



2023 INTERNAL AUDIT
WEBINAR SERIES

COURSE 1

BACK TO BASICS: BEST PRACTICES FOR ESTABLISHING AN IDEAL INTERNAL AUDIT FUNCTION

March 28, 2023

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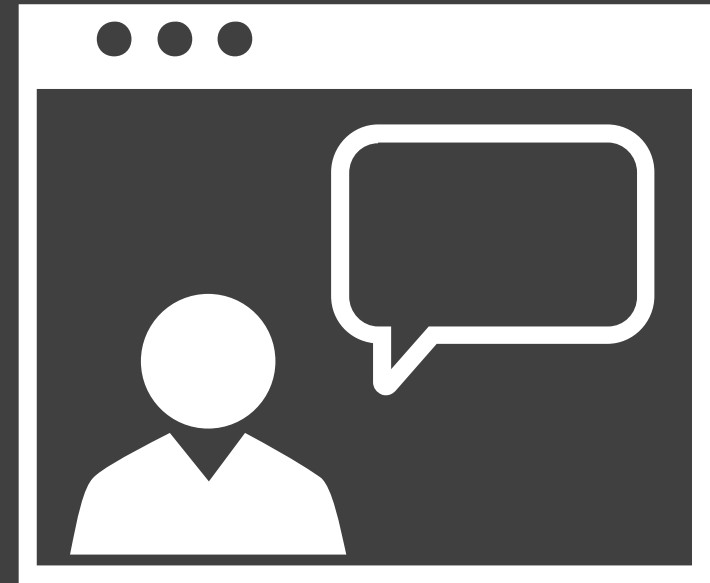


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BDO and Our Internal Audit Webinar Series



Alejandro Anievas

DIRECTOR, RISK ADVISORY SERVICES

Alejandro is the National Quality Assurance leader for BDO's Risk Advisory Services practice. He has more than 12 years of experience in both internal and external auditing. Alejandro specializes in preparing organizations with their compliance efforts. On a daily basis, he leads internal audit engagements for his clients and performs periodic audits of BDO offices throughout the U.S. to ensure the firm's quality standards are met.

Alejandro has established internal audit departments for numerous companies, and has developed charters, protocols, and reporting tools. Alejandro has successfully added value to his client accounts by identifying opportunities to improve governance, risk management, and internal controls.

Additionally, Alejandro is the author of several internal audit white papers: *Innovative Use of Robotics in Internal Audit*, as well as *Audit Speed - Opportunities for Enhancement*.

PROFESSIONAL AFFILIATIONS

- ▶ Certified Information Systems Auditor
- ▶ Information Systems Audit and Control Association (ISACA)
- ▶ Institute of Internal Auditors (IIA)

EDUCATION

- ▶ Business Analytics Graduate Program, Harvard Business School ('23)
- ▶ M.S., Accounting, Bentley University
- ▶ B.S., Corporate Finance and Accounting, Bentley University



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Today's Learning Objectives

AT THE CONCLUSION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:



**Determine
FTE demand**



**Define which statistics may
be used to show Internal
Audit's performance**



**Describe best practices
for organizing the ideal
internal audit team**

An Ongoing Search for Efficiency

- ▶ Organizations perpetually search for efficiency and measures to cut costs.
- ▶ Internal Audit as a department has traditionally had difficulty in displaying its productivity.
- ▶ Clearly defining metrics to measure on an on-going basis can help to track important statistics that can be used to show Internal Audit's performance.








Improvement Begins with Reflection






- ▶ Like most process improvement journeys, we begin with self-reflection
- ▶ Historical data can be used for analysis if your Internal Audit function has been in place for over a year



Case Study Introduction

- ▶ During the course of this presentation, we will be reviewing sample data for a fictitious Internal Audit department
- ▶ The data points will cover two years of activity broken out as the current year vs the prior year

CURRENT YEAR	
	4 Team Members
	10,025 Hours Incurred
	12 Audits Planned
	11 Audits Performed
	\$385,000 in Costs

PRIOR YEAR	
	4 Team Members
	8,200 Hours Incurred
	12 Audits Planned
	10 Audits Performed
	\$365,000 in Costs

Determining FTE Demand



Calculating FTEs

FTE is short for “full-time equivalent” referring to the number of hours worked by a single employee in a given period.

(8 hours per day x 5 days a week x 52 weeks)
-
(vacation and holiday hours)

The annual FTE count is typically considered to be 2,080 hours, which breaks down into eight hours per day, five days a week. We can also eliminate the vacation and holidays in our calculation.

We can begin our analysis here to understand how many FTEs are needed, the following formula can be used:

Total Hours Incurred /
Total Workdays

Calculating FTEs

In the current year (CY), the Internal Audit department incurred **10,025 hours** and employees were given **80 hours of vacation and holiday hours**.

Numerically, our calculation is now expressed as:

10,025 HOURS



2,000 HOURS



5.0125 FTEs

If we are expecting our employees to be working **2,000** hours per year, the calculation above shows us that we should have **5 FTEs**. When compared to the current number of team members (4), we can begin to decipher our need.

