Memorandum

CITY OF DALLAS

DATE September 2, 2011

TO Honorable Mayor and Members of the City Council

SUBJECT **Dallas Fire-Rescue FY2011-12 Proposed Budget**

On Wednesday, September 7, 2011 you will be briefed on the Dallas Fire-Rescue FY2011-12 Proposed Budget. The presentation material is attached for your review.

Should you have any questions please contact my office.

A.C. Gonzalez
First Assistant City Manager

CC: Rosa Rios, Acting City Secretary
Thomas P. Perkins, Jr., City Attorney
Craig D. Kinton, City Auditor
C. Victor Lander, Administrative Judge
Ryan Evans, Assistant City Manager
Jill A. Jordan, P.E., Assistant City Manager
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Joey Zapata, Interim Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Frank Librio, Public Information Office
Helena Stevens-Thompson, Assistant to the City Manager

Dallas Fire-Rescue

FY 11-12 Proposed Budget

Presented to the Dallas City Council

September 7, 2011

This briefing addresses recent questions regarding the Dallas Fire-Rescue recommended FY 11-12 Budget

Purpose

Dallas Fire-Rescue provides several key services to the residents and visitors of Dallas, including:

- Fire emergency response
- Emergency medical response
- 9-1-1 Dispatch for Fire and Emergency Medical Service (EMS)
- Fire prevention and inspections
- Urban Search and Rescue
- Hazardous materials response and cleanup
- Fire equipment maintenance and supply

DFR At-A-Glance

Several types of apparatus are used to ensure that appropriate fire/rescue functions are provided throughout the City

- Engine (pumper truck) – Delivers water to a fire; carries non-transport rescue equipment for emergency medical service; DFR has at least two paramedics on each engine; most often the first on the scene on any emergency call

DFR At-A-Glance

- Truck (ladder truck) – Carries ladders and other equipment to fight fires

DFR At-A-Glance

- Rescue (Mobile Intensive Care Unit (MICU)) – Ambulance that provides advanced life support (ALS) and transport of patients to hospitals
  - Peak Demand Rescue – A rescue that operates during hours typically experiencing high call volume; generally operate between 10 and 13 hours per day

DFR At-A-Glance

- Aircraft Rescue Firefighting (ARFF) – Specifically used at Love Field and Dallas Executive Airport for response to aircraft emergencies

DFR At-A-Glance

- Hazardous Materials Team – Provides response and recovery operations for emergencies involving hazardous substances, weapons of mass destruction, or an other natural disasters that may occur

DFR At-A-Glance

- Urban Search and Rescue – Provides immediate search and rescue capabilities, primarily in the 16 county North Central Texas Council of Governments Region

DFR At-A-Glance

Dallas Fire-Rescue is a General Fund Department with:

- Approximately 1,800 uniform and 90 civilian employees
- 56 Stations housing 55 engines, 22 trucks, 34 frontline rescues, 11 peak demand rescues, and ARFF equipment
- Highly trained personnel
  - 830 Paramedics (currently certified); 667 Paramedics (formerly certified)
  - 119 Emergency Medical Technicians
  - 77 Urban Search & Rescue Officers
  - 69 Inspectors
  - 49 Hazmat Technicians
  - 36 Swift Water Rescue Officers
  - 24 Arson Investigators

DFR At-A-Glance

Each year, DFR:

- Dispatches and responds to over 200,000 calls for service
- Transports over 66,000 patients to area hospitals
- Provides 50,000 fire inspections
- Installs 5,000 smoke detectors
- Conducts over 600 arson investigations

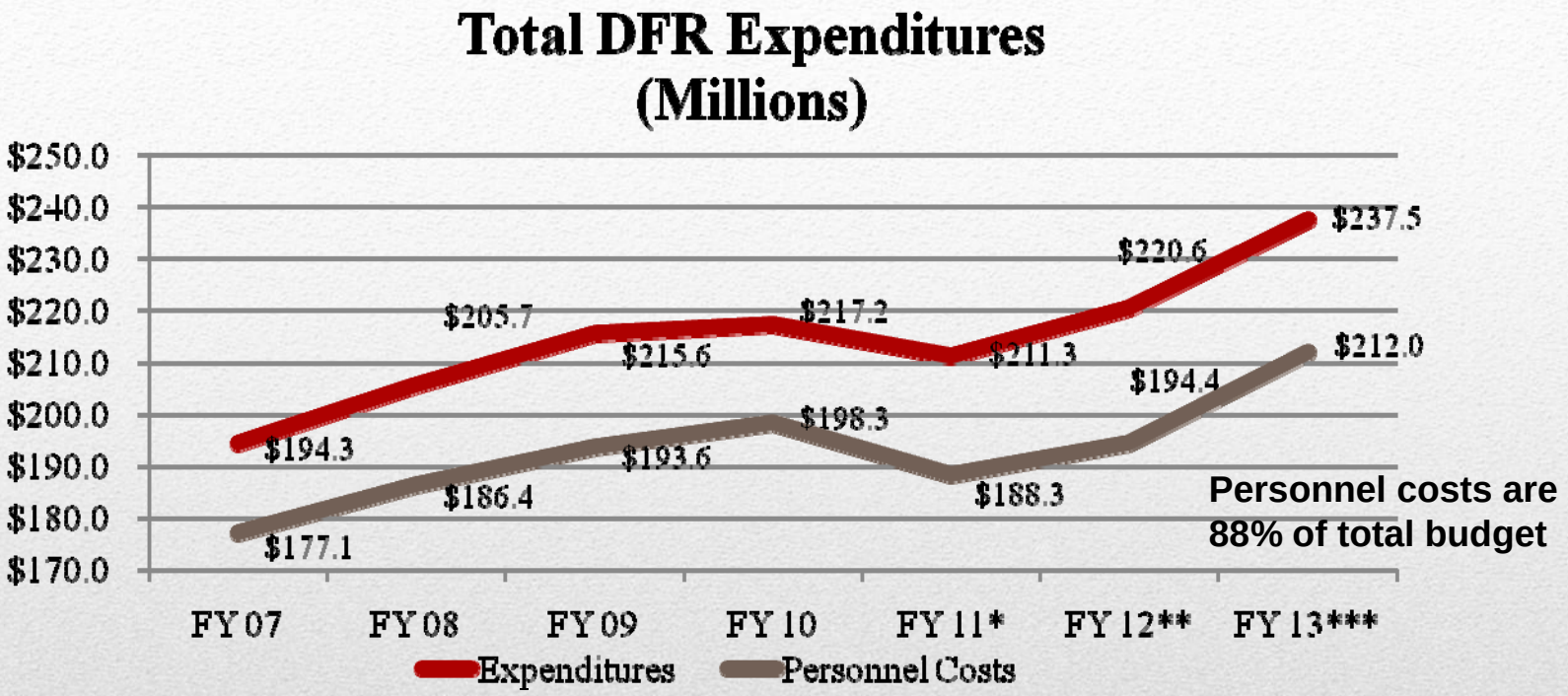
DFR At-A-Glance

Dallas Fire-Rescue compares its response times to standards established by the National Fire Protection Agency (NFPA)

DFR Response Times Compared to NFPA Standard			
Category	**DFR Current Average**	**NFPA Standard****	**Exceeds Standard**
Dispatch Total Processing Time	**:58**	**:60**	**(:02)**
1st Engine on Scene for Fire Suppression*	**4:36**	**5:20**	**(:44)**
1st Truck on Scene for Fire Suppression*	**6:14**	**9:20**	**(3:26)**
1st Responder with Advanced Life Support (ALS) to Medical Incident*	**5:26**	**9:00**	**(3:34)**

* Response time is measured from alarm sent to station to unit arrival
** NFPA 1710, 2010 Edition

DFR At-A-Glance



Personnel costs are 88% of total budget

Note: 311 Call Center removed in all years as it is now not in DFR budget

* FY 11 based on June estimate

** FY 12 based on proposed budget

*** FY 13 based on projected added personnel cost and Meet and Confer increases

Financial Trends

FY 11-12 DFR Proposed Expenditures Overview	
Service	**FY 12 Proposed Budget**
Fire and Rescue Emergency Response	$153.4m
Fire Training and Recruitment	$18.4m
Fire Dispatch and Communications	$12.0m
Emergency Medical Service	$9.6m
Inspection and Life Safety Education	$9.2m
Equipment Maintenance and Supply	$7.2m
Special Operations	$6.0m
Fire Investigation	$3.3m
New Construction	$1.5m
Total Proposed	**$220.6m**

