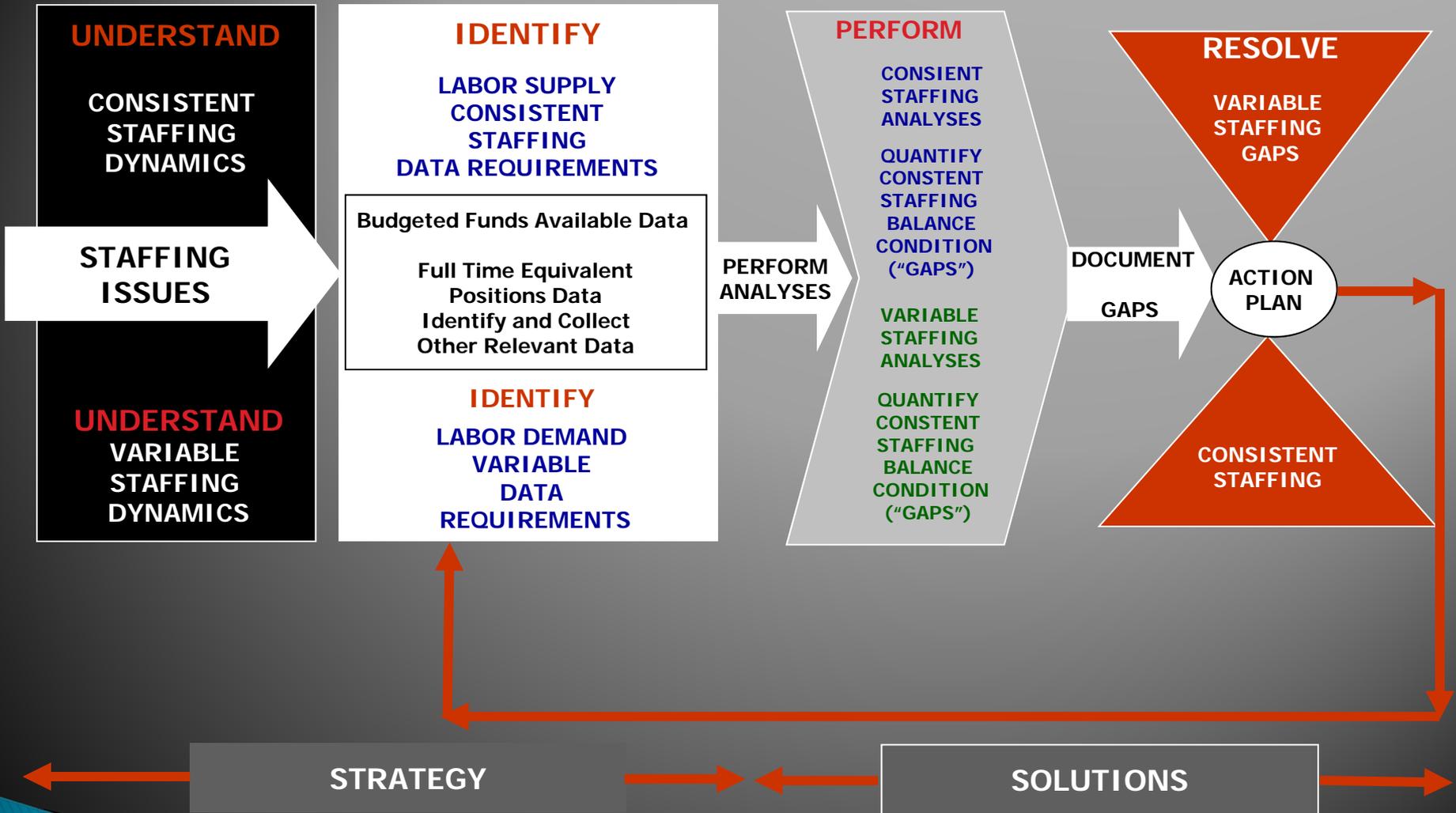


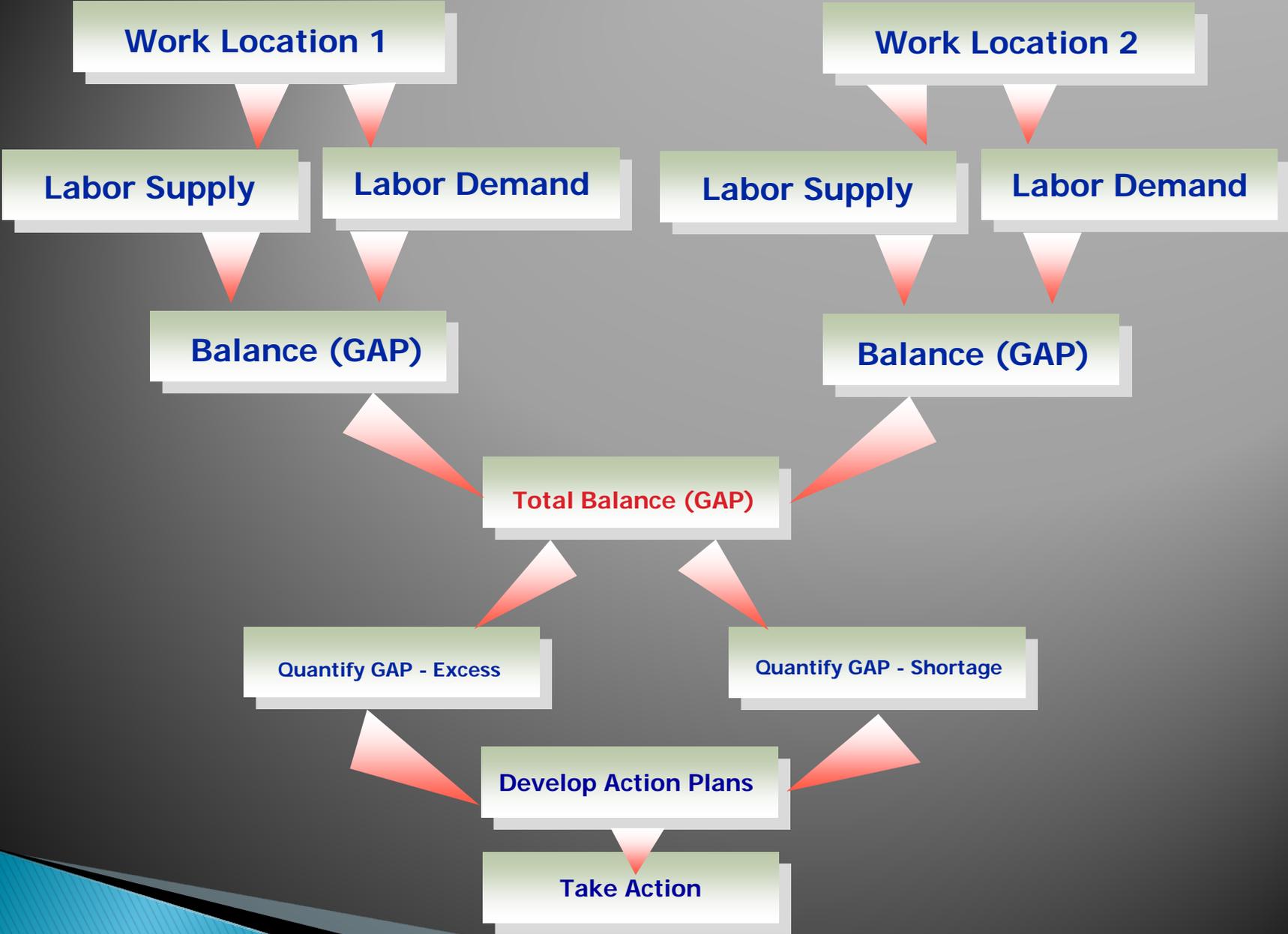
LABOR SUPPLY / DEMAND ANALYSES METHODOLOGY