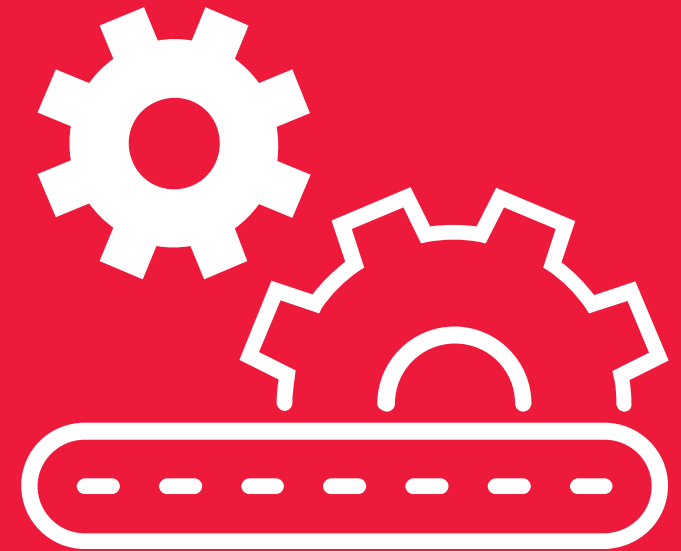


Interpreting Results

- ▶ If we have **4 team members incurring 10,025 hours**, then the team may have been stretched per the previous calculation that calls for 5.0125 FTEs.
- ▶ Distributed amongst 4 FTEs, that would average just over **500 hours in overtime** per person.



Department Productivity



PRODUCTIVITY PERFORMANCE

Audits Performed vs. Planned

- ▶ Taking the data points and interpretation of results we just discussed, we can If we continue our review retrospectively.
- ▶ If 8,200 hours were incurred in prior year (PY), we can see that there was an increase in our workload.
- ▶ To get a better understanding of departmental needs, audit productivity performance should also be taken into consideration.
- ▶ Data points for the following metrics will now be needed:
 - Total audits performed
 - Audits planned



PRODUCTIVITY PERFORMANCE

Audits Performed vs. Planned

We can express the productivity performance in various ways.
To start, we can view it as a ratio of audits performed:

AUDITS PERFORMED



AUDITS PLANNED

We can also calculate a year-over-year productivity measure:

TOTAL AUDITS PERFORMED WITHIN CURRENT YEAR



FTEs

VS

TOTAL AUDITS PERFORMED WITHIN PRIOR YEAR



FTEs



PRODUCTIVITY PERFORMANCE

Audits Performed vs. Planned

By applying the additional metrics, we can now observe even more. If in year one, we performed **10** audits, but planned **12**, we executed **83%** of our plan.

$$\text{PERFORMED } 10 \text{ AUDITS} \div \text{PLANNED } 12 \text{ AUDITS} = 83\%$$

If in year two, we performed **11** audits but planned **12**, our execution rate increased by a little over **8%** as we executed almost **91.67%** of our plan.

$$\text{PERFORMED } 11 \text{ AUDITS} \div \text{PLANNED } 12 \text{ AUDITS} = 91.67\%$$



Is this metric a reliable way to discern the Internal Audit department's progress?

PRODUCTIVITY PERFORMANCE

Audits Performed vs. Planned

- ▶ This execution rate metric is not without its flaws:
 - Decreasing the number of audits planned could manipulate the result to show progress. Therefore, this metric should not be viewed in a vacuum
- ▶ Audits performed vs planned should be viewed in conjunction with other metrics, such as:
 - Total audits performed per FTE
 - Hours per audit
 - Cost rate
 - Productivity per audit

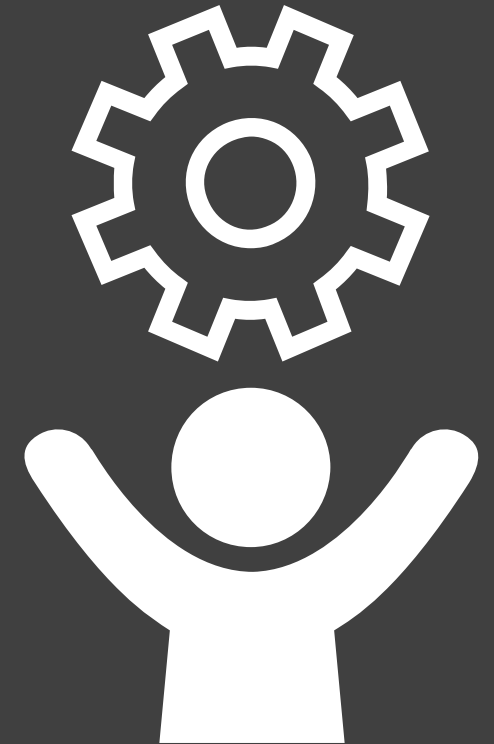


PRODUCTIVITY PERFORMANCE

Audits Performed per FTE

- ▶ To calculate total audits performed per FTE we take the number of audits performed within the year and divide that by the number of FTEs.
- ▶ Using the case study data, we will calculate both the current and prior year to understand the progress when compared with other metrics.

