

# Exhibit 3

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## EMPLOYMENT

2020-Present **Carnegie Mellon University**  
*Post-Doctoral Fellow, Institute for Politics and Strategy – [cervas@cmu.edu](mailto:cervas@cmu.edu)*

2021-Present **Pennsylvania Reapportionment Committee**  
*Map Consultant to the commission – [jonathan.cervas@redistricting.state.pa.us](mailto:jonathan.cervas@redistricting.state.pa.us)*

## EDUCATION

### University of California, Irvine

#### Ph.D., *Political Science*, August 2020

- \* Dissertation Committee: Bernard Grofman (Chair), Michael Tesler, Carole Uhlaner
- \* Dissertation: "A Quantitative Assessment of the U.S. Electoral College, 1790-2020"
- \* Fields: American Politics, Political Methodology, Comparative Politics

#### M.A., *Political Science*, December 2018

### University of Nevada, Las Vegas

#### B.A., *Political Science*, 2007

### ADDITIONAL TRAINING

Workshop on Research Design for Causal Inference, **Northwestern University**, 2017

Inter-university Consortium for Political and Social Research (ICPSR), **University of Michigan**, 2016

## PUBLICATIONS

- 2022 **11** - Using Folded Seats-Votes Curves to Compare Partisan Bias in the 2020 Presidential Election with Partisan Bias in the Five Other Presidential Elections in the 21st Century. **Jonathan Cervas** and Bernard Grofman. 2022. *Presidential Studies Quarterly*, June. [\[READ ONLINE\]](#)
- 10** - Turning Communities of Interest Into a Rigorous Standard for Fair Districting. Samuel S.-H Wang, Sandra J. Chen, Richard F. Ober, Jr., Bernard Grofman, Kyle T. Barnes, and **Jonathan Cervas**. 2022. *Stanford Journal of Civil Rights & Civil Liberties*, 18, 101. [\[READ ONLINE\]](#)
- 9** - Why Donald Trump Should be a Fervent Advocate of Using Rank-Choice Voting in 2024. **Jonathan Cervas** and Bernard Grofman. 2022. *PS: Political Science & Politics*, 55(1), 1-6. [\[READ ONLINE\]](#)
- 2021 **8** - A Systems Framework for Remedying Distortions in U.S. Democracy. Sam Wang, **Jonathan Cervas**, Bernard Grofman, and Keena Lipsitz. 2021. *Proceedings of the National Academy of Science*, 118(50), e2102154118. [\[READ ONLINE\]](#)
- 7** - The Unanticipated Effect of Covid-19 on House Apportionments. **Jonathan Cervas** and Bernard Grofman. 2021. *Social Science Quarterly*, 102(5) 2432-2434. [\[READ ONLINE\]](#)
- 2020 **6** - ZIP Codes as Geographic Bases of Representation. Bernard Grofman and **Jonathan Cervas**. 2020. *Election Law Journal*. [\[READ ONLINE\]](#)

- 2019 5 - Legal, political science and economics approaches to measuring malapportionment. **Jonathan Cervas** and Bernard Grofman. 2020. *Social Science Quarterly*, 101(6): 2238-2256. [\[READ ONLINE\]](#)
- 2019 4 - Tools for identifying partisan gerrymandering with an application to congressional districting in Pennsylvania. **Jonathan Cervas** and Bernard Grofman. 2020. *Political Geography*, 76: 102069. [\[READ ONLINE\]](#)
- 2018 3 - Are Presidential Inversions Inevitable? Comparing Eight Counterfactual Rules for Electing the U.S. President\*. **Jonathan Cervas** and Bernard Grofman. 2019. *Social Science Quarterly*, 100(4): 1322-1342. [\[READ ONLINE\]](#)
- 2018 2 - Can State Courts Cure Partisan Gerrymandering: Lessons from League of Women Voters v. Commonwealth of Pennsylvania (2018). Bernard Grofman and **Jonathan Cervas**. 2018. *Election Law Journal*, 17(4): 264-285. [\[READ ONLINE\]](#)
- 2017 1 - Why noncompetitive states are so important for understanding the outcomes of competitive elections: The Electoral College 1868-2016. **Jonathan Cervas** and Bernard Grofman. 2017. *Public Choice*, 173(3-4): 251-265. [\[READ ONLINE\]](#)

#### OTHER PUBLICATIONS

- 2021 Fracking: A Contiguity-Related Redistricting Metric. **Jonathan Cervas** and Bernard Grofman. *Election Law Blog* [\[READ ONLINE\]](#)
- Trump the wrestler and the 2024 grudge match". Bernard Grofman and **Jonathan Cervas**. [\[READ ONLINE\]](#)
- The GOP scared Latinos from the census. Now that may cost the party red seats. Sam Wang and **Jonathan Cervas**. Washington Post [\[READ ONLINE\]](#)
- Great Lobster and a More Equitable Voting System Exists in Maine. Anjali Akula, **Jonathan Cervas**, and Elsie Goren. *Medium.com "3Streams"* [\[READ ONLINE\]](#)
- 2020 How Likely is Trump to Lose the Popular Vote but Win the Electoral College? **Jonathan Cervas** and Bernard Grofman. *Medium.com "3Streams"* [\[READ ONLINE\]](#)
- These Are the Political Consequences of Excluding Undocumented Immigrants from Apportionment. Angela Ocampo and **Jonathan Cervas**. 2020. *Medium.com "3Streams"* [\[READ ONLINE\]](#)
- 2018 Pennsylvania has to draw new congressional districts but getting rid of gerrymandering will be harder than you think. Bernard Grofman and **Jonathan Cervas**. 2018. *The Washington Post*. [\[READ ONLINE\]](#)