Workforce Strategy

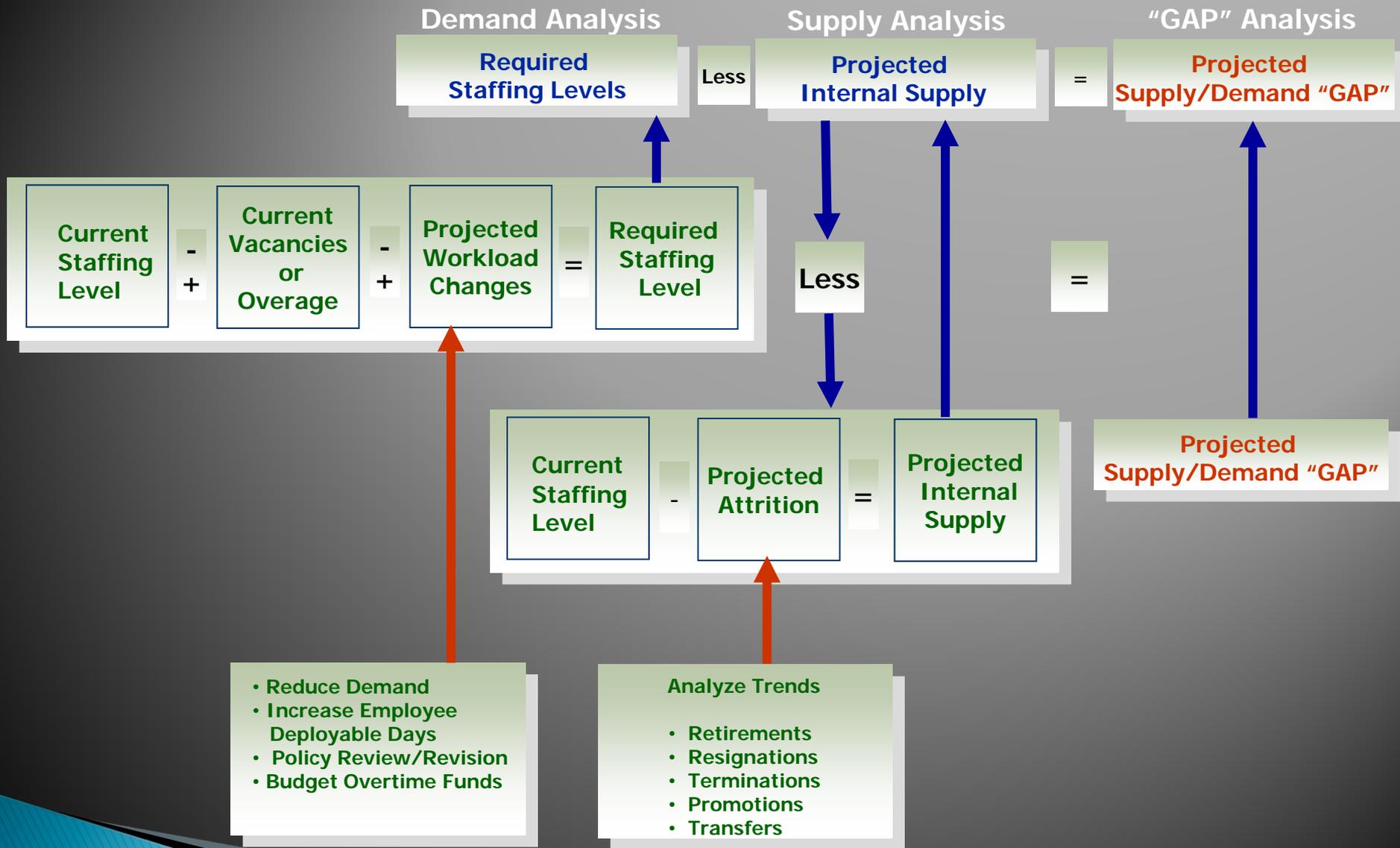
Driving Toward Optimized Labor Supply/Demand Balance