PY	10 AUDITS PERFORMED WITHIN THE YEAR	÷	4 FTEs	=	2.5 AUDITS PERFORMED PER FTE
CY	11 AUDITS PERFORMED WITHIN THE YEAR	÷	4 FTEs	=	2.75 AUDITS PERFORMED PER FTE



PRODUCTIVITY PERFORMANCE

Hours per Audit

Using the metric of audits performed per FTE, we would see an increase in productivity. However, this could be proven false as well if the total hours do not align:

PY	4 FTES INCURRED 8,200 HOURS	CY	4 FTES INCURRED 10,025 HOURS
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This could be because of the additional audit performed in the current year, however if we look more closely:

PY	8,200 TOTAL HOURS INCURRED	÷	10 AUDITS	=	820 HOURS PER AUDIT
CY	10,025 TOTAL HOURS INCURRED	÷	11 AUDITS	=	~911 HOURS PER AUDIT



PRODUCTIVITY PERFORMANCE

Cost Rate

- ▶ Although we accomplished more in CY by executing an additional audit, our productivity per audit decreased by over 11%.
- ▶ In CY, the costs increased, likely due to inflation and salary increase. However, when broken down by hour, our rate has actually decreased in proportion to the number of hours incurred:

PY	\$365,000	÷	8,200 TOTAL HOURS INCURRED	=	\$44.51
CY	\$385,000	÷	10,025 TOTAL HOURS INCURRED	=	\$38.40



PRODUCTIVITY PERFORMANCE

Cost Rate

Why did our rate decrease if the cost increased?

- ▶ FTEs did not increase (remained at 4)
 - The demand (hours) outweighed the supply (FTEs)
- ▶ Hours increased (considered overtime)
 - If 2,000 hours per FTE were expected, the hours incurred resulted in 2,025 hours of overtime:
 - Hours Incurred (10,025) less Expected Hours (2,000 x 4) = 2,025 overtime hours
 - Averages out to 506.25 hours in overtime, per FTE



Internal Audit Types



Internal Audit Types



Not all audits are created equal.

- ▶ To get a more granular understanding of the performance by audit we should break them down by type.
- ▶ The labels given to the different audit types may differ or could be broken out into more detail, however for the purposes of this example we will be using four categories.
- ▶ Breaking audits out by type allows us categories audit hours into separate buckets and further track performance.



Internal Audit Types

There are four distinctive types of internal audits that will be utilized.





- ▶ Audit type is determined based on the desired outcome the audit is trying to achieve
- ▶ Length and level of effort required vary for each type

The four types of internal audits are:

1. Full scope
2. Follow-up/Check-in
3. Management (also known as Performance)
4. Investigational



Internal Audit Types

 Full Scope Internal Audit	<ul style="list-style-type: none">▶ Traditional internal audit where risks are reviewed in conjunction with the counter-measures, mitigation activities, and internal controls currently in place▶ Findings and recommendations are validated, ranked and delivered▶ Management is expected to develop an action plan to remediate all findings
 Follow-Up/ Check-In Internal Audit	<ul style="list-style-type: none">▶ Conducted after an internal or external audit report has been issued. Audit only focuses on previous findings or;▶ Small audit to be performed to review specific areas with limited scope▶ Evaluates corrective action that has been taken on the audit issues reported
 Management/ Performance	<ul style="list-style-type: none">▶ Internal consulting projects▶ Provides independent and objective insight on the efficiency of business processes▶ Management can request internal auditors to review a business process, organization, or strategy
 Investigational	<ul style="list-style-type: none">▶ Performed as a result of a report of unusual or suspicious activity on the part of an individual or a department▶ Focused on specific aspects of the work of a department or individual▶ Investigations are conducted to determine the extent of loss, assess weaknesses in controls, and make recommendations for corrective actions

Budget-to-Actuals

- ▶ Budget-to-actuals help us forecast demand and plan for resource allocation.
- ▶ Most departments perform this process at the individual audit project level but do not aggregate by audit type for a bird's eye view.
- ▶ Budget-to-actuals provide an hours allocation across the team members assigned to a given audit. Aligning these hours to projects not only clearly defines expectation by level, but also extrapolates a leverage model.
- ▶ A leverage model shows which levels perform a percentage of each audit.



Regardless of the audit type, we should be performing budget-to-actuals throughout the year.

Budget-to-Actuals

- ▶ Budget-to-actuals can be aggregated by audit type to understand where the majority of hours are being allocated within an annual audit plan.
- ▶ Understanding the budget by audit type allows us to focus our audit activities in the appropriate direction.
 - Amount of time spent following up on prior audits and remediation activities
 - Ability to throttle between full-scope audits and other projects
 - Afford time for performance audits
- ▶ Understanding actuals allows us to interpret our performance and/
or ability to accurately forecast.
 - Point to improvement areas within given projects



Utilization



Utilization Rates



Although the aforementioned data points provide a useful look at the department, we must also review the production at the individual level.

