COLEMAN Consulting Group

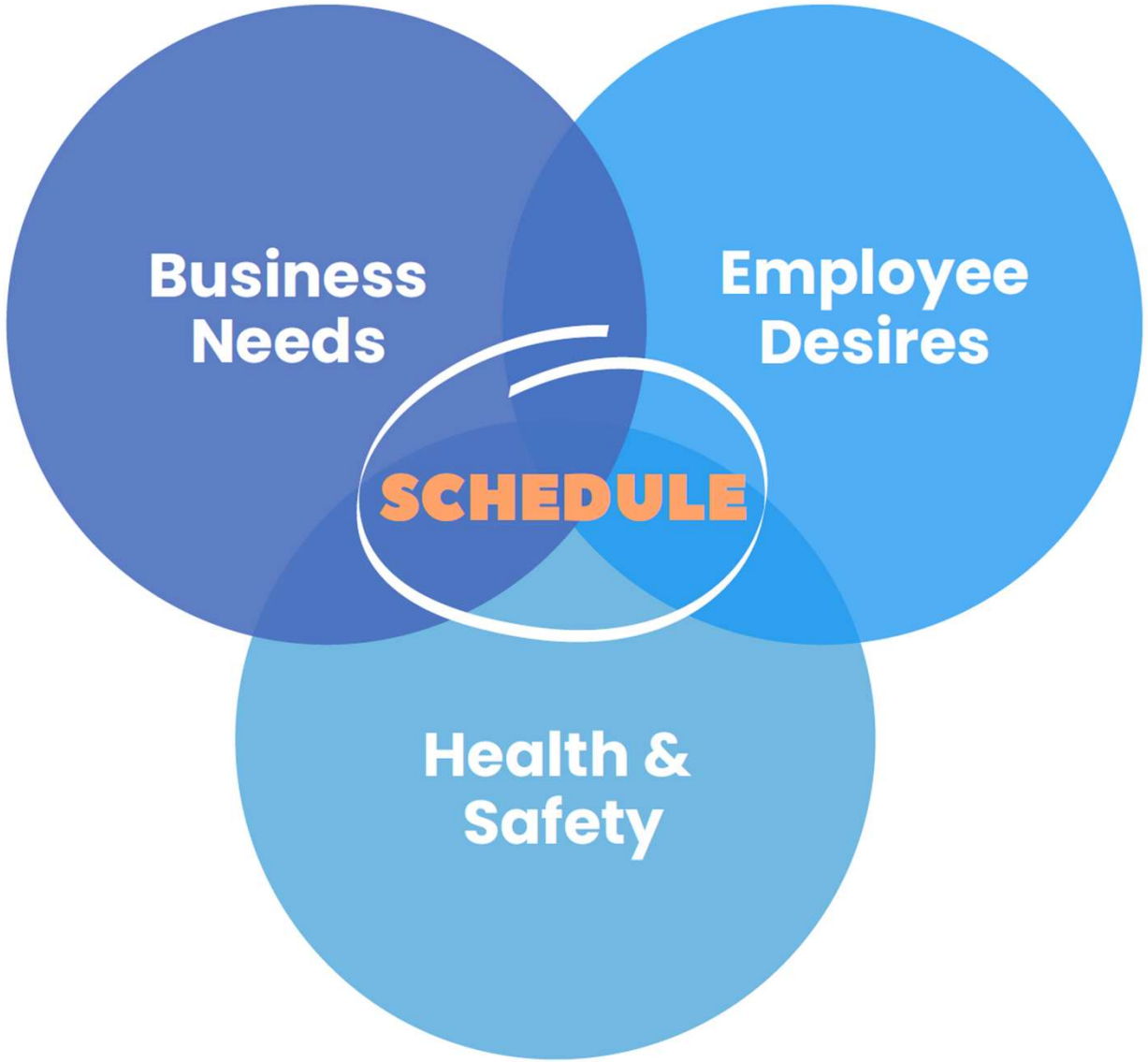
Leveraging the Power of People

Executive Committee Presentation

Dane County Public Safety Communications Center – Madison, WI

July 2025

Key Schedule Design Elements



Definition of a Schedule

Schedule ≠ shift length

Schedule ≠ day on/off pattern

SCHEDULE:

A system for deploying capital, service, and personnel with employee buy-in and specific work, pay and coverage policies.

Project Goals

- **Employee Desires**
  - Implement schedules that create an overall sense of fairness
    - People that want to work overtime get it/people that do not can avoid it
    - Consistency and predictability
  - Results that will be transparent with options that create incentives
- **Health & Safety**
  - Factor shrinkage to ensure proper staffing to reduce stress
  - Design schedules that mitigate burnout
- **Business Needs**
  - Use a third-party expert in workforce scheduling to provide objective results through analysis and communication with all stakeholders
  - Meet service objectives and standards for operating

Business Needs

Conclusions Drawn From the Business Needs Analysis

1. Analysis of 2024 call data confirmed that budgeted staffing of 77 communicators will allow the PSC to meet service levels under all **normal** conditions.
2. Considering current Employee Benefit Handbook(EG720) policies and Dane County Ordinance, pure 8-hour shift schedules are the most effective method for servicing emergency calls within the required service levels.
3. Considering current Employee Benefit Handbook(EG720) policies and Dane County Ordinance, 12-hour shift schedules do not offer any flexibility for adjusting when service is in danger of being compromised.

Above All Else, Emergency Calls Must be Answered

Mission: Dane County Public Safety Communications will answer calls in a prompt, professional and empathetic manner to coordinate the appropriate response ensuring the protection of life and property.

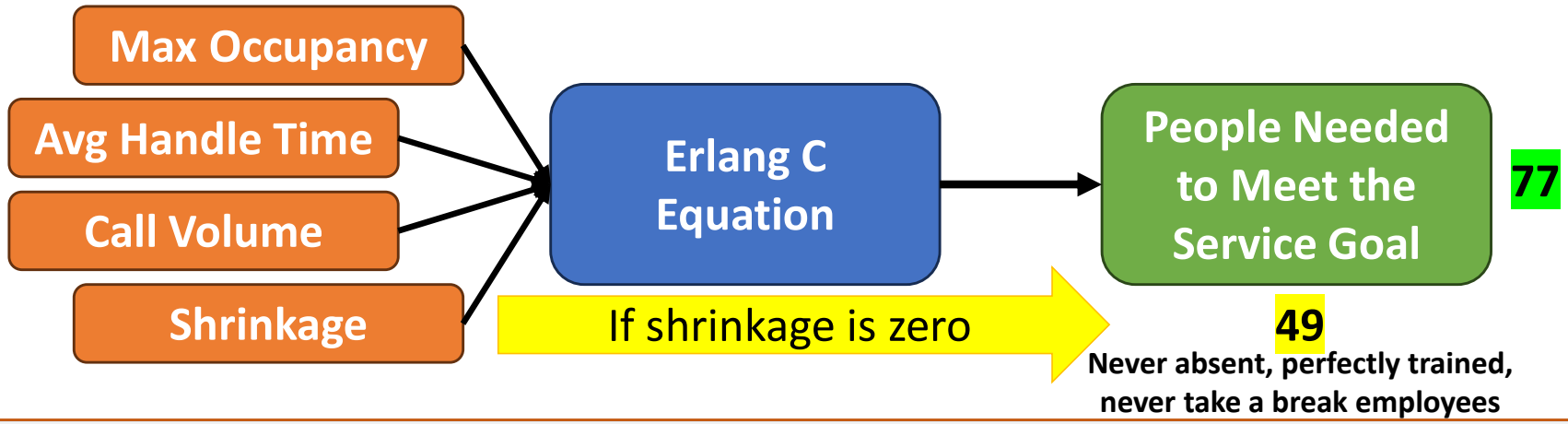
Service Goal Based on National Standard: Answer 90% of the calls in 10 seconds

How does the PSC meet that goal cost effectively?

