



# KING COUNTY AUDITOR'S OFFICE

AUGUST 12, 2020

## Pandemic Response: Three Scenarios Projecting Furlough Cost Savings

*This report is the second in a series of savings-focused best practice reviews to be conducted by the Auditor's Office. We conducted this analysis to illustrate some of the potential furlough options policy-makers have when making decisions about how to reduce the County's costs. Individual departments could also implement these types of furlough structures for their employees. We are not making recommendations at this time. Visit the [pandemic response page](#) on our website, to view related reports.*

**King County has the opportunity to approach furloughs in ways that reflect its equity and social justice (ESJ) goals.** King County, like local governments across the country, faces both increased costs and decreased revenue as a result of the COVID-19 pandemic. Previously, the County has responded to budget shortfalls by furloughing staff. These furloughs have, for the most part, been one-size-fits-all in terms of the number of furlough days observed by staff. In this report, we outline the County's previous furlough approach alongside two additional scenarios that other entities have used to recognize the differential impact of temporarily reducing employee pay. These three scenarios are intended to serve as a starting point for further analysis. The Auditor's Office can apply different scenarios or adjust assumptions to estimate how different furlough approaches would affect departments and employees. For further information on our data and analysis, please feel free to contact us.

**The economic slowdown from the COVID-19 pandemic is significantly reducing King County tax revenue.** This exacerbates King County's ongoing revenue challenges and will require cost reductions, likely including staffing impacts. Potential options for reductions include voluntary separations<sup>1</sup> (which we covered in our first best practice review), employee layoffs, and budgetary furloughs.<sup>2</sup>

**King County has used furloughs in the past to reduce costs.** Most recently, in 2009, King County implemented an emergency budget furlough during which both represented and non-represented employees observed up to 10 furlough days. Nearly 60 percent of employees were exempt from furloughs either because of their job responsibilities (for example, transit operators, corrections officers, sheriff's deputies, etc.), their income level, or their intent to retire. Employees who had declared intent to retire within a year, and employees earning less than twice the federal poverty line, were eligible to use paid leave instead of taking unpaid leave on furlough days.

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<sup>1</sup> King County Auditor's Office, *Pandemic Response: Best Practices Review of Voluntary Separation Programs*, June 19, 2020 <https://bit.ly/KingCountyPandemicResponse>

<sup>2</sup> King County Code 3.12.010 (F) defines a budgetary furlough as "a circumstance in which projected county revenues are determined to be insufficient to fully fund county agency operations ... cost savings may be achieved through reduction in days or hours of service, resulting in placing an employee for one or more days in a temporary furlough status without duties and without pay."



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**While there are some challenges in administering furloughs, implementing an effective furlough program may reduce the need for King County to layoff employees.** One challenge of furloughs is that they are subject to collective bargaining agreements, so the County would need to bargain with each bargaining unit. Furlough administration is also complex. For example, Fair Labor Standards Act exempt employees would need to be modified in PeopleSoft and processed as hourly rather than salaried employees to accurately calculate their payroll under furloughs.

However, to the extent possible, furloughs can be a cost-saving tool to help avoid layoffs, which is important for multiple reasons. Retaining employees preserves employee morale and can help limit stress and fear from uncertain job circumstances. Where possible, furloughs can also help maintain service capacity over the long term because they conserve staff skills and expertise. In addition, layoffs can be inequitable when they fall on the least senior employees who are often more racially diverse. (See Exhibit C for a racial breakdown of employees by income level.) Avoiding layoffs could help the County maintain its workforce diversity and meet its strategic goals.

**This report provides an analysis of furlough options for the County and individual departments to consider in order to achieve the County's five percent cost reduction for 2021.** King County's Office of Performance, Strategy, and Budget provided many departments a five percent budget reduction goal for 2021, so we used this goal as a starting point to consider furlough scenarios. We designed these scenarios to be illustrative of some of the approaches King County policy-makers could pursue and for individual departments to consider in designing their own furlough plans. The options are designed to be flexible so that the parameters can be changed to be more reflective of individual department needs or circumstances. The purpose of this report is to expand options for cost-savings approaches for the County and departments. They are not meant to be recommendations.

**It may be difficult and perhaps infeasible to use furloughs in departments that rely heavily on overtime to meet staffing needs.** It is particularly challenging to implement furloughs in agencies with 24-hour operations, such as the King County Sheriff's Office, the Department of Adult and Juvenile Detention, and the Wastewater Treatment Division, because operations cannot be suspended, or work delayed. We have attempted to identify these departments in our analysis, to highlight areas in which furloughs may not be feasible as a cost-savings measure.

