

RAVEL | LEGAL  
INFORMATION  
ANALYTICS

**DANIEL LEWIS**  
CEO + Co-founder

# WHO WE ARE

- + Ravel is a leader in analytics for litigators, leveraging machine learning to turn unstructured legal data into insights.
- + Our first product, Judge Analytics, won AALL 2016 Product of the Year. There are 3 more products in the pipeline in the next year that are equally transformative.
- + We have an exclusive content partnership with Harvard Law School.
- + Customers already include dozens of AmLaw 500 firms and 20+ schools. We have tens of thousands of professional users.
- + Founded in 2012 at Stanford Law School.

# CUSTOMERS INCLUDE TOP FIRMS AND LAW SCHOOLS

1 in 3 of the Am Law 20 use Ravel

+ LEADING SCHOOLS:



# A COMPETITIVE ADVANTAGE IN MACHINE LEARNING

We use machine learning trained with millions of data points created by an in-house team of lawyers to identify, extract and classify information from legal documents.

1

We capture, for example:

Parties  
Judges  
Companies  
Law Firms & Lawyers  
Patents  
Citations  
Outcomes  
Points of law  
Motion types  
Document types  
Negative/positive treatments  
and more

2

CITIZENS UNITED, Appellant, v. FEDERAL ELECTION COMMISSION.

130 S.Ct. 876 (2010)

No. 08-205.

Supreme Court of United States.

Argued March 24, 2009.

Decided January 21, 2010.

Reargued September 9, 2009.

Floyd Abrams, for Senator Mitch McConnell as amicus curiae, by special leave of the Court, supporting the Appellant.

Elena Kagan, Solicitor General, Washington, D.C., for Respondent.

Seth P. Waxman, for Senator John McCain, as amici curiae, by special leave of the Court, supporting the Appellee.

Michael Boos, Fairfax, VA, Theodore B. Olson, Matthew D. McGill, Amir C. Tayrani, Justin S. Herring, Gibson, Dunn & Crutcher LLP, Washington, D.C., for Appellant.

Theodore B. Olson, for Appellant.

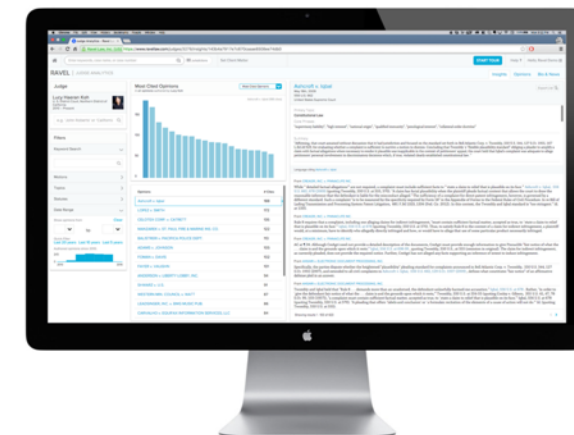
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Justice KENNEDY delivered the opinion of the Court.

Federal law prohibits corporations and unions from using their general treasury funds to make independent expenditures for speech defined as an "electioneering communication" or for speech expressly advocating the election or defeat of a candidate. 2 U.S.C. § 441b. Limits on electioneering communications were upheld in *McConnell v. Federal Election Comm'n*, 540 U.S. 93, 203-209, 124 S.Ct. 619, 157 L.Ed.2d 491 (2003). The holding of *McConnell* rested to a large extent on an earlier case, *Austin v. Michigan Chamber of Commerce*, 494 U.S. 652, 110 S.Ct. 1391, 108 L.Ed.2d 652 (1990). *Austin* had held that political speech may be banned based on the speaker's corporate identity.

In this case we are asked to reconsider *Austin* and, in effect, *McConnell*. It has been noted that "*Austin* was a significant departure from ancient First Amendment principles," *Federal Election Comm'n v. Wisconsin Right to Life, Inc.*, 551 U.S. 449, 490, 127 S.Ct. 2652, 168 L.Ed.2d 329 (2007) (WRTL) (SCALIA, J. concurring in part and concurring in judgment). We agree with that conclusion and hold that *stare decisis* does not compel the continued acceptance of *Austin*. The Government may regulate corporate political speech through disclaimer

3



# Building a Knowledge Graph

Ravel's Knowledge Graph is derived from more than 10M unstructured documents (primarily legal opinions).

