

Measuring County Workforce Availability

June 18, 2010



CountyStat Principles

- **Require Data Driven Performance**
- **Promote Strategic Governance**
- **Increase Government Transparency**
- **Foster a Culture of Accountability**



Agenda

- **Welcome and introductions**
- **Measuring workforce availability**
 - Methodology
 - FY10-Q3 availability
- **Discussion of policies about and use of workforce availability**
 - Budget process
 - Personnel management
- **Wrap-up**



Meeting Purpose

- **Develop a better understand of County workforce availability in Montgomery County and develop a standard for tracking this variable.**

Why Workforce Availability is Important

- **Small changes in availability can have large effects on workload and personnel needs**
 - DOCR has documented the effects of changes in availability on their personnel needs for custody and security of inmates

Across all employees, just a 1% increase in availability would add the equivalent of 97.8 positions to the workforce



Tracking Workforce Availability Methodology

- **Workforce availability measures the percent of total available hours that personnel can spend on mission-related activities**
 - Quarterly reports show availability across all department employees each quarter

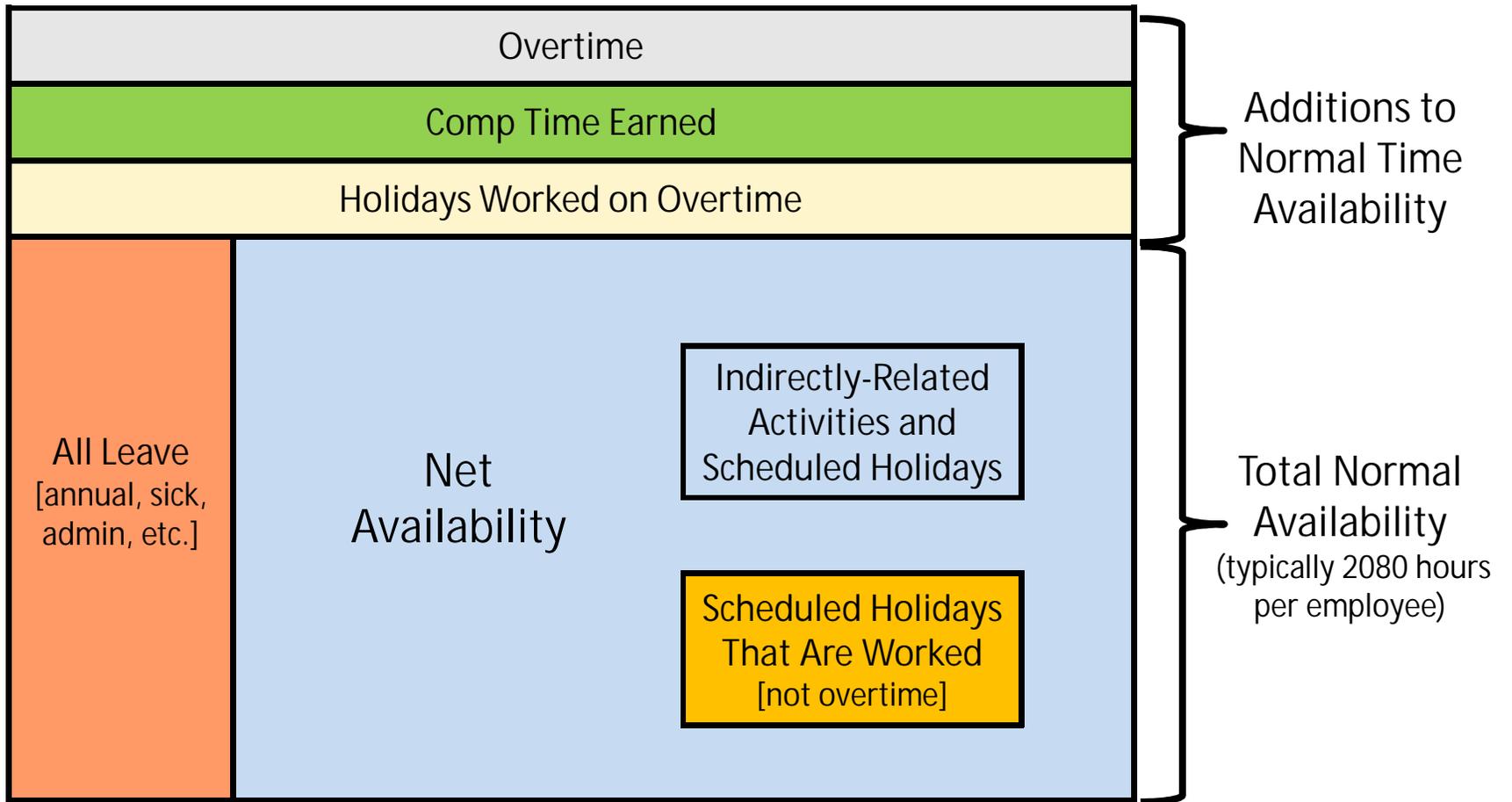
- **Factors the reduce availability**
 - Absenteeism
 - (annual leave, sick leave, administrative leave, scheduled holidays, etc.)
 - Declared emergencies or government shut-down
 - Indirectly-related activities (training, mandated breaks, etc.)