DFR Budget Overview

FY 11-12 DFR Proposed Budget – Key Budget Changes	
Item	**Budget Impact**
Provide paramedic training for 60 firefighters	$4.5m
Hire 200 recruits	$2.5m
Meet and Confer	$1.7m
Refurbish 19 ambulances	$1.5m
Increased fuel costs	$0.5m
Open Station 50 in April 2012	$0.4m
Revise Fire Dispatch Schedule	($1.0m)
Optimize truck placement and place 1 truck in reserve	($2.0m)

DFR Budget Overview

In preparation for FY 11-12, DFR examined several operational areas to determine how it might maintain or enhance public safety while increasing efficiency:

- Reviewed all engines, trucks, rescues, and peak demand rescue operations to ensure equipment is properly located and/or scheduled - **optimization**
  - Determined engine and rescue placements were good
  - Determined there are opportunities for enhancement in truck placement
- Analyzed overtime usage and the impact of hiring additional recruits instead of paying overtime rates
- Reviewed the Fire Dispatch schedule to maximize available resources

DFR Budget Overview

EQUIPMENT OPTIMIZATION

Over the past 25 years, the City has experienced changes in:

- Development and building standards affecting construction quality
- Concentrations of residential density
- Traffic flow
- Light rail development
- Hazardous materials being stored
- Socio-economic and age changes in the population
- Lifestyle changes
- Governmental financial capacity
- Fire and emergency response technology capabilities
- Increased use of sprinkler systems
- Better roofing materials used in residential and commercial construction

Need for Optimization

The extent of change has impacted the department in:

- Appropriateness of apparatus placement
- Types of services required
- Workload distribution
- Types of apparatus required
- Training requirements
- Design and capabilities of apparatus

Need for Optimization

Apparatus placement has not been analyzed in over 25 years

- Analysis was completed using Deccan International, Computer Aided Dispatch (CAD) Analyst/ADAM, a software program used by over 90 departments in the U.S. and Canada* to analyze the impact of deployment changes on response performance
- Resources are optimized based on incident **and** coverage needs
  - Incident analysis uses information on actual run time data
    - 3 years of data compiled on CAD files
  - Coverage analysis is based on 2.5 mile truck coverage
- Program also uses historical data of equipment availability involving structure fires
- Program can create optimization recommendations based on specific criteria or model performance of adjusted system scenarios

*See Appendix for a list of selected clients

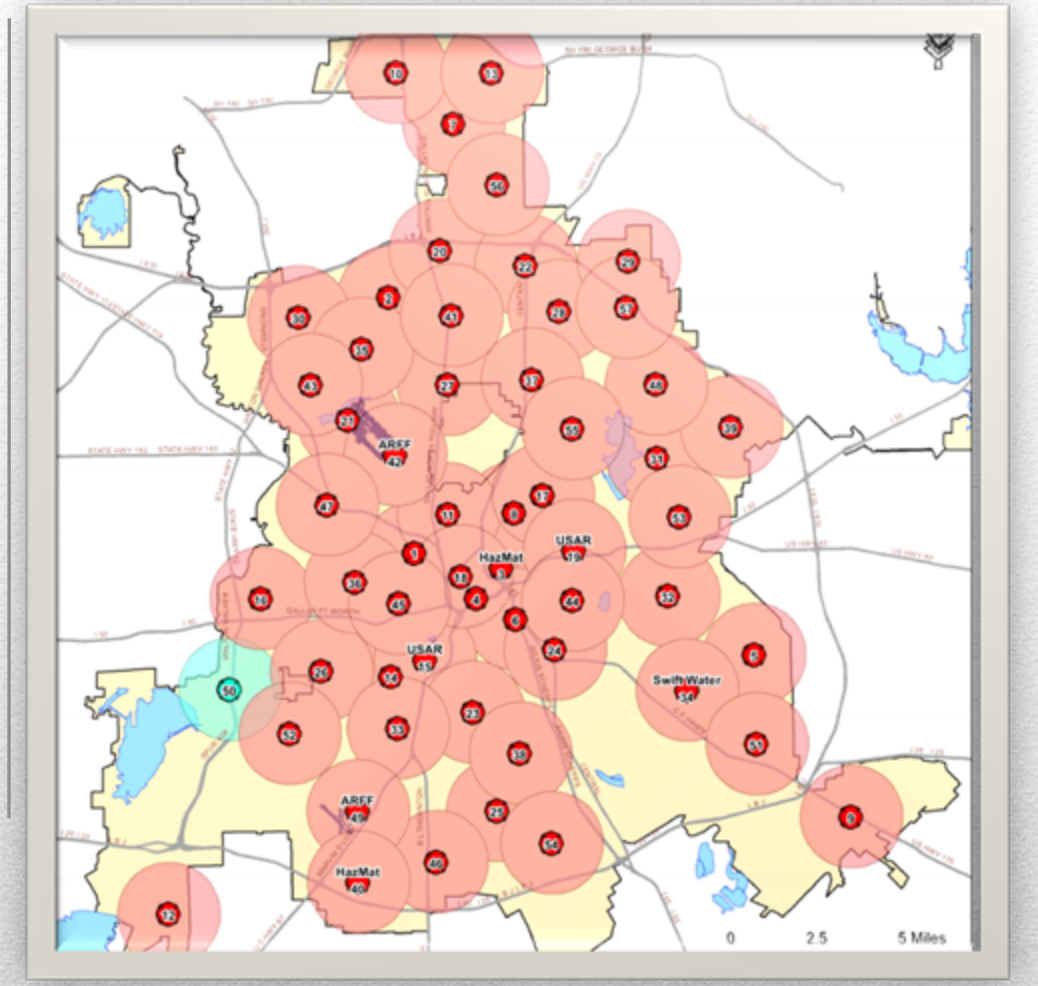
Optimization Tool

Based on the analysis, it was determined that:

- Engine placement should remain unchanged
- Operation of peak demand rescues should remain unchanged
- Relocation of several trucks across the City can result in a reduction of overall response times
  - Adjusting truck locations also results in a more equitable work distribution among truck companies
- Relocation of 3 trucks and placing 1 truck in reserve can improve response time **plus** provide operational savings
  - Average incident response time decreases by 3 seconds and coverage response time decreases by 6 seconds
  - Urban Search & Rescue crew moves from Station 19 to Station 20

