

Nonna Mayer's article provides an innovative perspective on the qualitative versus quantitative debate. Instead of opposing forces, Mayer notes that these approaches complement each other in the research of French political scientists. Further, she shows that recasting the typologies around the reactivity of the method and theoretical approach provides new insight into more relevant commonalities among research.

Garret Glasgow provides a portion of the section's report on the implementation and advantages of interdisciplinary methods training. The report highlights multiple avenues for interdisciplinary methods training for political scientists and increasing formal arrangements among academic departments to engage in training students. Together, these articles speak to possible bridges among methodologists rather than divides.

In the computing and software section, Stephen R.

Haptonstahl provides a detailed description of how to use web-based software for data collection and management. We're sure this will be of use to many *TPM* readers engaged in both small and large data collection efforts. The "L^AT_EX Corner" returns this issue with a tutorial on constructing scientific posters. This article should be of interest to students making their first T_EX poster and faculty implementing poster sessions in their courses. Next, David Siroky provides a review of *The Elements of Statistical Learning*. According to Siroky, the book should help researchers get more from their data. Finally, there are a list of announcements, section activities, and the first message from the section's new president, Philip A. Schrodtt.

Thanks to all of the contributors of this issue. As always, we look forward to ideas for future issues that relate to teaching, research methods, and political inquiry.

The Editors

Articles

Is OLS Dead?

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A graduate student worries aloud: "All I know is ordinary least squares. These results won't convince anyone." A colleague posts on his door an "OLS" sign, over it the familiar circle with the negative slash. A leading methodologist praises maximum likelihood estimation, and damns ordinary least squares. They all beg the question: Is OLS dead? But is it? In this article, we discuss the state of the OLS estimator in contemporary political science, offering documentation of its use, and trends in its use.

Regression analysis, in some version, has served as the statistical workhorse in political science. Given the classical linear regression (CLR) assumptions are met, then ordinary least squares (OLS) is an optimal estimator. Interestingly, the listed CLR assumptions vary some from text to text. [See the excellent essay by Larocca (2005), on this point.] For a "classic" statement of the CLR assumptions, see Kmenta (1997). There are those who argue that, against assumption violations, regression analysis is robust, while others argue it is fragile. [Consult the relevant discussions in King (1986); Lewis-Beck (1980, 30; 2004, 935-938).] Supposing the "fragile" perspective, then the use of OLS can be especially problematic. Taking into account these argu-

ments, plus the increasing attention to measurement level issues and newer maximum-likelihood-based statistical procedures, the expectation is that OLS has largely ceased to appear in the leading research outlets.

To test this expectation, we examined a large sample of current published research, content-analyzing the methods employed. In particular, we explored our top three general journals, *American Political Science Review*, *American Journal of Political Science*, and *Journal of Politics* (1990-2005), yielding an N = 1756 scientific research papers. (Articles dealing with methods, theory, up-dates, exchanges, communications, workshops, or symposia were excluded).

Table 1 shows the frequency of use for different quantitative techniques. These techniques are classified as 'more' or 'less' sophisticated than OLS based on whether the material would normally appear before or after OLS in a quantitative methodology course. (In any classification of this kind, judgment calls are inevitable. For example, it might be argued that ANOVA is a kind of OLS. We kept ANOVA as a separate category, because of its traditional use in experimental designs and because of the generally simpler models it estimates. To take another example, consider the time se-

Table 1: Statistical Methods Employed in Articles in *APSR*, *AJPS*, and *JOP* (1990-2005)

Statistical Method	Raw Frequency	Percent Frequency
Less Sophisticated		
ANOVA	40	1.8
Correlations	89	4.0
Difference Tests	95	4.3
Descriptive Statistics	238	10.7
Subtotal	462	20.8
OLS	684	30.8
More Sophisticated		
Advanced Regression	186	8.4
Time Series	77	3.5
Logit	318	14.3
Probit	216	9.7
Other MLE	97	4.4
Scaling and Measurement	31	1.4
Latent Variables	8	0.4
Simulation	10	0.5
Subtotal	943	42.6
No Method Reported	132	5.8
Total	2221	100.0%