- **Factors that increase availability**
 - Positions that are required to work during scheduled holidays
 - Purchases of extra time such as overtime and comp time

Workforce availability is shown as a percent of total available hours.
For most personnel, total available hours are
2080 hours = 40 hours per week * 52 weeks per year



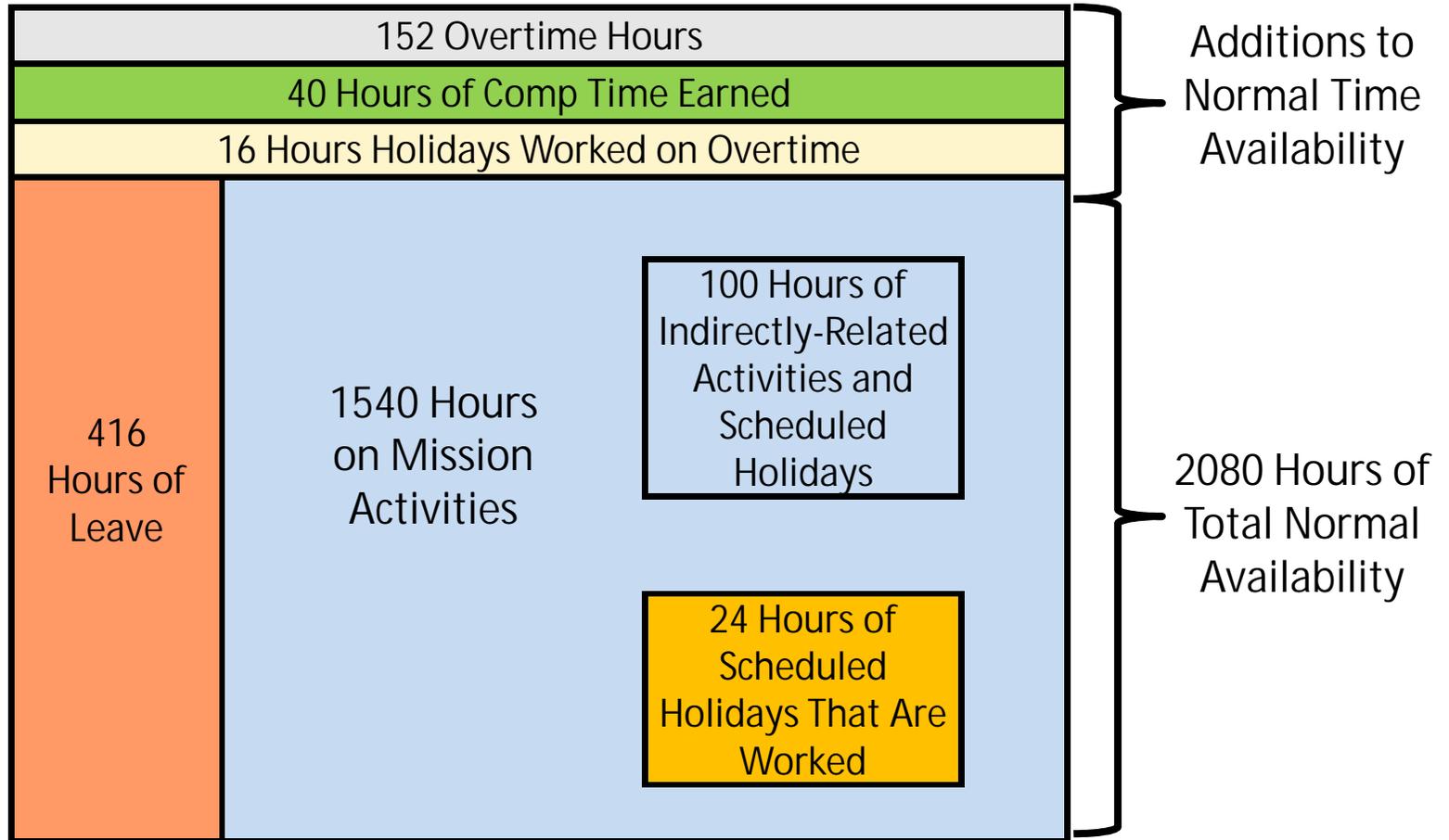
Workforce Availability Overview



 = Time Recorded as REG Time on Timesheets



Calculating Workforce Availability: Person X Example



$$\text{Net Available Hours} = 1540 + 100 + 24 = 1664$$

$$\text{Net Available Percent} = 1664 / 2080 = 80\%$$

$$\text{Total Available Percent} = (1664 + 16 + 40 + 52) / 2080 = 90\%$$



Factors That Reduce Availability Absenteeism

Factor	Data Available	Data Unavailable
Annual leave	X	
Sick leave	X	
Personal leave	X	
Paid time off	X	
Compensatory leave used	X	
Administrative leave*	X	
Disability leave	X	
Military leave	X	
Leave without pay	X	
Professional improvement leave	X	
Scheduled holidays		X

* Administrative leave is used to capture a wide range of factors: emergency closures, bereavement, leave pending disciplinary action, leave to attend to administrative duties such as union duties, jury duty, etc. These varying reasons cannot be separated in the data.



Factors That Reduce Availability Indirectly-Related Activities

Factor	Data Available	Data Unavailable
Training (not recorded as professional improvement leave)		X
Mandated breaks		X
