Capacity Planning for Omni-channel Contact Centres

Getting it Right the First Time

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Agenda

Capacity Planning for Omni-channel Contact Centres: Getting it Right the First Time

…or at least make it better the next time.

1. Capacity planning and the impact of getting it wrong
2. Strategic Approach to Capacity Planning
3. Capacity Planning in an Omni-channel Environment
4. Benefits and Challenges of Omni-channel
5. Capacity Planning – Blending Channels
6. AHT and New Hire Learning Curve
7. Shrinkage Factors
8. Hiring Ahead of Requirement
9. Support Staff: Ratio Driven or Capacity Planned

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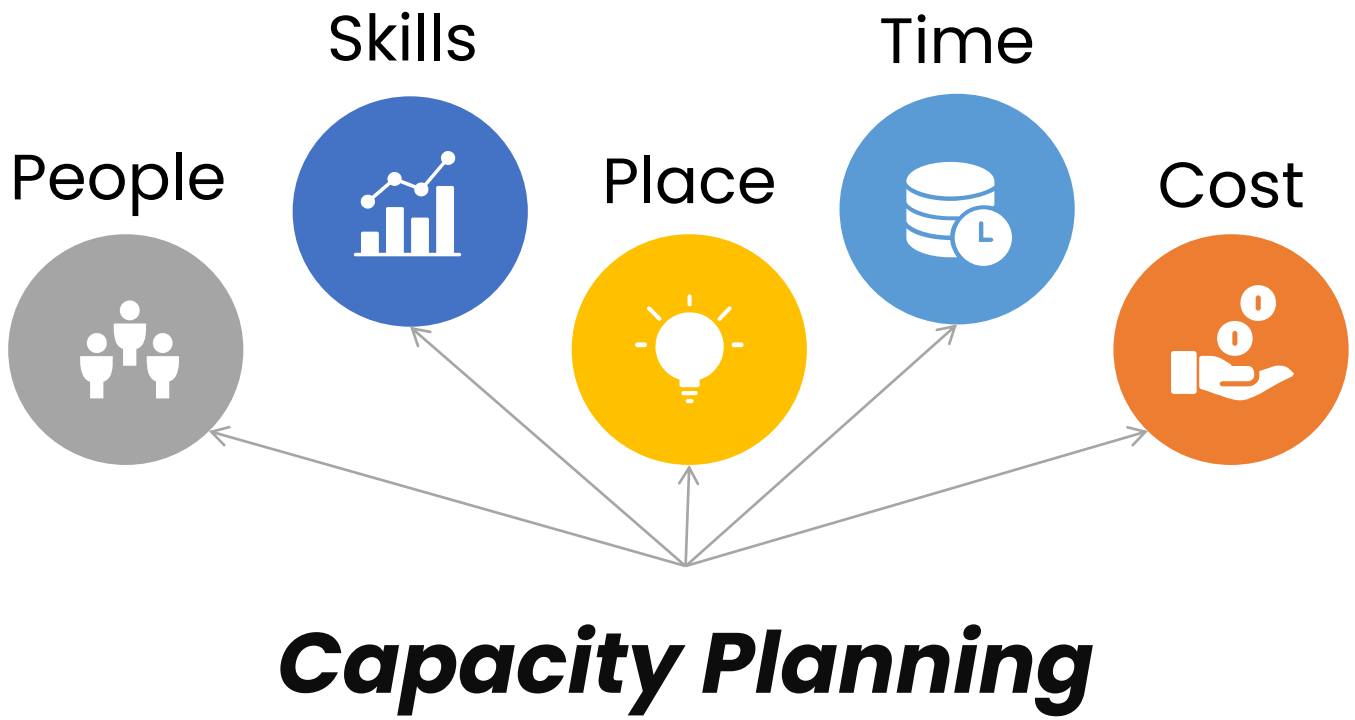
Capacity Planning

Capacity planning requires the WFM team to
juggle many moving pieces to get their plan right the first time.



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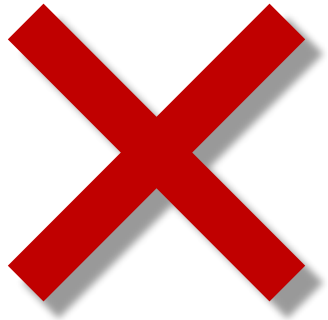
Capacity Planning

…and what if you get it wrong?



Costs Of Understaffing	Costs of Overstaffing
1. Poor Customer Service	1. Financial Impact
2. Missed Service Levels	2. Inefficient Resource Utilization
3. Lost Revenue	3. Bored Workers
4. Agent Burnout	

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Capacity Planning

Neglecting customer experience means losing clients

- Customers prioritize customer service over cost, a key influencer in purchasing decisions
- Price alone does not drive brand loyalty and customers will talk with their feet if dissatisfied

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Capacity Planning

Neglecting employee experience means losing staff

- Understaffing means higher occupancy and productivity expectations leading to burnout
- Longer client wait times means irate clients impacting employees

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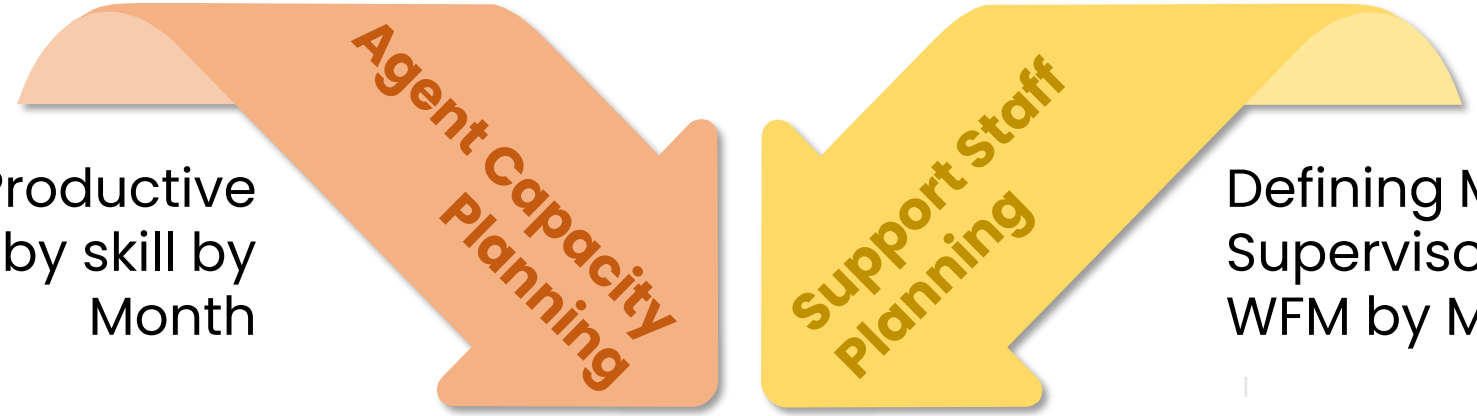
Strategic Approach to Capacity Planning