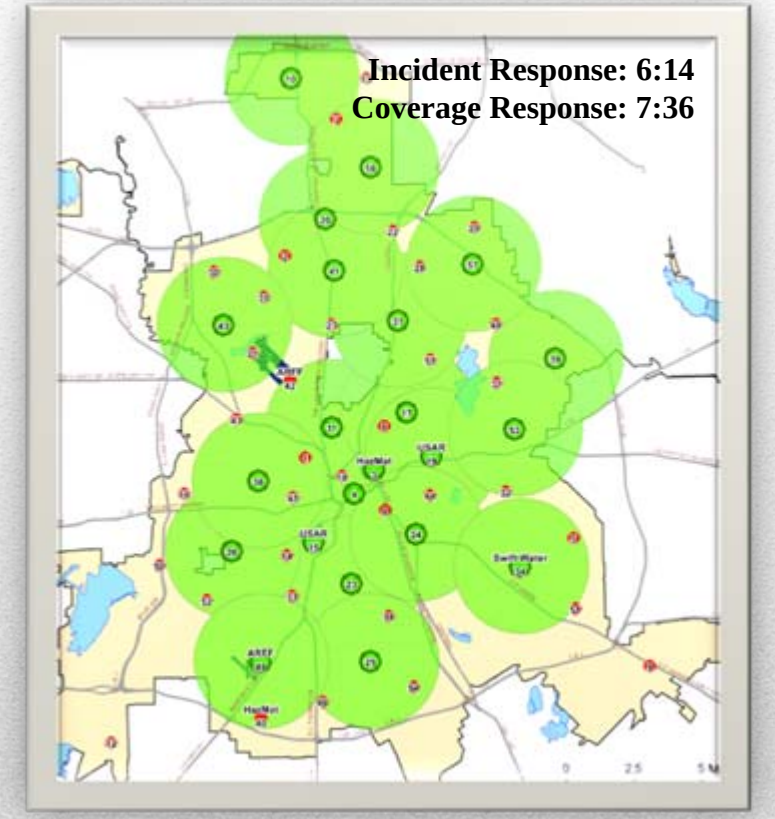
Equipment Optimization

Engines are located throughout the City at each fire station

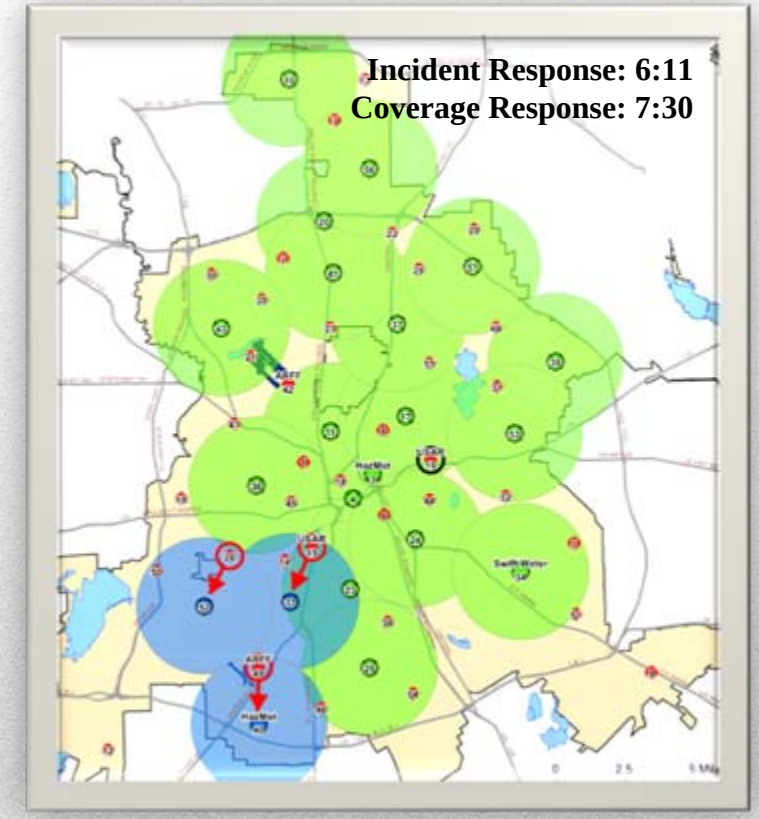


Engine Coverage

Current



Proposed



Truck Optimization

Relocation of 3 trucks and placing 1 truck in reserve can improve response time **plus** provide operational savings

- Average incident response time decreases by 3 seconds and coverage response time decreases by 6 seconds
- Estimated savings is $2M per year

- DFR has operated with 21 trucks for approximately twenty years
  - One additional truck was placed in service on December 22, 2010 (Truck 10)

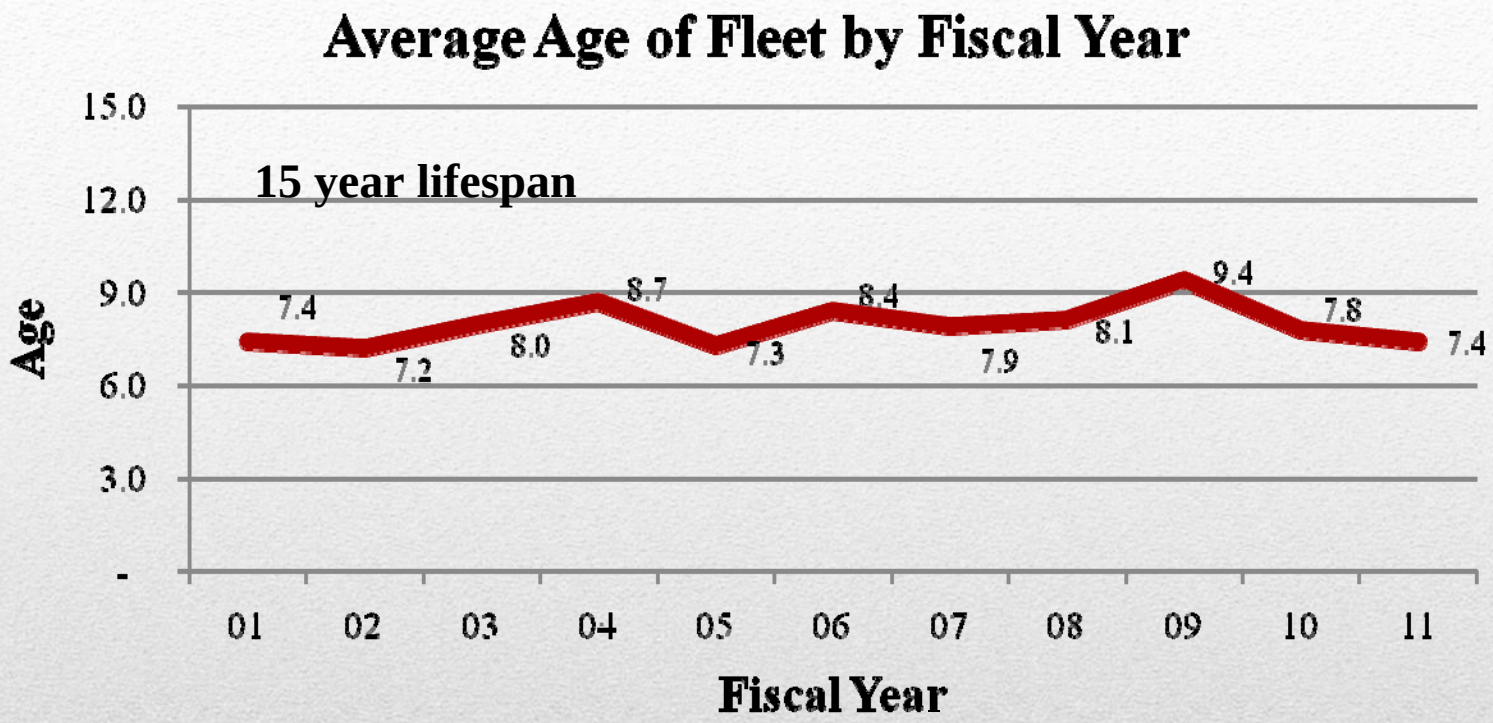
Truck Optimization

The City Council adopted the current apparatus replacement program in 1992, setting goals at:

- 15 years for trucks
- 12 years for engines

- Plan projected replacement of 5 engines and 2 trucks each year
- An accelerated 3-year replacement plan was approved in FY 09
  - FY 09: Purchased 10 engines and 3 trucks
  - FY 10: Purchased 9 engines and 3 trucks
  - FY 11: Purchased 10 engines and 3 trucks
  - FY 12: Will resume replacing 5 engines and 2 trucks

Equipment Replacement



Truck Fleet Age

Based on the current analysis, minor adjustments in equipment placement will **improve response times, workload distribution, and save money**

- Move 3 trucks and relocate the Urban Search & Rescue team to Station 20
- Leave engines and peak demands operational at their current station assignments

Results in:

- Improvement in average incident response time by 3 seconds and average coverage response time by 6 seconds
- $2m annual savings

Optimization Summary

DFR will continue to examine periodically placement of all apparatus to ensure proper coverage citywide

- When new stations are added
- Significant development pattern occurs
- New technology emerges
- Every 2-3 years moving forward

Optimization Summary

DFR STAFFING

DFR is a 24 hour /7 days per week operation at 56 stations

- Engines and trucks are staffed with 4 personnel per apparatus
- Rescues must be staffed with 2 personnel per rescue
- Supervisory positions for emergency response must also be staffed each day
- Creates a minimum staffing level of 413 fire fighters **each day**
- When new stations/apparatus are added, minimum staffing requirements increase

Apparatus Type/Position	Number of Apparatus	Number of Personnel Assigned to Each	Total Personnel Assigned
Engine	**55**	**4**	**220**
Truck	**21**	**4**	**84**
Rescue	**34**	**2**	**68**
Supervisory/ Other	**-**	**41**	**41**
		Total	**413**

Staffing Overview

DFR schedules all vacation days, holidays, mandatory city leave days, training and any other planned days off one year in advance to ensure staffing requirements are met

- In order to have sufficient personnel to meet minimum staffing levels (paid at regular rate) and to cover **planned** leave, each position requires 1.21 members to be staffed
  - This equates to 273 additional members (91 per shift) for emergency response for all three shifts
  - If these additional positions are not filled, minimum staffing is met with the use of overtime

Planned Leave

Because the department can schedule all planned leave one year in advance, the biggest challenge to fully staffing all apparatus each day is unplanned leave

- Unplanned leave includes:
  - Sick time
  - Members leaving the department for personal reasons
  - Retirements
  - Disciplinary actions
  - Injury time