Travel		X
Support tasks		X

Indirectly-related activities are currently recorded as “regular” time.



Factors That Increase Availability

Factor	Data Available	Data Unavailable
Overtime	X	
Compensatory leave earned	X	
Work during scheduled holidays	X	



Data Caveats

- **Fire personnel have a different number of hours per year than other employees**
 - Using percentages rather than hours allows Fire personnel to be compared accurately to other personnel
- **Net available hours shown includes time spent on indirectly-related activities and scheduled holidays**
 - Actual availability is lower than what is shown
 - Results shown here will differ from the results of formal net annual work hours studies performed by some departments
- **All data is dependent upon accuracy in timekeeping**



Workforce Availability FY10-Q3: Executive Departments Factors that Reduce Availability

Dept.	Factors that reduce availability - leave						Net Available
	Annual	Sick	Comp	Admin	Disability	Other	
MCPD	6%	4%	2%	4%	0%	1%	83%
HHS	6%	5%	1%	6%	0%	1%	82%
MCFRS	7%	5%	2%	2%	2%	0%	82%
DOT	5%	5%	2%	4%	1%	1%	83%
DOCR	5%	5%	2%	2%	1%	1%	85%
DGS	4%	5%	3%	3%	1%	0%	84%
DLC	4%	4%	1%	5%	0%	0%	85%
LIB	5%	4%	1%	5%	0%	0%	85%
DPS	6%	5%	1%	5%	0%	1%	82%
REC	3%	3%	0%	4%	0%	0%	89%
All dept.	5%	4%	2%	4%	1%	1%	84%

Annual leave includes both annual leave and personal leave. Other leave includes paid time off, military leave, leave without pay, and professional improvement leave.