- ▶ Utilization is a metric that can be reviewed to understand each auditor's productivity.
- ▶ To pull accurate data, the timekeeping system will need to be setup to track administration and audit project time separately

Utilization is calculated as follows:

Total hours dedicated to internal audit products /
Total hours per given period

To view the department's utilization, the following calculation can be used:

Total of all FTEs utilization rates /
Total number of FTEs

Utilization Rates

- ▶ When using utilization rates, it is best to set expectations.
- ▶ Although 100% utilization would be great, its unrealistic.
- ▶ Utilization is essentially the breakdown of an FTE's time, divided into two categories:
 - Time spent on audit projects
 - Time spent on non-audit activities
- ▶ A utilization range by level should be established. For example:

LEVEL	EXPECTED UTILIZATION RATE
Staff Associate	85% - 90%
Senior	75% - 90%
Manager	70% - 80%
Senior Manager	60% - 70%
Director & above	50%

Building a Dashboard



Monitoring Metrics

Audits Performed vs. Planned:	83.34%
Average Hours Per Audit:	820 hours
Audits Performed per FTE:	2.5 audits
FTE Demand:	4.1 FTEs
Average FTE Overtime:	50 hrs.
Hourly Cost Rate:	\$44.51



Building a Dashboard

# of Audits:	Audit Type:	Budgeted Hours:	Actual Hours:	Over/Under:
5	Full-scope	5,000	5,000	0
1	Follow-up	400	400	0
1	Check-in	400	400	0
1	Investigational	800	800	0
2	Performance Audit	1,600	1,600	0
10	TOTAL	8,200	8,200	0

# of Employees	Level:	Utilization:	Leverage:
1	Director	50%	10%
1	Senior Manager	65%	15%
1	Manager	70%	20%
1	Senior	75%	25%
1	Associate	85%	30%

Resourcing



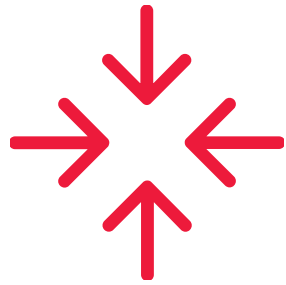
RESOURCING

Selecting a Staffing Model

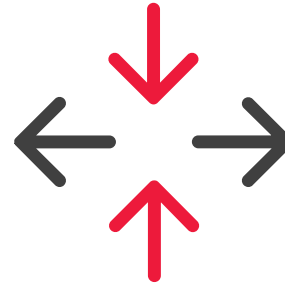
- ▶ Staffing your audit plan is not the same as putting your team together.
- ▶ Factors to consider include, capacity, specialty, concurring projects and remaining audits within the plan.
- ▶ In an ideal world, we would only need to commit the exact number of FTEs required to complete a project.
- ▶ For whichever model you employ, additional attention must be paid to staffing needs and predicting demand.



