



Why has the median real income of lawyers been declining?

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Abstract

The median real incomes of lawyers have been declining. In 2001, the median real income of lawyers in the 50 states plus the District of Columbia was \$129,389 (July 2020 prices). Almost two decades later, in 2020, this number had fallen to \$126,930, 1.90% less than in 2001. By contrast, the median real income of workers in all occupations together rose 3.93% between 2001 and 2020, while the median real income of the average family practice physician rose 20.15% and the median real income of a typical economist rose 10.9%. We examine both supply and demand influences to explain the declining median real incomes of lawyers. An oversupply of lawyers provides only a partial explanation. The number of lawyers per 1,000 people nationally did nudge upward from 1.72 in 2001 to 2.22 in 2020, but the number of first year law students nationally in 2020 was 6.6% smaller than in 2001. Supply side adjustments to new market conditions take years to occur and hence we observe some cobweb-like oscillations in lawyers' incomes. Demand side influences on lawyers' incomes loom large. Between 2008 and 2019, lawyers' income share of the national gross domestic product fell from 1.64% to 1.32% because clients purchased lawyers' services less often.

Keywords Lawyers · Declining median income · Labor markets · LSAT · Bar examination

JEL Classification J44 · Professional licensing · K, Law · Economics

“People say I have a distorted lens. I think I see things as they really are.”

Nikki Sixx, bass player for the Mötley Crüe¹

¹ Nikki Sixx, as quoted in Brainy Quote, www.brainyquote.com/quotes/nikki_sixx_640794.

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The collective views of economists concerning the activities of lawyers are inconsistent. Some practitioners of the dismal science have been known to express envy for the elan exhibited by the legal profession and the incomes earned by successful lawyers even as they criticize the restrictions on entry into the profession imposed by the American Bar Association in tandem with state bar associations. Some economists also look quizzically at the ability of bar associations to impose sanctions on individual lawyers for conduct deemed inappropriate but wonder if the American Economic Association should move in the same direction.

More than a few economists serve as expert witnesses and consultants and therefore benefit directly from the activities of lawyers. Thus, even though economists may criticize the litigious character of American society, and perhaps even declare that there is no net social gain attached to the redistribution of incomes that results from many legal actions, many avert their gaze and imitate piglets as they jostle for the opportunity to opine as compensated experts on matters legal and judicial. An entire professional organization, The National Association of Forensic Economics, unites economics experts and its journal provides an outlet for increasingly detailed scholarship relating to consulting activities and economists' interactions with lawyers and the legal system.

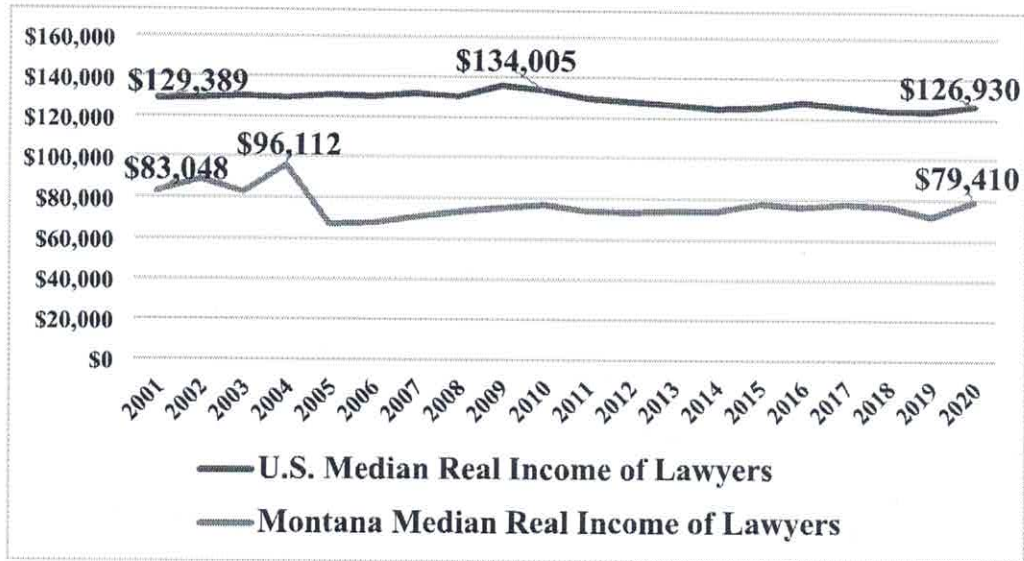
These ambivalences may be responsible for the whiff of *Schadenfreude* we detect coming from some economists when they assess the malaise that has afflicted lawyers' incomes in this century. The numbers are grim, at least as they apply to the typical lawyer. The median real income of lawyers in the 50 states plus the District of Columbia peaked in 2010 at \$134,005 (2020 prices) and gradually has eased down to \$126,930 in 2020. This meant that lawyers' 2020 real median income was 5.57% below its 2010 apex (Bureau of Labor Statistics 2021). Graph 1 reports these data, which represent the 50 states plus the District of Columbia plus the State of Montana.

