Addendum to the Statement of Lindsay Miller, J.D.
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Before the U.S. Senate Judiciary Committee's Subcommittee on Crime and Terrorism
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During the May 19, 2015 hearing on body-worn cameras, Senator Graham asked us to estimate the total annual costs for outfitting every law enforcement officer in the country with a camera. We are submitting our response to his question as an addendum to the testimony, and we respectfully request that it be included in the official record.

First, we must note that these calculations represent only rough estimates. These types of estimates require us to make a number of assumptions and to include several factors that can vary widely from jurisdiction to jurisdiction (e.g., the total number of officers in the country, officer salaries, data storage requirements, etc.).

The estimated costs for outfitting every officer in the U.S. with a body-worn camera are:

- **$3.1 – $3.6 billion for upfront, first-year costs**
- **$2.5 - $2.9 billion each year for ongoing annual costs**

Below is how we calculated these estimates. Again, estimates for full national deployment of BWCs and ongoing scheduled costs are only possible by making a number of assumptions.

First, the total number of full-time officers in the US is itself an estimate. The FBI, through the UCR program, provide a figure of 626,942 full-time officers in 2013. However this count only covers 13,051 agencies (other estimates suggest there are 18,000 law enforcement agencies in the US) and covers a population of nearly 269 million people. So the FBI counts represent the most conservative estimate of officers. Another source of information is the Law Enforcement Management and Administrative Statistics (LEMAS) Survey, sponsored by the Bureau of Justice Statistics. That survey reported 724,690 full-time officers across 15,388 agencies; this count includes sheriff's offices and state police, as well as any officer who possesses full arrest powers (in contrast, the UCR counts officers with arrest powers who also have a firearm and badge and paid by governmental funds set aside to law enforcement, hence why the UCR count is lower). While neither of these counts are perfect, they can serve as a conservative range for estimates.

Second, the costs of ongoing costs, particularly storage, tend to vary. Estimates generally range between $800 to $1200 per camera each year. The variance comes with different negotiated packages by BWC manufacturers. Such costs may or may not (depending on the negotiated contract) include coverage for replacement parts and repair of cameras. As a conservative metric, we can assume $1000 as a representative cost that could coverage storage and repair.

Third, there is a potential heavy financial cost by governments to provide additional staff to handle BWC administration and public disclosure. These costs are the most difficult to estimate as salaries and disclosure laws vary widely across jurisdictions. While anecdotal estimates exist for the number of hours it takes to clear a video for public release, even these can vary wildly or not have sufficient detail to generate a measurable metric. As a rough estimate, we can use more data from the LEMAS Survey – the average income for two full-time officers (one junior and

one supervisor) dedicated to a BWC program would be approximately $100,000 per year. By adding in indirect costs (insurance, benefits, etc.) at a rate of 40% of income, the cost would be $140,000 per year for each law enforcement agency as a conservative estimate.

Finally, it is unlikely that the capacity to store all these videos exists currently. While BWCs usage is clearly accelerating, dedicated storage does not exist in the market if all agencies obtained BWCs tomorrow. As a result, there would likely be additional upfront costs or a gradual increasing cost over the short term to account for rapidly increasing demand within a limited supply. This cost would be a considerable issue if BWC funding was presented as a single block grant, though could be mitigated through a phased funding that could allow the market to increase capacity concurrently. As such, we do not include a cost estimate for this component, though we do include the upfront cost of purchasing BWC units (approximately $1000 per BWC, on average).

As a general note, we do not include longitudinal factors impacting costs, such as inflation, step increases in salary, or potential declines in cost through technological advancement or market competition. However, these would play a role for ongoing funding over years. The estimate here provides a conservative snapshot of the total costs. Upfront first-year cost estimates range between $3.1-$3.6 billion, with ongoing yearly costs estimated at between $2.5-$2.9 billion nationwide. See tables below:

	Value	Upfront Cost	Yearly Cost
Full-time Officers (FBI)	626,942	$3,081,024,000	$2,454,082,000
Agencies (FBI)	13,051		
BWC hardware	$1,000		
BWC storage	$1,000		
Agency support	$140,000		
	Value	**Upfront Cost**	**Yearly Cost**
Full-time Officers (LEMAS)	724,690	$3,603,700,000	$2,879,010,000
Agencies (LEMAS)	15,388		
BWC hardware	$1,000		
BWC storage	$1,000		
Agency support	$140,000		

The total costs include agencies that already have BWC programs. Given the uncertainty in the number of departments already using BWCs nationwide, we could subtract roughly 3,500 agencies and a proportionate count of full-time officers from the cost estimates – however, given that both FBI and BJS estimates likely underestimate agency counts by between 2,600-5,000 agencies, the differences may be a wash when looking at aggregate figures and thus suggestive that the cost estimate provided would be a conservative value to bring all law enforcement into BWC usage.