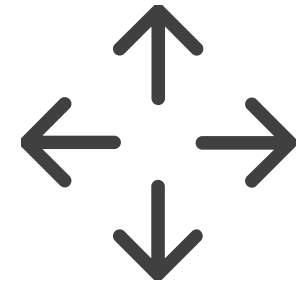
RESOURCING
Selecting a
Staffing Model



Insourced



Co-sourced
and/or Staff
Augmentation

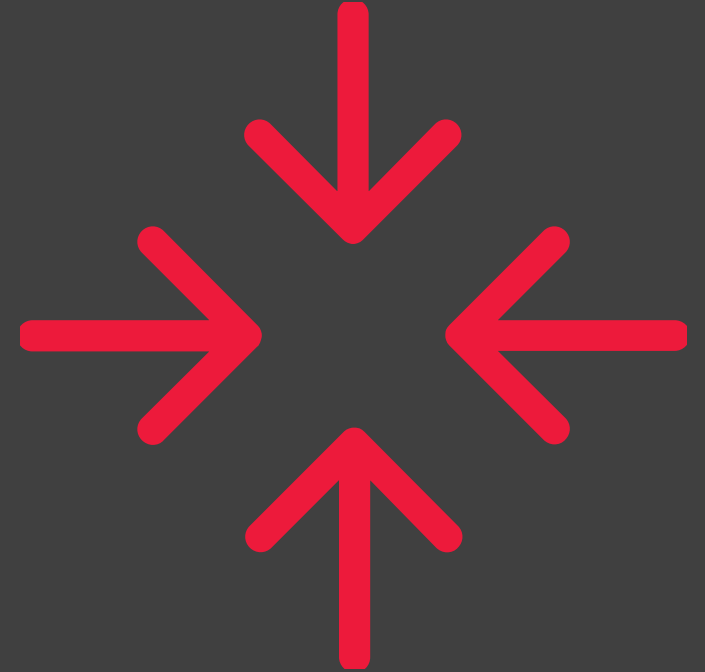


Outsourced

RESOURCING

Insourcing Model

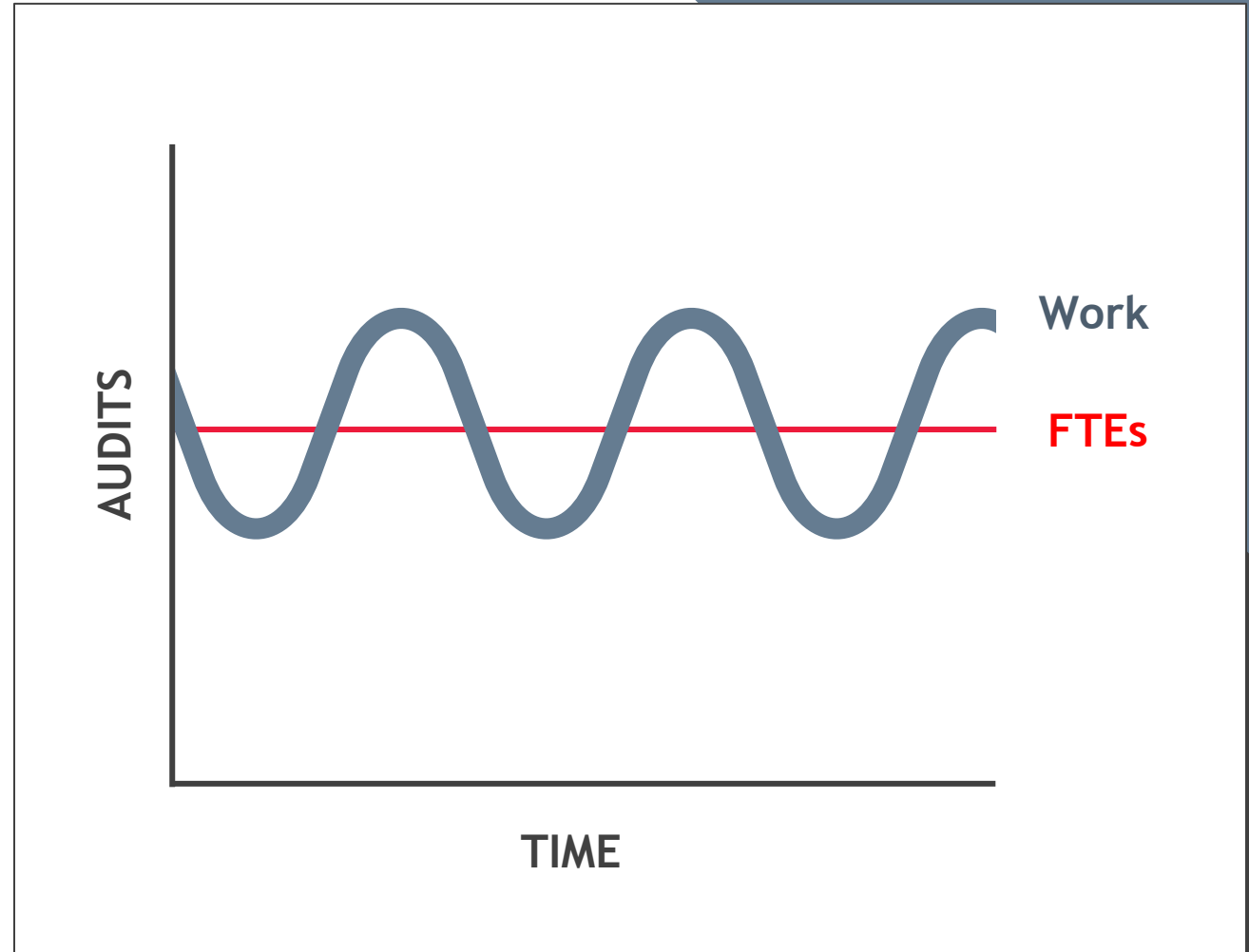
- ▶ To remain efficient, you must accurately predict the average number of FTEs required. To do this, you will need to forecast what your demand curves will look like throughout the year.
- ▶ As an example, if you have 4 FTEs, you would need to optimally schedule your audit work, so that at your highest point in the demand curve you would require 5 FTEs, while at your lowest point you would need no less than 3.
- ▶ It may sound logical to schedule your audit work to require only the exact number of FTEs in your employ at all times. However, this is most likely not feasible.



RESOURCING

Insourcing Model

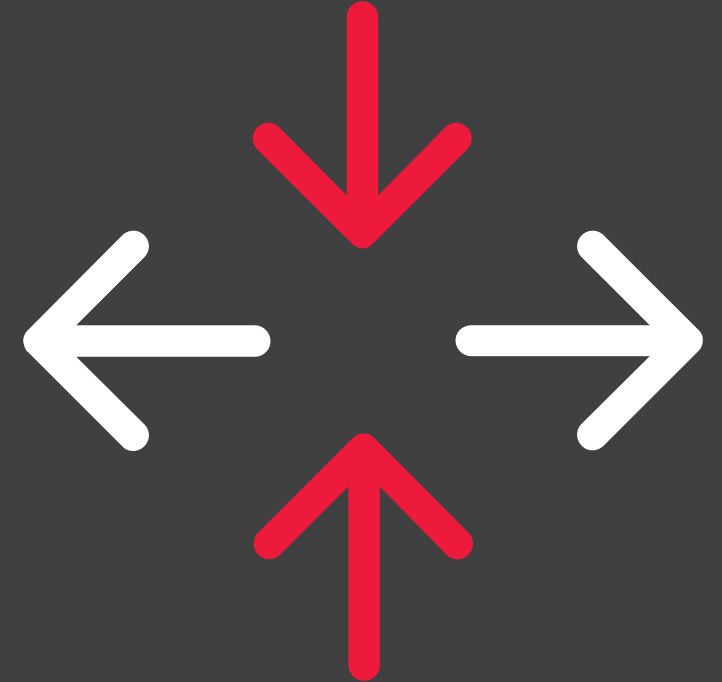
- ▶ There will be points where fewer auditors will be available due to time off or other factors.
- ▶ There may also be points where additional help will be necessary to meet deadlines.
- ▶ With this model, all additional help would only come through overtime hours.