To gain more understanding about the supply side of the market for lawyers, we utilize the State of Montana as an example. This is advantageous because Montana has only one law school and therefore it is easier to detect supply-side changes in the market for lawyers. The compensation story in Montana has been roughly similar to the national circumstance. Median lawyers' real incomes in Montana peaked in 2004 at the level of \$96,112, but by 2020 had declined to \$79,410 --- a momentous 17.38% reduction from that peak.

Given that the typical lawyer's real income has been declining, how did that lawyer fare, compared to workers in other occupations? Graph 2 compares the 2001–2020 real incomes of lawyers to those earned by three other groups of professionals: (1) database administrators; (2) economists; and (3) family practice physicians. The 2001 income of each group has been indexed at 100. It will suffice to observe that workers in most other occupations were doing better financially than lawyers.

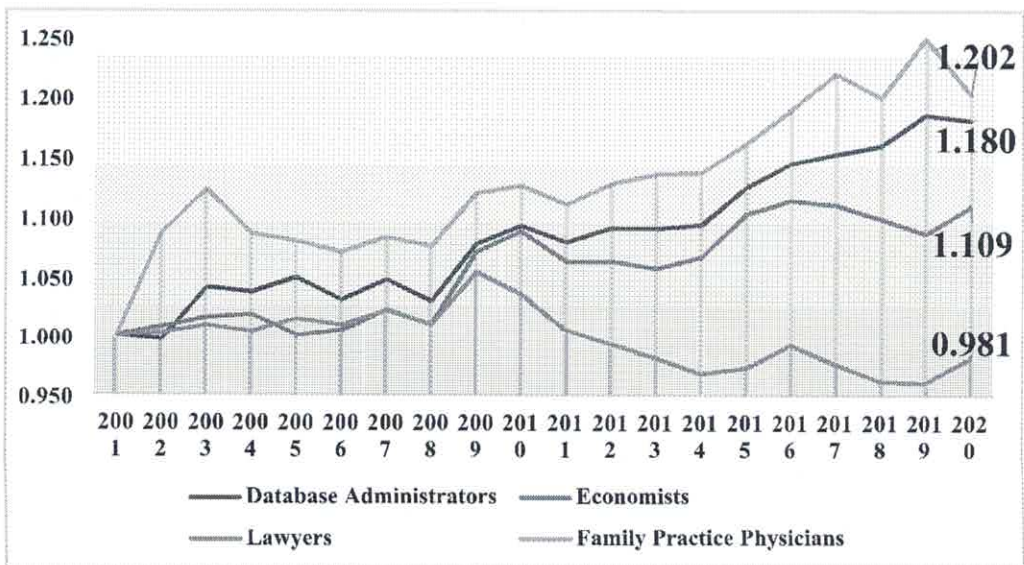
Our analysis in this paper focuses on this decline in lawyer's real incomes and is divided into seven parts. First, we review previous work concerning lawyers incomes and related matters. Second, we begin to examine why lawyers' real incomes --- both nationally and in Montana --- are smaller today than they were two decades ago. Third, we address the influence that the increasing use of paralegals and other non-attorney personnel has had on lawyers' employment and incomes. Fourth, we