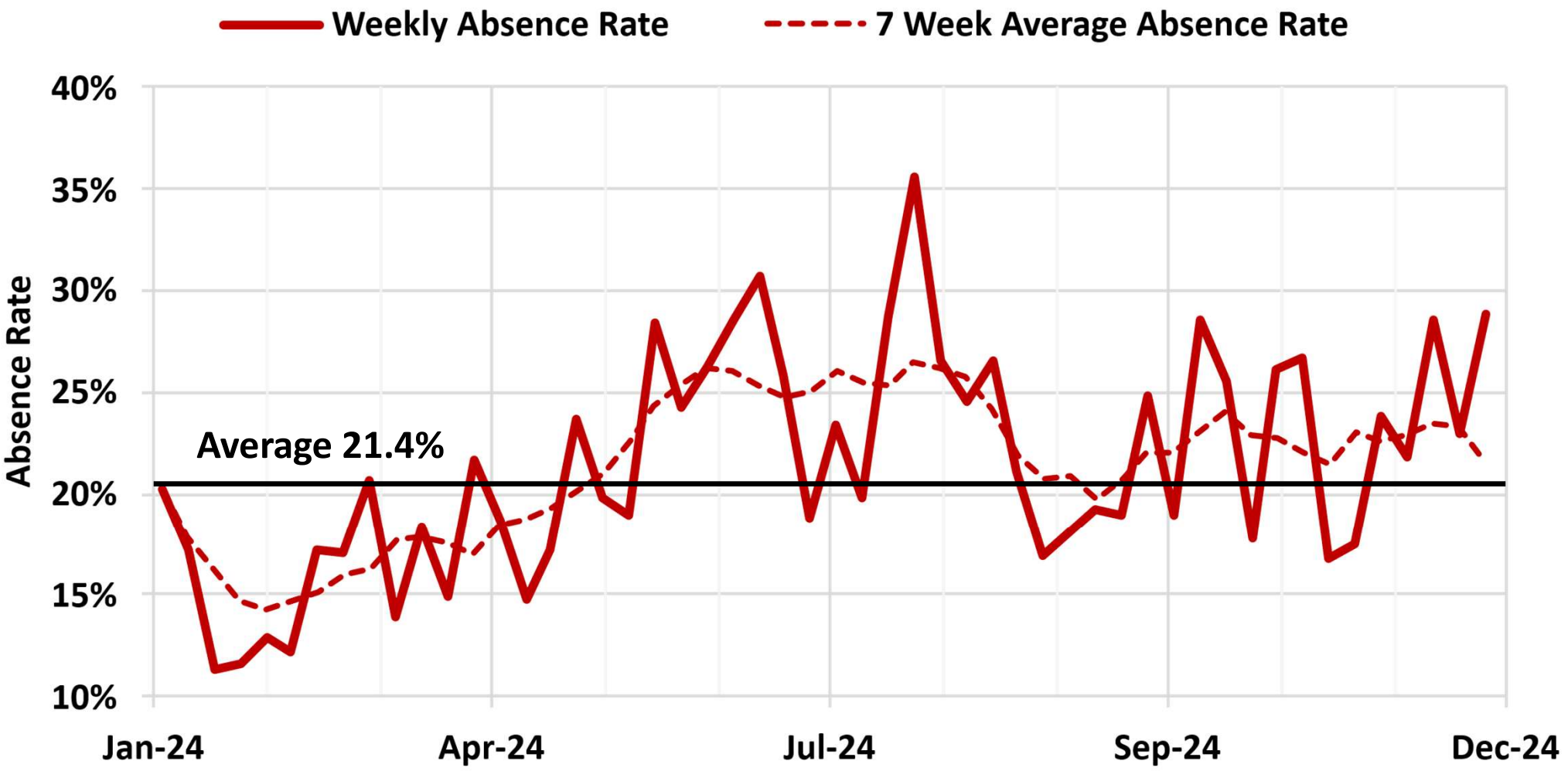
Schedule the correct number of people every minute of every day based on…

…the number of calls being received (**Call Volume**).
…the time it takes to handle each call (**Average Handle Time**).
…accounting for absences, breaks, turnover, training, etc. (**Shrinkage**)
…and accounting for time between calls to decompress. (**Max Occupancy**)

HOW?

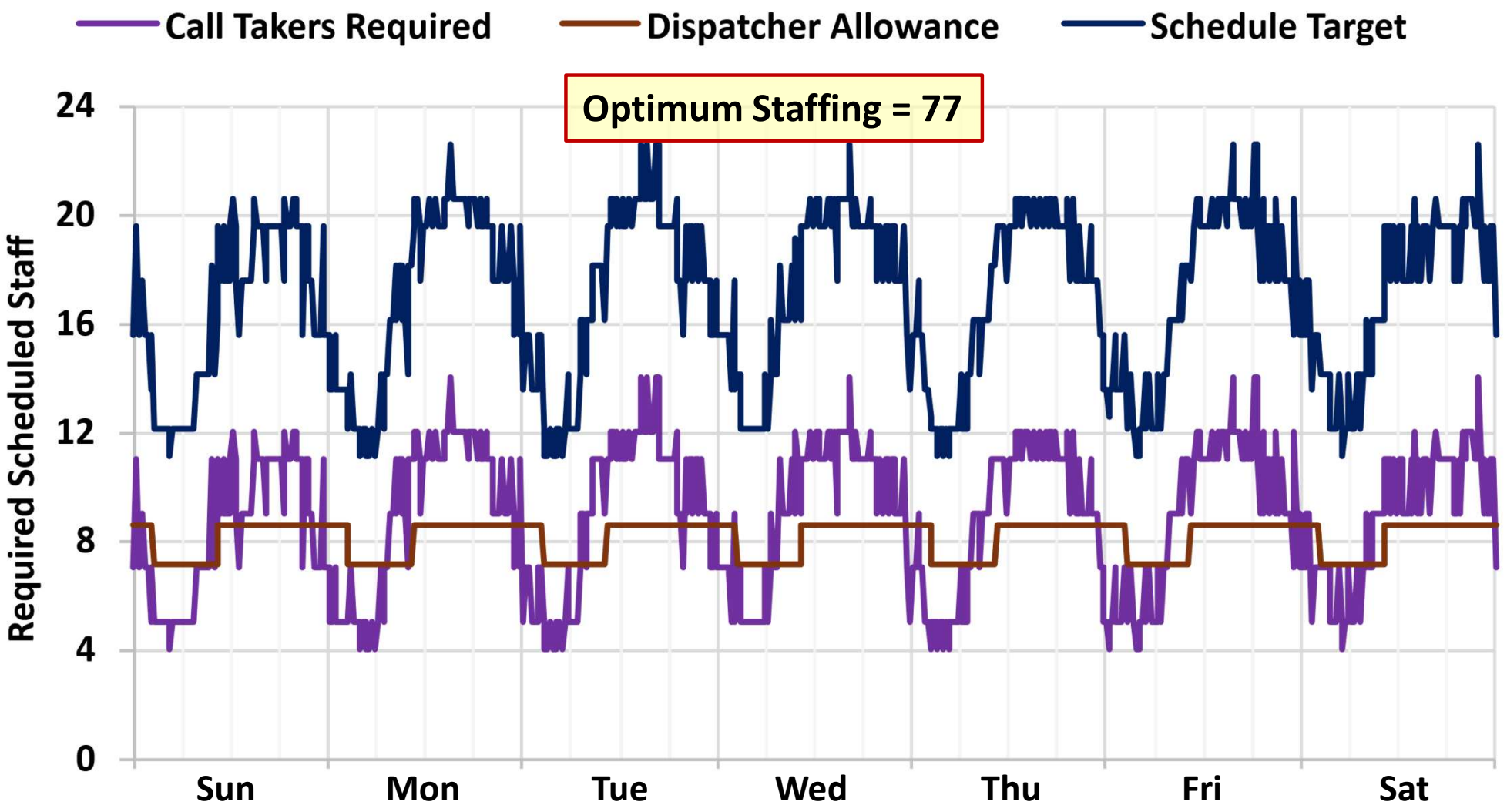


Absences Peak at Around 26% From Mid-May to Mid-August



Source: *Dane County.WI.250404.Hours Analysis*
Source: *Dane County Aladtec Data. Current Employees. Communicators Only*

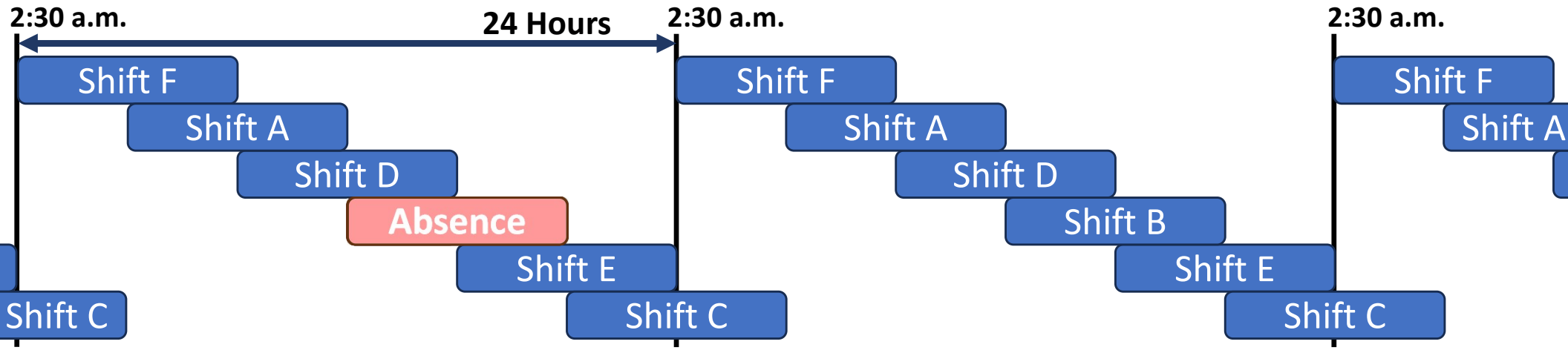
The Sum of the Call Takers and Dispatchers Provides the Overall Schedule Target