Defining Productive and Paid FTE by skill by Month



Defining Managers, Supervisors, Trainers, QA, WFM by Month

Strategic Capacity Planning

Calculating total resource costs of operations

Design, build and generate any historical and intraday reports

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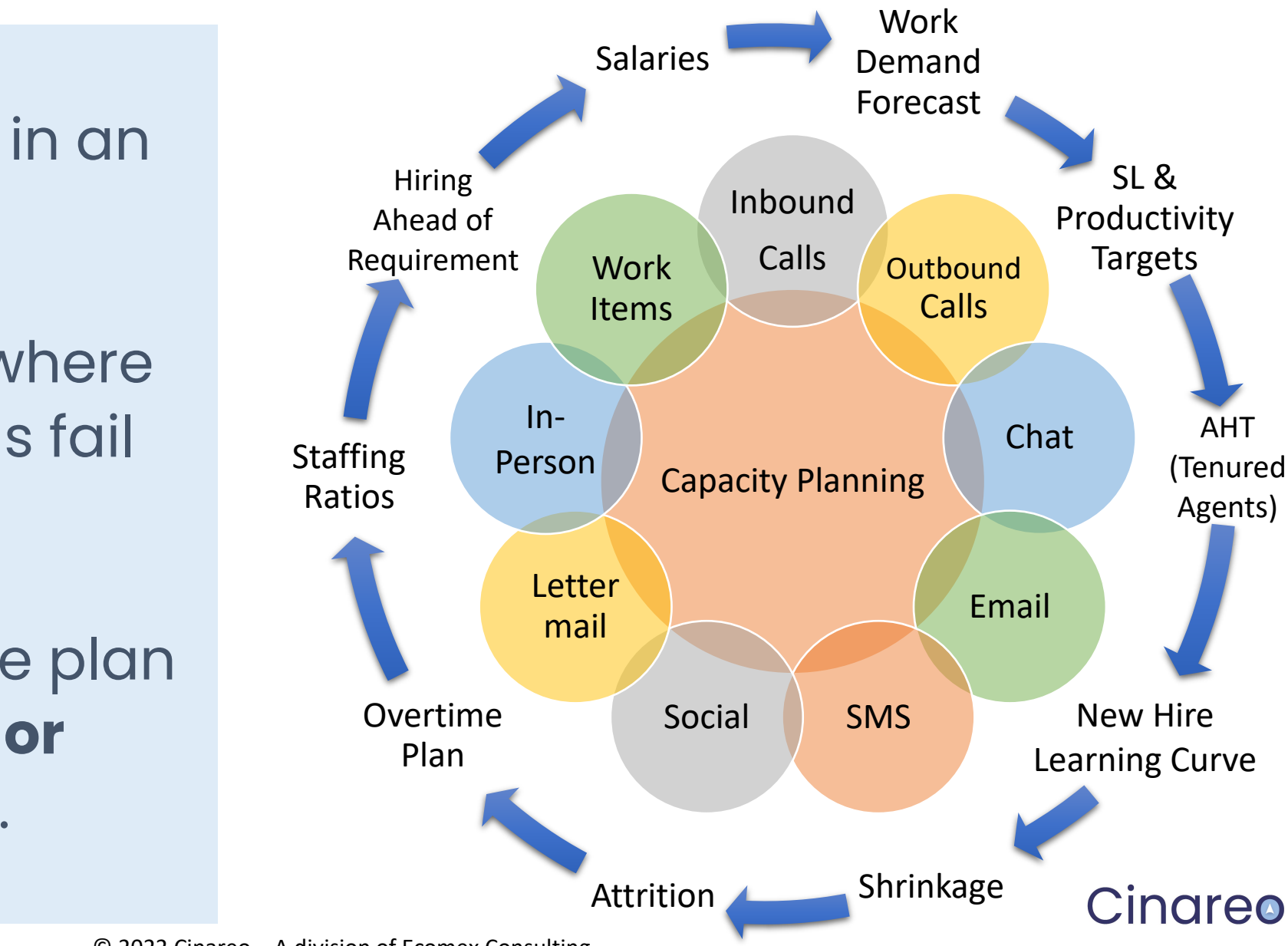
Capacity Planning in an Omni-channel Environment

Capacity planning in an omni-channel environment is a **complex process** where many organizations fail to consider all the necessary **input variables** to get the plan **right the first time or better than before**.



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Benefits and Challenges of Omni-channel

Forecasting is a challenging activity in a single or multi-channel environment, but exponential complexities arise when forecasting in an omni-channel environment given that customers have the ability to seamlessly move across channels.

Category	Benefits	Challenges
Organizational	• Increased organizational flexibility • Increased service quality • Enhanced support for all services	• Organizational silos • Performance of single channels vs. synergies of channel integration
Channel	• Compensate for a channel's weakness with another's strength • Reduced channel conflicts • Increased efficiency by channel synergy	• Number of channels • Channel coordination • Customer identification and authentication • Channel-hopping • Justification of channels existence

Capacity Planning – Coordinated vs. Siloed

There are inherent financial and operational risks to capacity planning in silos.
A leading practice is to centralize capacity planning of all work to ensure the optimization of workload to workforce for phone and non-phone work required to achieve the target service objectives.

EXAMPLE: Electrical Utility

Context:

- An electrical utility had **decentralized planning**, where each queue was capacity planned by their respective Team Managers rather than by the WFM team using a common WFM tool.