**Our analysis did not attempt to identify which individual funds would realize the furlough savings.** We recognize that financial circumstances and revenue sources can differ widely among county agencies. Except for the general fund, King County has little ability to move funds or savings between funds; therefore, furlough savings in one department cannot, for the most part, be used to support programs or reduce layoffs in another department.

## Summary of options for King County

**We assessed three different options the County could consider in implementing a furlough plan.** All three scenarios result in five percent savings of payroll expenses countywide but differ in the distribution of furlough days across employees. For example, the first scenario's income exception is modeled after King County's 2009 furloughs, which exempted employees earning less than double the poverty line. The second and third scenarios are modeled after progressive furlough structures applied by the City of Portland, Oregon, and University of Denver, in Denver, Colorado.

EXHIBIT A: There are multiple ways to structure furloughs that result in five percent overall payroll savings for 2021.

SCENARIO	GROUPS	NUMBER OF FURLOUGH DAYS	% SALARY REDUCTION
<b>1 2009 Model Furlough Structure</b>	\$20.88 per hour and under	0	0%
	All other employees	13	5%
<b>2 Three-Tier Graduated Furlough Structure</b>	Bottom third (\$34.40 per hour and under)	0	0%
	Middle third (\$34.41 to \$46.79 per hour)	10	4%
	Top third (\$46.80 per hour and above)	22	8%
<b>3 Four-Tier Graduated Furlough Structure</b>	Bottom 25% (\$34.37 per hour and under)	0	0%
	25% to 50% (\$34.38 to \$39.37 per hour)	8	3%
	50% to 75% (\$39.38 to \$51.01 per hour)	12	5%
	Top 25% (\$51.02 per hour and above)	22	8%

Source: King County Auditor's Office Analysis

### Assumptions for analysis

We made several assumptions to perform this analysis. We assumed that all county departments and employees are eligible for furloughs (although we note departments with high overtime use for which furloughs may not be an effective cost-savings approach). In order to project cost savings, we used 2020 salaries (including the general wage increase) since future salary increases are uncertain. We also estimated additional payroll expenses from Social Security taxes (6.2 percent), Medicare taxes (1.45 percent), the Washington Paid Family Medical Leave contribution (0.15 percent), and retirement contributions. Except for employees in the Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF) retirement plan (which has a 5.33 percent employer contribution rate), we used the 12.86 percent Public Employees' Retirement System (PERS) employer contribution for all other employees as a simplifying assumption.

For a full list of our assumptions, please see Appendix 1.

## Scenario 1: 2009 model furlough structure with uniform furloughs and exempting low wage earners

**During King County's 2009 furloughs, employees earning less than twice the poverty level were exempt from taking furlough days without pay.** They were instead allowed to use any of their accrued paid leave on days that the County was closed. For the 2009 furloughs, the hourly cutoff was \$16.92. The corresponding cutoff for 2021, is \$20.88.<sup>3</sup> Unlike in 2009, our analysis assumes that employees earning below this threshold would be fully exempt from furlough days and would not have to use paid leave accrual. We do not apply any other department exemptions from 2009 in this analysis.

**Since few King County employees earn less than this threshold, applying the same approach used in 2009 would result in similar outcomes—as if all employees were furloughed—and would have minimal ESJ benefits.**<sup>4</sup> In our analysis for 2021, all employees earning above the low income threshold would take 13 furlough days in this scenario to achieve a five percent payroll savings across departments.<sup>5</sup> Based on their income level, only 46 employees would be exempt from this scenario.

**These calculations do not take into account overtime needs for some departments.** The asterisks in Exhibit B note departments with high levels of overtime use compared with the rest of the County. (Department of Public Health's overtime use is largely concentrated in the Emergency Medical Services division).<sup>6</sup> If furloughs are determined to be infeasible for large numbers of employees within a department, it would not be able to reach the five percent level of savings through furloughs alone. Implementing mandatory furloughs could actually increase payroll expenses for these departments if other employees have to backfill for positions with minimum staffing requirements. This applies to all the scenarios analyzed in this paper.

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<sup>3</sup> For the 2009 furloughs, King County used guidelines from the United States Department of Health and Human Services, which used a cutoff of \$16.92 per hour—twice the poverty rate for a family of three in 2008. We used the same assumptions for this analysis. In 2020, twice the poverty rate for a family of three is \$20.88 per hour.

<sup>4</sup> To quantify this, we ran an analysis with all employees furloughed for 13 days applying no exemption criteria. The corresponding cost savings was \$76,973,255, which is only \$109,291 more in savings than with exempting low wage earners.