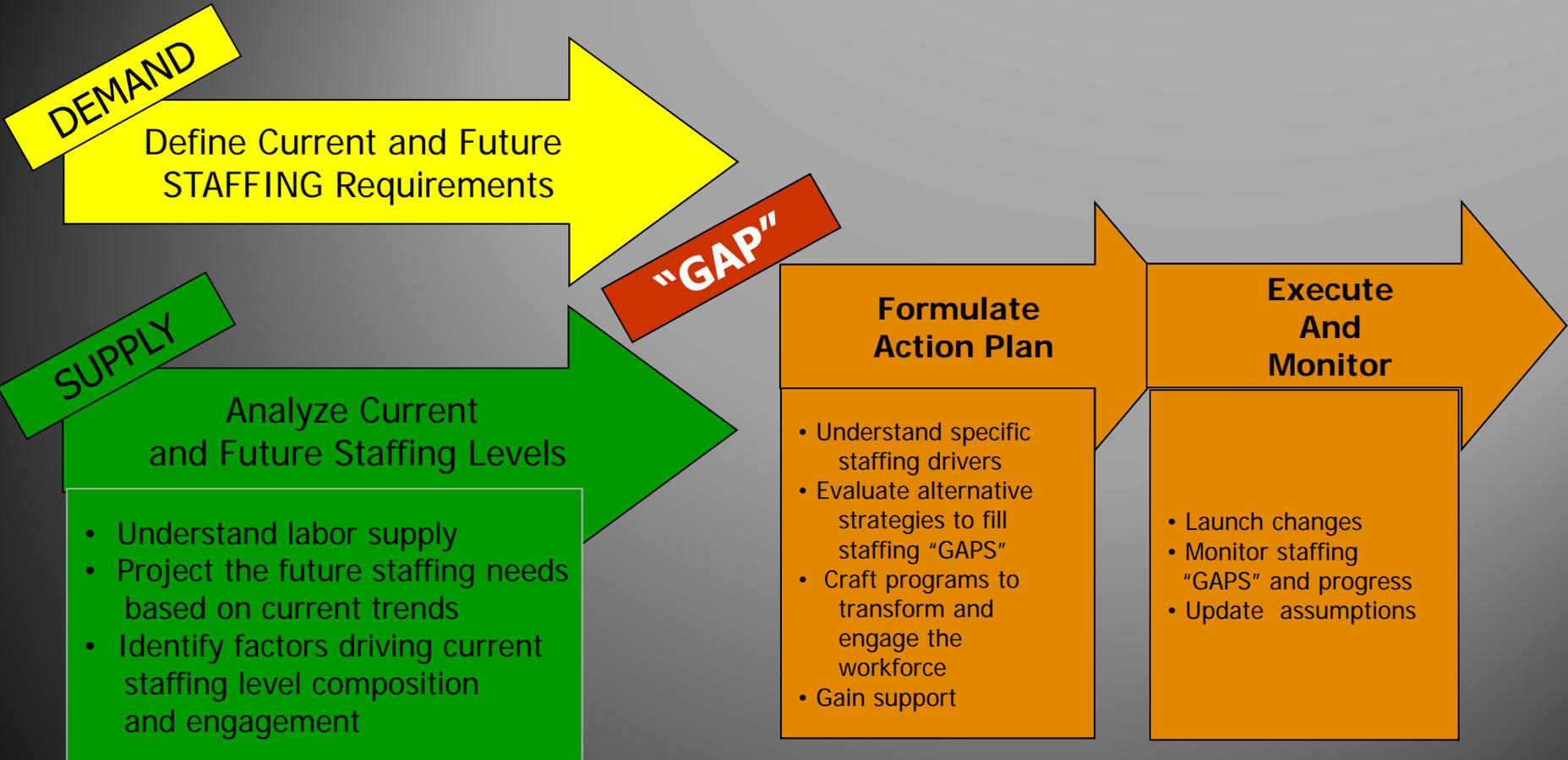
Hatrak Scheduler Plus Labor Supply and Demand Analysis Approach



Supply/Demand Analysis and "GAP" Analysis Process



At Its Heart, Staffing Level Planning Involves "GAP" Analysis and Intervention Prioritization



At Its Heart, Workforce Planning Involves “GAP” Analysis and Intervention Prioritization

DEMAND

Define Current Staffing Level Requirements

- Identify required workforce (jobs, skills and numbers)
- Identify required workforce

- Identify key jobs and skills across the organization’s hierarchy
- Document any current talent shortages (“GAPS”)
- Consider broad shifts in economy and industry that will impact the need for key jobs
- Compare demand projections to supply projections and define critical gaps