**Median Real Incomes of Lawyers:
United States and Montana, 2001-2020**



Graph 1 Median real incomes of lawyers: United States and Montana, 2001–2020. Note: The U.S. data represent the median values of the state median real income values. Source: Bureau of Labor Statistics (2021)

**Comparing Changes in the Real Median Incomes of Lawyers and Other Occupations:
United States, 2001-2020**



Graph 2 Comparing changes in the real median incomes of lawyers and other occupations: United States, 2001–2020. Note: 2001 incomes have been indexed at 100.0. Source: Bureau of Labor Statistics (2021)

trace what appears to be a decline in litigiousness in the United States. Fifth, we directly address the question of whether there is an oversupply of lawyers. Sixth, we examine the impact that state bar examination pass rates have had on the employment and incomes of lawyers. Seventh, we assess the impact of our findings.

1 Interpreting previous work

Freeman (1975), Pashigian (1977), and Rosen (1992) have supplied the seminal work dealing with labor markets for lawyers. Freeman modeled markets for professional services, one of which involved lawyers. His empirical results supported the notion that the most important determinant of law school enrollments and the subsequent flow of law school graduates into the legal profession was the current incomes of practicing attorneys. Freeman found law school students and graduates to be somewhat myopic; they gave surprisingly little attention to the lifetime earnings profiles of practicing lawyers and instead based their occupational choices on lawyers' incomes at the time they needed to decide their futures.

Such present-oriented behavior, however, might lead to substantial oscillations in the production and compensation of lawyers ("cobweb effects") as individuals react to the most recent data rather than long-term trends. Some of these oscillations are readily visible. The number of individuals taking the Law School Admissions Test (LSAT) increased by more than 25,000 between 2001 and 2002 but declined by more than 25,000 between 2012 and 2013 (Law School Admissions Council 2021).

More than 40 years ago, however, Pashigian (1977) argued that there was little evidence of destabilizing cobweb effects in labor markets for lawyers. He noted that law school enrollments were rather stable during the Great Depression when one might have expected a precipitous drop in enrollments because of the difficulty a graduate would have in finding a job after graduation.

Pashigian also identified a series of variables that he theorized might influence what he termed a "heterogeneous" demand for lawyers' services: real estate transactions, divorce rates, automobile accidents, the general size of the economy, the level of economic regulation, the number of Federal District court cases, etc. His regression analysis using these variables led him to conclude that real gross domestic product (that is, the size of the national economy) exercised the greatest influence over the demand for lawyers' services and their incomes. Other statistically significant determinants among his variables were the divorce rate and the number of filed Federal District court cases, though their quantitative importance was small.

When disequilibria have appeared in labor markets for lawyers in recent decades, this typically has resulted in stagnant growth in the income of lawyers as a group; higher rates of unemployment for recently graduated law students; and falling law school enrollments.² Pashigian noted that it typically takes three years to produce law school graduates (a J.D. degree today) and therefore labor

² Either smaller entering law school classes or more individuals dropping out of law schools could cause this.

markets for lawyers might be tardier than many others in terms of adjusting to new circumstances.

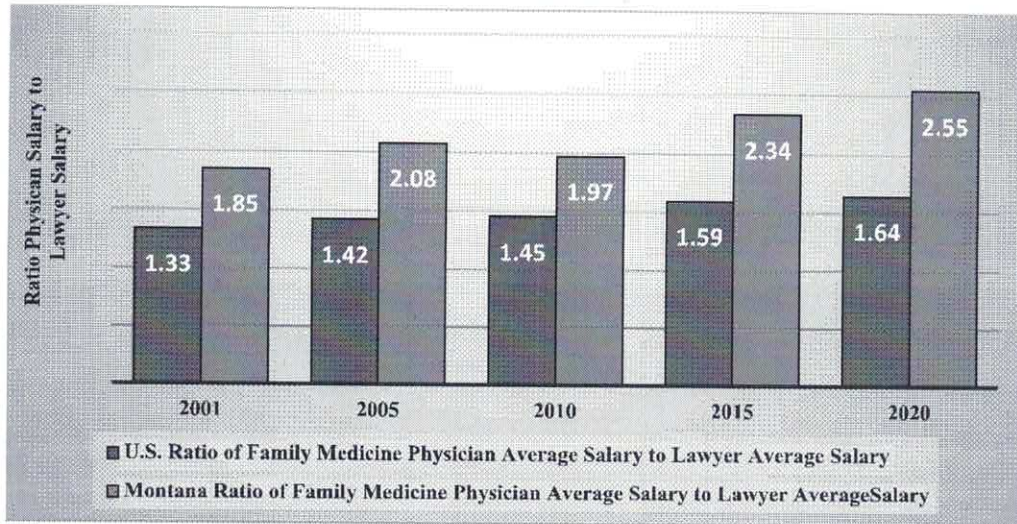
However, one portion of today's J.D. pipeline is much more sensitive to changing labor market conditions --- the inflow of first-year law school students. As we already had seen, the number of individuals who choose to take the Law School Admission Test (LSAT) provides a contemporaneous tipoff concerning public perceptions of the labor market conditions for lawyers, followed by the number of individuals who subsequently apply for admission to law school, and ultimately by those who choose to attend. These three indices usually are more informative indicators of current lawyer labor market conditions than are the salaries being earned by the current stable of lawyers.