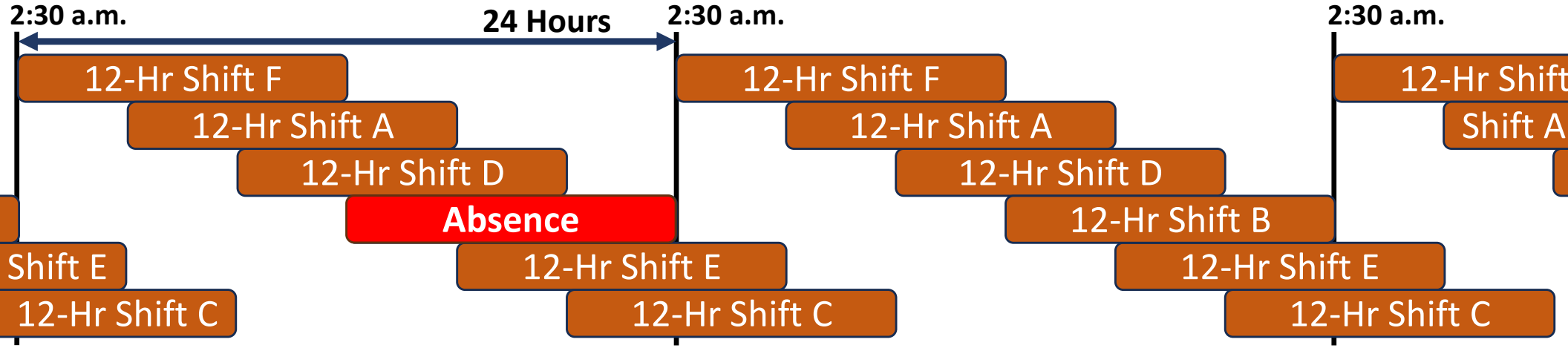
Source: *Dane County.WI.250430. Client Erlang Calculator*

The Reason 8's Work Better Than 12's

Tactical Adjustments on 8-Hour Shifts

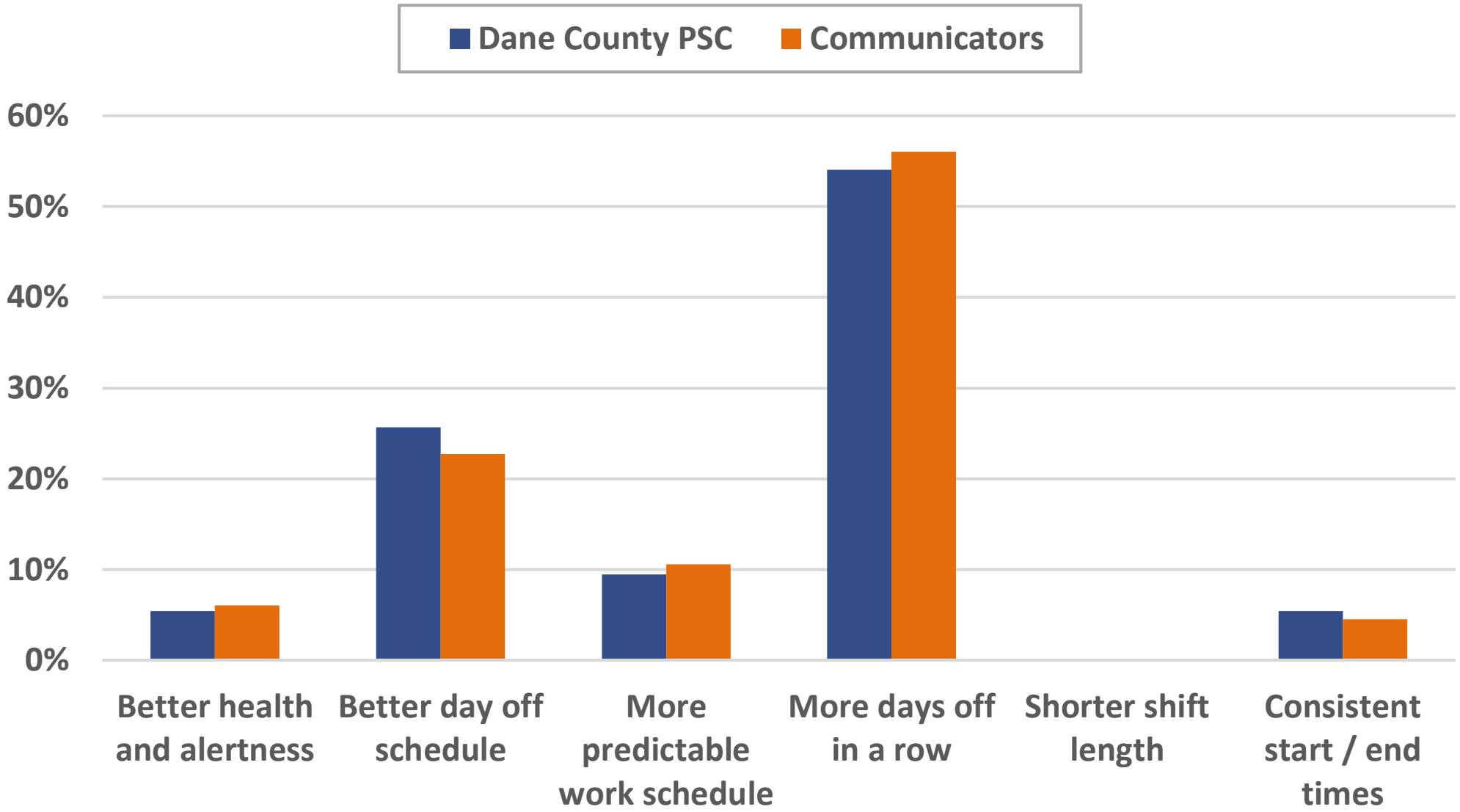


No Ability to Tactically Adjustment on 12-Hour Shifts

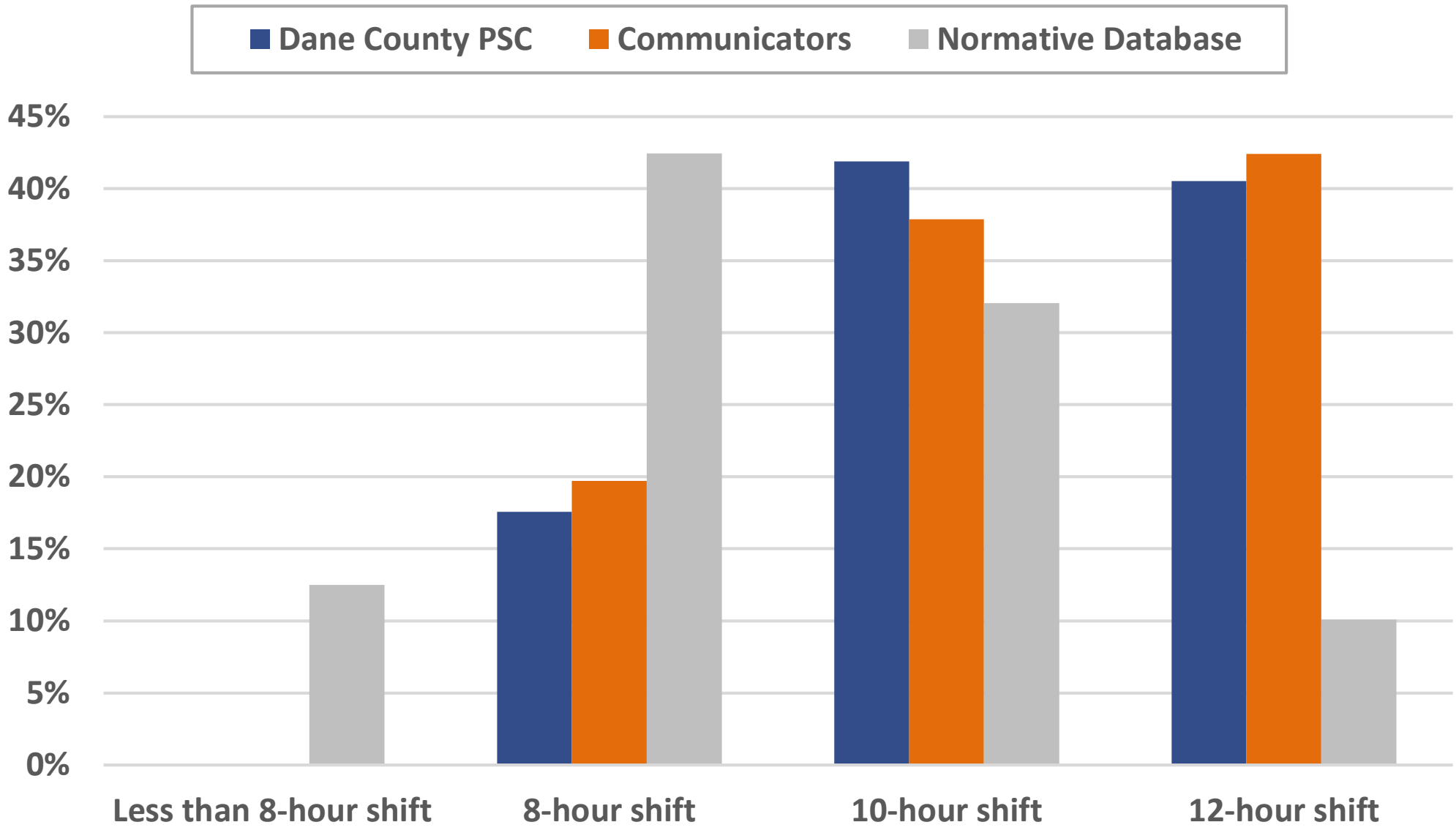


Employee Desires

Different schedules offer different benefits. If you considered changing your schedule, which one of the following would be most important to you?