Note that data shown has been rounded and may therefore not add to 100%.



Workforce Availability FY10-Q3: Executive Departments Factors that Increase Availability

Dept.	Total Potential Hours	Net Available	Factors that increase availability			Total Available
			Overtime	Comp Earned	Holiday	
MCPD	850,811	83%	5%	3%	1%	92%
HHS	804,137	82%	1%	1%	0%	84%
MCFRS	756,195	82%	9%	2%	4%	97%
DOT	647,422	83%	20%	3%	0%	105%
DOCR	278,370	85%	7%	1%	0%	93%
DGS	225,954	84%	10%	3%	0%	97%
DLC	191,373	85%	2%	1%	0%	88%
LIB	187,825	85%	0%	0%	0%	85%
DPS	97,135	82%	4%	1%	0%	86%
REC	91,691	89%	0%	1%	0%	90%
All dept.	4,908,927	84%	6%	2%	1%	92%



Note that data shown has been rounded.

Workforce Availability FY10-Q3: Executive Departments Factors that Reduce Availability

Dept.	Factors that reduce availability - leave						Net Available
	Annual	Sick	Comp	Admin	Disability	Other	
DTS	5%	4%	1%	4%	0%	1%	85%
DEP	6%	5%	2%	5%	0%	1%	83%
FIN	5%	4%	1%	5%	0%	1%	86%
OHR	6%	3%	1%	5%	0%	1%	84%
DHCA	5%	4%	1%	5%	0%	1%	84%
RSC	3%	3%	2%	4%	0%	0%	88%
CAT	5%	4%	1%	5%	0%	0%	86%
CEX	3%	3%	1%	4%	0%	2%	87%
DED	4%	3%	1%	4%	0%	2%	86%
BOE	5%	3%	1%	4%	0%	1%	85%
All dept.	5%	4%	2%	4%	1%	1%	84%

Annual leave includes both annual leave and personal leave. Other leave includes paid time off, military leave, leave without pay, and professional improvement leave.

Note that data shown has been rounded and may therefore not add to 100%.



Workforce Availability FY10-Q3: Executive Departments Factors that Increase Availability

Dept.	Total Potential Hours	Net Available	Factors that increase availability			Total Available
			Overtime	Comp Earned	Holiday	
DTS	79,012	85%	1%	1%	0%	87%
DEP	75,548	83%	3%	1%	0%	86%
FIN	55,350	86%	0%	0%	0%	86%
OHR	40,039	84%	0%	1%	0%	85%
DHCA	39,620	84%	0%	0%	0%	85%
RSC	38,713	88%	3%	1%	0%	93%
CAT	35,683	86%	0%	1%	0%	87%
CEX	25,072	87%	1%	2%	0%	90%
DED	21,885	86%	0%	0%	0%	86%
BOE	19,155	85%	0%	2%	0%	88%
All dept.	4,908,927	84%	6%	2%	1%	92%



Note that data shown has been rounded.