Unplanned Leave

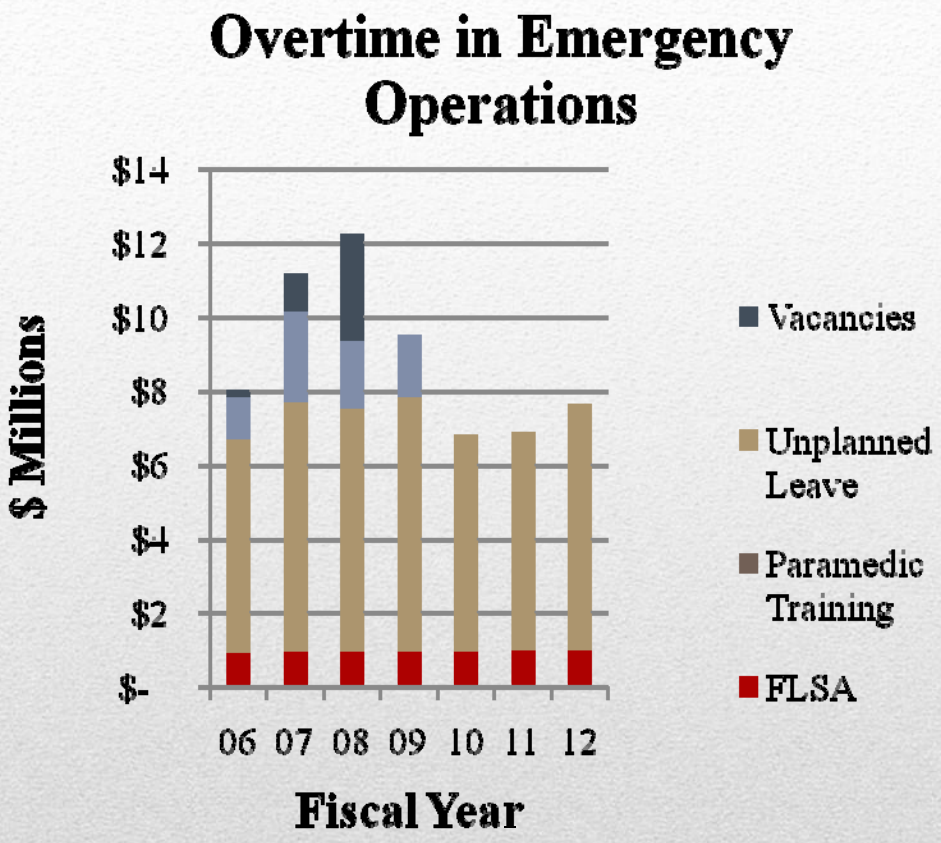
Based on current levels of unplanned leave, an **additional** 110 members (36-37 per shift) must be staffed in emergency response for **all three shifts**

- To cover **all** types of leave, DFR must staff each position with 1.3 members or use overtime

- When unplanned leave occurs, positions are filled by:
  - Additional staff at regular pay rate, if available, or
  - Other members hired back at an overtime rate (1.5 times regular salary)

Unplanned Leave

Through aggressive hiring, we have begun to reduce overtime for the cited reasons. More recently, overtime is generally needed only to fill in for those who report in sick.



Note: Adjusted for inflation
Includes Fair Labor Standards Act (FLSA) built in overtime. Firefighters' schedules have 52 hours per year of overtime to comply with FLSA rules.

Unplanned Leave

Employee Category	Annual Sick Leave Accrual	Maximum Accrual	Lump Sum Payout**
Employees who work a 'standard' schedule (2,080 hours per year)	96 hours (12 days)	1,440 hours (180 days)	720 hours
Emergency Operations – firefighters who work a 24-hour schedule (2,808 hours per year)	144 hours (6 days)	2,160 hours (90 days)	1,080 hours

* Accruals and hours eligible for lump sum payout are equivalent for each group. Additional hours for Fire Operations staff account for their schedule.

** Lump sum payout of sick leave is only for employees hired prior to 10/1/2003. Police and Fire uniformed employees hired after that time are not eligible to receive a lump sum payout of sick leave, but are eligible to stay on the City's payroll in the "Phase Down" program for the equivalent number of hours.

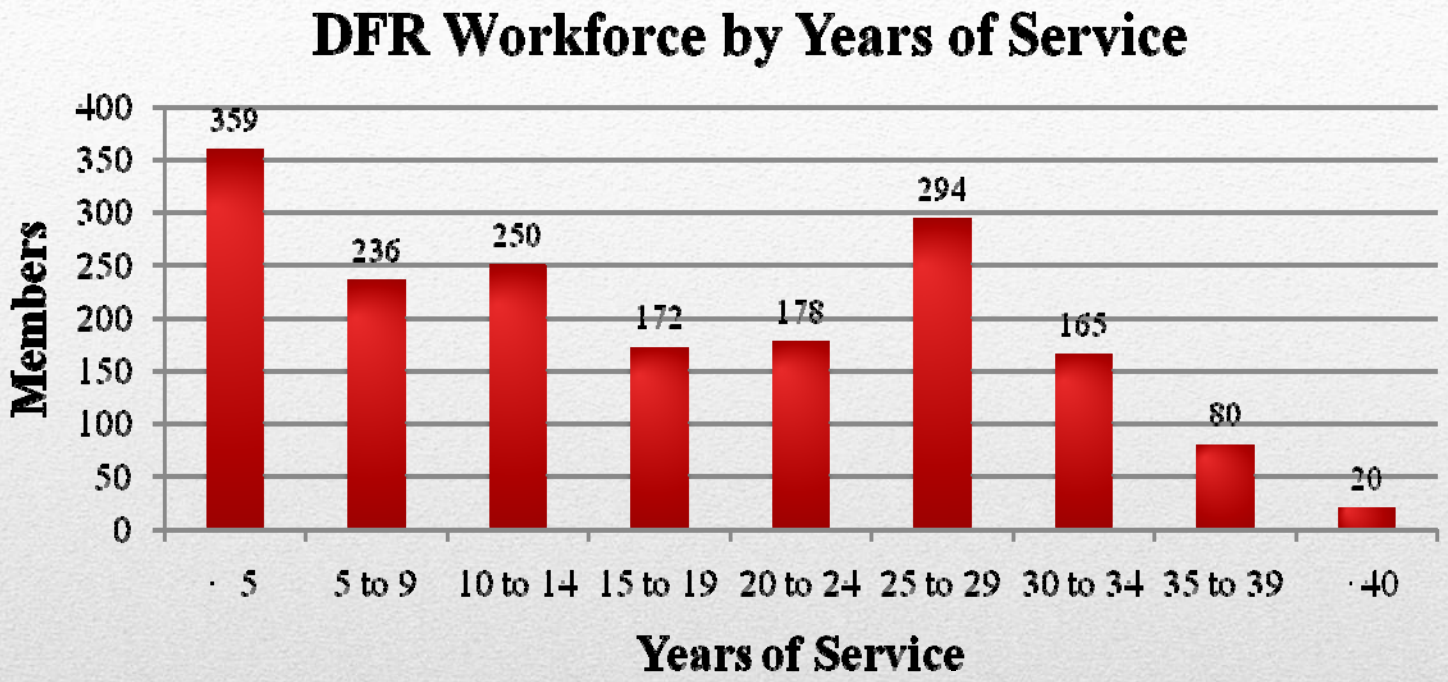
Note: See the Appendix for additional information related to leave time.