Rosen (1992) adopted a broad view of the labor markets for lawyers. He noted that the dispersion of lawyers' earnings was greater than that for all college graduates. This, he argued, reflected the reality that a few lawyers earn much more than most others. An important reason for this is that high stakes, high compensation cases are dominated by a small number of highly visible (and usually highly successful) attorneys. This is the legal version of the "superstar system" that exists for professional basketball players, television personalities, musicians, actors, and others (Rosen 1981). High monetary value legal cases (and related income) gravitate to lawyers who are visible and successful, whether locally, regionally, or nationally. As applied to lawyers, it means that the average salary of lawyers nearly always is substantially greater than their median salary because a few lawyers earn very high salaries and drive up the average. By contrast, the same phenomenon has never existed for public K-12 teachers.

It is worth exploring why this holds true. From the standpoint of economics, one reason for the disparity is that the marginal productivity of lawyers is visible and usually can be measured in terms of favorable/unfavorable verdicts, the size of financial settlements received, etc. Like football quarterbacks, lawyers' outputs usually can be readily identified and evaluated. This ability of outsiders to assess and measure aspects of their legal output (or at least to think they can do so) is a characteristic that sets lawyers apart from many other occupations. The same ability to measure the quantity and value of output of individuals is not present for the already mentioned K-12 teachers, or for family counselors, United States Army privates, and many assembly line workers. The result is greater dispersion among the earned incomes of lawyers than holds true in these other occupations.

Rosen (1992) noted that the use of legal services in the American economy increased steadily in the decades prior to his 1992 article. However, this did not necessarily translate to higher real incomes for lawyers as a group. Consider that in the 1930s and 1940s, the earned incomes of physicians and lawyers were more or less on a par with each other (Loevinger 1958). However, by the 1970s, considerable distance had arisen between the two because physicians' real incomes had been increasing faster than those of lawyers. Graph 3 demonstrates that this trend toward divergence has not dissipated. In 2001, the ratio between the incomes earned by general family practice physicians and lawyers was 1.33 nationally; however, by 2020, the ratio between the two had increased to 1.64 (Bureau of Labor Statistics 2021).