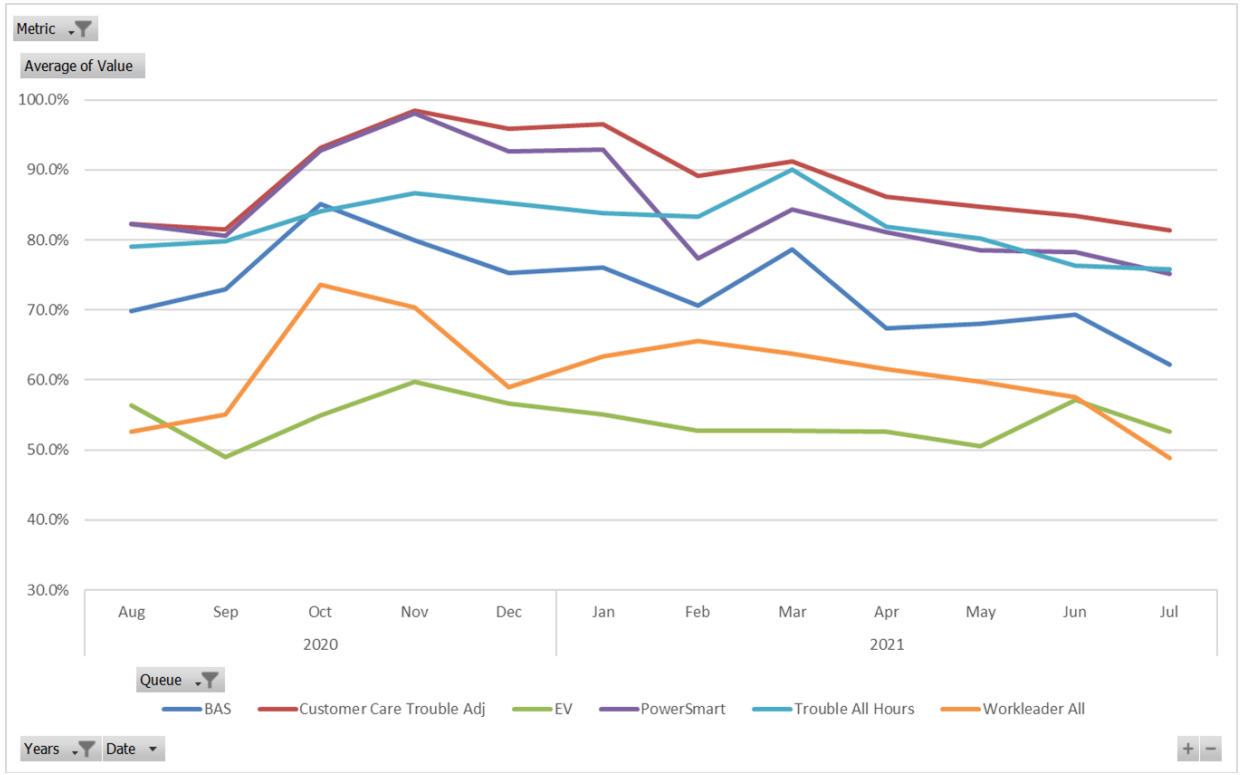
Situation:

- Significant variations in on-phone occupancy within each queue were observed (55% to 90%) with the Customer Care queue disproportionately higher driving long wait times.
- Company perceived that they were overstaffed.

Outcome:

- Implementing a blended skilling strategy based on a coordinated approach to capacity planning resulted in achievement of SL objectives and balanced Occupancy across all queues

Occupancy by Queue



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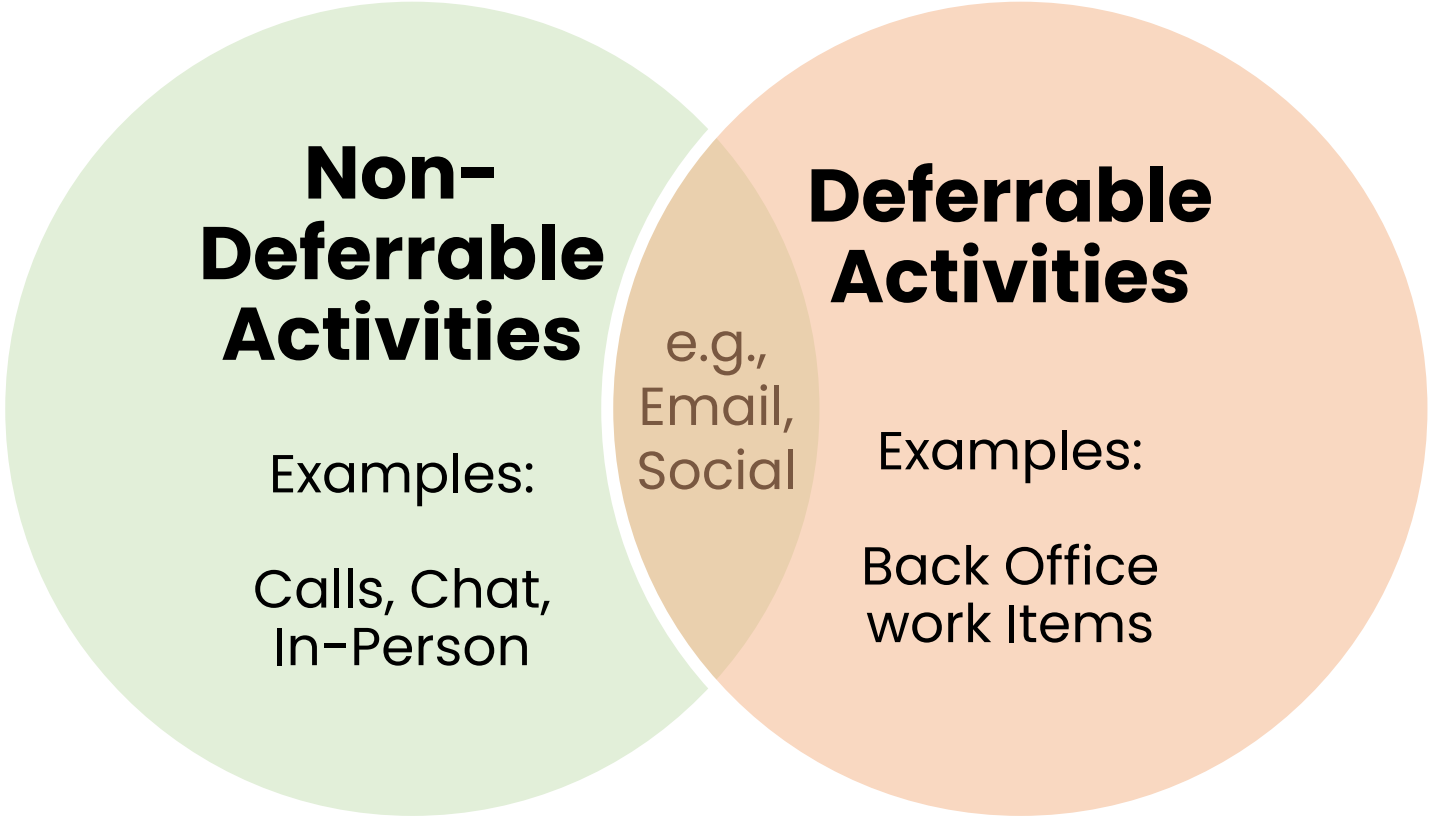
Capacity Planning – Blending Channels (1 of 3)

Must consider the implications of blending non-deferrable and deferrable activities when defining your skill groups. Not all work types are a good fit for a blended environment.