Unstructured  
Textual  
Documents



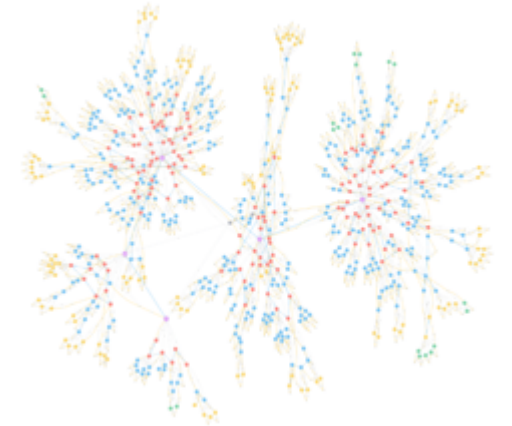
Proprietary  
Algorithms



Extracted Entity  
Taxonomy



Knowledge  
Graph



1. Proprietary technology to identify, extract, and classify different entity types, then disambiguate and deduplicate to create an entity taxonomy.
2. Build relationships across entities, represented by the edges in the graph, which we can quickly run aggregations on top of to create insights.
3. Process 10M documents in <12 hours, extracting hundreds of millions of connected data points.

# JUDGE ANALYTICS

Unique motion filters built with machine learning. Includes granted or denied outcome.

Topic and Statute filters for cases built with machine learning

**RAVEL** Enter keywords, case name or citation, judge or statute Set Client Matter §§ Statute Navigator

**Opinions** **Analytics** **About**

**Charles R. Breyer**  
Northern District of California  
1997 - Present

**Filters** 1 FILTER APPLIED [Clear All](#)

Keyword Search

**Motions** 1

- ☐ Motion for Summary Jud.. 355 results
- ☒ **Motion to Dismiss 293 results**
- ☐ Motion for Certification 34 results
- ☐ Motion to Strike 34 results
- ☐ Motion to Compel 34 results

[Show 53 More...](#)

**Topics**

**Statutes**

**Date Range**

Show opinions from to [Clear](#)

Quick Filter  
[Last 20 years](#) [Last 10 years](#) [Last 5 years](#)  
Authored opinions since 1998.  
38

**Patterns from the Writing of Charles R. Breyer**

Active Filters **Most Treated**

Motion to Dismiss **Opinions** Courts Judges

Treatments of:

- 54 Ashcroft v. Iqbal
- 32 BALISTRERI v. PACIFICA POLICE DEPT.
- 23 ILETO v. GLOCK INC.**
- 20 EMINENCE CAPITAL, LLC v. ASPEON, INC.
- 19 SPREWELL v. GOLDEN STATE WARRIORS
- 18 METZLER INV. GMBH v. CORINTHIAN COLLEGES, INC.
- 17 SWARTZ v. KPMG LLP
- 12 LEE v. CITY OF LOS ANGELES
- 12 VESS v. CIBA-GEIGY CORP. USA
- 9 CLEGG v. CULT AWARENESS NETWORK
- 9 LUJAN v. DEFENDERS OF WILDLIFE
- 9 USHER v. CITY OF LOS ANGELES
- 8 WYLER SUMMIT PARTNERSHIP v. TURNER BROADCAST. SYS.
- 8 FOMAN v. DAVIS
- 8 KWIKSET CORP. v. SUPERIOR COURT
- 7 WHITE v. LEE
- 7 KEARNS v. FORD MOTOR CO.
- 6 WARTH v. SELDIN

**ILETO v. GLOCK INC.**  
November 20th, 2003  
349 F.3d 1191  
U.S. Court of Appeals for the Ninth Circuit

Language citing ILETO v. GLOCK INC.