<sup>5</sup> We determined 13 furlough days by analyzing the number of furlough hours that would be required for departments to achieve a five percent cost savings.

<sup>6</sup> Overtime hours across departments were calculated for 2019 under normal service operations and, therefore, do not reflect any impacts from 2020 COVID-19 pandemic-related overtime.

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EXHIBIT B: Scenario 1 sets a furlough structure modeled after the 2009 approach. The resulting savings would be about five percent across all departments, even after exempting a few employees.

Department	Percent Savings	Total Savings	Total Furlough Days	Furlough-Exempt Employees	Furlough-Eligible Employees
DAJD*	5%	\$4,477,412	11,674	0	898
DCHS	5%	\$2,132,663	4,927	1	379
DES	5%	\$4,398,026	10,985	4	845
DHR	5%	\$791,214	1,456	0	112
DJA	5%	\$879,982	2,574	0	198
DLS	5%	\$2,645,840	6,032	0	464
DNRP	5%	\$9,528,754	21,177	0	1,629
DOA	5%	\$1,016,118	2,743	0	211
DPD	5%	\$2,433,629	5,148	0	396
DPH*	5%	\$7,393,154	17,212	2	1,324
KCAO	5%	\$12,510	26	0	2
KCC	5%	\$1,018,187	1,885	0	145
KCDC	5%	\$1,234,034	3,237	0	249
KCE	5%	\$307,818	845	0	65
KCEO	5%	\$887,853	1,430	0	110
KCIT	5%	\$2,791,797	4,849	0	373
KCSC	5%	\$1,628,207	3,978	0	306
KCSO*	5%	\$6,558,237	14,547	0	1,119
MTD*	5%	\$23,252,123	70,720	39	5,440
PAO	5%	\$3,028,336	6,617	0	509
<b>Total</b>	<b>5%</b>	<b>\$76,415,894</b>	<b>192,062</b>	<b>46</b>	<b>14,774</b>

Note: Asterisks identify departments with high levels of overtime. See Appendix 2 for glossary of acronyms.

Source: King County Auditor's Office Analysis

**Using a racial equity lens, the County could develop and implement a more equitable furlough approach.** Relative to the overall makeup of King County employees, employees of color are over-represented in lower wage brackets and underrepresented in higher wage brackets (See Exhibit C). The opposite is true for white employees.

EXHIBIT C: Employees of color are overrepresented in lower income brackets and underrepresented in higher income brackets.<sup>7</sup>

	BOTTOM THIRD of income bracket	MIDDLE THIRD of income bracket	TOP THIRD of income bracket	Overall
American Indian /Alaska Native	1%	1%	1%	1%
Asian	14%	11%	12%	13%
Black	28%	12%	8%	17%
Hawaiian /Pacific Islander	2%	1%	<1%	1%
Hispanic	7%	7%	4%	6%
White	41%	59%	68%	55%
Two or more races	4%	4%	4%	4%
Not specified	3%	3%	3%	3%

Source: King County Auditor's Office Analysis

Given these income breakdowns, a more progressive furlough structure could result in outcomes more in line with King County's ESJ goals. Below, we discuss two other scenarios that offer a graduated furlough structure, differentiating furlough days by various income tiers.

### Scenario 2: Three-tier graduated furlough structure with differential furloughs based on income level

**This scenario allocates furloughs differently across three income groups.** Employees earning the bottom third of salaries (\$34.40 per hour and under) would take no furlough days. Employees in the middle third (\$34.41 to \$46.79 per hour) would take 10 furlough days, representing a four percent pay cut. Meanwhile, employees earning the top third of salaries (\$46.80 per hour and above) would take 22 furlough days, representing an eight percent pay cut.

**Overall county savings remain five percent, but individual departments would achieve different amounts of savings based on the distribution of their salaries.** See Exhibit D for this breakdown. At the extremes, the Department of Judicial Administration and Metro Transit save less than three percent, while the Department of Human Resources, Executive's Office, King County Council, and Department of Information Technology save over seven percent.

<sup>7</sup> We conducted this demographic analysis excluding Metro Transit whose staff is racially diverse. The percentage differences across race and income-level were similar to those as displayed in Exhibit C.

EXHIBIT D: Scenario 2 sets three income tiers to determine furlough amounts. The resulting savings vary by department from 2.8 percent to 8.1 percent.