RESOURCING

Co-Sourcing and/or Staff Augmentation

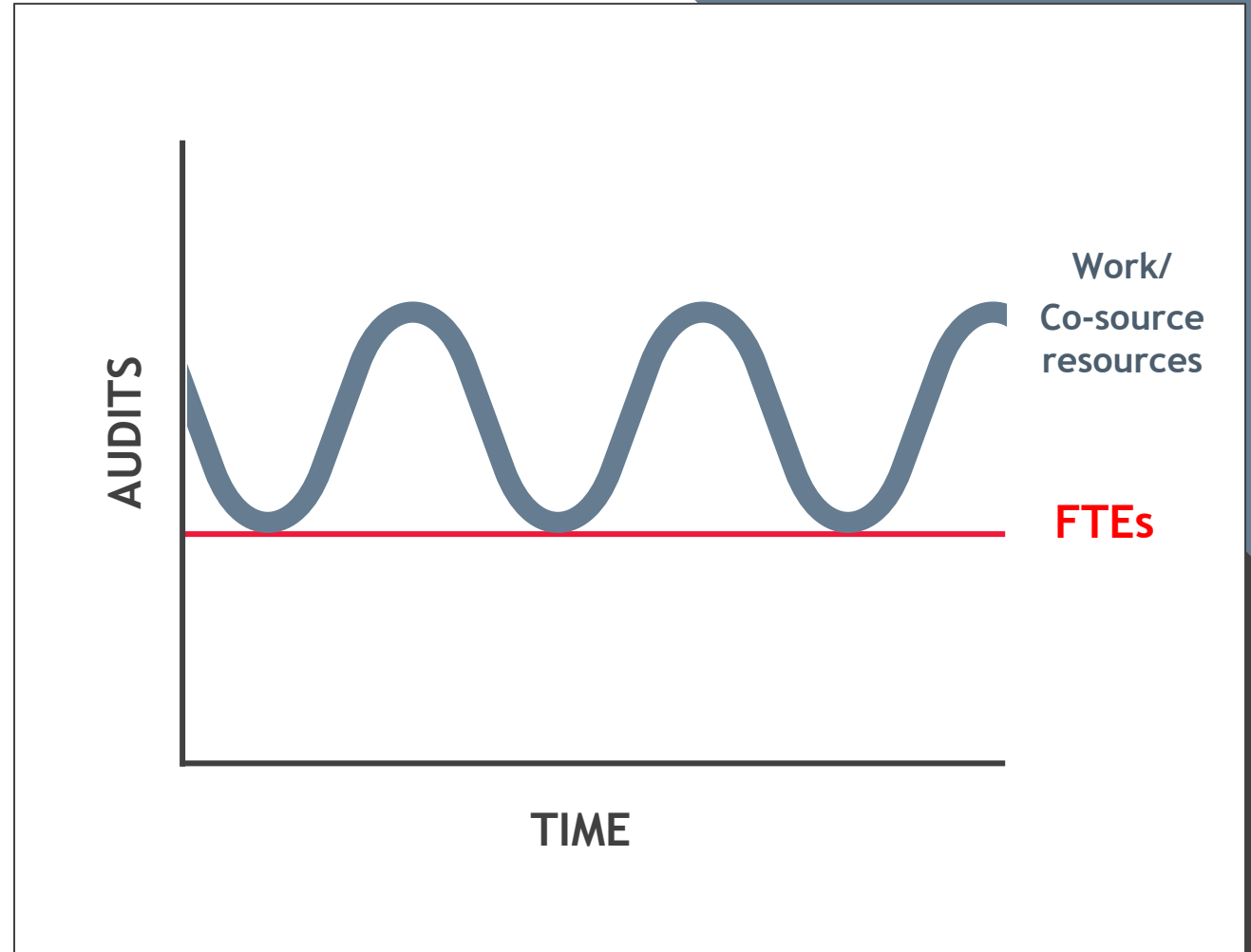
- ▶ Along with the fully outsourced model, co-sourcing and staff augmentation are best suited for capacity issues.
- ▶ Having the ability to add team members to projects, allows for adjustments at the top end of the curve.
- ▶ Therefore, if we foresee the same needs as with the example of 5 FTEs required at the height of the demand curve, and 3 at the low end, then we should only hire 3 FTEs as we can add staff to projects that require additional assistance.
- ▶ This assumes that the instances where 4 or 5 FTEs are required would equal less than the anticipated salary expense.



