Effects of Campaign Contributions on Promotion Rates within the Los Angeles Sheriff's Dept.

Patrick J. McCarthy, James Molyneux

June 20, 2012

Contents

1 Summary

Using the data provided, we are unable to conclude that there is an indisputable connection between campaign contributions and career advancement within the Los Angeles Sheriffs Department (LASD) in a general sense. However, we do find that for particular subsets of officers during particular time periods that political donations are found to be influential in the promotion/transfer process. Although we are confident in our interpretation of these results, we are unable to say whether a more robust data set would strengthen or weaken the relationships found by our analyses.

2 About the Data

2.1 Sources

The data originated from 3 separate sources:

1. Campaign contribution documents between the years 1998 and 2009.
2. Internal e-mails pertaining to transfers to desirable positions within the LASD.
3. Internal e-mails pertaining to promotions within the department or eligibility to be promoted (i.e. passing the appropriate qualifying exam).

2.2 Limitations of the Data Set

The data set suffers from several limitations, the first being that it only reflects people who have successfully passed qualifying tests or received promotions. This is problematic from a statistical sense as it does not lend any perspective as to how many people failed to pass or receive promotions, that is, the overall success rate is unknown. The one-dimensionality of the data was also found to be a limiting factor as it fails to account for any number of other factors which may or may not be significant in deciding a promotion or transfer (e.g. seniority or personal merit). Consequently, we were only able to analyze the proportion of success cases connected to a donation which prevents us from making/testing the assumptions necessary to gauge the robustness (or stability) of the model. Hence, we are unable to evaluate measures of randomness or overall trend for the models.

2.3 Definitions of Variables

The models used in our evaluations contained combinations of the following variables:

- *Names*: First and last name of the officer.
- *SgtTest*: Date of passing sergeant eligibility exam.
- *LtTest*: Date of passing lieutenant eligibility exam.
- *Sgt*: Date of being promoted to the rank of sergeant.
- *Lt*: Date of being promoted to the rank of lieutenant.
- *Transfer*[1]: Denotes whether an officer received a transfer to a 'desirable' position within the dept.

Donation Variables

- *by5.23.08* [2] : Donation amount (in dollars) during period 1 (1/1/1998 − 5/23/08).
- *by11.26.08*[2] : Donation amount (in dollars) during period 2 (5/23/08 − 11/26/08).
- *by3.6.09*[2] : Donation amount (in dollars) during period 3 (11/26/08 − 3/9/09)
- *bin5.23.08* [3] : Denotes whether a contribution (in dollars) was made during period 1 (1998 − 5/23/08).
- *bin11.26.08*[3] : Denotes whether a contribution (in dollars) was made during period 2 (5/23/08 − 11/26/08).
- *bin3.6.09*[3] : Denotes whether a contribution (in dollars) was made during period 3 (11/26/08 − 3/9/09).

[1]These are binary variables where 1 denotes an officer received a transfer and 0 denotes they did note

[2]Donations span between 1998 and 3/6/09 while data on promotions starts on 5/23/08 and continues at irregular intervals to the present. Therefore, contribution periods reflect all money collected, separated by promotion events.

[3]Each variable is binary where 1 denotes a donation was made during the specified time period and 0 demotes that no donation was made in the specified time period.

Promotion Variables

- *May.23.08* [4] : Promotion to Sergeant on 5/23/2008.
- *Nov.26.09*[4] : Promotion to Sergeant on 11/26/2008.
- *Feb.2.10*[4] : Promotion to Sergeant on 2/2/2010.
- *June.25.10*[4] : Promotion to Sergeant on 6/25/2010.
- *Aug.18.08*[4] : Promotion to Lieutenant on 8/18/2008.
- *Dec.18.09*[4] : Promotion to Lieutenant on 12/18/2009.
- *May.13.12*[4] : Promotion to Lieutenant on 5/13/2012.

3 Methods

Starting with raw documents, names, donation dates and donation amounts, transfers to lucrative positions, promotions and promotion dates were recorded onto a spreadsheet. The `R` statistical package was used for evaluation of data. Our task was then to evaluate the following question:

> Is there statistical evidence to say that making political donations to Undersheriff Tanaka' political campaigns influences promotions or transfers to highly-desired positions in LASD?

Due to small sample sizes for promotions to positions: Capt, Commander, Chief, our analysis pertains only to promotions from deputy to sergeant and from sergeant to lieutenant.

For each promotion to rank, we broke down our initial question into the following three:

1. Is there evidence that making a political donation, of any amount, to Undersheriff Tanaka's political campaign funds influences transfers to highly desired positions for all officers eligible to be promoted to sergeant/lieutenant?
2. Is there evidence that making a political donation, of any amount, to Undersheriff Tanaka's political campaign funds influences the probability of being promoted for all officers eligible to be promoted to sergeant/lieutenant?

[4]Promotion dates for both Sergeant and Lieutenants include both dates of learning of intent to promote as well as actual day of promotion. For the purposes of this data set, the date of intent to promote is treated as the actual day of promotion.

3. Is there evidence that making a political donation, of varying amounts, to Undersheriff Tanaka's political campaign funds influences the probability of being promoted for all officers eligible to be promoted to sergeant/lieutenant?

The method used to evaluate each question was to run a logistic regression for promotion or transfer on donation or donation size for each rank. In general, logistic regression is useful for teasing out whether an effect is due to chance or some underlying relationship amongst the variables. For our purposes, logistic regression attempts to explain whether a person was promoted/transferred based on the entire pool of officers eligible to be promoted/transferred and whether they were campaign donors or not.

4 Results

Among all the tests run, three rated as statistically significant.

- Sergeants were more likely to be transferred to desirable posts if they donated in period 1 or 2, on or before 3/6/09 (significant at the 99% confidence level).
- Deputies were more likely to be transferred to desirable posts if they donated in period 2, between 5/26/08 and 3/6/09 (significant, 99% confidence level).
- Deputies were more likely to be promoted to sergeant if they donated in period 2 (not significant, 88% confidence level)

These are of course only correlations, and it should be noted that the reverse is not true, that is, one cannot predict a transfer or a promotion from the presence of a donation. Moreover, these are localized effects - they are not observed in the population at large, nor for any subset of the population over all time periods.