Workforce Availability FY10-Q3: Executive Departments Factors that Reduce Availability

Dept.	Factors that reduce availability - leave						Net Available
	Annual	Sick	Comp	Admin	Disability	Other	
OMB	4%	3%	1%	3%	0%	1%	88%
CUPF	5%	4%	0%	5%	0%	0%	85%
OCP	5%	5%	1%	5%	0%	0%	84%
HRC	7%	6%	1%	5%	0%	1%	80%
PIO	4%	2%	1%	3%	0%	1%	89%
OEMHS	3%	5%	0%	2%	0%	1%	88%
CFW	3%	3%	0%	5%	0%	0%	88%
IGR	2%	1%	1%	3%	0%	0%	93%
ECM	2%	3%	0%	5%	0%	0%	90%
All dept.	5%	4%	2%	4%	1%	1%	84%

Annual leave includes both annual leave and personal leave. Other leave includes paid time off, military leave, leave without pay, and professional improvement leave.

Note that data shown has been rounded and may therefore not add to 100%.



Workforce Availability FY10-Q3: Executive Departments Factors that Increase Availability

Dept.	Total Potential Hours	Net Available	Factors that increase availability			Total Available
			Overtime	Comp Earned	Holiday	
OMB	16,389	88%	0%	8%	0%	97%
CUPF	11,520	85%	0%	0%	0%	85%
OCP	9,113	84%	0%	0%	0%	85%
HRC	8,619	80%	0%	0%	0%	81%
PIO	6,741	89%	0%	2%	0%	91%
OEMHS	4,608	88%	4%	2%	0%	93%
CFW	4,498	88%	0%	1%	0%	89%
IGR	2,358	93%	0%	13%	0%	106%
ECM	1,536	90%	0%	0%	0%	90%
All dept.	4,908,927	84%	6%	2%	1%	92%



Note that data shown has been rounded.

Comparisons of FY10-Q3 Availability to Last Quarter and Last Year

Dept.	FY10-Q3		Last quarter – FY10-Q2				Last year – FY09-Q3			
	Net	Total	Net	Δ	Total	Δ	Net	Δ	Total	Δ
MCPD	83%	92%	84%	-1%	94%	-2%	86%	-3%	96%	-4%
HHS	82%	84%	84%	-1%	85%	-1%	86%	-3%	86%	-3%
MCFRS	82%	97%	81%	1%	103%	-7%	85%	-3%	102%	-5%
DOT	83%	105%	86%	-3%	103%	2%	87%	-4%	97%	8%
DOCR	85%	93%	85%	0%	93%	0%	85%	-1%	93%	-1%
DGS	84%	97%	84%	0%	91%	6%	87%	-3%	95%	2%
DLC	85%	88%	89%	-4%	94%	-6%	89%	-4%	91%	-4%
LIB	85%	85%	85%	0%	85%	0%	90%	-6%	90%	-5%
DPS	82%	86%	84%	-3%	87%	-1%	87%	-5%	89%	-3%
REC	89%	90%	88%	1%	89%	1%	92%	-2%	92%	-2%
All	84%	92%	85%	-1%	93%	-1%	87%	-4%	94%	-2%

Decreases in net availability of more than 2.5% are colored red.
 Increases in net availability of more than 2.5% are colored green.
 Note that data has been rounded.



Comparisons of FY10-Q3 Availability to Last Quarter and Last Year

Dept.	FY10-Q3		Last quarter – FY10-Q2				Last year – FY09-Q3			
	Net	Total	Net	Δ	Total	Δ	Net	Δ	Total	Δ
DTS	85%	87%	86%	-1%	88%	-1%	89%	-4%	91%	-4%
DEP	83%	86%	83%	0%	86%	1%	87%	-4%	90%	-3%
FIN	86%	86%	86%	0%	88%	-1%	90%	-4%	91%	-4%
OHR	84%	85%	86%	-2%	87%	-2%	89%	-5%	90%	-5%
DHCA	84%	85%	85%	-1%	86%	-1%	90%	-5%	90%	-5%
RSC	88%	93%	87%	1%	91%	2%	89%	-2%	94%	-1%
CAT	86%	87%	87%	-1%	88%	-1%	89%	-3%	91%	-4%
CEX	87%	90%	86%	1%	88%	2%	92%	-4%	94%	-4%
DED	86%	86%	86%	0%	86%	0%	91%	-5%	92%	-5%
BOE	85%	88%	86%	-1%	87%	1%	92%	-6%	92%	-5%
All	84%	92%	85%	-1%	93%	-1%	87%	-4%	94%	-2%

Decreases in net availability of more than 2.5% are colored red.
 Increases in net availability of more than 2.5% are colored green.
 Note that data has been rounded.