- in A.P. DEAUVILLE, LLC v. ARION PERFUME AND BEAUTY, INC.  
No. C14-03343 CRB.  
U.S. District Court for the Northern District of California - December 12th, 2014  
**Breyer 12(b)(6) Std**  
A motion to dismiss pursuant to Rule 12(b)(6) tests the legal sufficiency of the complaint. [Ileto v. Glock, Inc., 349 F.3d 1191, 1199-1200 \(9th Cir. 2003\)](#) (citing Fed. R. Civ. P. 12(b)(6)).
- in CRAIGSLIST INC. v. 3Taps INC.  
No. CV 12-03816 CRB.  
U.S. District Court for the Northern District of California - April 30th, 2013  
A motion to dismiss under Rule 12(b)(6) tests the legal sufficiency of the claims alleged in a complaint. [Ileto v. Glock, Inc., 349 F.3d 1191, 1199-1200 \(9th Cir. 2003\)](#).
- in DOAN v. SAN RAMON VALLEY SCHOOL DISTRICT  
No. C 13-03866 CRB.  
U.S. District Court for the Northern District of California - January 27th, 2014  
A motion to dismiss pursuant to Rule 12(b)(6) of the Federal Rules of Civil Procedure tests the legal sufficiency of the claims alleged in a complaint. [Ileto v. Glock, Inc., 349 F.3d 1191, 1199-1200 \(9th Cir. 2003\)](#).
- in KOLLER v. WEST BAY ACQUISITIONS, LLC  
No. C 12-00117 CRB.  
U.S. District Court for the Northern District of California - July 11th, 2012  
A motion to dismiss under Federal Rule of Civil Procedure 12(b)(6) tests the legal sufficiency of the claims alleged in a complaint. [Ileto v. Glock, Inc., 349 F.3d 1191, 1199-1200 \(9th Cir. 2003\)](#). "Detailed factual allegations" are not required, but the Rule does call for sufficient factual matter. accented as true. to "state a claim to relief that is plausible on its face." Ashcroft

1 - 23 of 23 unique results

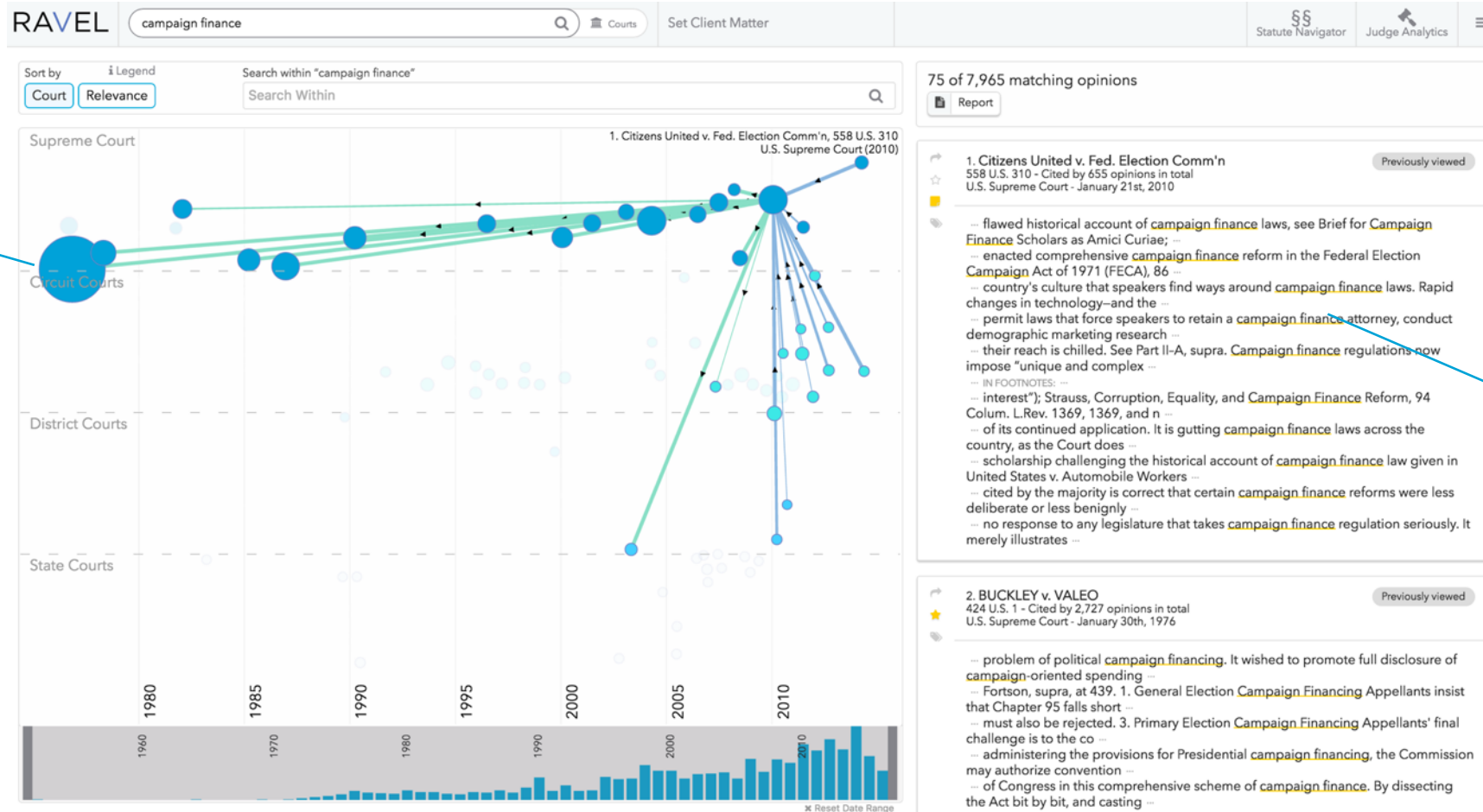
Visualization of data reveals patterns in citations to cases, courts, and judges