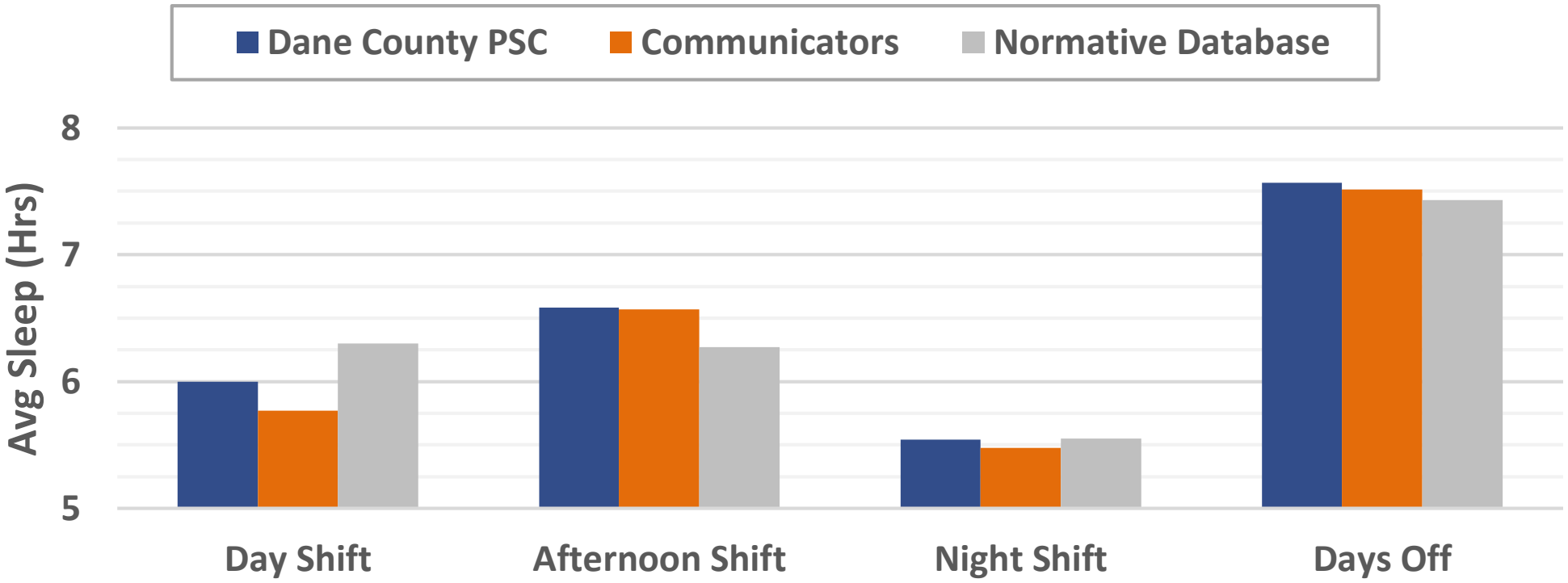


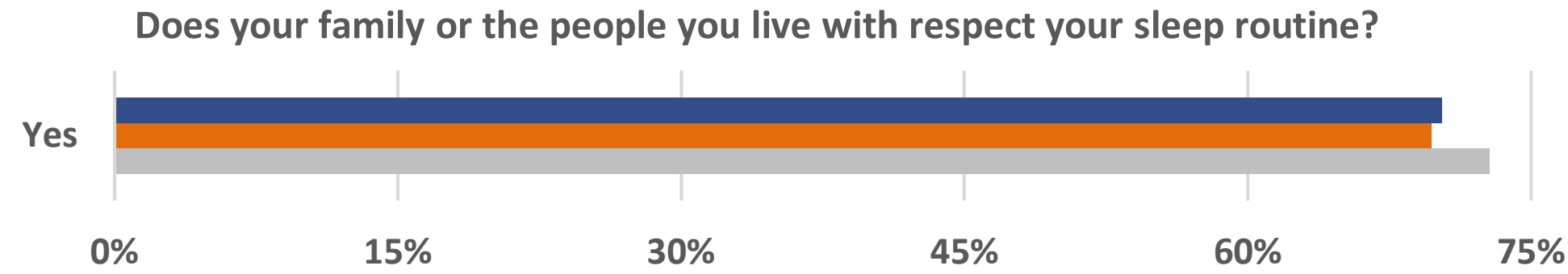
Which would you choose?



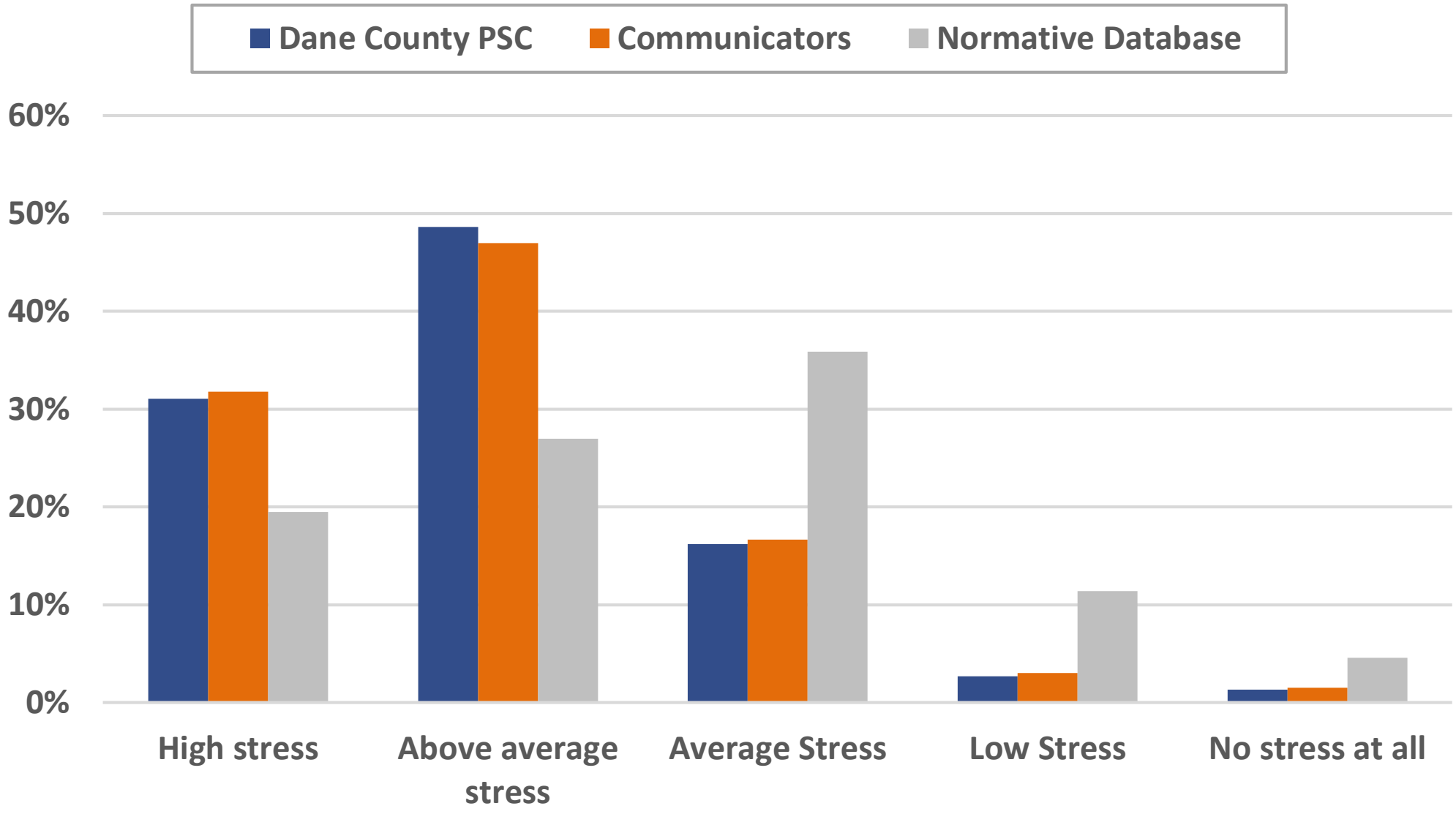
Health & Safety

Hours of Sleep





How would you rate your job in terms of how stressful it is?