RESOURCING

Co-Sourcing and/or Staff Augmentation

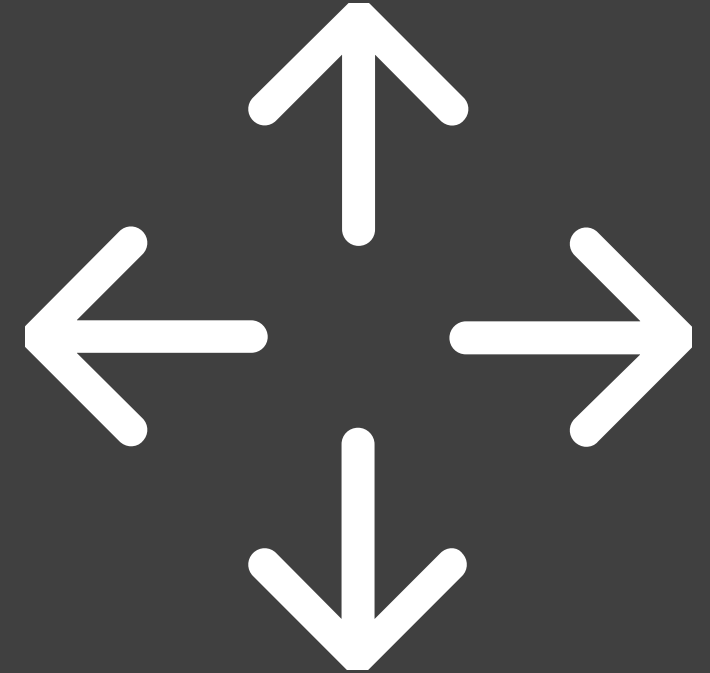
- ▶ The graph now shows alignment between the FTE line and the low end of the demand curve.



RESOURCING

Fully Outsourced Model

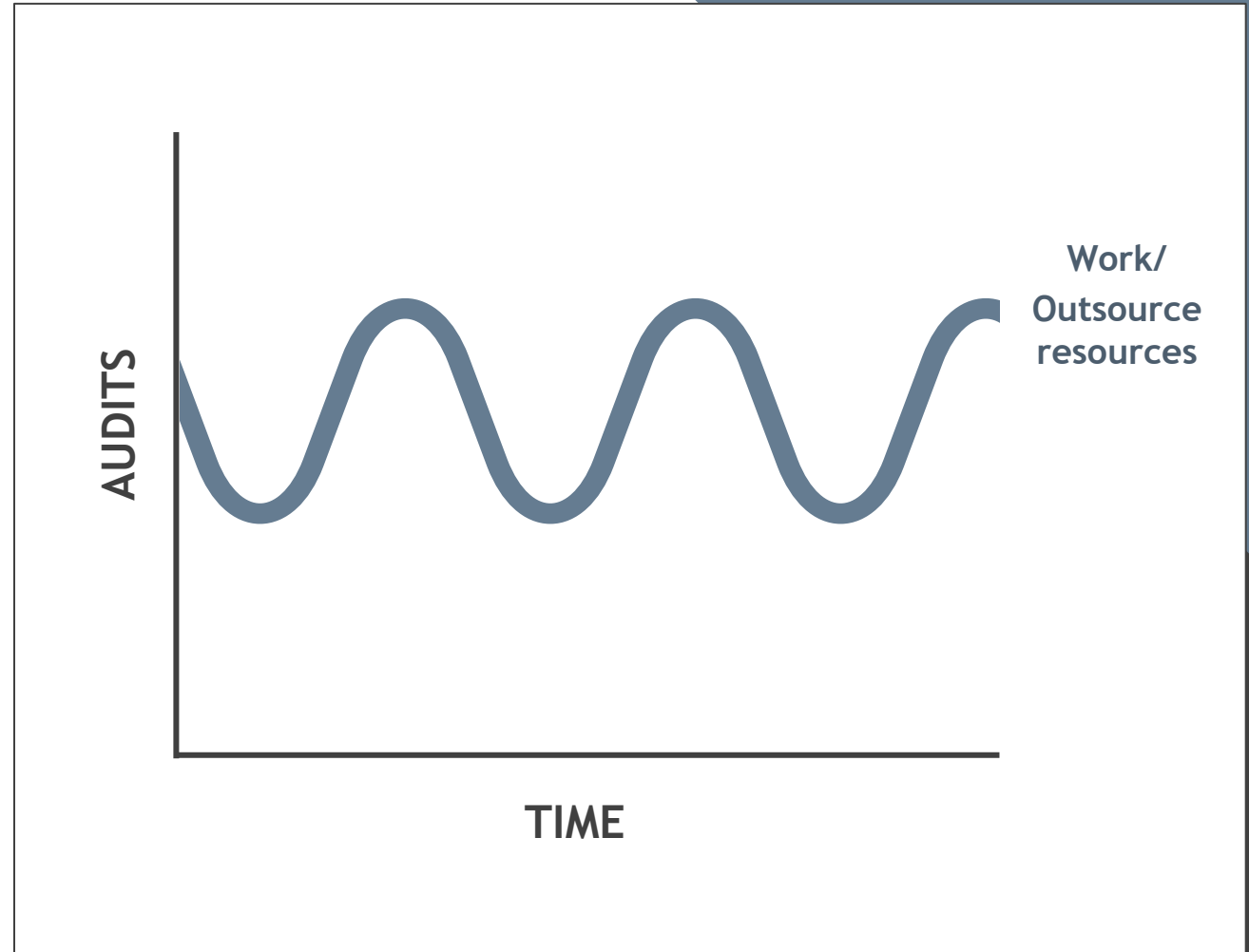
- ▶ When just reviewing the FTE requirements, it's common to conclude that outsourcing is the most efficient.
- ▶ That could be true, but certainly not in all cases. Costs also need to be considered simultaneously when deciding which model to undertake.
- ▶ If we determine that hiring three staff members would cost the department \$350,000 but hiring an outside service provider would cost us \$400,000, we would, of course, not consider this an efficient use of funds.
- ▶ However, it may very well be more efficient even with the higher price if the service provider can perform more audits or provide much needed subject-matter expertise.