Comparisons of FY10-Q3 Availability to Last Quarter and Last Year

Dept.	FY10-Q3		Last quarter – FY10-Q2				Last year – FY09-Q3			
	Net	Total	Net	Δ	Total	Δ	Net	Δ	Total	Δ
OMB	88%	97%	90%	-2%	91%	5%	92%	-4%	99%	-3%
CUPF	85%	85%	84%	1%	84%	1%	86%	-1%	87%	-1%
OCP	84%	85%	88%	-4%	89%	-4%	89%	-5%	90%	-5%
HRC	80%	81%	82%	-2%	84%	-3%	86%	-5%	87%	-6%
PIO	89%	91%	86%	4%	86%	5%	92%	-3%	93%	-1%
OEMHS	88%	93%	84%	4%	87%	7%	89%	-1%	91%	2%
CFW	88%	89%	89%	0%	89%	0%	89%	-1%	90%	-1%
IGR	93%	106%	82%	11%	84%	22%	96%	-3%	106%	0%
ECM	90%	90%	89%	1%	89%	1%	94%	-4%	94%	-4%
All	84%	92%	85%	-1%	93%	-1%	87%	-4%	94%	-2%

Decreases in net availability of more than 2.5% are colored red.
 Increases in net availability of more than 2.5% are colored green.
 Note that data has been rounded.



Recommendations to Enhance Data

- **Capture scheduled holidays**

- Steps needed: Create special earning type code within payroll
- Factors affecting implementation: Scheduled holidays are already coded and captured within MCtime, so for most people this change would be transparent

- **Capture training hours**

- Steps needed: Create special earning type code(s) within payroll
- Factors affecting implementation:
 - There is interest both within OHR and within County leadership to track training hours for other purposes
 - Currently, the ability to identify training hours in payroll data is limited
 - Decisions will have to be made about what exactly will be tracked and how
 - Employees will need guidance about how to use the new earning codes consistently



Why Workforce Availability is Important

- **Availability is different than productivity**
 - Productivity is affected by both availability and efficiency
 - These kinds of availability calculations may not be appropriate for some departments or job classes
- **Small changes in availability can have large effects on workload and personnel needs**
 - DOCR has documented the effects of changes in availability on their personnel needs for custody and security of inmates
 - Across all employees, just a 1% increase in availability would add the equivalent of 97.8 positions to the workforce

A 1% increase in availability is only 20.8 hours per person per year.



Effect of Availability on Personnel Needs

- **DOCR has undertaken two net annual work hours studies to determine the number of staff needed for custody and security of inmates**
 - Study accounted for items such as holidays and training
 - Annual hours needed: 452,493
 - FY06 results: average availability was **78%** (1634 of 2086 hours)
 - FY07 results: average availability was **74%** (1546 of 2086 hours)
- **FY10-Q3 workforce availability utilizing the methodology presented here: 85%**

Workforce availability	Number of staff needed
100% (2086 hours)	217
85% (1773 hours)	256
78% (1634 hours)	277
74% (1546 hours)	293

Every percent decrease from 90% to 70% availability adds 3-4 personnel and about \$292,854 - \$390,472 in salary and benefits.



Effect of Increases in Availability

Number of employees with increase in availability	1% increase (20.8 hours/year)		2% increase (41.6 hours/year)	
	# hours gained	# effective positions gained*	# hours gained	# effective positions gained*
500	10,400	5.9	20,800	11.6
1,000	20,800	11.8	41,600	23.3
3,000	62,400	35.3	124,800	69.8
5,000	104,000	58.8	208,000	116.3
All regular, full-time employees (8,314)	172,931	97.8	345,862	193.3

Assuming an average per person cost of \$80,000 per year in salary and benefits, a 1% increase in availability among 3,000 employees would be worth \$2.8 million in avoided personnel costs.