**Ratios of the Annual Incomes of Family Medicine Physicians to Lawyers:
U.S. and Montana, 2001 to 2020**



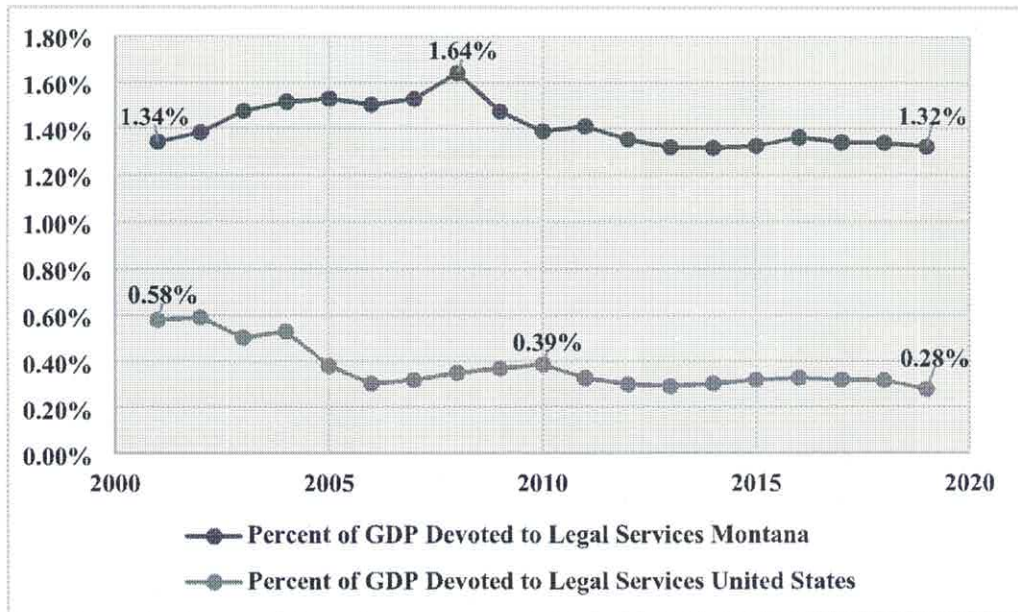
Graph 3 Ratios of the annual incomes of family medicine physicians to lawyers: U.S. and Montana, 2001 to 2020. Source: Bureau of Labor Statistics (2021)

Montana has not constituted an exception to growing earnings gap between physicians and doctors. Quite the opposite. The divergence between general family practice physicians and lawyers incomes in Montana increased dramatically in this century and in 2020 the average income of a general family practice doctor in Montana was 2.55 times as high as the average income of a Montana lawyer. This is almost 50% higher than the national ratio between the two (United States Department of Labor, Bureau of Labor Statistics 2020).

Rosen in particular discussed the implications for lawyers' incomes of what often is termed our "increasingly litigious society." It has been alleged that the United States is the most litigious country in the world (Rubin 2016 among many), which we take to mean that more legal actions are taken per some legitimate measure of activity in the United States than anywhere else. Increased governmental regulation, contingent fees, class action suits, and third-party financing of suits often are cited as motivating factors. Despite these perceptions, reality is that the percentage of American gross domestic product devoted to legal services peaked in 2008 (FRED 2021a) and has trended downward since then (see Graph 4). The same downward trend is apparent in Montana. Litigious or not, Americans are spending proportionately less on legal services today that they did a decade previous. Plausibly, this is one reason why the real incomes of lawyers are lower today than they were 15 years ago.

Rosen also concluded that there was not an oversupply of lawyers because he could not find evidence (pre-1992) of any persistent decline in their real earnings. A review of the more recent data presented in Graph 1 updates and alters this perception. Between 2001 and 2020, the real median earnings of lawyers nationally increased in 11 of 19 years; however, by 2020, their real median earnings still were 1.69% below their 2001 level. The Montana story is much the same: the median real earnings of lawyers increased in 10 of 19 possible years and 2020 real earnings

**Share of Montana Gross Domestic Product
Devoted to Lawyers Incomes (NAICS 5411): 2001–2020**



Graph 4 Share of Montana Gross Domestic Product Devoted to Lawyers Incomes (NAICS 5411): 2001–2020. Source: FRED (2021a)

trailed those of 2001 by 4.37%. To place these declines in perspective, consider that real median real weekly earnings of a representative American worker increased 9.88% and median household income increased 17.82% during the same period (FRED 2021b, c).

Hence, there is little doubt --- since the turn of the century, the median real incomes of lawyers have deteriorated relative to those of most other workers and occupations. In economic terms, this is due either to an oversupply of lawyers, or to declining demand for lawyers' services, or (as we contend) a combination of both.

2 Providing some of the answers

Our data set consists of a panel of observations of 47 jurisdictions spread over 20 years, 2001–2020. We utilize both ordinary least squares and fixed effects estimating techniques. We use ordinary least squares to estimate semi-log equations for the performance metrics noted above:

$$\log \text{INCOME}_{ij} = a + \sum_i^n \sum_j^m b_{ij} X_{ij} + e \quad (1)$$

where:

$\log Y_{ij}$ logarithm of a dependent variable Y for university "i" in year "j,"

- a constant term,
- b_{ij} regression coefficient for university “ i ” in year “ j ,”
- X_{ij} independent variable characteristic for university “ i ” in year “ j ,” and e_{ij} is a stochastic error term.