Technology highlights key rules and language patterns of the judge

# CASE VISUALIZATION

Visual search interface  
is tailored for latest  
generation users

Visual map  
identifies key  
cases and finds  
needles in the  
haystack



Top-tier search  
results powered by  
graph network of  
cases

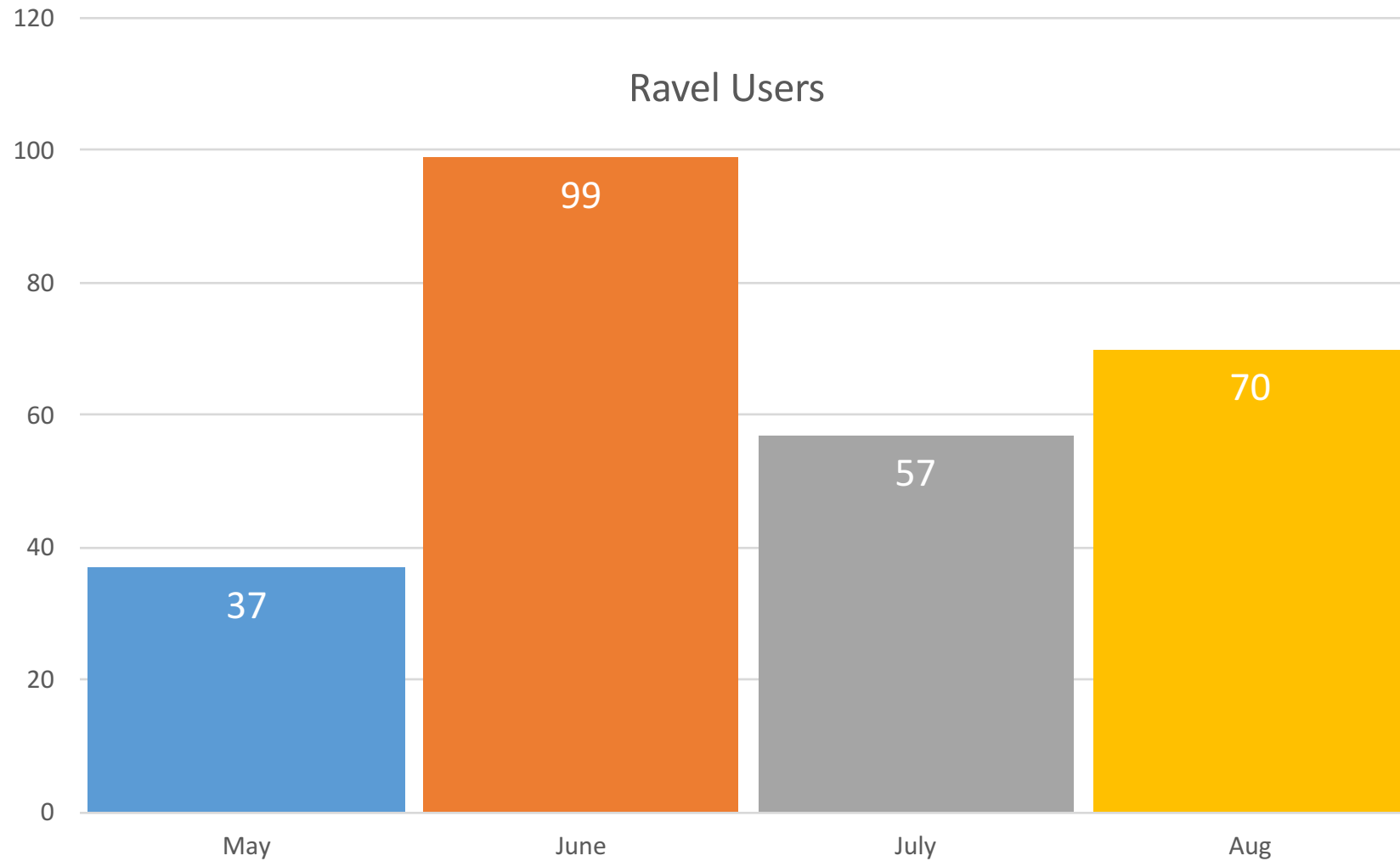
## WE'RE CHANGING THE PRACTICE OF LAW

**“The bottom line is that Ravel has invented new ways for lawyers to seek a competitive advantage by discovering patterns and outliers in judges’ opinions as well as insights into who and what influences them.”**

