

## **Sex, Education, Sector of Representation and Length of Term of members of a board of directors**

Alexis R. Santos-Lozada, PhD<sup>1,2</sup>

Pennsylvania State University (Version of 12/26/2018)

I provide a visualization of Sex, Education, and Sector of Representation over time for the Puerto Rico Institute of Statistics. The figure reveals important patterns concerning 1) temporal instability, distinct educational profiles by party in control of the executive branch, 2) shorter terms for Government representatives in comparison to representatives of public interest, and 3) reduction in the number of women appointed to the board since 2017.

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Corresponding Author: [ars39@psu.edu](mailto:ars39@psu.edu), p: 814-863-0117

<sup>1</sup> Department of Human Development and Family Studies

Pennsylvania State University

102 Health and Human Development, University Park, PA 16802

<sup>2</sup> Population Research Institute, Pennsylvania State University

A board of directors (BOD) plays a crucial role in the governance and stability of organizations. Independence of directors has been associated with superior performance within the private sector (Baysinger and Butler 1985). In Puerto Rico, the only government organization that has both an Independent BOD and is expected to operate without the intervention of politicians is the Puerto Rico Institute of Statistics (PRIS). Recent interventions in the independence of the BOD and PRIS present an opportunity to analyze the characteristics of the past appointees through data visualization. I build a database of that includes information of every person that has served as a member of the PRIS' BOD, excluding those who were not confirmed by the Senate of Puerto Rico as of December 24, 2018. I include sex, education, sector representation (Government/Public Interest), date of appointment and date of conclusion of service. I calculate length of term by subtracting date of appointment from last day of service, which results in the number of days the person remained in the position.

Figure 1 shows the sex, education, sector representation and length of term for every person who has served as a member of the BOD of PRIS since its creation in 2004 and reveals patterns for each of the

variables included in the visualization. Vertical lines in Figure 1 represent the political leanings of the Governor of Puerto Rico, with red representing the pro-commonwealth party and red representing the pro-statehood party. The first members of the board had either PhDs or Master's degree and it is not until 2009 that the first person with a Bachelor degree was appointed to the board. Between 2009 and 2012, we find four appointees with only a Bachelor's degree and one with a Juris Doctor. During the 2013-2016 period, the educational profile of appointees included persons with PhDs and no one with less than a Master's Degree. The educational profile of recent appointees (2017) mark a return to the patterns of 2009-2012, the previous pro-statehood Governor.

Of the 30 persons who have served in the BOD, only 11 are female. This difference is striking given that female appointees had higher median term of service (1,363 days) then male appointees (624 days). Regarding the educational profile, appointees with a Master's degree (M=1,014 days) or a Doctorate degree (M=985 days) had longer terms than those with a Bachelors (M=353 days) or a Juris Doctor (M=507 days). Appointees who represented the interests of the Governor of Puerto Rico on the board have a median term of 511 days in comparison to Public Interests Representatives who have a median term of 1,162 days. The appointment of non-government representatives constitutes an element that contributes to the stability of this organization. The findings presented in this note underscore the importance of monitoring organizational stability, as it is associated with organizational performance in the corporate world (Pfeffer 1972). Figure 1 was produced using R and ggplot (R Core Team 2018; Wickman 2009).

## References

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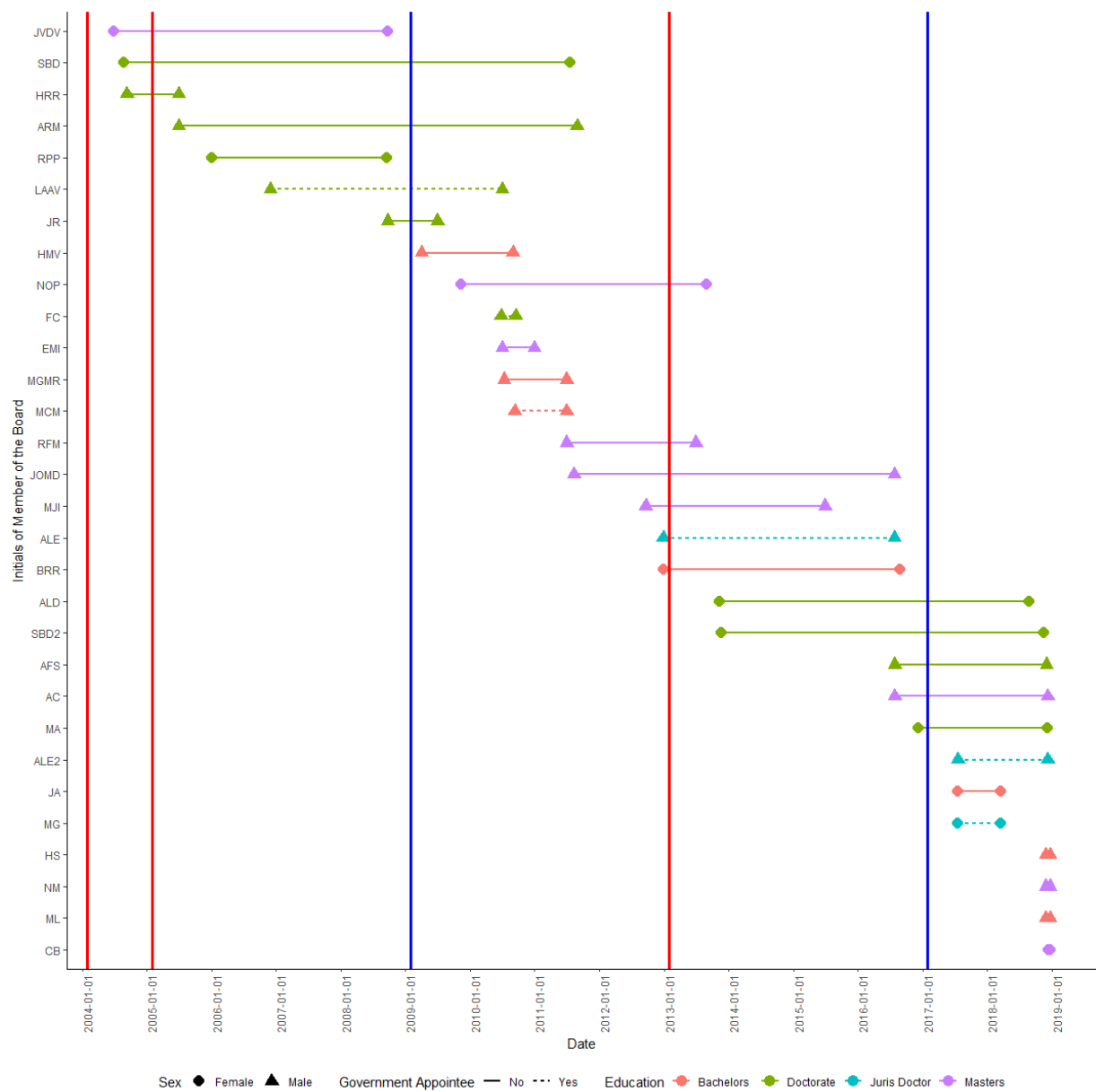


Figure 1: **Members of the PRIS Board of Directors.** This figure includes information for every member of the Board of Directors of the Puerto Rico Institute of Statistics. The color of observation represents the Educational attainment of the appointee. The shape of the endpoints for each segment is determined by the sex of the appointee. The length of the segment represents the number of days between date of appointment and the conclusion of the appointment. Whether the appointee represented the Governor or the Public Interest determined the type of segment. Vertical lines represent the party in control of the executive branch with red representing pro-commonwealth governments and blue representing pro-statehood ones.