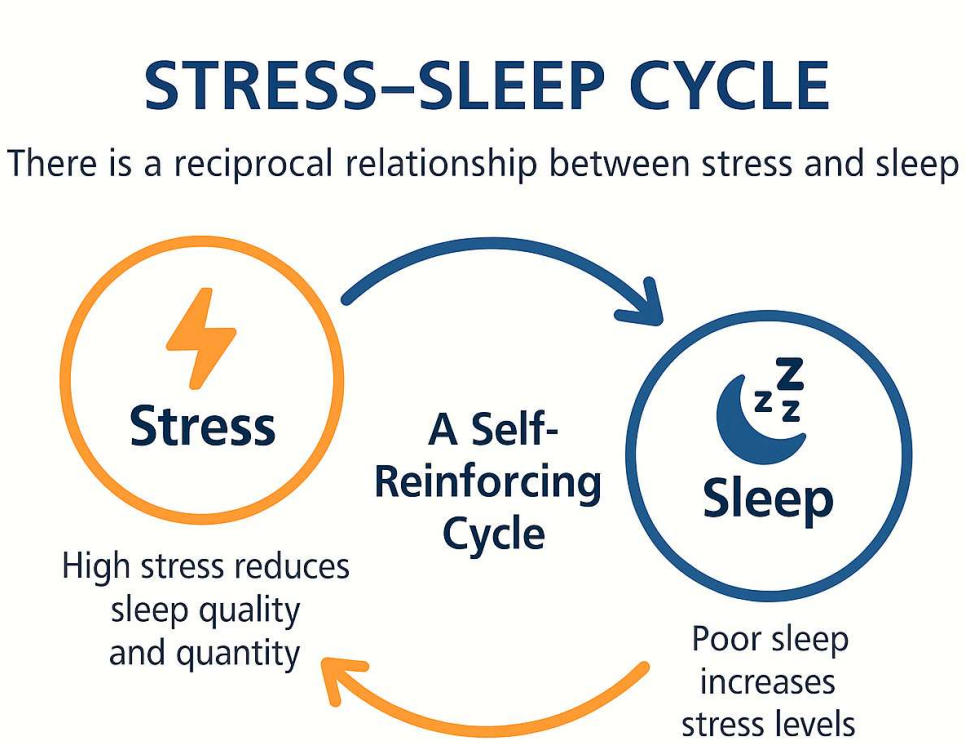
Health and Safety Factors

Stress and Sleep are closely linked

- High stress reduces sleep quality
- Poor sleep increases stress levels

Fatigue from insufficient sleep

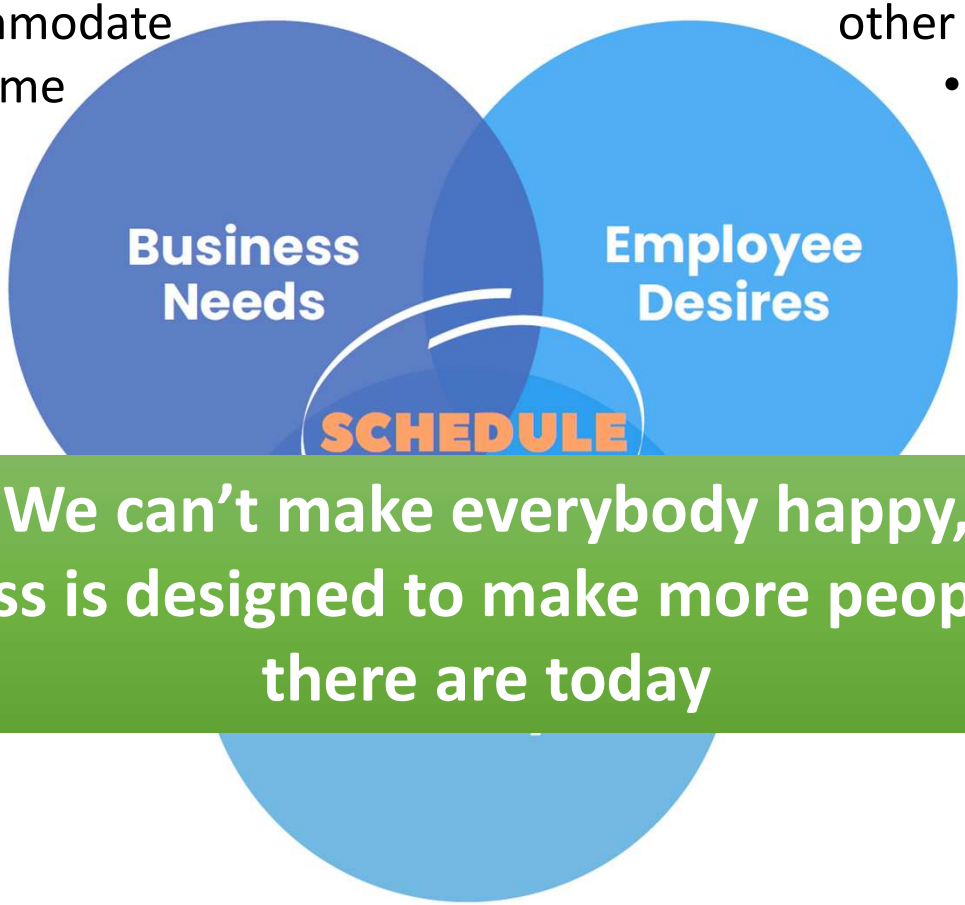
- Weakens the body's ability to manage stress
- Fuels a self-reinforcing cycle



Working more days in a row is more harmful to the stress/sleep cycle than working more hours in a day, therefore getting more days off (especially consecutive days off for the night shift) helps break the cycle

Next Step – Blending the Three Circles

- Must continue to meet required service levels
- Schedules must accommodate effective use of overtime to cover time off
- Need to retain staff



- 80% report a desire for something other than an 8-hour shift
  - People report wanting more days off
  - People report wanting better days off

We can't make everybody happy, but the process is designed to make more people happy than there are today

- Time off is critical to recovery and sleep to help reduce stress
- Consistency and predictability to reduce stress and fatigue

Option 1
“No Change”

Current 8-Hour Model

168-37.3, Balanced, 6(x3)crew, 8-Hour, Fixed Shift, Rotating Day Off, 4-2

Week	S	M	T	W	T	F	S	Work
1*	8	8	8	8	-	-	8	40
2	8	8	8	-	-	8	8	40
3*	8	8	-	-	8	8	8	40
4	8	-	-	8	8	8	8	40
5*	-	-	8	8	8	8	-	32
6	-	8	8	8	8	-	-	32
						Average		37.3

Annual Work Days	243
Annual Days Off	121
Night Shift Annual Quality Days Off	61
Most Days Worked in a Row	4
Annual Weekends Off	9F/17P
Longest Break	2 Days
Longest Break Frequency	61

Shift Start Times:

2:30 a.m.
6:30 a.m.
10:30 a.m.
2:30 p.m.
6:30 p.m.
10:30 p.m.

Current 8/12-Hour Model

168-38, Unbalanced, 2(x2) crew, 12-Hour, Fixed Shift, Semi-Fixed Days Off, 4-3/3-4

Week	S	M	T	W	T	F	S	Work
1	8	8	12	12	-	-	-	40
2	12	12	12	-	-	-	-	36
						Average		38

Week	S	M	T	W	T	F	S	Work
1	-	-	-	-	12	12	12	36
2	-	-	-	12	12	8	8	40
						Average		38

Annual Work Days	182
Annual Days Off	182
Night Shift Annual Quality Days Off	130
Most Days Worked in a Row	4
Annual Weekends Off	52P
Longest Break	4 Days
Longest Break Frequency	26

Shift Start Times:

6:30 a.m.
2:30 p.m.
10:30 p.m.

Coleman Consulting Group proposes new rules around allowing people to work the 12-hour shifts based on trained staff levels

Option 2
10-Hour Schedules

Preferred 10-Hour Schedule

168-35, Balanced, 12(x2)-Crew, 10-Hour, 4-4

	S	M	T	W	T	F	S	Work
1*	10	10	10	10	-	-	-	40
2	-	10	10	10	10	-	-	40
3	-	-	10	10	10	10	-	40
4	-	-	-	10	10	10	10	40
5*	-	-	-	-	10	10	10	30
6	10	-	-	-	-	10	10	30
7	10	10	-	-	-	-	10	30
8	10	10	10	-	-	-	-	30
						Average		35

Annual Work Days	182
Annual Days Off	182
Night Shift Annual Quality Days Off	136
Most Days Worked in a Row	4
Annual Weekends Off	20 F/13 P
Longest Break	4 Days
Longest Break Frequency	45

Shift Start Times:

0:30 a.m.	12:30 p.m.
2:30 a.m.	2:30 p.m.
4:30 a.m.	4:30 p.m.
6:30 a.m.	6:30 p.m.
8:30 a.m.	8:30 p.m.
10:30 a.m.	10:30 p.m.