* Using 2080 total hours per year with 84.0% availability as the baseline

How Availability Can Be Engaged

- **Monitoring of sick leave use and abuse**
- **Reducing disability leave through improving safety and speeding up return to work**
- **Strategically controlling indirectly-related activities**
 - Training: timing of training, in-house vs. out-of-house, etc.
 - Travel: efficiency of routing (where applicable), etc.
 - Meetings
 - Etc.
- **Engaging the topic of employee compensation**
 - For example, 60 hours of comp time for top-of-grade employees
 - 60 hours of additional leave decreases availability by 2.9%
 - 1,022 employees used this kind of comp time so far in FY10
 - Potential hours lost = 61,320 hours = 35.1 positions = \$2.8 million in salary and benefits (at \$80,000 per position)
- **Other**



Are there ways that the effects of position reductions can be mitigated through improving availability?

- **Who should be responsible for engaging availability?**
- **What is the process for deciding whether and how to engage availability?**
- **Who should be involved in that decision?**
- **What best practices exist for engaging workforce availability?**



How should workforce availability be used within the budget process?

- **Several departments already use this kind of information as the basis for personnel complement justifications**
 - DOCR
 - MCFRS
 - DOT: Transit
- **Other areas that may have a workload or caseload that can be calculated**
 - HHS
 - DGS: Fleet and facilities maintenance
 - Police
 - Permitting
 - Liquor control
 - Finance: Treasury operations
- **What is the process for deciding how availability should be used in the budget process?**
- **Who should be involved in deciding?**



What is the standard for workforce availability?

- **Montgomery County has not previously identified a standard**
- **Availability is driven by factors the County can influence**
 - The negotiated agreements and personnel regulations stipulate many of the components that affect availability, particularly leave allowances
 - There are a variety of personnel factors that affect availability
- **What industry standards or best practices exist?**
- **What is the process for defining a standard?**
- **Who should be involved?**



Factors Affecting Net Availability

■ **Methodology**

- Examined all payroll hours claimed in FY10 by regular employees that were actively employed on 6/9/2010
- Calculated net availability for all employees
- Made comparisons of the average net availability for various groups of employees

■ **General findings**

- Position type affects availability
 - Exempt vs. non-exempt
 - MLS vs. non-MLS
- Longer service time is associated with lower availability
- Bargaining unit affiliation affects availability
- Full-time or part-time status does not affect availability



Factors Affecting Net Availability

- **Exempt vs. non-exempt status**
 - Average net availability of **exempt** employees: 85.2%
 - Average net availability of **non-exempt** employees: 83.3%
- **MLS vs. non-MLS**
 - Average net availability of **MLS** employees: 86.8%
 - Average net availability of **non-MLS** employees: 83.9%
- **Full-time vs. part-time status does not affect availability**
 - Average net availability of **full-time** employees: 84.0%
 - Average net availability of **part-time** employees: 84.1%



Factors Affecting Net Availability

Years of service	0-4	5-9	10-14	15-19	20-24	25+
Average availability	86.2%	83.9%	83.2%	82.5%	82.5%	82.5%

Age range	0 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65+
Average availability	87.5%	84.6%	83.6%	83.9%	84.1%	83.7%

Bargaining Unit	None	IAFF	FOP	MCGEO- OPT	MCGEO- SLT
Average availability	86.8%	81.3%	83.3%	83.7%	83.6%

*Note: All comparisons are made against the overall average availability of 84.0%.
Green shading indicates availability that is statistically significantly higher.
Red shading indicates availability that is statistically significantly lower.*



Wrap-up and Follow-up Items

- **Wrap-up**