Work that requires **immediate** attention

Work that is **interruptible**

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Capacity Planning – Blending Channels (1 of 3)

DO's

- Correct blending
- Ongoing monitoring is required
- Blend deferrable work that is repetitive with short handle times with non-deferrable
- Back-office work must have clear start/end points; little carryover.

DON'T's

- Unintended consequences when combining non-deferrable queues
- Sending too many work types to an employee
- Universal agent – an impractical reality
- Manage to a high occupancy

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Capacity Planning – Blending Channels (2 of 3)

Example : Telecom

Implications of combining non-deferrable channels together

Context:
A Telecommunications company with multi-skilled agents on Call and Chat channels in the customer service department.

Situation:
Despite effective capacity planning, both calls and chats being non-deferrable work types and agents expected to handle up to 3 chats at a time, the average speed of answer of the call channel increased significantly.

Outcome:
Company ended up moving to a single skill environment for calls and chat channels.

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Capacity Planning – Blending Channels (3 of 3)

Example: Insurance Company

Blending non-deferrable and deferrable channels

Context:
A property/auto insurance company multi-skilled agents on Calls and Back Office Channels.

Situation:
Agents were primarily skilled for calls, but were expected to handle back office work items in between calls. While call queue was capacity planned to an 80/20 service level and 85% occupancy, real occupancy increased to over 95% resulting in increased employee dissatisfaction, burnout and attrition.

Outcome:
Company ended up moving to a single skill environment for calls and back office channels.

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Average Handle Time (AHT) (1 of 4)

Many organizations fail to understand the drivers of AHT and therefore under or over-estimate the forecasted AHT, resulting in inaccurate capacity planning outcomes.

- Use of trending AHT may not accurately predict the AHT for the future planning horizon.
- Drivers of change in AHT include:
  - ✓ Changes in program requirements
  - ✓ New system implementations or system updates
  - ✓ Changes to processes (e.g., authentication, transfer protocols)
  - ✓ New or updated knowledge management tools
  - ✓ Seasonality
  - ✓ Call deflection to self-service
  - ✓ **New hires due to agent attrition and growth**

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AHT & New Hire Learning Curve (2 of 4)

Organizations often fail to define the AHT for fully-proficient tenured agents and importantly, track and utilize new hire learning curve in determining a forecasted AHT.

- **Use proficiency or maturity factors that do not provide the level of granularity** for new hire learning curve and **not regularly updated**.
- **Focus is generally on trending AHT** from the last 3 months or year, rather than on the potential for change during the planning horizon.
- **Do not consider the learning curve of new agents** hired as a result of attrition replacement or growth.
- **New hire learning curves can vary from 1 month to 18 months or more** depending on program complexity, nesting and ongoing coaching

There is a need to consider an alternative approach to defining forecasted AHT.

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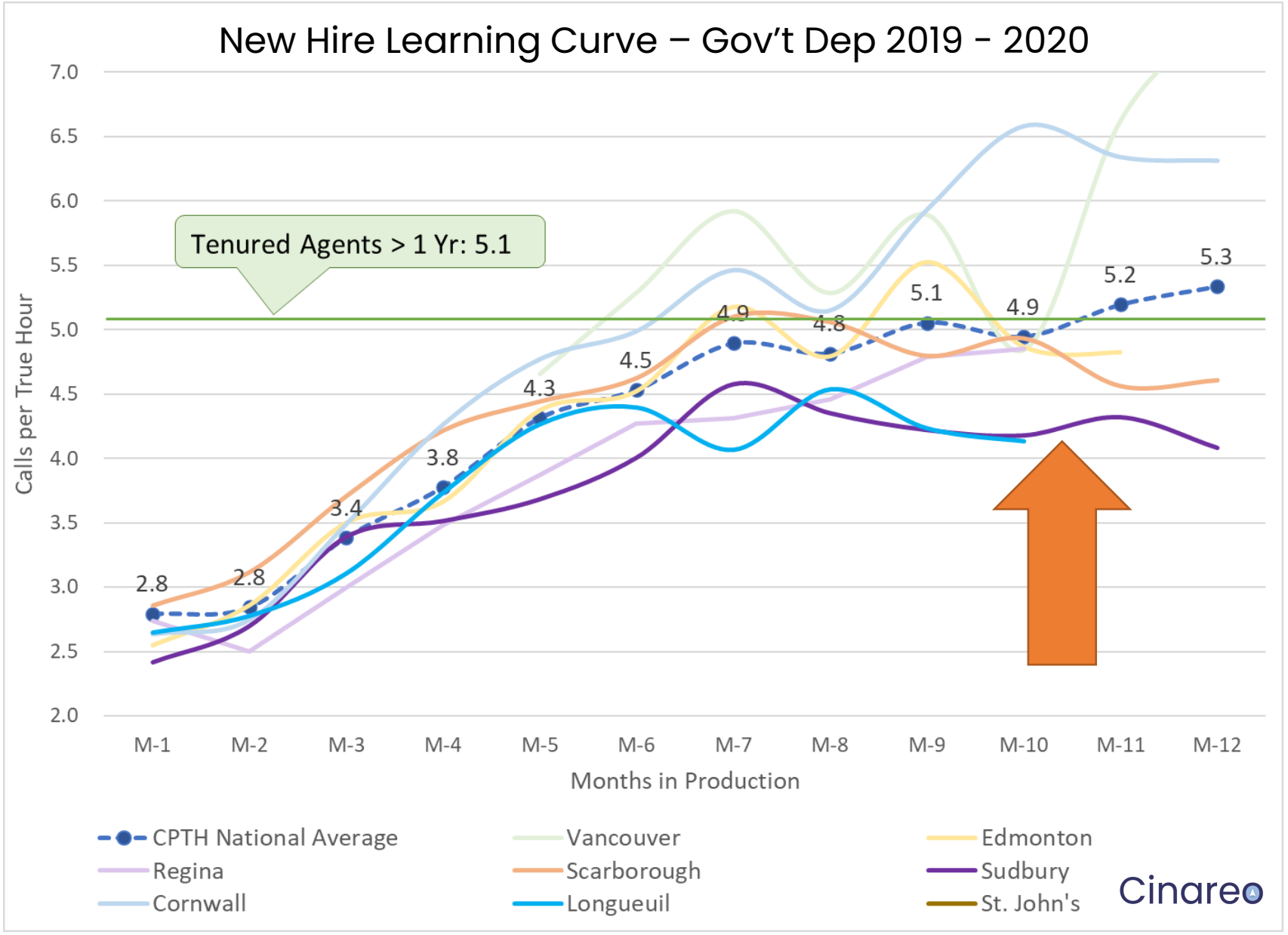
AHT & New Hire Learning Curve (3 of 4)