Summary CCG Recommended Policy Changes

Employee Handbook Changes (Issues Management and EGR Have Tentatively Agreed To)

- Language supporting alternative 10-hour shifts
- Pay equalization for 10-hour shifts
- Ability to revert to 8-hour shifts if service levels can not be maintained on alternative schedules
- When on 8-hour shifts, the ability to revert 12-hour shifts to 8-hour shifts when staffing levels dictate a change is needed

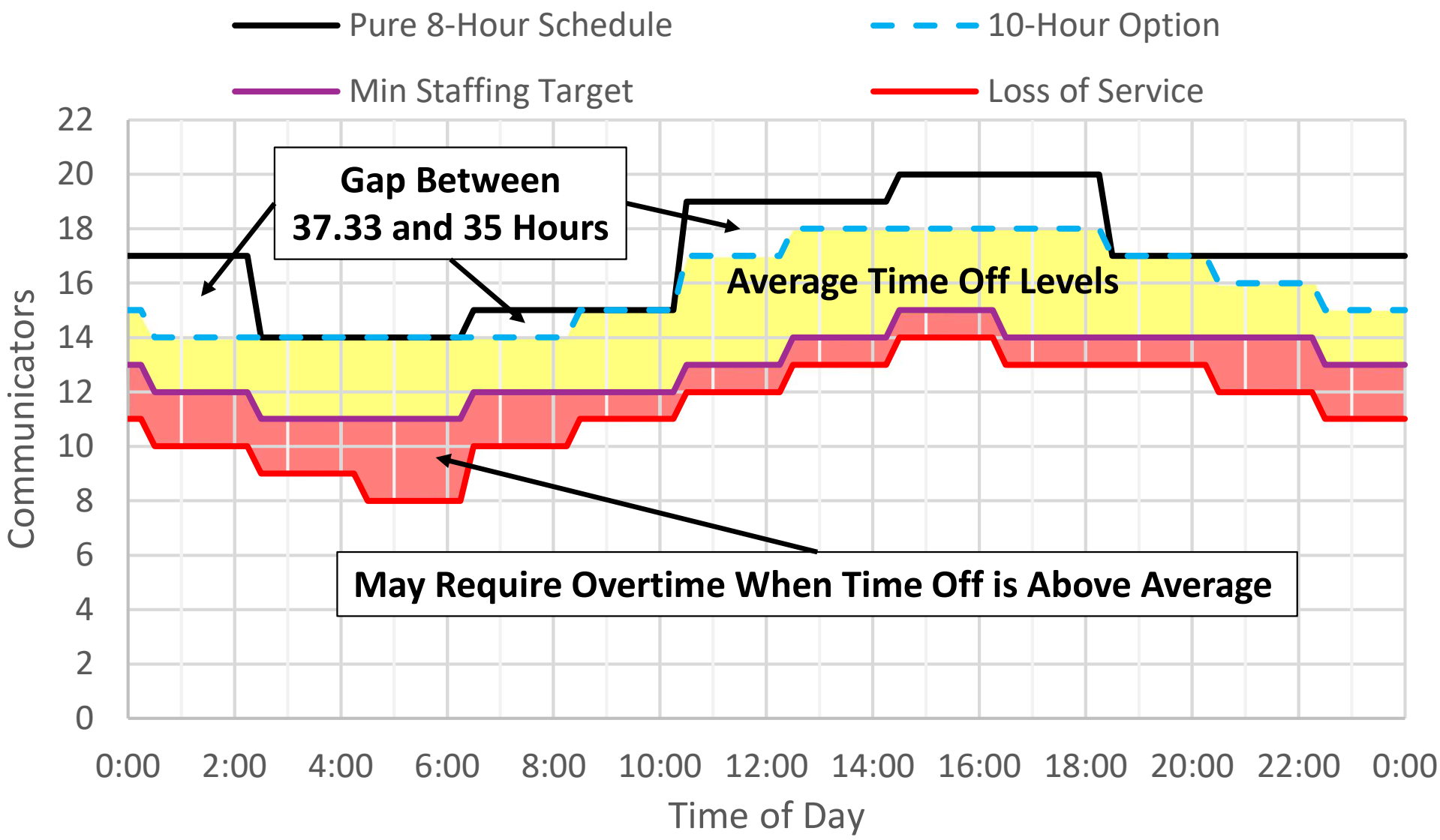
Vacation

- Ensure the annual vacation process is adjusted for 10-hour shift lengths
- More clearly defined vacation groups

Overtime

- Ensure the existing overtime process is adjusted for 10-hour shift lengths
- Place more emphasis on volunteerism

Design Minimums Account for "Normal" Absences – Supervisors Manage to the Mins



Source: *Dane County.WI.250430. Client Erlang Calculator*

How Has/Will the PSC Benefit From the Project?

- Managers and EGR received a great deal of knowledge relating to the factors that impact service and staffing
- Processes and analysis tools used by CCG are part of the tools the PSC will continue to use in the coming years
- The process and analysis was transparent for all stakeholders
- A better understanding of what it takes to balance cost and required service

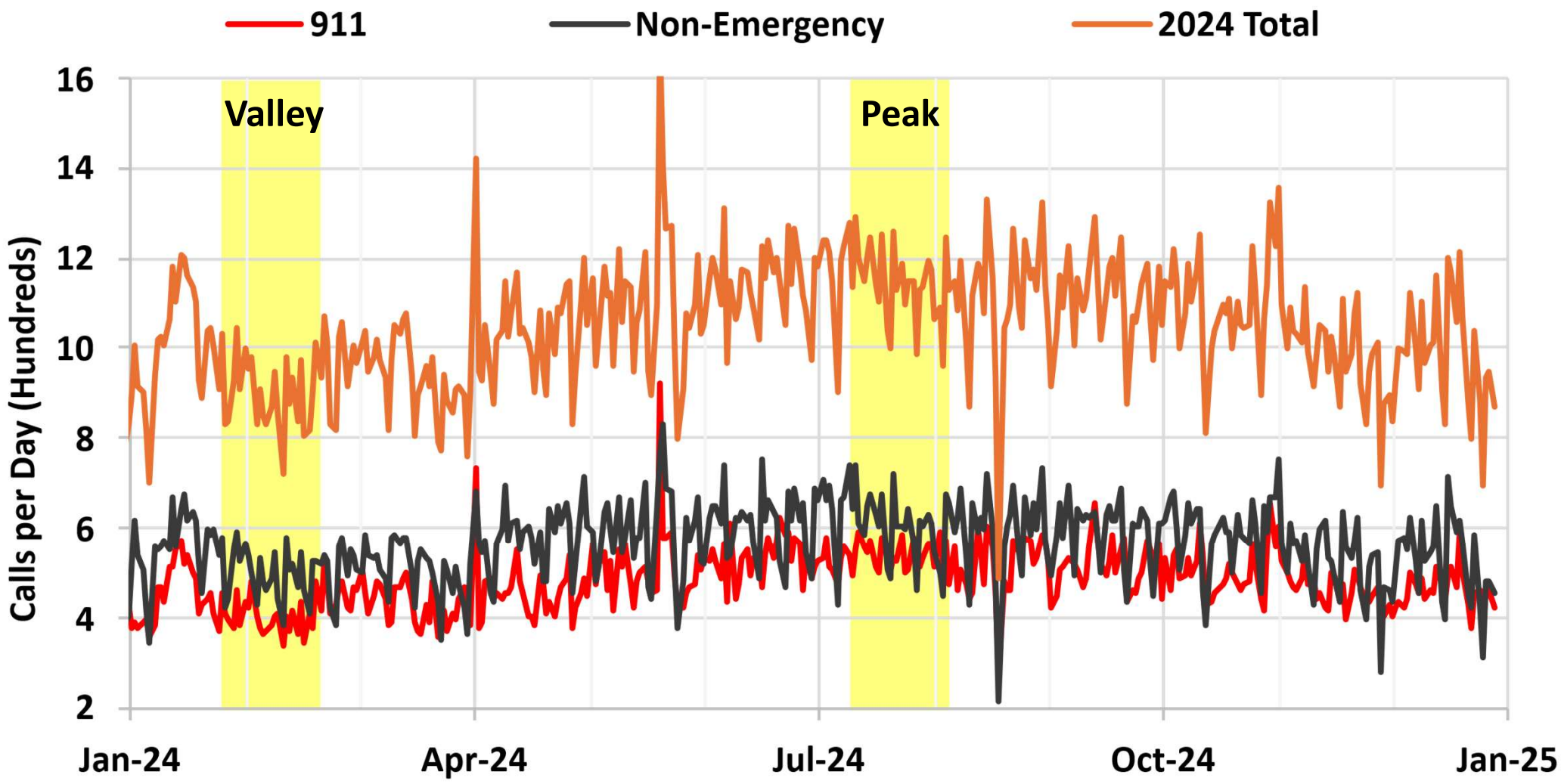
COLEMAN Consulting Group

Leveraging the Power of People

Thank you.