To deal with potential unobserved influences upon our performance metrics, we also rely upon semi-log fixed effects estimating models represented by:

$$\log Y_{it}^* = u_t + \beta X_{it}^* + \varepsilon_{it}^* \quad (2)$$

where:

- u_t changes in dependent variable Y over time;
- Y_a^* a time-demeaned deviation score for an institution at time t relative to its mean value \bar{Y}_{it} and is equal to $Y_{it} - \bar{Y}_{it}$;
- X_{it}^* a time-demeaned deviation score for independent variables X equal to $X_{it} - \bar{X}_{it}$; and
- ε_{it}^* a time-demeaned disturbance term equal to $\varepsilon_{it} - \bar{\varepsilon}_{it}$.

Equations (1) and (2) of Table 1 report the results of a semi-logarithmic regressions designed to illuminate variations in the median real annual incomes of lawyers in the 50 states plus the District of Columbia. Only 47 of the 51 possible jurisdictions could be used because of data availability (Montana is one of the 47.)

The two regressions differ in that Eq. (1) is an ordinary panel least squares regression of the sort that economists and others have used for decades. Equation (2) is a cross-section and period fixed effects regression that represents a conscious attempt to deal both with changes that occur in relationships over time and to minimize the impact of any unobserved influences upon our findings, that is, factors that are important but were not included as independent variables in our estimating equations (Wooldridge 2021). The fact that the adjusted R^2 statistic connected to our major ordinary least squares regression is respectably high (0.793) suggests that we have captured many influences on lawyers’ salaries that otherwise might be considered to be unobserved. Further, the Hausman Test statistic is insufficient to cause us to prefer fixed effects estimates over ordinary least squares.

Regressions (1) and (2) discourage Pashigian’s (1977) contention that the size of the potential market is the most important determinant of a lawyer’s income. We utilized three independent variables that address the size and nature of the market in which lawyers operate. The estimated coefficients for all three of these variables ---the absolute size of each state’s gross domestic product, its poverty rate, and

Table 1 The Determinants of Real Median Lawyers' Incomes: 46 States and the District of Columbia. The dependent variable is the logarithm of each state's median real annual lawyer income

State-Level Variables	(1) 46 States + DC (Panel Least Squares)	(2) 46 States + DC (Cross-Section and Period Fixed Effects)
Constant	3.9188 (0.0728)***	2.7370 (0.3636)***
Lawyers Per 1,000 Employees	0.0031 (0.0008)***	0.0063 (0.0075)
Bar Association Pass Rate Ave 3 Year	-0.0025 (0.0005)***	0.0004 (0.0005)
Ratio Paralegals and Related to Lawyers	0.0009 (0.0002)***	0.000003 (0.0003)
Real GDP (billions)	0.0000027 (0.000001)***	0.0000028 (0.0000041)
Percent Population Urban	0.0032 (0.0002)***	0.0074 (0.0040)*
Divorce Rate Per 1,000	-0.0171 (0.0033)**	0.0124 (0.0056)**
Labor Force Participation Rate	0.0072 (0.0009)***	0.0124 (0.0025)***
Percent Poverty	-0.0285 (0.0013)***	-0.0129 (0.0016)***
R ² Adj	0.793	0.930
F-Statistic	289.5***	131.0***
Likelihood Ratio Test for Heteroskedasticity	$p=0.229$	
Hausman Test	$p=0.301$	
Cross-Sections	47	47
Observations	677	677

*** = Statistically significant at the 0.01 level; ** = 0.05 level; * = 0.10 level

White corrected diagonal standard errors in parentheses appear below estimated coefficients

All monetary values are real and expressed in terms of June 2020 prices

percent of its population that is urban --- are positive and statistically significant in the ordinary least squares regression but the state gross domestic product estimated coefficient changes sign between the two equations.