#### IN PROGRESS

- \* "Recent Approaches to the Definition and Measurement of Compactness" (under review, *Political Geography*) [\[READ ONLINE\]](#)
- \* "Fracking: A Contiguity-Related Redistricting Metric" (under review, *Political Geography*) [\[READ ONLINE\]](#)
- \* "Statistical Fallacies in the Claims about Massive Election Fraud in 2020" (encouraged to revise and resubmit, *Statistics and Public Policy*) [\[READ ONLINE\]](#)
- \* "Folded Seats-Votes Curves: Comparing Partisan Bias in the 2020 Presidential Election With Partisan Bias in the Five Other Presidential Elections in the 21st Century"
- \* "A Simple Graphical Tool to Display Seats-Votes Relationship and Characterize Partisan Bias: Illustrated with U.S. Electoral College Data"
- \* "The Terminology of Districting." (with Bernard Grofman) [\[READ ONLINE\]](#)
- \* "The Paradox of Malapportionment."
- \* "Is the Electoral College Biased in Favor of Republicans? YES and NO." (with Bernard Grofman)
- \* "An Experiment on Optimal Campaigning Using a Simplified Seven-State Electoral College." (with Bernard Grofman and Scott Feld)
- \* "Location, Isolation, and Influence."

- \* "Population-Dependence of Cabinet Sizes." (with Rein Taagepera and Brian Kaiser) [\[READ ONLINE\]](#)
- \* "Representation of Non-Eligible Resident Populations in Legislative Bodies." (with Angela X. Ocampo)
- \* "Apportionment without non-citizens."
- \* "Distinguishing Between the Legacy of Slavery, Racial Threat, and Density in the American South." (with Bernard Grofman)
- \* "Nationalized Campaigns and Midterm Dropoff."
- \* "Habitual Voting Under Conditions of Gerrymandering."

## WORK EXPERIENCE

### **SPECIAL MASTER**

Harkenrider v. Hochul (2022), New York Congressional and State Senate Districts  
[\[court opinion\]](#) [\[SPECIAL MASTER REPORT\]](#)

### **CONSULTANT**

Pennsylvania Reapportionment Commission

### **AMICUS CURIAE**

2020 Hagopian v. Dunlap, Amicus Curiae with Princeton Electoral Innovation Lab [\[READ ONLINE\]](#)

### **ASSISTANT TO THE SPECIAL MASTER**

2019-2020 *Wright v. Sumter County Board of Elections and Registration*. U.S. District Court, Middle District of Georgia (2020) [\[court opinion\]](#)

2018-2019 *Bethune-Hill v. Virginia State Board of Elections*. U.S. District Court for the Eastern District of Virginia (2019) [\[court opinion\]](#)

2017 *Navajo Nation v. San Juan County, UT*. United States District Court for the District of Utah (2018) [\[court opinion\]](#)

### **EXPERT WITNESS**

Moore v. Lee, Case No. 22-0287-IV (2022). Chancery Court of Tennessee

## INVITED TALKS

"Measuring Compactness" Pennsylvania Redistricting with Geographers: Communities of Interest Criteria and Beyond, American Association of Geographers [\[Slides\]](#)

2021 "Tools for Identifying a Partisan Gerrymander". Princeton University Wintersession.

2019 "2019 NCSL Capitol Forum (Legislative Options for Redistricting Post-conference)". National Conference of State Legislatures.

"Redrawing the Virginia legislative map: the Bethune-Hill racial gerrymandering case". Princeton University.

2018 "Triple Play: Election 2018, Census 2020 and Redistricting 2021." University of Houston, Hobby School.

2016 "Representation of Non-Eligible Resident Populations in Legislative Bodies" Center for the Study of Democracy Graduate Student Conference, UC Irvine.

2015 "Asymmetry in State Grant Distribution: Why Proximity to the State Capital Matters" Western Political Science Association, San Diego, California.

## SERVICE TO THE DISCIPLINE

Referee: American Journal of Political Science, Political Geography, Election Law Journal, Public Choice, Political Research Quarterly

## REFERENCES

Bernard Grofman, University of California Irvine  
Distinguished Professor of Political Science  
Fellow - American Academy of Arts and Sciences  
[bgrofman@uci.edu](mailto:bgrofman@uci.edu)

Carole Jean Uhlaner  
Professor of Political Science, University of California Irvine  
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Richard L. Hasen, University of California Irvine Law School  
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