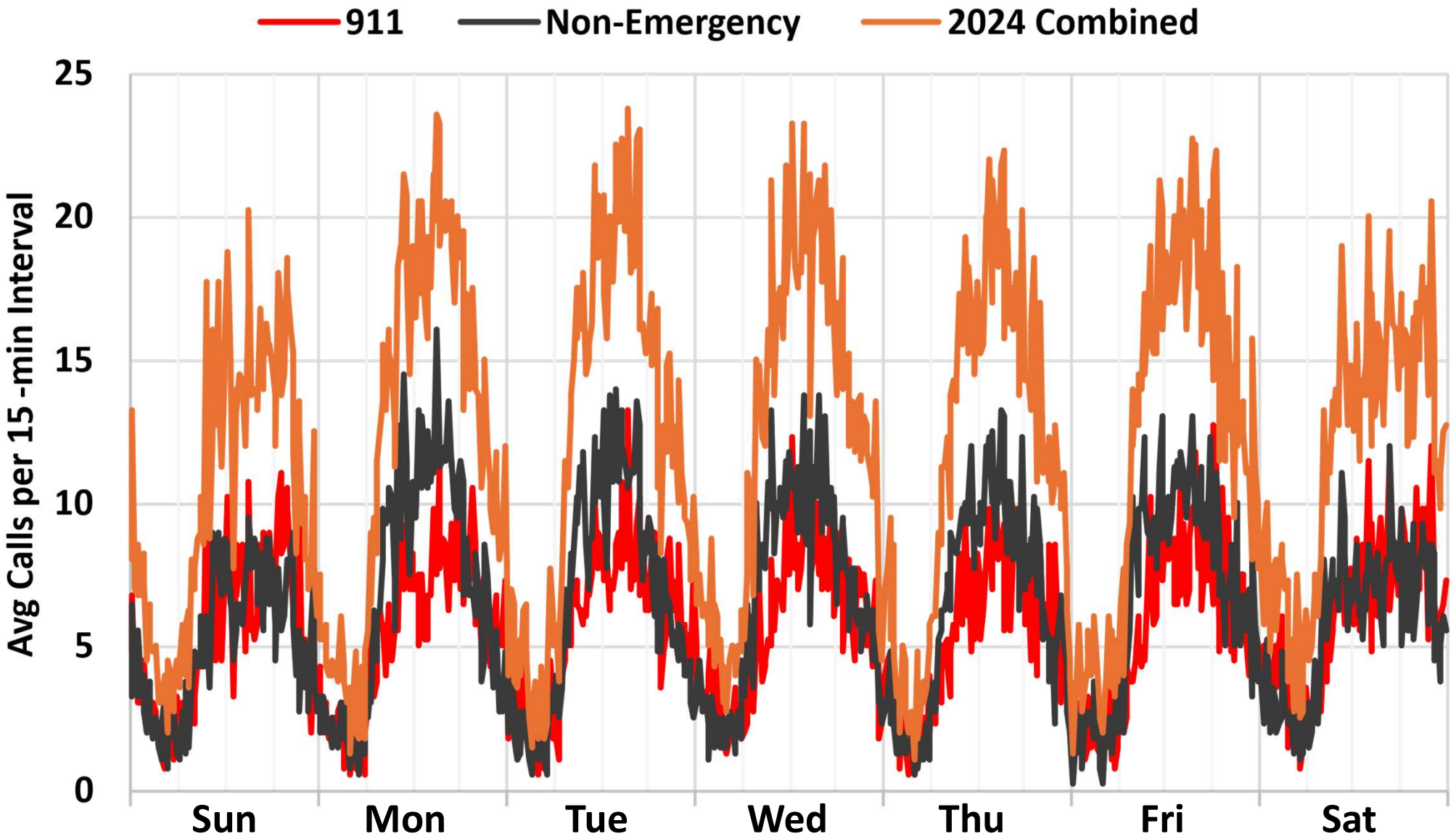
Appendix

Staffing and Scheduling Should be Based on the Peak Period of Call Volume



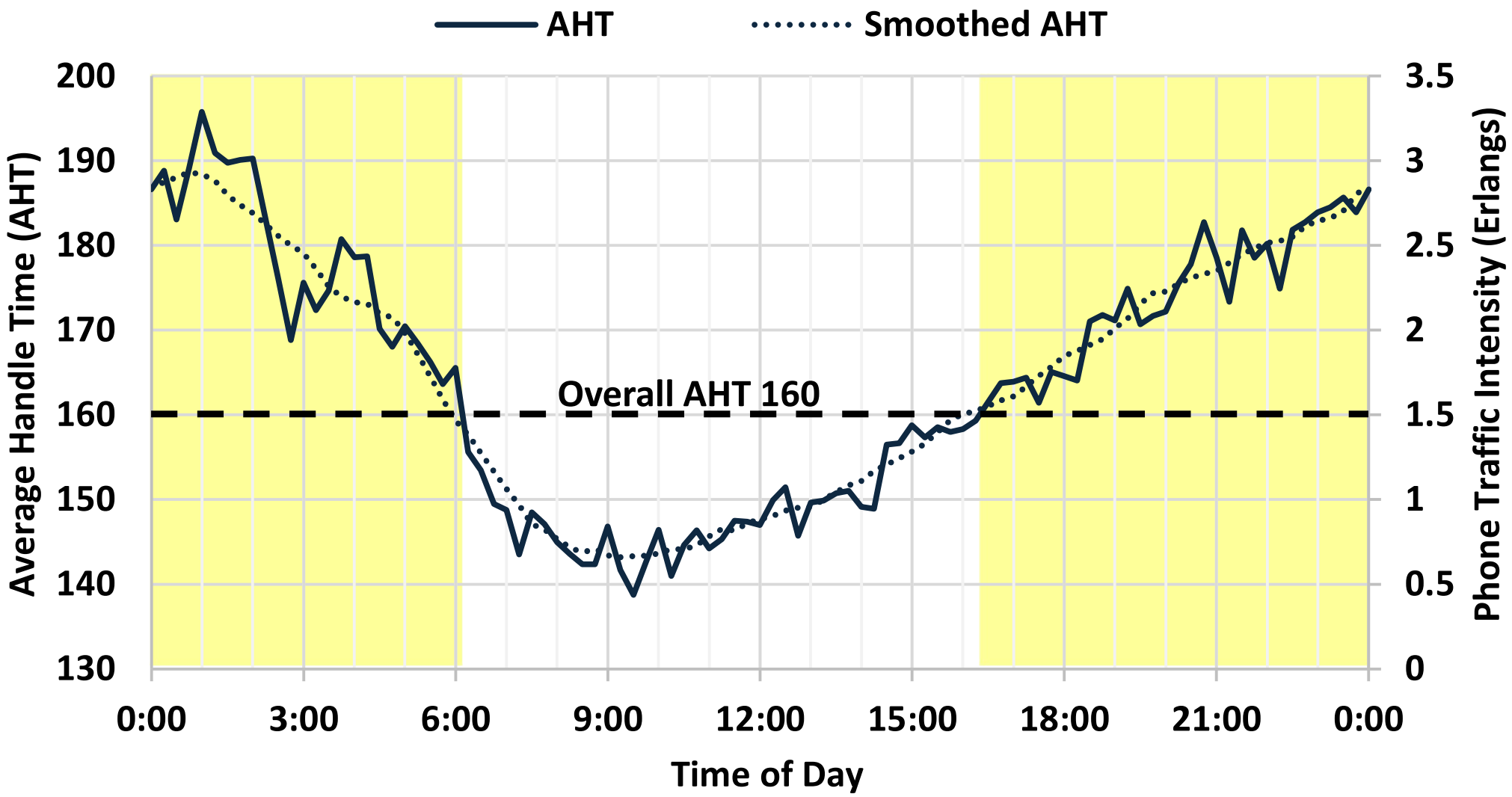
Source: *Dane County.WI.250328.Charts for the OAF*

Daily Call Volume Profiles Must Also be Considered to Determine Shift Staffin



Source: *Dane County.WI.250328.Charts for the OAF*

Using a Dynamic AHT Provides a More Accurate Reflection of Workload



Source: *Dane County.WI.250328.Charts for the OAF*

10-Hour Option A

168-35, Balanced, 12(x2)crew, 10-Hour, Fixed Shift, Rotating Day Off, EOWO

Week	S	M	T	W	T	F	S	Work
1	10	-	-	10	10	-	-	30
2	-	10	10	-	-	10	10	40
						Average		35