The estimated coefficients on the other two state-level economic variables, however, are consistent in sign and statistically significant. We estimate that 1.0% increase in a state's poverty rate will decrease median lawyer income in that state by 1.29% to 2.85% (see Table 2). Analogously, our estimate is that a 1.0% increase in the proportion of a state's population that is urban will increase the median lawyer income in that representative state by 0.32% to 0.74%.

We also test the notion that the demand for lawyers' services in a state may be influenced by the proportion of each state's gross domestic product (GDP) that emanates from the information sector of the economy (NAICS 51).³ The notion here is that activity and complications resulting from information economy activity differentially will generate more legal activity than, say, that produced by agriculture. Our ordinary least squares regression in Table 1 provides evidence in

³ NAICS is the National Industry Classification System and is the standard schema used by the United States Government to identify economic activity (NAICS 2021).

Table 2 Translating the Effects of the Dependent Variables on Real Median Lawyers' Incomes: The United States, 2001–2020

Independent Variable	Change	Effect on Real Median Annual Lawyers' Incomes in a Representative State
Real State GDP	+ \$1.0 billion increase in a state's gross domestic product	0.00027% to 0.00028% increase
Percent of State Population in Poverty	1.0% increase in a state's poverty rate	1.29% to 2.85% decrease
Percent of Population That Is Urban	+ 1.0% increase in percent of state population that is urban	0.32% to 0.74% increase
Number of Lawyers Per 1,000 Employees	+ 1% increase in percent of lawyers per 1,000 employees of all types in a state	0% to 0.31% increase
Ratio of Paralegals and Legal Assistants to Lawyers	1.0% increase in the ratio of paralegals and legal assistants to lawyers	0% to 0.09% increase
Labor Force Participation Rate	+ 1.0% increase in a state's labor force participation rate	0.72% to 1.24% increase

favor of this hypothesis, but our fixed effects regression estimate is inconsistent with that conclusion.

Does the presence of numerous lawyers in a state constitute a depressing factor on lawyers' incomes? High lawyer intensity implicitly means that lawyers may compete with each other for business or instead it could signify that the demand for lawyers is substantial, and this is why so many lawyers are located in that state. Our results tentatively suggest the latter --- *ceteris paribus*, if you are a lawyer and wish to earn a higher income in the United States, then go to more lawyer-intensive locations. Compare Washington DC, where in 2020 the number of lawyers per 1,000 employees in the District was 45.186, to Montana, where in the same year this ratio was only 4.106, less than 10% of that in the District. (Bureau of Labor Statistics 2021).

Our estimate is that each 1.0% increase in the percentage of lawyers per 1,000 employees of all types in a state leads to a 0.0% to 0.31% increase in the median annual income earned by lawyers in that state. However, the moderate size of this effect, and the failure of the estimated coefficient to attain statistical significance in the fixed effects equation, suggests that a degree of caution should be attached to this estimate.

Historically, the flow of newly minted lawyers who have passed their state's bar examination has been regarded with mixed emotions by sitting lawyers because eventually the new entrants to the profession constitute potential competition for clients. We employ a rolling three-year average pass rate for each state's bar examination to see if this rate affects lawyer's incomes. The ordinary least squares regression says yes, higher pass rates lower lawyers' incomes, but our fixed effects regression fails to confirm this. We will return to this relationship in a section below.

Pashigian's 1977 analysis included as predictors of lawyers' incomes several metrics that he posited might be connected to the demand for legal services. We test three such variables in Eq. (1) of Table 1. One of Pashigian's explanatory variables was the divorce rate of the state in which the lawyer is practicing. The hypothesis is straightforward: more divorces result in a greater demand for lawyers' services and thus raises their incomes. We note that divorce rates have been falling nationally and in Montana for several decades (Centers for Disease Control and Prevention 2021). Divorces no longer represent the revenue stream for lawyers they once did. Perhaps this is why we find conflicting evidence on this issue --- the estimated coefficient of the divorce rate variable is statistically significant in both regressions but changes sign.

We also entered as an explanatory variable the labor force participation rate in each state, a metric that reports the percentage of working age adults who either hold a job or are seeking one. Higher labor participation rates are indicative of a vital economy, and plausibly this could stimulate legal business. However, high labor force participation rates also mean that fewer workers have successfully claimed disability. Some lawyers derive substantial business from bringing and managing disability claims for their clients and hence higher labor participation rates can be problematic for flows of income.