Collect Data Regarding Staffing Demand

DEMAND

- **Key job profiles – including skill, competency and experience requirements**
- **Size of skill gaps**
- **Specifics on existing recruiting and retention challenges**
- **Current staffing level gaps for key jobs (quality and quantity) and current turnover rates**
- **Current talent no longer in demand and that can be retrained**
- **Anticipated future changes in job skill and competency requirements including anticipated timing of change**
- **Technology's impact on job growth and changing skill needs**

Understand the Current And Future Workforce Supply

SUPPLY

Define Current AND Future Staffing Requirements

- Understand labor supply
- Project the future staffing requirements based on current trends
- Identify factors driving current workforce composition and engagement

- Understand current workforce (jobs, skills, education/training)
- Identify the common skills across the jobs
- Consider options for expanding the supply of desired talent
- Increase retention of current workforce
- Consider Retraining of Employee Skills

VARIABLE STAFFING QUANTITATIVE METHODS

Quantitative Methods of Forecasting Variable Staffing Supply/Demand

Method	Description	Advantages	Disadvantages
Moving average	<ul style="list-style-type: none">• Averages data about HR demand from recent periods and projects them into the future	<ul style="list-style-type: none">• Simplicity.• Data easily available.	<ul style="list-style-type: none">• Simplicity.• Data easily available.
Exponential smoothing	<ul style="list-style-type: none">• Forecasters can vary weights for HR demand assigned to different past time periods used to project future HR demand.	<ul style="list-style-type: none">• May be used to take into account factors ignored by the moving average method (for example, cyclical patterns).	<ul style="list-style-type: none">• May be used to take into account factors ignored by the moving average method (for example, cyclical patterns).
Trends projections	<ul style="list-style-type: none">• Numbers of people hired or requested placed on one axis; time is placed on the other axis. A straight line is plotted from past to future to predict HR demand.	<ul style="list-style-type: none">• Easily explained to managers.• Easily prepared by HR planners.	<ul style="list-style-type: none">• Easily explained to managers.• Easily prepared by HR planners.

Quantitative Methods of Forecasting Demand Continued

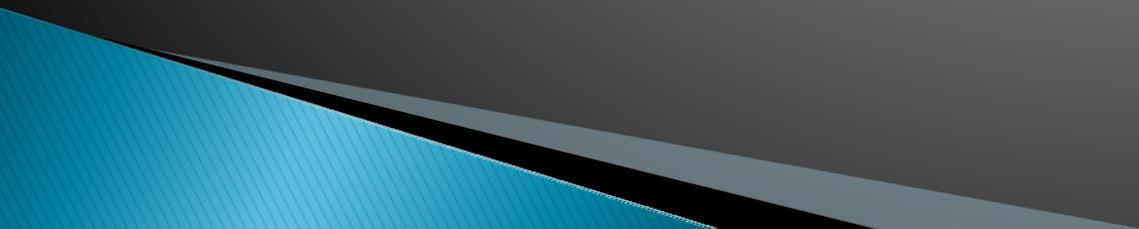
Method	Description	Advantages	Disadvantages
Regression	<ul style="list-style-type: none">• Mathematical formula used to relate staffing to several variables (for example, output, product mix, per capita productivity).	<ul style="list-style-type: none">• Can include many variables.• Efficient use of all available data.	<ul style="list-style-type: none">• Mathematical complexity.• Requires large sample sizes.• Relies on past data.
Linear programming	<ul style="list-style-type: none">• Assesses required staffing level that matches desired output levels, subject to certain constraints (for example, budget, cost).	<ul style="list-style-type: none">• Assesses what should be in the future, not what probably will be.	<ul style="list-style-type: none">• Managers are skeptical of highly sophisticated methodology.• Numerous assumptions must be made.
Actuarial models	<ul style="list-style-type: none">• Relate turnover to such factors as age and seniority.	<ul style="list-style-type: none">• Reflects past.	<ul style="list-style-type: none">• May not be accurate in individual cases.