Employees earning highest third of wages (22 furlough days)  
Employees earning middle third of wages (10 furlough days)  
Employees earning lowest third of wages (furlough exempt)

Department	% Savings	Total Savings	Total Furlough Days			
DAJD*	3.83%	\$3,429,139	7,928	236	553	109
DCHS	5.78%	\$2,474,446	5,120	48	182	150
DES	5.14%	\$4,553,667	8,826	318	238	293
DHR	7.55%	\$1,212,154	2,132	2	24	86
DJA	2.87%	\$506,032	1,094	121	50	27
DLS	6.08%	\$3,232,629	6,364	94	148	222
DNRP	6.12%	\$11,713,853	22,820	289	555	785
DOA	4.82%	\$983,442	2,274	46	113	52
DPD	6.44%	\$3,154,507	5,814	69	115	212
DPH*	5.81%	\$8,644,440	16,966	341	392	593
KCAO	6.61%	\$16,535	32	0	1	1
KCC	7.62%	\$1,579,284	2,764	3	30	112
KCDC	3.66%	\$911,701	1,524	153	49	47
KCE	4.53%	\$281,011	524	33	15	17
KCEO	7.93%	\$1,442,650	2,246	3	9	98
KCIT	8.11%	\$4,593,109	7,812	7	20	346
KCSC	5.60%	\$1,831,543	3,974	43	151	112
KCSO*	6.73%	\$8,877,735	17,734	188	229	702
MTD*	2.77%	\$12,955,810	25,812	3,745	1,028	706
PAO	6.55%	\$4,019,248	7,316	99	142	268
<b>Total</b>	<b>4.97%</b>	<b>\$76,412,933</b>	<b>149,076</b>	<b>5,838</b>	<b>4,044</b>	<b>4,938</b>

Note: Asterisks identify departments with high levels of overtime. See Appendix 2 for glossary of acronyms.

Source: King County Auditor's Office Analysis



### Scenario 3: Four-tier graduated furlough structure with differential furloughs based on income level

**Scenario 3 represents another progressive structure to allocate furlough days across income groups.** This approach is similar to Scenario 2 but divides furlough responsibilities into quartiles instead of thirds. Employees earning in lowest quartile of salaries (\$34.37 per hour and under) take no furlough days. Those in the second-lowest quartile (\$34.38 to \$39.37 per hour) take eight furlough days, representing a three percent wage cut. Employees in the second-highest quartile (\$39.38 to \$51.01 per hour) take 12 furlough days, representing a five percent wage cut. And, those in the highest quartile (more than \$51.02 per hour) take 22 furlough days (eight percent wage cut). As in Scenario 2, the savings differ from department to department. (See Exhibit E.)

EXHIBIT E: Scenario 3 sets four income tiers to determine furlough amounts. The resulting savings vary by department from 2.5 percent to 7.9 percent.

Department	% Savings	Total Savings	Total Furlough Days	Employees in highest quartile of wages (22 furlough days)	Employees in second-highest quartile of wages (12 furlough days)	Employees in second-lowest quartile of wages (8 furlough days)	Employees in lowest quartile of wages (furlough exempt)
DAJD*	3.79%	\$3,398,953	7,916	236	127	487	48
DCHS	5.27%	\$2,254,794	4,660	48	46	200	86
DES	4.79%	\$4,241,203	8,156	318	94	221	216
DHR	7.19%	\$1,154,109	2,012	2	2	38	70
DJA	2.53%	\$445,465	952	121	33	28	16
DLS	5.42%	\$2,883,756	5,590	94	95	122	153
DNRP	5.69%	\$10,885,438	20,984	289	269	473	598
DOA	4.50%	\$916,860	2,120	46	45	88	32
DPD	6.20%	\$3,039,284	5,564	69	45	100	182
DPH*	5.10%	\$7,577,782	14,658	341	123	529	333
KCAO	6.92%	\$17,308	34	0	0	1	1
KCC	7.46%	\$1,544,411	2,686	3	2	41	99
KCDC	3.45%	\$858,680	1,410	153	18	45	33
KCE	4.28%	\$265,375	488	33	9	9	14



<b>KCEO</b>	7.71%	\$1,402,547	2,156	3	2	17	88
<b>KCIT</b>	7.86%	\$4,452,191	7,514	7	7	44	315
<b>KCSC</b>	5.23%	\$1,711,174	3,680	43	59	128	76
<b>KCSO*</b>	6.09%	\$8,031,842	15,868	171	162	272	514
<b>MTD*</b>	3.73%	\$17,450,117	41,726	1,659	2,506	723	591
<b>PAO</b>	6.24%	\$3,834,559	6,836	99	116	56	238
<b>Total</b>	<b>4.96%</b>	<b>\$76,365,846</b>	<b>155,010</b>	<b>3,735</b>	<b>3,760</b>	<b>3,622</b>	<b>3,703</b>

Note: Asterisks identify departments with high levels of overtime. See Appendix 2 for glossary of acronyms.