*Jean O’Grady, DLA Piper - Director of Research Services and Libraries*

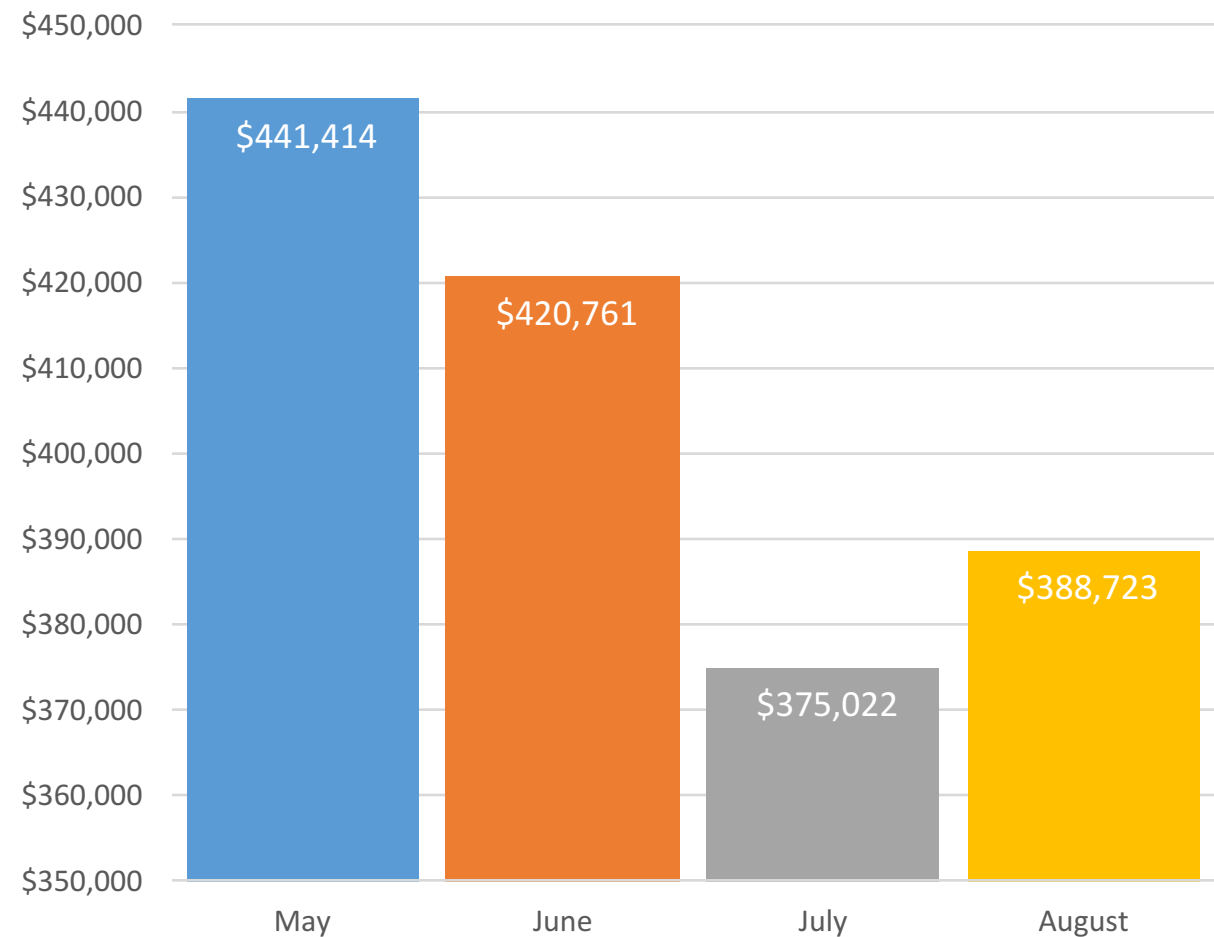


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Ravel Usage Report – May 2016 Rollout

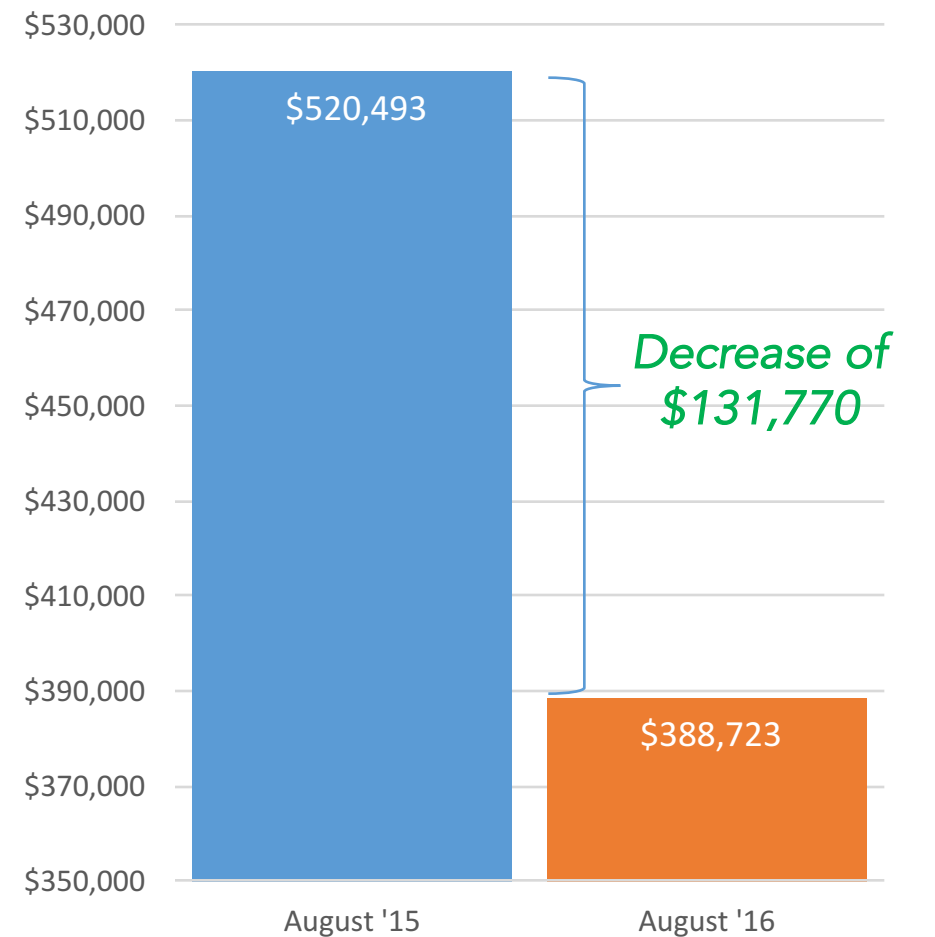


# Westlaw Usage & List Charges Decline 25% After Ravel May 2016 Rollout

May to August % Change: -12%



August to August % Change: -25%



# A NEW ERA OF ASYMMETRIC ANALYTICS



Information advantages  
via  
**analytics, interfaces, and insights.**