Note: Methods are grouped by degree of sophistication. Different statistical methods employed within the same article are reported separately. For this reason the total N of the table exceeds the total N of the articles in the dataset.

ries classification of an autoregressive distributed lag model, when estimated with OLS using a lagged dependent variable on the right-hand side. We maintain this in the time series category, due to its heavy reliance on the time series nature of the data. It should be mentioned that if either example were placed in the OLS category instead, it would only strengthen further the role of OLS). Note, finally, that Table 1 includes all statistical methods employed in each article.

According to this classification scheme, OLS is by far the most popular method, appearing in nearly 31 percent of the papers. Taken all together, statistics that appear more sophisticated—logit, probit, other MLE, time series, scaling and measurement, latent variables, simulation, advanced regression (e.g., generalized least squares, two-stage least squares, weighted least squares)—appeared 42.6 percent of the time. The remaining quantitative methods are actually less sophisticated than OLS—difference tests, descriptive statistics, correlations, ANOVA, none—and total 20.8 percent of the cases. In sum, OLS, or its lesser cousins, stand as the dominant methodological choice in this blue-ribbon sample.

Of course, one may begin data analysis with OLS, then go on to another method. Thus the question: for those

cases in Table 1 that employed OLS, how many turned to a second method? Just 37.1 percent. In other words, the overwhelming majority stayed with OLS as the principal analysis method. For the minority that did not stay with OLS, what was their next move? Almost half—45.3 percent—went on to a method less sophisticated than OLS (e.g., correlations, difference tests, descriptive statistics); just over half—54.7 percent—did go on to a method more sophisticated than OLS (e.g., an advanced regression or MLE technique). Overall, then, OLS continues to be the dominant method used, even allowing for a second round of analysis. Is there any evidence that, despite its dominance, OLS use is changing? Yes, a bit. For that small minority who step beyond OLS to something more sophisticated, one observes that, over time, the sophisticated choice is becoming somewhat more likely. For example, applying a simple signs test, one observes for seven out of the first eight years of the series, the second choice technique was less sophisticated than OLS; in contrast, for the second eight years of the series, the second choice technique was more sophisticated than OLS in six of the eight years. (See Table 2). There is movement, then, but again it must be mentioned this occurs in a very small group of papers.

Table 2: Statistical Methods Employed in Conjunction with OLS in Articles in *APSR*, *AJPS*, and *JOP* (1990-2005)

Year	Less Sophisticated than OLS*		More Sophisticated than OLS ⁺	Total
1990	9	>	6	15
1991	9	>	6	15
1992	6	>	5	11
1993	11	=	11	22
1994	7	<	10	17
1995	9	>	6	15
1996	10	>	7	17
1997	9	>	8	17
1998	11	>	10	21
1999	6	<	9	15
2000	10	>	6	16
2001	5	<	10	15
2002	9	<	13	22
2003	1	<	8	9
2004	1	<	13	14
2005	2	<	11	13
Total	115	<	139	254

Note: Cases are articles which report both OLS and an additional statistical method.
*Less sophisticated than OLS includes: ANOVA, Correlations, Difference Tests, and Descriptive Statistics.
+More sophisticated than OLS includes: Advanced Regression, Time Series, Logit, Probit, Other MLE, Scaling and Measurement, Latent Variables models, and Simulation.

Conclusion

OLS is not dead. On the contrary, it remains the principal multivariate technique in use by researchers publishing in our best journals. Scholars should not despair that possession of quantitative skills at an OLS level (or less), bars them publication in these top outlets. In itself, it need not be an impediment, as these data demonstrate.

Why is OLS so entrenched? We can only speculate. However, its putative advantages come to mind. OLS offers common coin, easily exchanged among most scholars in the discipline. It is simple to run, simple to understand. On occasion, it might even stand as a BLUE estimator, when classical linear regression assumptions are met.

References

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