Source: King County Auditor's Office Analysis

**There may be some limitations to a progressive furlough structure.** As compared to Scenario 1 shown above, administration and tracking of these differential furlough days may be more difficult. There may also be a perception that a graduated furlough system is unfair across employees and departments. Some departments would not be able to reach five percent savings using countywide income thresholds because average salary varies a great deal across departments. Therefore, some departments (like Department of Judicial Administration) would save less because they have lower average salaries and thus a higher proportion of employees exempt from furloughs. In comparison, departments like Department of Information Technology would save more because the employees have higher average salaries.

## Conclusion

As the three scenarios demonstrate, multiple furlough structures can result in similar overall savings yet impact departments and employees differently. In determining the optimal approach, the County should consider the implications for different departments' budgetary needs and employee-level impacts. These three scenarios can serve as a starting point for further analysis. We can apply different scenarios or adjust assumptions to estimate how different furlough approaches would affect departments and employees. For further information on our data and analysis, please feel free to contact us.

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Mia Neidhardt, Anu Sidhu, and Ben Thompson conducted this review. Please contact Ben Thompson at 206-477-1035 if you have any questions about the issues discussed in this report.

## Appendix 1

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### Assumptions for Analysis

**Furlough assumptions:**

- All county departments and employees are furlough-eligible regardless of minimum staffing requirements or essential work
- Furlough hours: Prorated based on an employee's regular hours worked per week. For example, one furlough day would be 4 hours for an employee working 20 hours per week, 8 hours for an employee working 40 hours per week, and 8.17 for employees working 40.85 hours per week.

**Salary assumptions:**

- Salary: 2020 rates, including growth rate increase
- All calculations use base pay. Cost savings do not take into account potential savings from daily or hourly premium payments or other additional pays to employees

**Retirement contribution assumptions:**

- Retirement contribution only applicable for employees working at least 70 hours per month, or 17.5 hours per week
- Law Enforcement Officers' and Fire Fighters' Retirement System (LEOFF): 5.33 percent employer contribution
- Washington State Public Employees' Retirement System (PERS): 12.86 percent employer contribution (applied to all retirement-eligible employees not enrolled in LEOFF in our analysis)

**Other tax and contribution assumptions:**

- Social Security tax: 6.2 percent employer tax on all earnings up to \$137,700 annually
- Medicare tax: 1.45 percent employer tax
- Washington State Paid Family Medical Leave: 0.15 percent employer contribution

## Appendix 2

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### Glossary of Acronyms

<b>ACRONYM</b>	<b>COUNTY DEPARTMENT</b>
<b>DAJD</b>	Department Adult & Juvenile Detention*
<b>DCHS</b>	Department of Community and Human Services
<b>DES</b>	Department of Executive Services
<b>DHR</b>	Department of Human Resources
<b>DJA</b>	Department of Judicial Administration
<b>DLS</b>	Department of Local Services
<b>DNRP</b>	Department of Natural Resources and Parks
<b>DOA</b>	Department of Assessments
<b>DPD</b>	Department of Public Defense
<b>DPH</b>	Department of Public Health
<b>KCAO</b>	Administration Offices
<b>KCC</b>	King County Council
<b>KCDC</b>	King County District Court
<b>KCE</b>	Department of Elections
<b>KCEO</b>	King County Executive's Office
<b>KCIT</b>	Department of Information Technology
<b>KCSC</b>	King County Superior Court
<b>KCSO</b>	King County Sheriff's Office
<b>MTD</b>	Metro Transit Department
<b>PAO</b>	Prosecuting Attorney Office

# Advancing Performance & Accountability

KYMBER WALTMUNSON, KING COUNTY AUDITOR

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**VALUES** INDEPENDENCE - CREDIBILITY - IMPACT

**ABOUT US** The King County Auditor's Office was created by charter in 1969 as an independent agency within the legislative branch of county government. The office conducts oversight of county government through independent audits, capital projects oversight, and other studies. The results of this work are presented to the Metropolitan King County Council and are communicated to the King County Executive and the public. The King County Auditor's Office performs its work in accordance with Government Auditing Standards.



**INTERIM  
REPORT**

*This product is an interim report, as defined in GAGAS 9.17.g, for an audit that complies with Government Auditing Standards.*