Sick Leave Policies

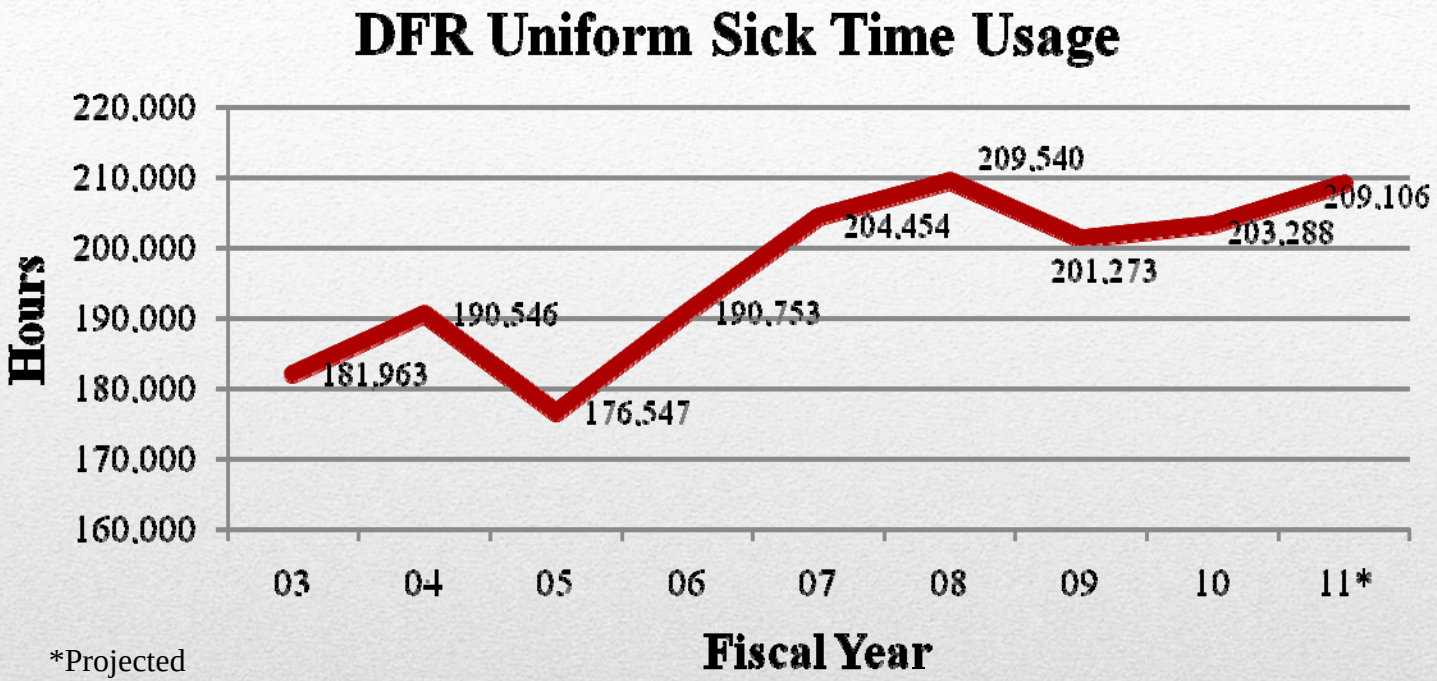
As members near retirement, increase in sick time usage typically occurs

- 559 DFR members have more than 25 years of service
- The following slides provide a summary of sick time usage in DFR

Sick Time Usage



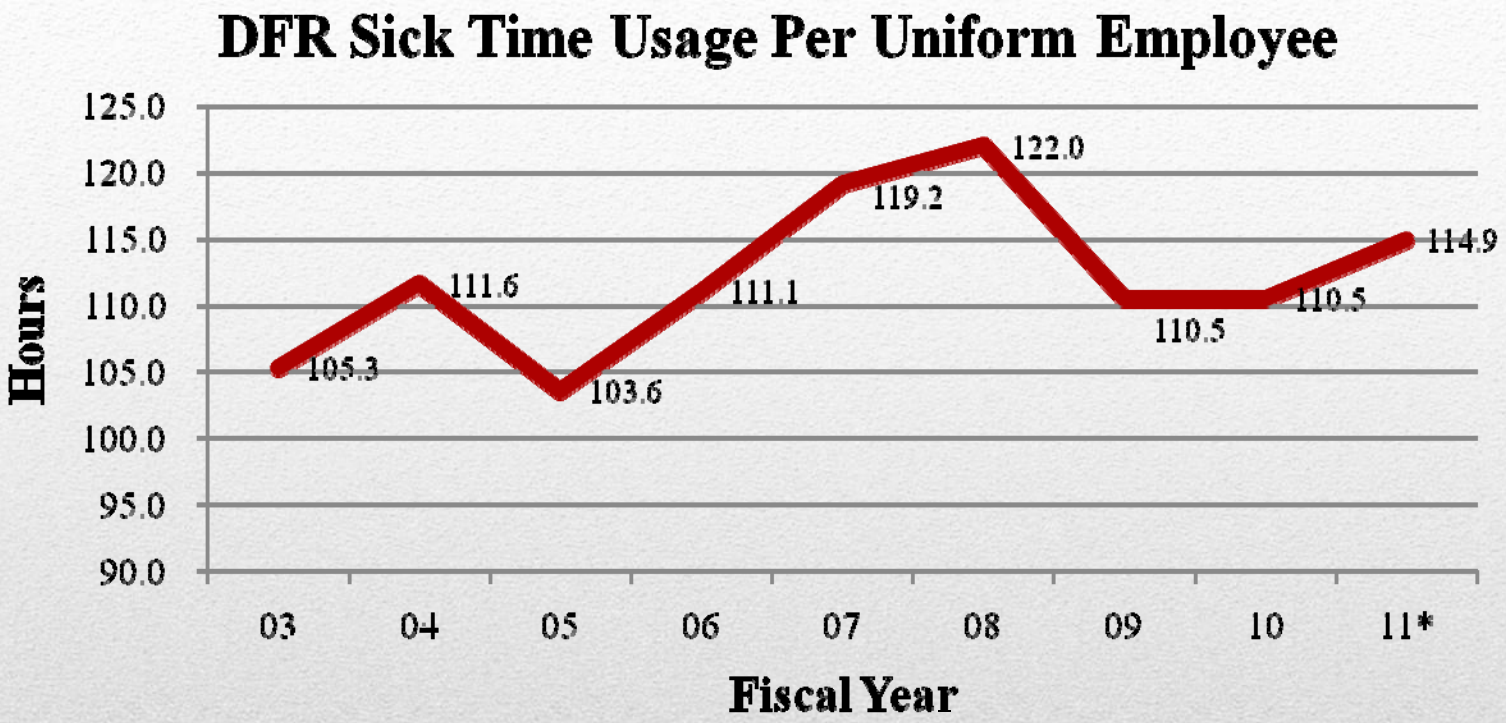
DFR Workforce



*Projected

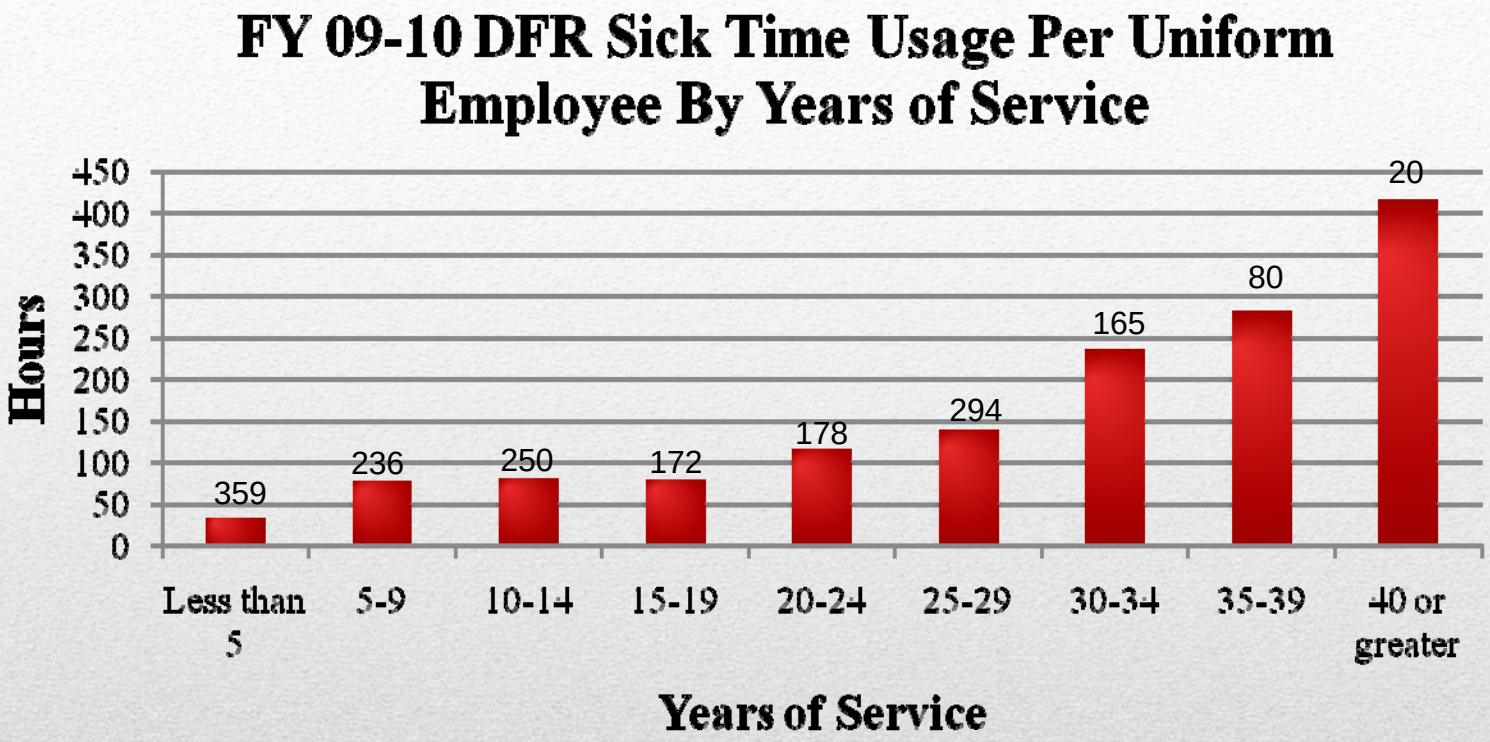
In FY 10, sick time usage in Emergency Operations cost the City nearly $5m in overtime alone.