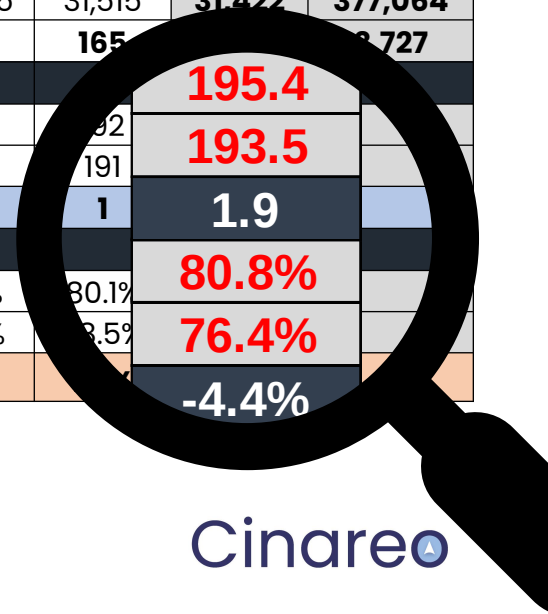
Example:
Federal Department
New Hire Learning Curve Analysis

New hire learning curve varies by site ranging from 7 months to 10 months to reach the proficiency target of tenured agents. 2 of 8 sites did not reach the target within the 12-month study.



AHT & New Hire Learning Curve (4 of 4)

	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Avg.	Total
Call Volume	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	**100,000**	**1,200,000**
AHT (Tenured Agents)	600	600	600	600	600	600	600	600	600	600	600	600	**600**	
Attrition Rate	3%	5%	2%	1%	3%	5%	2%	1%	3%	5%	2%	1%	**3%**	**33%**
Days in Month	21	20	23	21	22	22	21	23	22	21	22	22	**22**	**260**
Shrinkage	28.2%	23.8%	25.5%	35.9%	37.3%	40.1%	46.7%	41.9%	33.6%	32.3%	33.4%	35.4%	**34.5%**	
	M-1	**M-2**	**M-3**	**M-4**	**M-5**	**M-6**	**M-7**	**M-8**	**M-9**	**M-10**	**M-11**	**M-12**		
New Hire Learning Curve	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%	100%	100%	**77.1%**	
	Jan-22	**Feb-22**	**Mar-22**	**Apr-22**	**May-22**	**Jun-22**	**Jul-22**	**Aug-22**	**Sep-22**	**Oct-22**	**Nov-22**	**Dec-22**	**Avg.**	**Total**
Weighted AHT	679	683	677	674	679	683	677	674	679	683	677	674	**678**	
Trending AHT	672	672	672	672	672	672	672	672	672	672	672	672	**672**	
Dfference in AHT	**7**	**11**	**5**	**2**	**7**	**11**	**5**	**2**	**7**	**11**	**5**	**2**	**6**	
Prod. Hours - Weighted AHT	28,665	27,000	27,600	31,815	33,000	34,485	38,588	35,363	31,185	30,555	30,855	31,680	**31,733**	**380,791**
Prod. Hours - Trending AHT	28,350	26,700	27,428	31,815	32,505	33,990	38,273	35,190	30,690	30,083	30,525	31,515	**31,422**	**377,064**
Difference in Prod. Hours	**315**	**300**	**172**	**0**	**495**	**495**	**315**	**173**	**495**	**472**	**330**	**165**		**727**
FTE - Weighted AHT	182	180	160	202	200	209	245	205	189	194	187			
FTE - Trending AHT	180	178	159	202	197	206	243	204	186	191	185	191		
Difference in FTE	**2**	**2**	**1**	**0**	**3**	**3**	**2**	**1**	**3**	**3**	**2**	**1**		
SL - Weighted AHT	81.6%	81.2%	80.5%	81.6%	80.1%	80.1%	81.6%	80.5%	80.1%	81.6%	80.1%	80.1%		
SL - Trending AHT	77.0%	72.6%	77.5%	80.1%	75.3%	71.8%	78.6%	79.0%	75.3%	73.5%	77.0%			
Difference in SL	**4.6%**	**8.6%**	**3.0%**	**1.5%**	**4.8%**	**8.3%**	**3.0%**	**1.5%**	**4.8%**	**8.1%**	**3.1%**			



EXAMPLE:
Federal Department

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Shrinkage Factors (1 of 2)

Organizations often miss some key shrinkage factors and wonder why they end up being understaffed throughout or during key times of the year

Do you take into consideration these shrinkage factors?
Which are missing and what might be the impact?

- Acting
- Coaching
- Leave without Pay
- Maternity/Parental Leave
- Meetings
- Paid Breaks
- Schedule Adherence
- Short-term Leave
- Sickness
- Special Projects
- Training
- Union Meetings
- Vacation
- Volunteer Time