Quantitative Methods of Forecasting Demand Continued

Method	Description	Advantages	Disadvantages
Simulations Probability matrices	<ul style="list-style-type: none">• Uses scenarios to test the effect of various personnel policies.• Define “states” in the organization—such as strategy levels, performance ratings.	<ul style="list-style-type: none">• Useful for considering alternative HR programs.• Help identify career patterns.• Help perform turnover analysis.	<ul style="list-style-type: none">• Accuracy varies.• Require some mathematical sophistication.• Accuracy varies.

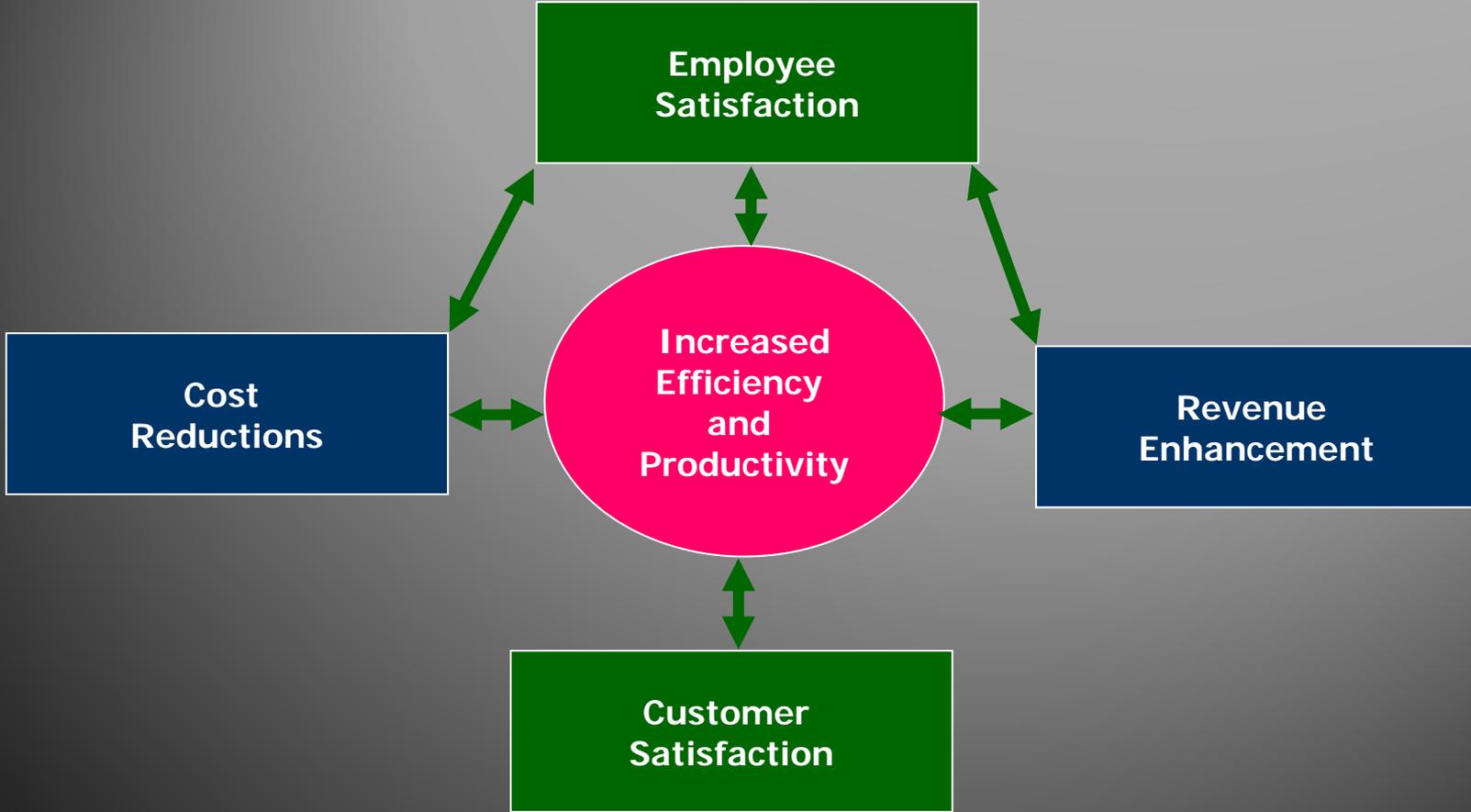
Hatrak Associates Employee Shift Scheduling Software

