	<u>PRE-Repeats</u>	<u>POST KSPH</u>	<u>POST ERR%</u>	<u>POST Repeat</u>	<u>SPEED INC%</u>	<u>ERROR DEC%</u>	<u>Repeat Decrease</u>
Pilot	11,446	4.30%	2.07	11,892	2.76%	1.53	4%	36%	26%

CallEmulator

<u>DEPT</u>	<u>PRE AHT</u>	<u>PRE ERR%</u>	<u>Pre Repeat</u>	<u>POST AHT</u>	<u>POST ERR%</u>	<u>Post Repeat</u>	<u>AHT INC%</u>	<u>ERROR DEC%</u>	<u>Repeat %</u>
Pilot	241	3.87%	1.72	208	1.68	1.4	14%	57%	19%

CallReview

<u>Dept</u>	<u>1st Pre AHT</u>	<u>1st Pre Err%</u>	<u>2nd Pre AHT</u>	<u>2nd Pre Err%</u>	<u>1st Post AHT</u>	<u>1st Post Err%</u>	<u>2nd Post AHT</u>	<u>2nd Post Err%</u>	<u>1st Sub AHT %</u>	<u>1st Sub Error Decrease</u>
Total Pilot	487	1.72%	519	1.00%	347	1.37%	378	0.50%	29%	21%

CallNavigator

<u>DEPT</u>	<u>PRE AHT</u>	<u>PRE ERR%</u>	<u>POST AHT</u>	<u>POST ERR%</u>	<u>AHT DEC%</u>	<u>ERROR DEC%</u>
Pilot	570	11%	510	6.16%	11%	52%

<u>Pilot group</u>	<u>Average Hours Off the Line</u>
	12 Hrs