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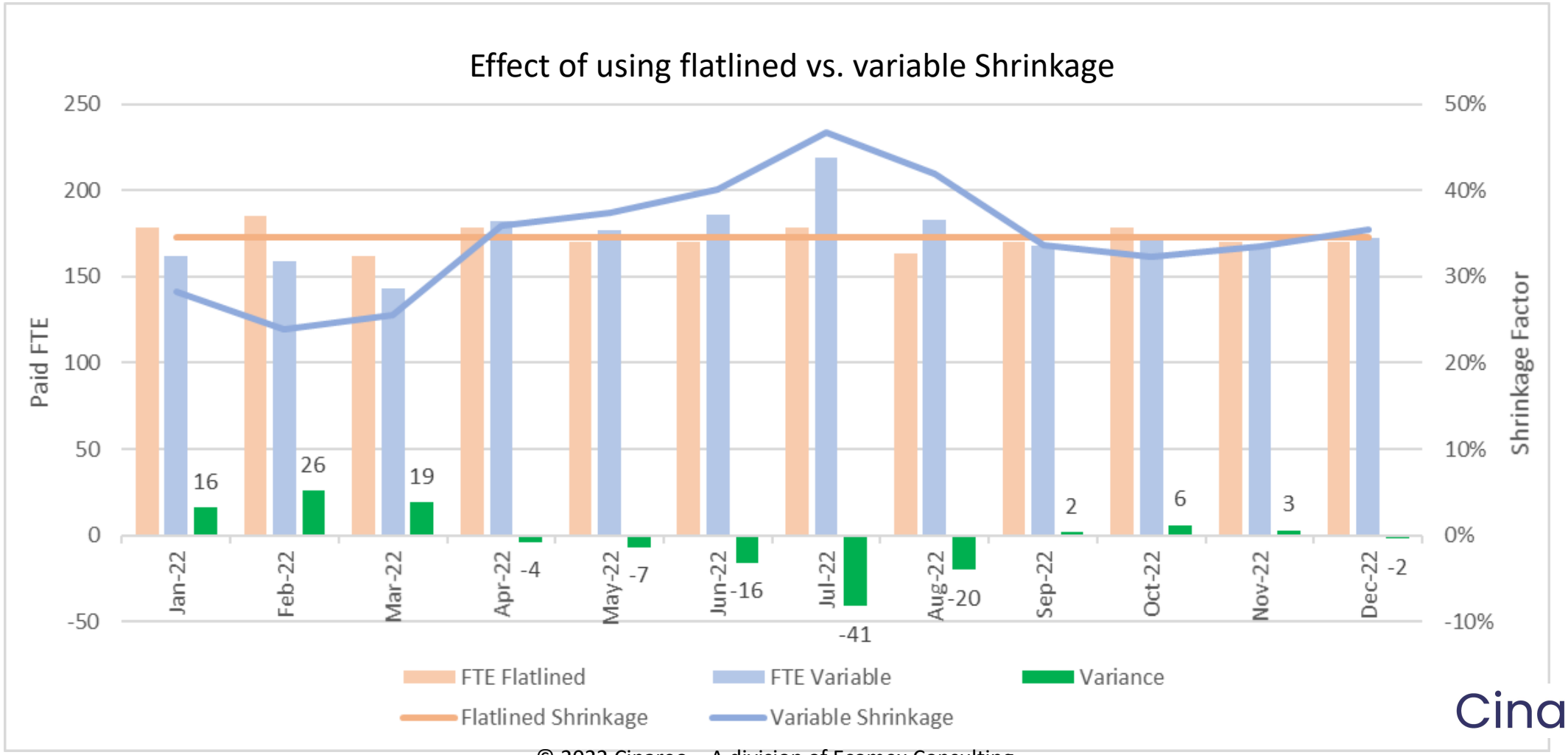
Shrinkage Factors (2 of 2)

Organizations often flatline shrinkage in capacity planning which will either over – or understate the number of FTE required to meet Service Level each month



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Hiring Ahead of Requirement (1 of 2)

Organizations often fail to budget for the costs associated with recruiting and training new hires in advance of requirement from attrition and growth.

- When employees attrit, it often takes weeks to months to recruit and hire an appropriate number of replacement staff.
- Lengthy periods of understaffing can be overwhelming for staff and significantly impact a contact center's ability to meet its service level objectives
- Often results in decreased client and employee satisfaction.
- By planning for hiring ahead of requirement, such negative impacts to service can be mitigated.

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Hiring Ahead of Requirement (2 of 2)

Solution: A model that forecasts attrition and growth up to a year in advance by queue/skill. The model estimates how many people are likely to leave, the average rate of graduation to production, when recruits need to start training, and the salaries for new hires while in training.

	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Annual
Attrition Rate	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	36.0%
Staff Planned	189	196	173	188	181	180	189	173	179	189	180	180	183
Agent Attrition	6	6	5	6	5	5	6	5	5	6	5	5	66
Graduation Rate	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Total New Hire Recruits	7	7	6	7	6	6	7	6	6	7	6	6	78
Training Length (weeks)	10	10	10	10	10	10	10	10	10	10	10	10	10
New Hire Class Start Date	23-Oct-21	23-Nov-21	21-Dec-21	21-Jan-22	20-Feb-22	23-Mar-22	22-Apr-22	23-May-22	23-Jun-22	23-Jul-22	23-Aug-22	22-Sep-22	
Hiring Ahead of Requirement	**$73,213**	**$75,873**	**$66,743**	**$72,756**	**$69,878**	**$69,472**	**$73,227**	**$66,743**	**$69,418**	**$73,213**	**$69,486**	**$69,787**	**$849,808**

Support Staff: Ratio Driven vs. Capacity Planned (1 of 3)

Firms forget about the diverse role of trainers: training new hires as a result of attrition and growth, as well as ongoing agent training for cross-skilling and up-skilling.

Plans based on assumptions about average conditions usually go wrong (Savage, 2002).

- Averages smooth out the lower and upper outliers
- Industry avg. ratios are only as good as the benchmark
- Industry averages do not apply in all contexts

For example, the number of trainers required in any given year will depend on:

- Length of training
- Type of training
- Class size
- Attrition rate

Savage, S. (2002, November). The flaw of averages. Harvard Business Review. https://hbr.org

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Support Staff – Trainers: Ratio Driven vs. Capacity Planned (2 of 3)

Many firms forget about the diverse role of trainers: training new hires as a result of attrition and growth, as well as ongoing agent training for cross-skilling and up-skilling.
In some cases, trainers also perform the role of QA and internal help desk

Example: Government department

Context:
A large government department responsible for supporting social programs

Situation:
An annual ratio is applied for a hybrid role, called BEA, who act as trainers, support nesting, QA, and the internal help desk, without any consideration to the number of classes, QA monitors/coaching, nor amount of support required for the Help desk.

Quality Assurance is reduced and the service level of the internal help desk is degraded.