HATRAK ASSOCIATES SOFTWARE



Hatrak Scheduler Plus Sets The Standard for Workforce Management Including Employee Shift Scheduling

Major Benefits - Hatrak Scheduler Plus



Hatrak Scheduler Delivers Employee Satisfaction

Employee satisfaction:

Using self-service tools, employees can more easily provide input about the number of hours and shifts they would be interested in working. Plus, they could get access to upcoming schedules, request time off and offer to take on additional hours as needed. Also, through consistent application of scheduling rules, employees could be more confident that their schedules were consistent with negotiated agreements and their paychecks accurately reflected the actual time and schedules that they worked. Improving employee satisfaction is important given the tightening of labor markets widely anticipated in maturing economies over the next several years.

Hatrak Scheduler Delivers Revenue Enhancement

Revenue enhancement:

Organizations when building a business case for employee shift scheduling software should focus on revenue enhancement as the rationale for improving their labor-scheduling practices.

Reducing the amount of administrative time managers spend on creating schedules allows them either to spend more time working directly with other important duties including training employees.

By upgrading employee scheduling and time and attendance software, and integrating it with human resources a company can easily shift staff to other jobs where demand is higher during the day.

Costs associated with manual data entry for payroll processing can be reduced by 50 percent. Also, the amount of time it takes managers to perform payroll and labor-scheduling tasks can be lowered from 2-4 hours to 20-30 minutes each week.

Hatrak Scheduler Delivers Customer Satisfaction

Customer satisfaction:

Matching customers with more qualified and available staff organizations can use labor scheduling to improve their customer satisfaction levels.

For organizations that focus on handling high volumes of customers, improved labor scheduling can be seen as a way to reduce waiting times, either in physical or virtual queues.

Hatrak Scheduler Aligns With Human Resources

Human Resources:

Companies need to recognize that simply implementing a labor-scheduling system without addressing a range of organizational challenges can put technological investments at significant risk. These challenges must be addressed not only by the organization's operations group, which is often responsible for the labor-scheduling process, but from many other groups such as human resources.

Companies need to recognize that labor-scheduling processes need to be aligned closely with human capital activities, such as recruitment, selection, compensation, learning and development, and feedback and performance measurement. For example, if a company decides to increase the number of part-time shifts as a result of an improved labor-scheduling capability, it also needs to:

- Consider the need to dip into different labor pools to source individuals interested in part-time work
- Adjust the compensation and benefit levels to attract part-time workers
- Revise the training content and the number of training hours required to get new workers up to speed
- Recognize that supervisors will have to evaluate and provide feedback to a large group of employees.

Failure to address these integration issues can cause other human resource related problems that can decrease retention rates, increase costs and decrease customer satisfaction.