RESOURCING

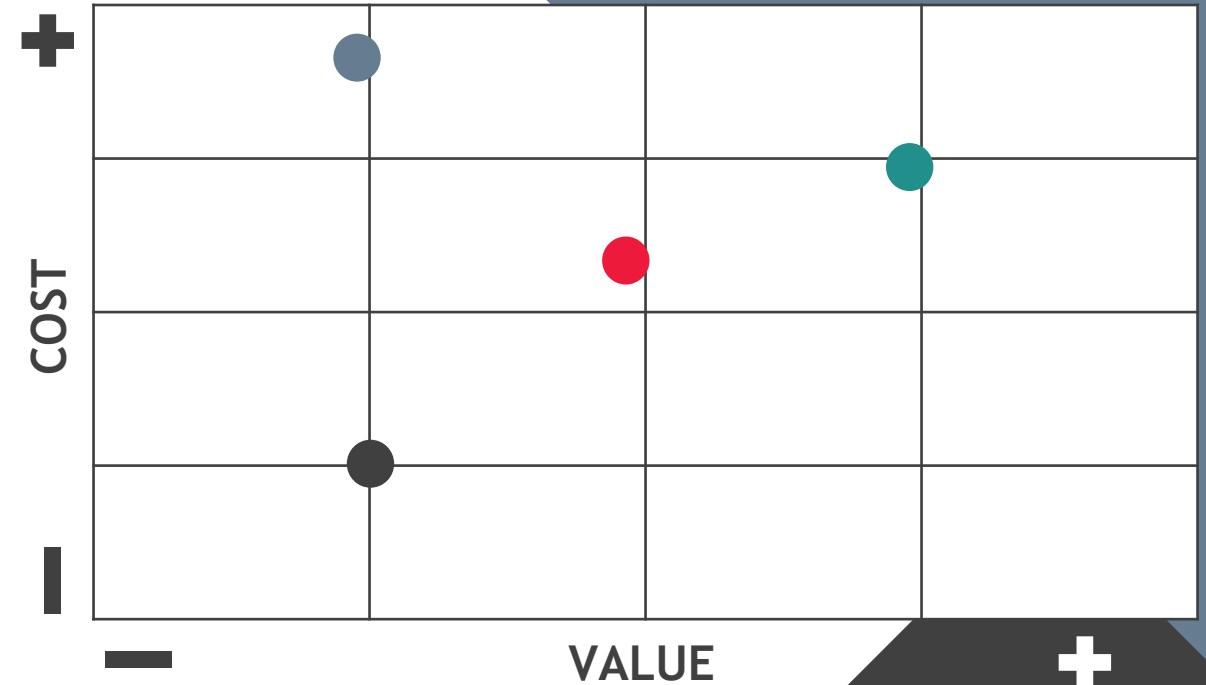
Fully Outsourced Model

- ▶ As noted earlier with co-sourcing, audit work matches resourcing but no FTEs are required.
- ▶ The outsourced staffing would simply follow the demand curve and is graphically depicted as such



Sourcing Options Summary

- ▶ As you can see from the graph here, cost and value are the scales upon which we can weigh our decision.
- ▶ This is a generalization of the correlation between our two axes but can serve as a starting point to understanding where each option will land.



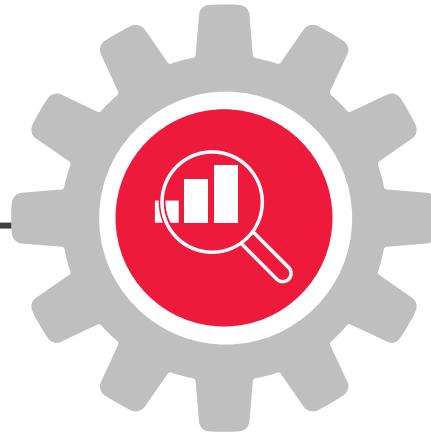
LEGEND

- Insourced
- Staff Augmentation
- Co-sourced
- Fully Outsourced

Final Thoughts & Takeaways



**Monitor the metrics
that work for you**



**Build your audit plan
efficiently, in a way that
allows you time to address
appropriate risks but
cover more area**



**Carefully consider your
resourcing options as this
can be used as another lever
to increase efficiency**

Thank You



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Best Practices for Internal Audit Related to SOC Reporting

Tuesday, October 24, 2023
3:00 – 4:00PM ET / 2:00 – 3:00PM CST

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Upcoming Events

2023 INTERNAL AUDIT
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Skills Development: Technical Writing for Internal Audit

Tuesday, December 5, 2023
3:00 – 4:00PM ET / 2:00 – 3:00PM CST

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Wrapping Up

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