Sick Time Usage



*Projected

Sick Time Usage



Sick Time Usage

Overtime

As outlined on the previous slides, overtime in Emergency Operations is directly linked to meeting minimum staffing requirements when additional staff at regular rate salary are not available

- Engines, trucks, rescues, and supervisory positions must be staffed each day to ensure all equipment throughout the city is operational

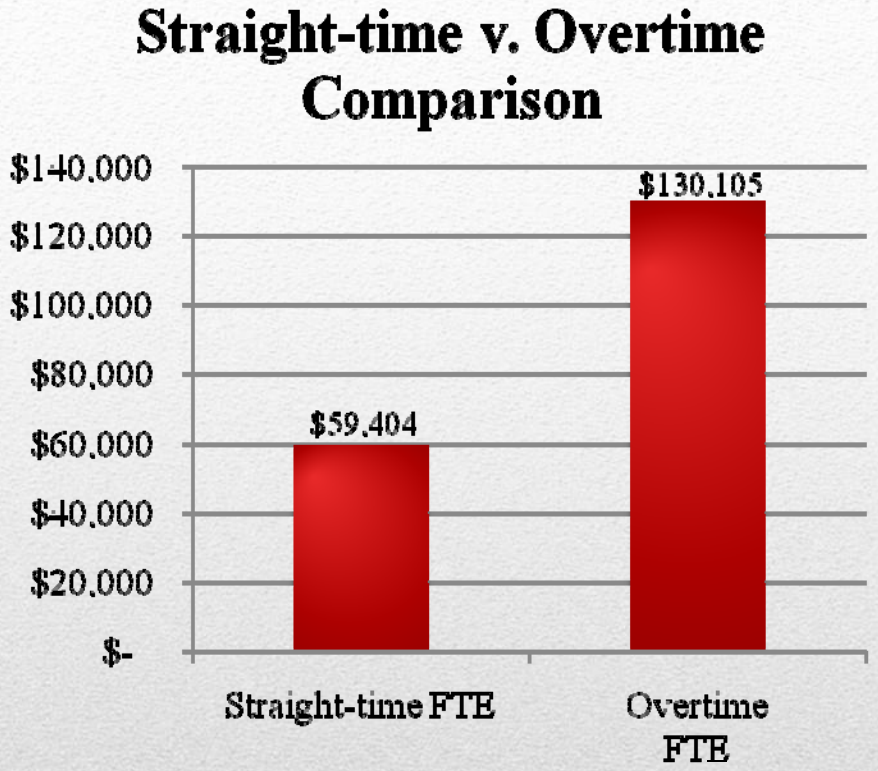
- Fewer personnel resources available means positions must be staffed using overtime

Overtime

Must keep in mind, overtime will never be eliminated

- In some cases it makes more sense to use it, such as for:
  - Peak demand rescues
    - Operate during limited hours
  - Catastrophic events
  - Special events
- But, since overtime is expensive and can fatigue staff members, it must be managed carefully. **Hiring additional staff helps address minimum staffing requirements and reduces overtime use.**

Paying overtime on a regular basis is expensive. Hiring additional staff helps us meet minimum staffing requirements using lower costing straight-time when unplanned leave occurs.



Note: Straight-time salary based on the salary of a newly hired firefighter that has completed the required training. Overtime FTE is calculated based on the dollars it would require to staff a position using overtime for an entire year based on actual average overtime rates in DFR.

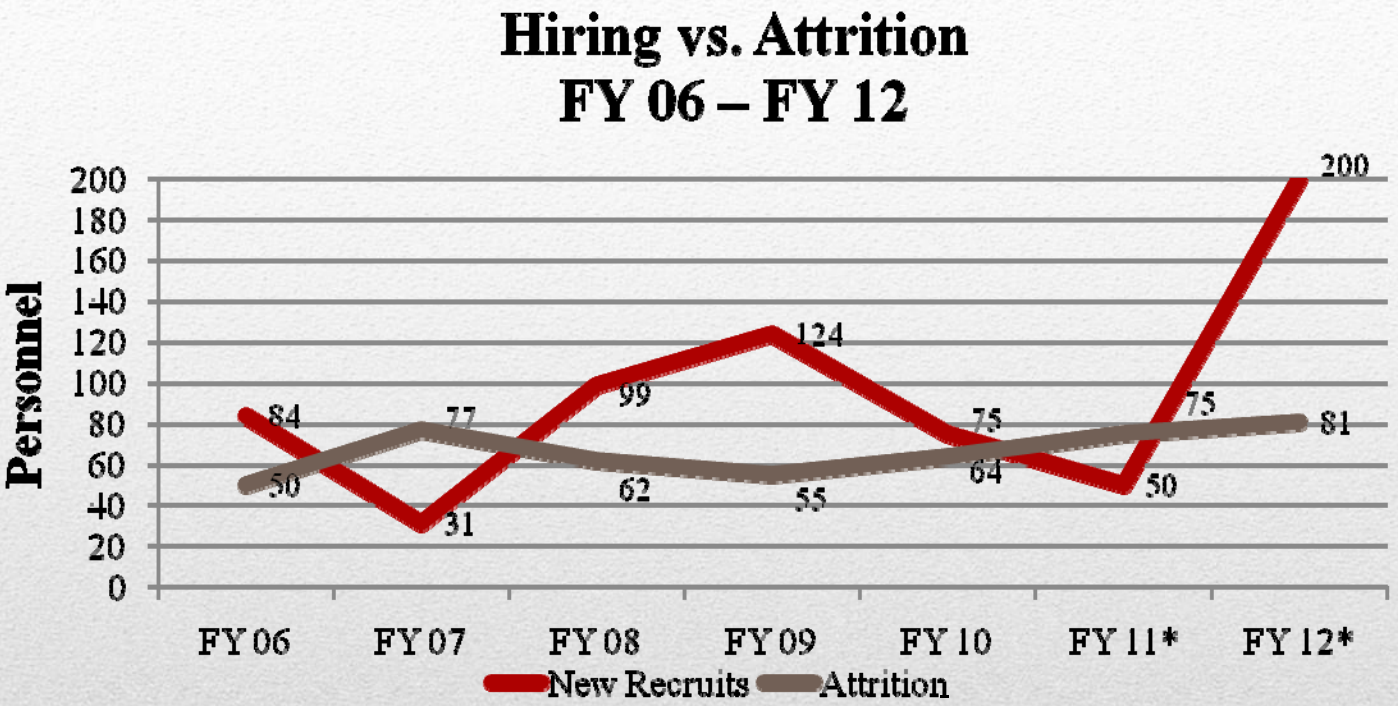
Overtime

Between FY 06 and FY 11:

- Average of 77 firefighters hired each year
- Average of 66 firefighters lost due to attrition
  - Expected to increase over the next several years
- Average overtime expenses to meet minimum staffing requirements in Emergency Operations was $8.6m*
  - FY 11 estimate is $5.9m