Annual Work Days	182
Annual Days Off	182
Night Shift Annual Quality Days Off	104
Most Days Worked in a Row	3
Annual Weekends Off	26
Longest Break	3 Days
Longest Break Frequency	26

10-Hour Option B

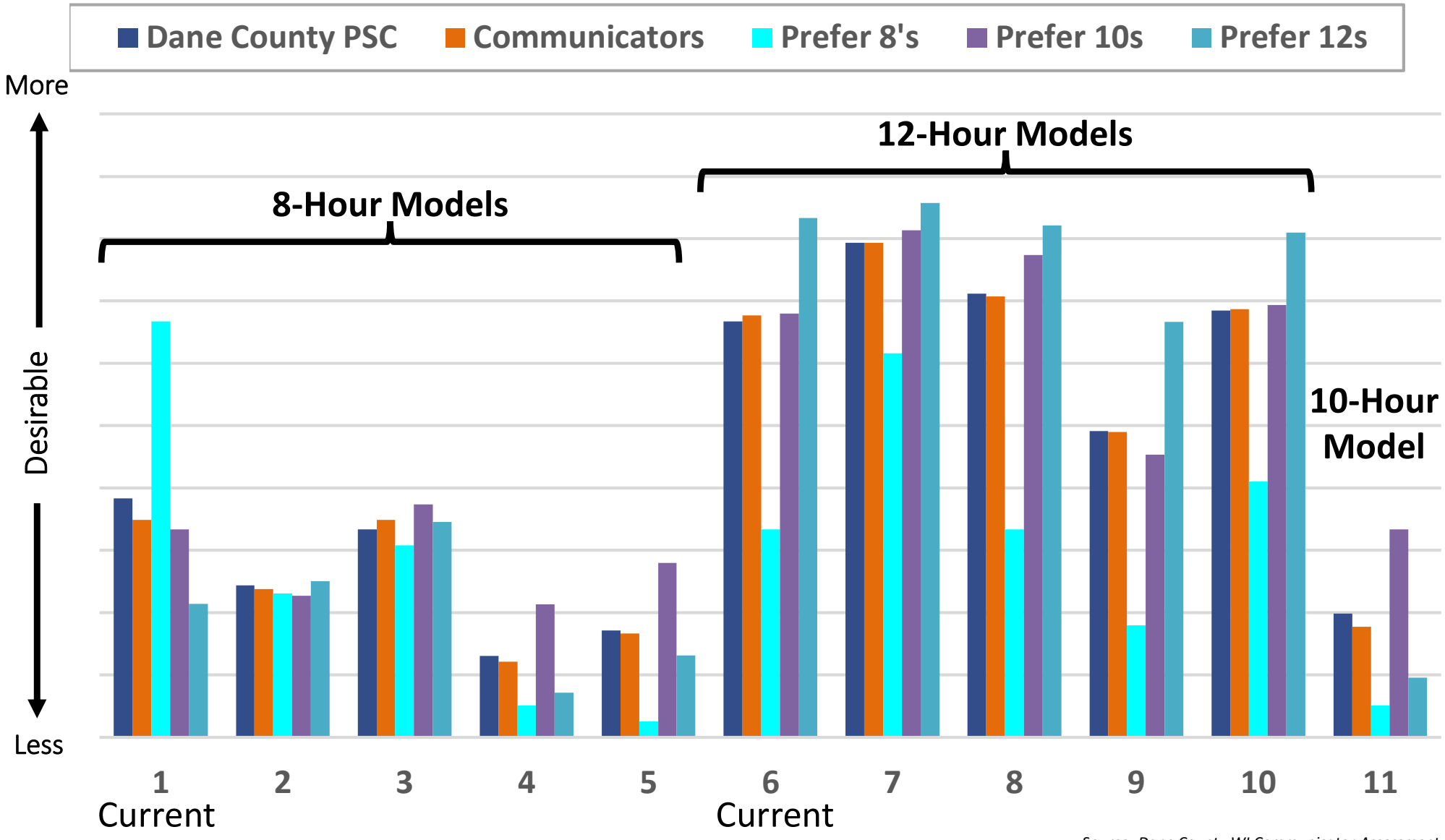
168-35, Balanced, 12(x2) crew, 10-Hour, Fixed Shift, Semi-Fixed Days Off, 5-5/2-2

Week	S	M	T	W	T	F	S	Work
1A	10	10	10	-	-	-	-	30
2A	-	10	10	-	-	10	10	40
						Average		35

Week	S	M	T	W	T	F	S	Work
1B	-	-	-	10	10	10	10	40
2B	10	-	-	10	10	-	-	30
						Average		35

Annual Work Days	182
Annual Days Off	182
Night Shift Annual Quality Days Off	130
Most Days Worked in a Row	5
Annual Weekends Off	26
Longest Break	5 Days
Longest Break Frequency	26

What Models Float to the Top?



Source: *Dane County.WI.Communicator Assessment*

Summary of Implementation Results

Which option do you think would be best for Dane County PSC?

	Count	Percent
Current Schedules	13	20%
10-hour Shifts	52	79%

If Option 2 is chosen for scheduling 2026, which would you be looking to work?

	Count	Percent
10-hour Shifts	43	64%
8-hour Shifts	9	13%
Depends on Start Time	15	22%

Which 10-Hour Option do you think would be better for Night shift communicators?

	Count	Percent
Option A	11	17%
Option B	16	25%
Option C	35	56%

*Other Responses have been removed

Summary of Implementation Results

Which 10-Hour Option do you think would be better for Day shift communicators?

	Count	Percent
Option A	26	41%
Option B	17	27%
Option C	19	30%

Do you think it would help night shift employees to have a schedule that allows them to better adapt circadian rhythms?

	Count	Percent
No	10	16%
Yes	50	79%

*Other Responses have been removed

Summary of Implementation Comments

- Many support moving to **10-hour shifts** due to better **work-life balance**, more **days off**
- Some would still prefer **12-hour shifts but** acknowledge they're not available.
- **Opposition** to using **holiday/vacation time** to make up for the 35-hour week shortfall with preference to **work an extra 5-hour shift per pay period** rather than sacrifice benefit time.
- Fears that implementing 10-hour shifts without full staffing will **repeat past mistakes** (e.g., burnout, forced on-call, stress on supervisors).
- Belief that **different shifts** (day, night, second) may need **different solutions but** concerns this may complicate approval.
- Appreciation for being asked but some skepticism that input will be honored.
- Requests for better **communication and follow-through** from leadership.
- Comments highlight **low morale**, **stress**, and **lack of adequate time off** — relative to night shift having enough consecutive days off to feel normal when interacting with family and friends.

Daily Variation in Scheduled and Critical Staffing Targets

Timeframe	Pure 8-Hour Schedule[1]	10-Hour Option[2]	Min Staffing Target[3]	Loss of Service[4]
0030 to 0230	17	14	12	10
0230 to 0430	14	14	11	9
0430 to 0630	14	14	11	8
0630 to 0830	15	14	12	10
0830 to 1030	15	15	12	11
1030 to 1230	19	17	13	12
1230 to 1430	19	18	14	13
1430 to 1630	20	18	15	14
1630 to 1830	20	18	14	13
1830 to 2030	17	17	14	13
2030 to 2230	17	16	14	12
2230 to 0030	17	15	13	11

1 – Optimized for 76 scheduled Communicators averaging 37.33 hours per week (overtime remains below 10%)
2 – Optimized for 76 scheduled Communicators averaging 35 hours per week and a reduction of shrinkage of 6.25% (overtime remains below 10%)
3 – Staffing of 62 on 10-hour shifts or 59 on 8-hour shifts with a combination of some cancelled time off and about 21% overtime
4 – Staffing of 55 on 10-hour shifts or 51 on 8-hour shifts with all time off cancelled and about 21% overtime

Project Timeline / Next Steps

	Activities	March	April	May	Early June	Late June	July
Operations Analysis							
1	Project Kick Off	◆					
2	Data Check	■	■				
3	Analysis of Workload and Current Operations Practices	■	■				
4	Operations Analysis Feedback		◆				
Employee Assessment							
5	Employee Assessment Design		■				
6	Employee Assessment		◆				
7	Employee Assessment Feedback Report			■			
8	Preliminary Solution Design (PSD)			■			
9	Employee Assessment Feedback			◆			
Implementation							
10	PSD Meeting(s) with Management to discuss Solution Design and Implementation			◆			
11	Final Solution Design (FSD)			■	■		
12	Prepare Draft Implementation Manual				■		
13	Finalize Implementation Manual				■	■	
14	Implementation Meetings					◆	
15	Deliver Implementation Plan and Documentation					■	■
16	Follow-up to Ensure Success Beyond 16 Weeks						■

Combined Trip

Combined Trip