Outcome:
Capacity plan the BEA role

Attrition Training

	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Attrition Rate	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Required Staff Planned	201	247	265	324	343	359	377	344	359	377	359	360
Forecasted Agent Attrition	6	7	8	10	10	11	11	10	11	11	11	11
Forecasted Graduation Rate	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Total New Hires Required	7	9	9	11	12	13	13	12	13	13	13	13
Training Length (days)	40	40	40	40	40	40	40	40	40	40	40	40
Class size	15	15	15	15	15	15	15	15	15	15	15	15
Support Staff Shrinkage	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Trainers Required	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ratio (Agents to Trainers)	201	247	265	324	343	359	377	344	359	377	359	360

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Growth Training

	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
New Hires due to Growth	45	18	59	19	16	18						
Forecasted Graduation Rate	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Total New Hires Required	53	21	70	23	19	21	0	0	0	0	0	0
Training Length (days)	40	40	40	40	40	40	40	40	40	40	40	40
Class size	15	15	15	15	15	15	15	15	15	15	15	15
Support Staff Shrinkage	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Trainers Required	4.4	6.2	7.6	7.7	3.4	3.3	1.8	0.0	0.0	0.0	0.0	0.0
Ratio (Agents to Trainers)	45	140	46	171	222	201						

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Ongoing Training

	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Training Load	3%											
Training days per agent per year	8											
Avg ongoing training days per agent	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Required Staff Planned	201	247	265	324	343	359	377	344	359	377	359	360
Class size	15	15	15	15	15	15	15	15	15	15	15	15
Support Staff Shrinkage	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Trainers Required	0.53	0.7	0.6	0.8	0.9	0.9	0.9	0.9	0.9	1.0	0.9	0.9
Ratio (Agents to Trainers)	383	364	419	401	383	401	401	401	401	383	401	419

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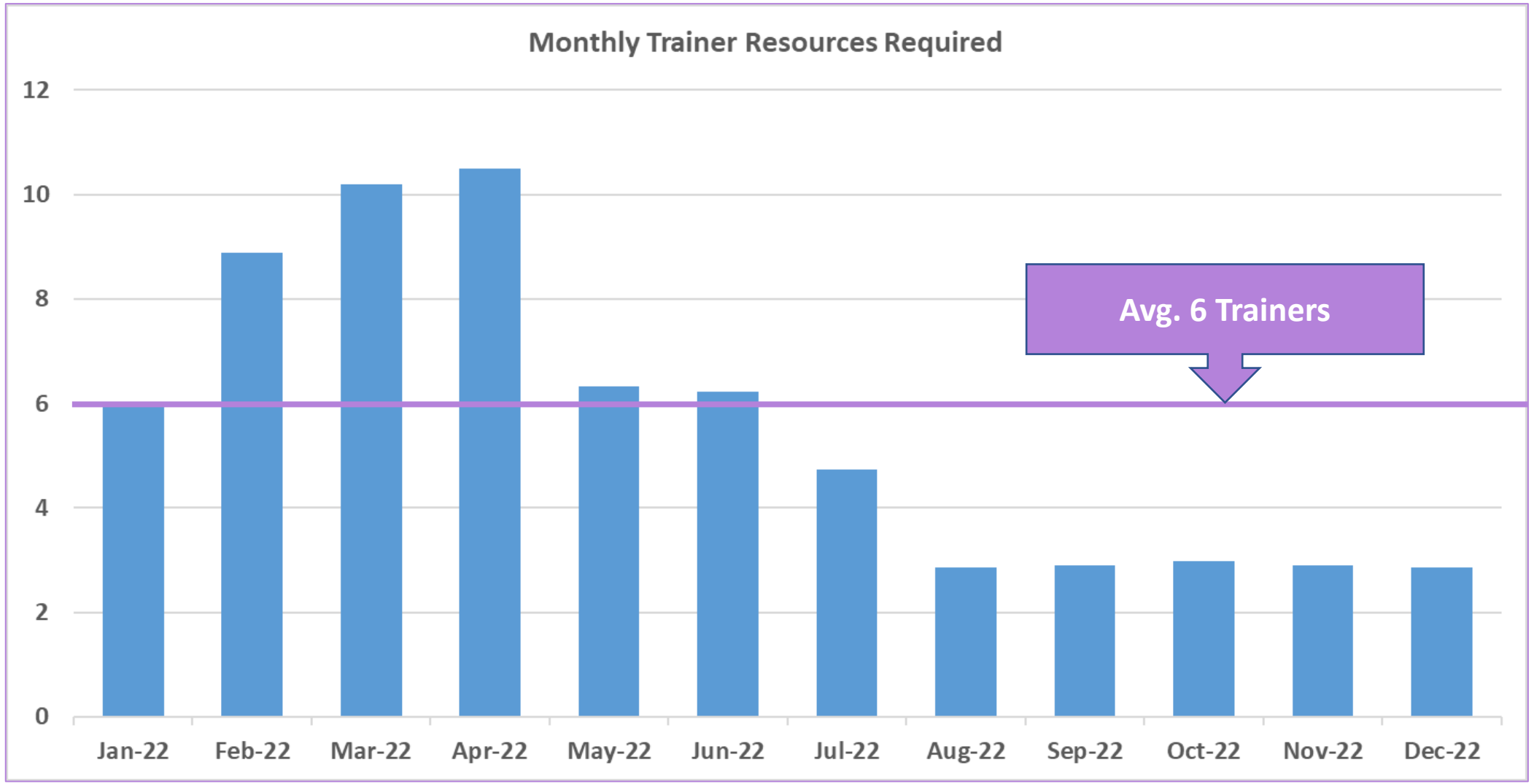
Trainer Ratio

	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Total Trainers Required (incl Shrinkage)	6.0	8.9	10.2	10.5	6.3	6.2	4.7	2.9	2.9	3.0	2.9	2.9
Trainer Ratio	**35**	**43**	**46**	**56**	**60**	**62**	**65**	**60**	**62**	**65**	**62**	**62**

Support Staff – Trainers: Ratio Driven vs. Capacity Planned (3 of 3)



Capacity Planning – QA Ratio (1 of 2)

No real industry guidelines exist for QA evaluator to agent ratio.

- The number of QA evaluators required will vary based on:
  - Total number of agents
  - Number of evaluation to complete per agent per month
  - Type of contact center (omni/multi-channel or multi-skill)
  - AHT evaluation completion time
- Many contact centers do not have adequate resources to conduct QA on a statistically valid sample of transactions
  - Leads management to constrain the number of evaluations required to the available QA resources
- Some contact centers address QA resource limitations by having supervisors as well as QA complete monitoring on a monthly basis.

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Capacity Planning – QA Ratio (2 of 2)

Different QA models will drive different QA staffing requirements.

	Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Comment		**Sup does Coaching**	**Fewer Monitors**	**Fewer Monitors**	**Higher Productivity**	**Lower AHT**	**Higher AHT**
AHT	360	360	360	360	360	180	480
Evaluation	300	300	300	300	300	120	360
Coaching	113	0	150	225	113	113	113
Total sec per eval.	**773**	**660**	**810**	**885**	**773**	**413**	**953**
Productivity	85%	85%	85%	85%	95%	85%	85%
Scheduled hr / day	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Breaks	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Production Hours	**7.0**	**7.0**	**7.0**	**7.0**	**7.0**	**7.0**	**7.0**
Productive Hours	6.0	6.0	6.0	6.0	6.7	6.0	6.0
Monitors / QA / day	28	32	26	24	31	52	22
Days in month	20	20	20	20	20	20	20
Monitors / QA	**555**	**649**	**529**	**484**	**620**	**1039**	**450**
Agents	200	200	200	200	200	200	200
Monitors / agent	8	8	6	4	8	8	8
Total monitors	**1600**	**1600**	**1200**	**800**	**1600**	**1600**	**1600**
QA Productive	2.9	2.5	2.3	1.7	2.6	1.5	3.6
Shrinkage	10%	10%	10%	10%	10%	10%	10%
Total QA Required	3.2	2.7	2.5	1.8	2.9	1.7	4.0
QA Ratio	**62**	**73**	**79**	**109**	**70**	**117**	**51**

Getting Capacity Planning Wrong

How much does it cost to be 1% wrong?

Parameters:

- 130 seat call centre
- 1.2 million calls per year
- SL target of 80/20
- AHT of 420 seconds
- Shrinkage 35%
- Annualized attrition rate: 42%

Answer:

More than $860,000

Service Level / Productivity		Baseline Scenario		Scenario 1	
				Edit	Delete
Deferrable					
Non-deferrable					
Customer Service - Inbound Calls					
	Service Target	80 %	20 sec	80	20
	Forecast	81.23%	20 sec	82.20%	20 sec
	Occupancy	90.37%		89.95%	
Agent Requirements		# of agents		# of agents	
Deferrable					
Non-deferrable					
Customer Service - Inbound Calls		133		126	
Total Required Agents (Paid)		**133**		**126**	
Effective Required Agents		**115**		**111**	
Difference (Learning curve cost)		**18**		**15**	
Effective Capacity Rate		**86.73%**		**88.14%**	
Support Staff		# of staff		# of staff	
Quality Assurance		4		4	
Supervisors		9		8	
Trainers		3		3	
WFM		2		2	
Operations Manager		1		1	
Staff Budget		Cost		Cost	
Agent		$7,970,000		$7,463,500	
Quality Assurance		$309,944		$281,565	
Supervisors		$752,722		$664,125	
Trainers		$206,630		$189,750	
WFM		$154,972		$143,090	
Operations Manager		$132,833		$123,995	
Agent Salaries		**$7,970,000**		**$7,463,500**	
Support Staff Salaries		**$1,557,101**		**$1,402,525**	
Hiring Ahead of Attrition Costs		**$558,700**		**$444,078**	
Overtime Costs (Agents Only)		**$159,400**		**$74,635**	
Total Budget (Agents / Support Staff)		**$10,245,201**		**$9,384,738**	
Cost per Work Type		Cost		Cost	
Customer Service - Inbound Calls		$8.54		$7.90	

If I miss the workload forecast, AHT, learning curve, shrinkage factors, attrition rates, etc by a mere 1%, what might it cost me?

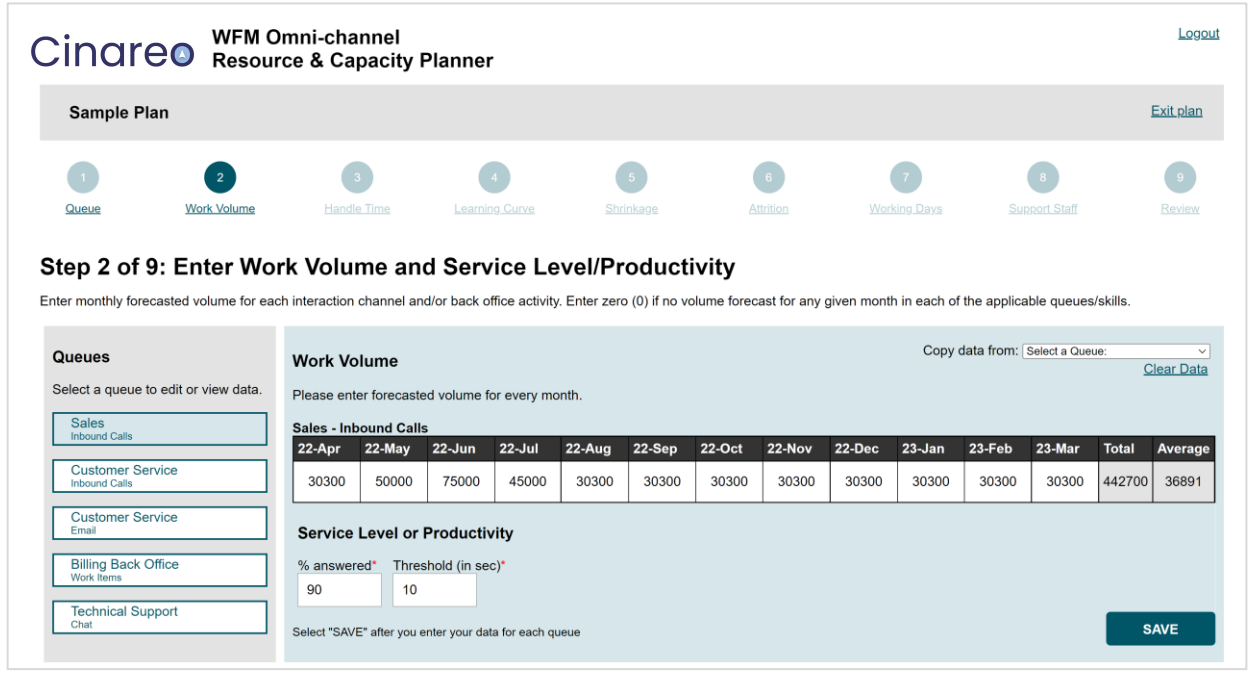
...it could cost me $860,000 per year

Get the right tool for the job.

Cinareo – a WFM Omni-channel Resource and Capacity Planning System

https://www.cinareo.com

Simple
Understandable
Practical
Executable
Repeatable



For more information, contact: Dr. Mark Alpern, malpern@cinareo.com 647-283-7373

Dr. Mark Alpern – Bio

- Over 20 years of experience as a contact centre practitioner and executive consultant.
- Public sector clients across all levels of government and private sector in the financial services, utilities, transportation, policing services, and more
- Routinely conduct research on leading practices in contact centre operations, with a focus on workforce management.
- Architect of a new Omni-channel resource and capacity planning tool - built based on leading practices and gaps identified through the consulting practice.

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