*Adjusted for inflation, includes FLSA required overtime

Overtime

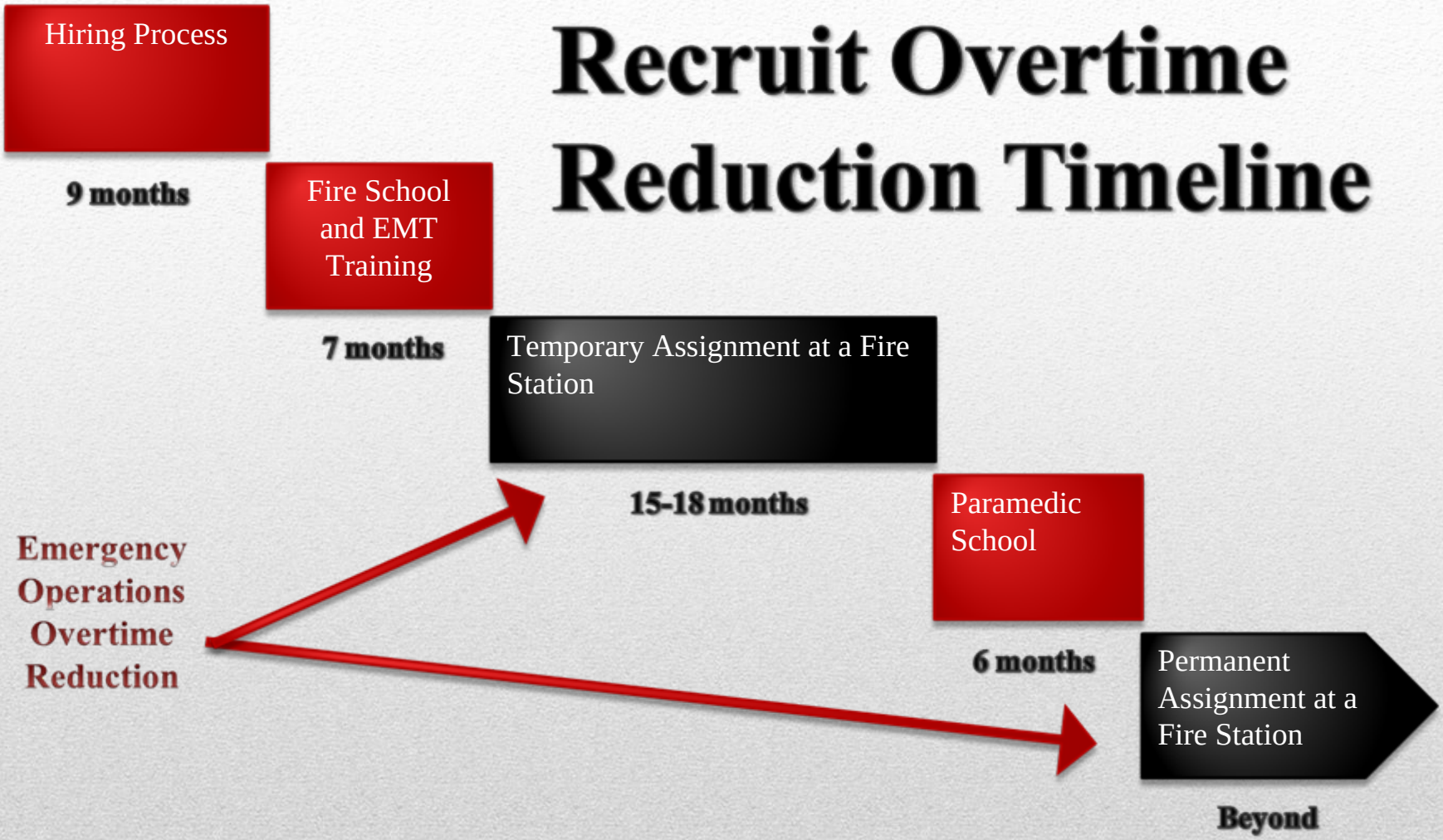


*Projected attrition

Hiring 200 recruits in FY 12 will help us attain the 1.3 members per position needed to reduce overtime.

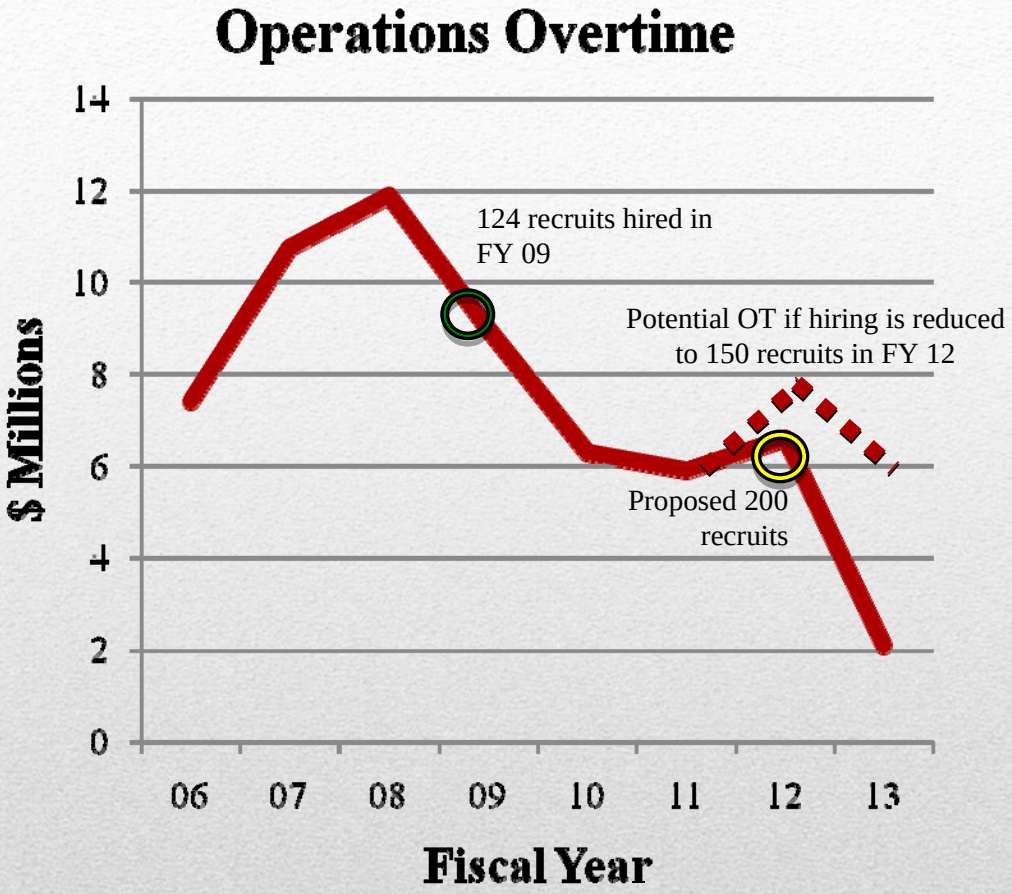
Historical Hiring

Recruit Overtime Reduction Timeline



Training Cycle

Hiring an additional 200 firefighters reduces the amount of overtime needed in FY 12 and saves $5.8m in FY 13



*Adjusted for inflation, includes FLSA required overtime

Overtime

Overtime in Emergency Operations is primarily due to unplanned leave

- Planned leave is scheduled in advance
- Use of sick time is unpredictable
- Hiring additional recruits can help manage overtime costs, and avoid paying overtime rates to maintain minimum staffing requirements
- Therefore, we recommend hiring 200 recruits at a FY 12 net cost of $2.5m and FY 13 net savings of $5.8m

Staffing Summary

FIRE DISPATCH

Throughout the spring and summer in preparation for the FY 12 budget, DFR looked for ways to increase efficiencies in all areas of the department, including Fire Dispatch

- A thorough examination of Fire Dispatch revealed:
  - 48 personnel are assigned
  - Members work 24 hours (1 day) on-duty followed by 72 hours (3 days) off-duty
  - A daily minimum staffing level of 10 had been established
  - Substantial overtime hours were being assigned

Dispatch Analysis

The additional overtime hours being worked is expensive

- Over the past three fiscal years, an average of $1.06m in overtime was expensed annually in Fire Dispatch
- In FY 11, due to the Meet and Confer Agreement, members earned compensatory time-off instead of being paid overtime
  - However, due to the high volume of overtime hours worked, members that reached their 480 hour compensatory time maximum, began receiving payment for overtime instead of earning additional time-off

Dispatch Analysis

To reduce costs and increase efficiencies, DFR examined two options:

- Add staff equivalent to the number of hours used in overtime

OR

- Revise the work schedule to provide needed staffing

Dispatch Analysis

We propose implementing the following schedule:

- Members work 12 hour shifts
  - Week 1 - members work 3 shifts followed by 4 days off
  - Week 2 - members work 4 shifts followed by 3 days off
- Staffing levels remain consistent with FY 11 levels (48 personnel)
- The proposed schedule reduces the amount of break time and the use of overtime