Hatrak Scheduler Delivers Increased Efficiency and Productivity

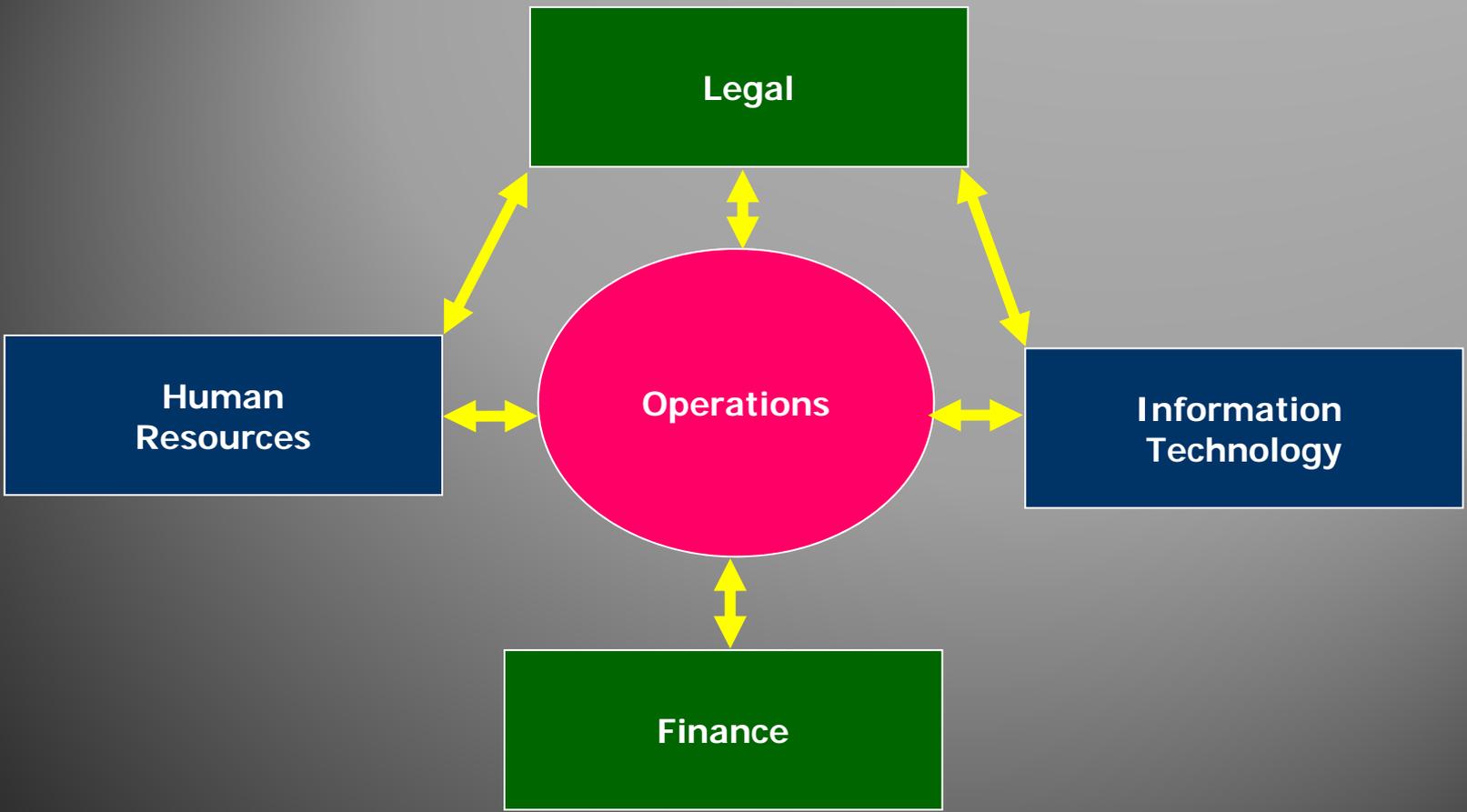
Increased Efficiency and Productivity:

Companies benefit significantly when the efficiency and productivity of their existing labor assets are increased.

Hatrak Associates Considers The Functional Areas Associated With
Employee Scheduling

FUNTIONAL AREAS ASSOCIATED WITH EMPLOYEE SCHEDULING

The Functional Areas Involved in Employee Scheduling



The Legal Functional Area



- **Confirm that business rules comply with federal and state laws, local regulations and negotiated employee agreements**

The Information Technology Functional Area

Information Technology

- **Host employee shift scheduling application**
- **Integrate employee shift scheduling applications with other systems, e.g.:**
 - **Labor supply and labor demand forecasting – ideally this functionality should be part of the employee shift scheduling software**
 - **Time and attendance**
 - **Payroll**
 - **Human resources information system**

The Finance Functional Area



Finance

- **Incorporate forecasting data into budgeting and planning processes**
- **Perform comprehensive labor supply and demand analyses which forecast projected costs so that spending decisions can be made before spending actually occurs**
- **Develop budgets that are schedule and labor supply and demand analyses based**

The Human Resources Functional Area

Human Resources

- Review forecasted data for medium- and long-term human capital planning
- Provide orientation, training, communications and change management resources
- Encourage consistency between labor-scheduling practices and HR strategies:
 - Recruitment and selection
 - Learning, development and career management
 - Compensation and benefits
 - Performance measurement and feedback