Statistical Analysis Report (SAR)

Association between leadership commitment and professional development at NASA (2020): unweighted sex-adjusted stratified analysis

DOCUMENT: SAR-2022-011-GJ-v01

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Association between leadership commitment and professional development at NASA (2020): unweighted sex-adjusted stratified analysis

Document version

Version	Alterations
01	Initial version

1 ABBREVIATIONS

- 2 CONTEXT
- 2.1 Objectives
- 2.2 Data reception and cleaning
- 3 METHODS
- 3.1 Variables
- 3.1.1 Primary and secondary outcomes
- 3.1.2 Covariates
- 3.2 Statistical analyses

This analysis was performed using statistical software R version 4.1.2.

4 RESULTS

4.1 Study population and follow up

The raw database contained 10588 surveys, of which 1183 incomplete cases were removed. Of the complete cases 1920 participants did not agree nor disagree with at least one of the survey questions. These did not meet the inclusion criteria and were also removed from the analysis. After the inclusion and exclusion criteria were applied the final number of surveys in the analysis is 7485. Table 1 shows the characteristics of the surveys included in the final analysis.

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Table 1 caption

Characteristic	N = 7,485
Sex, n (%)	
Male	4,764 (64%)
Female	2,721 (36%)
I am given a real opportunity to improve my skills in my organization., n (%)	
1	73 (1.0%)
2	166 (2.2%)
4	2,948 (39%)
5	4,298 (57%)
Supervisors in my work unit support employee development., n (%)	
1	67 (0.9%)
2	81 (1.1%)
4	1,986 (27%)
5	5,351 (71%)



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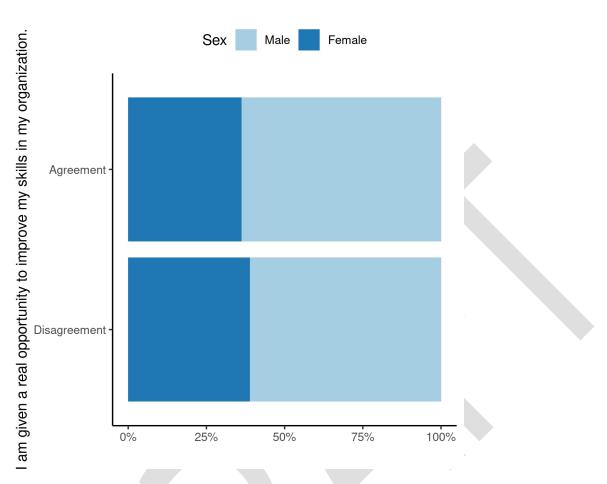


Figure 1 Dichotomized survey responses, by sex.

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4.2 Inferential analysis

Table 2 caption

Characteristic	How satisfied are yo program in y		
	Disagreement	Agreement	Total
Managers promote communication among different work units.			
Overall			
Disagreement	34	423	457
Agreement	75	6,953	7,028
Total	109	7,376	7,485
Males			
Disagreement	21	248	269
Agreement	46	4,449	4,495
Total	67	4,697	4,764
Females			
Disagreement	13	175	188
Agreement	29	2,504	2,533
Total	42	2,679	2,721

5 OBSERVATIONS AND LIMITATIONS

6 **CONCLUSIONS**

7 REFERENCES

• **SAP-2022-011-GJ-v01** – Analytical Plan for Association between leadership commitment and professional development at NASA (2020): unweighted sexadjusted stratified analysis

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8 APPENDIX

8.1 Exploratory data analysis

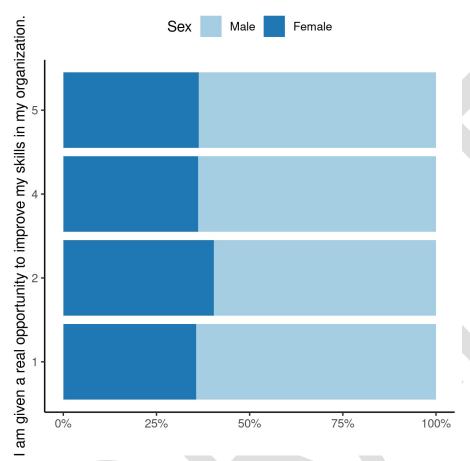


Figure A1 Raw survey responses, by sex.

8.2 Availability

Both this document and the corresponding analytical plan (**SAP-2022-011-GJ-v01**) can be downloaded in the following address:

https://philsf-biostat.github.io/SAR-2022-011-GJ/

8.3 Analytical dataset

Due to confidentiality the data-set used in this analysis cannot be shared online in the public version of this report.

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Table A1 Analytical dataset structure

id	dsex	dv	iv	dv2	iv2
1					
2					
3					
N					



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