Revised Schedule

24 Hour Shift Scenario

- 10 people x 8 break hours
  = 80 hours

12 Hour Shift Scenario

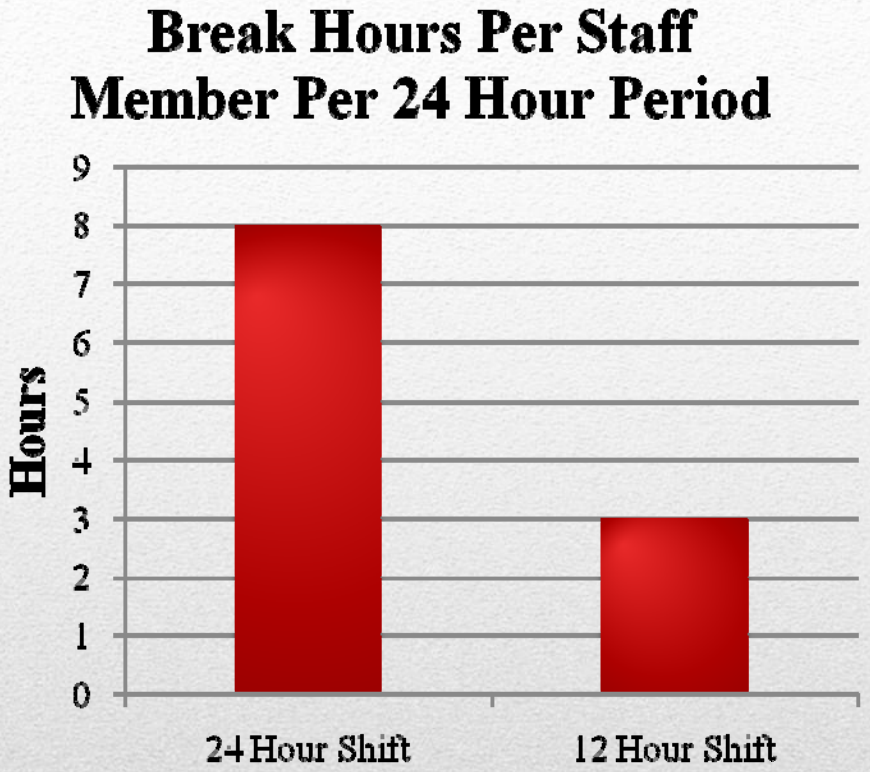
- 2 shifts x 10 people x 1.5 break hours
  = 30 hours

Difference = 50 hours
Each day an additional 2 people worth of time more to schedule

Shift Comparison

Shift Comparison

The same number of staff will be assigned to Dispatch, they will just be assigned to a more efficient schedule.



Adjusting the schedule from a 24-hour shift to a 12-hour shift **reduces break time for the year by 18,250 hours, or approximately 8 FTEs**

By converting the work schedule, DFR will be able to:

- Recapture 18,250 hours of time
- Keep the staffing levels at 48 personnel
- Avoid $1m of overtime costs consistently experienced over the past three years in Fire Dispatch

Dispatch Summary

Overall Summary

Proposed operational and staffing changes for FY 11-12 in Dallas Fire-Rescue will improve efficiency while maintaining/enhancing current level of safety provided to residents and visitors of the City of Dallas

- Optimizing the location of truck companies improves response times and Citywide coverage, while providing a $2m FY 12 savings
- Hiring 200 recruits helps address rising overtime costs and provides a $3.5m net savings over FY12 and FY13 budgets
- Adjusting the Fire Dispatch schedule improves staff availability and avoids approximately $1m in FY12 Fire Dispatch overtime

Questions?

APPENDIX

Deccan International Selected Clients

- Austin Fire Department
- Broward County, FL EMS
- Cincinnati, OH Fire Department
- Cleveland, OH Fire Department
- Fort Lauderdale, FL Fire-Rescue
- Fort Worth, TX Fire Department
- Fulton County, GA Fire Department
- Houston, TX Fire Department
- Miami-Dade, FL Fire-Rescue
- New York City, NY Fire Department
- Orlando, FL Fire Department
- Plano, TX Fire-Rescue
- Prince William County, VA Fire EMS
- San Antonio, TX Fire Department
- San Diego, CA Fire-Rescue
- San Jose, CA Fire-Rescue
- Seattle, WA Fire Department

Paid holidays for organizations with 100 or more employees*

- Private industry
  - 86% of workers have access
  - Average 9 holidays
- State and local government
  - 68% of workers have access
    - Low percentage because many workers in education occupations do not receive paid holidays
  - Average 11 holidays
- City of Dallas recognizes 9 holidays

**U.S. Department of Labor, Bureau of Labor Statistics, "Program Perspectives On Paid – Leave Benefits" (Issue 2), February 2009*

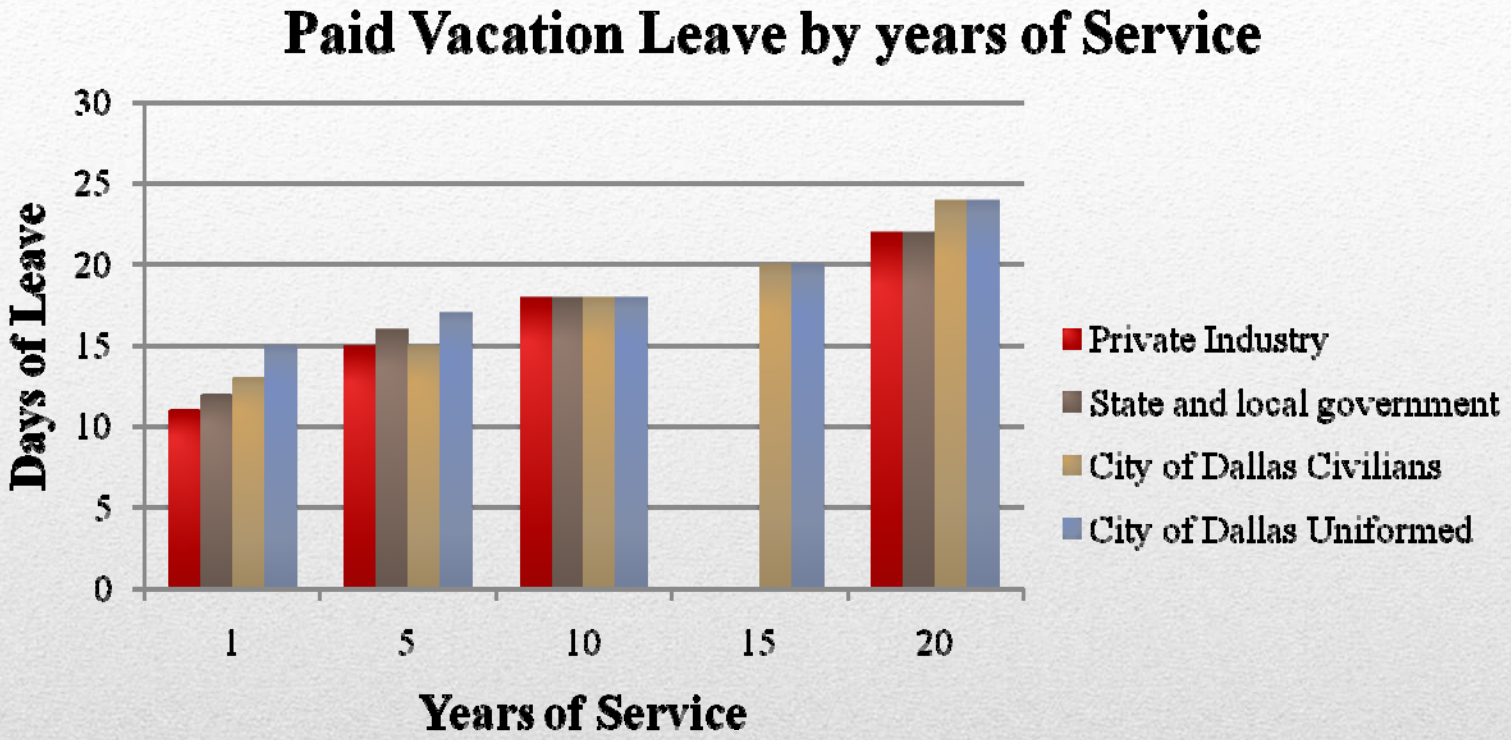
Paid Holiday Leave

Paid vacations for organizations with 100 or more employees*

- Private industry
  - 86% of workers have access
- State and local government
  - 59% of workers have access
    - Low percentage because many workers in education occupations do not receive paid vacation leave
- Access to paid vacation leave has remained stable for the past two decades

**U.S. Department of Labor, Bureau of Labor Statistics, "Program Perspectives On Paid – Leave Benefits" (Issue 2), February 2009*

Paid Vacation Leave



Dallas' paid vacation program is similar to other state and local governments

Paid Vacation Leave

Sick leave for organizations with 500 or more employees*

- Private industry
  - 80% of workers have access
  - Average 11 days per year
- State and local government
  - 92% of workers have access
  - Average 11 days per year

- City of Dallas provides 12 days per year for full-time employees
- The City does not provide short-term disability insurance, but allows sick leave accrual

**U.S. Department of Labor, Bureau of Labor Statistics, "Program Perspectives On Paid – Leave Benefits" (Issue 2), February 2009*

Paid Sick Leave