Substantial variation exists among the states in terms of the percentages of their working age populations that have claimed disability. In February 2020, 6.80% of all Americans aged 18–34 had received some level of disability status, while disability

status had been conferred upon 14.85% of those aged 35–64 (Disabled World 2020). In West Virginia, 19.4% of all adults had received some form of disability status in 2020; this was the highest among all the states. The lowest was Utah's 9.9%. Montana resided between the two extremes at 13.7% (Disabled World 2020).

Table 1 reveals that we find that higher rates of labor force participation in net terms promote legal business and stimulate lawyers' incomes. Our estimate (see Table 2) is that a 1.0% increase in a representative state's labor force participation rate is associated with a 0.72% to 1.24% increase in real median lawyers' incomes.

3 The influence of paralegals and legal assistants

The use of paralegals and related support personnel by law firms and other employers has increased significantly since 2001 (see Table 3 for the situation in the United States and Montana). *A priori*, it is unclear whether these individuals take the place of lawyers, in which case they make remaining lawyers more productive and more valuable, or whether they diminish the value of lawyers because employers no longer believe they need to pay lawyers as much given that paralegals and others are capable of completing many tasks previously undertaken by lawyers. Our empirical results are not conclusive. The positive and statistically significant estimated coefficient on the paralegal variable in Eq. (1) of Table 1 hints that paralegals are making sitting lawyers more valuable, but the coefficient is not statistically significant in the fixed effects regression.

Law offices in Montana do not utilize paralegals and legal assistants as heavily as the median U.S. state. An apparent reason for this is the small size of many Montana law practices. A one- or two-lawyer firm may consider hiring a paralegal as an exorbitant expenditure. Nevertheless, the relative use of paralegals and legal assistants in Montana more than doubled between 2001 and 2020.

4 A decline in litigiousness?

Despite public perceptions, there appears to have occurred a relative decline in the tendency of Americans to use lawyers to do business and/or resolve disputes. The percent of the gross domestic product of the United States accounted for by legal services has fallen substantially since 2008 and now is lower than it was in 2001 (review Graph 4). This is particularly apparent in Montana, where the share of gross state product accounted for by legal services fell in half between 2001 and 2019. Like most other Americans, Montanans are spending relatively less for legal services today than they did 20 years ago.

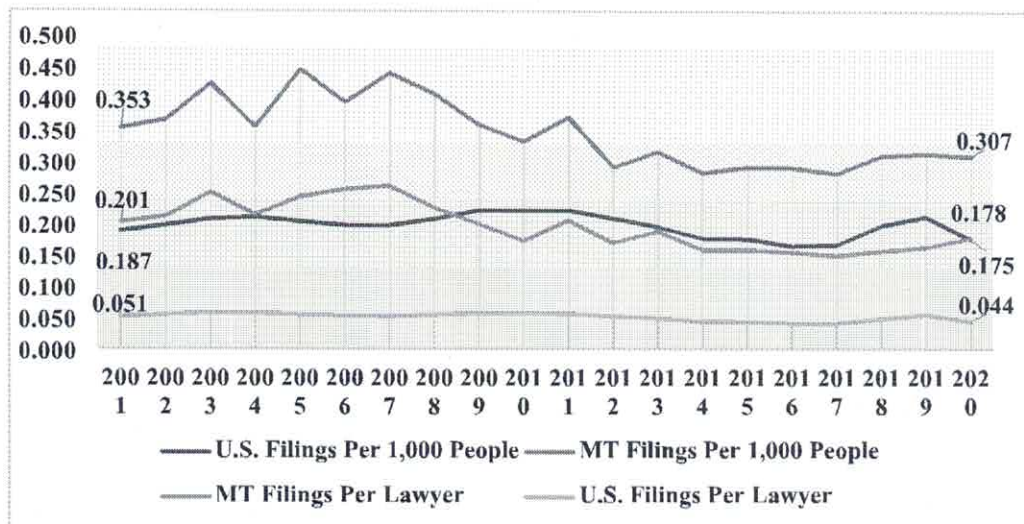
The decline in payments to lawyers for their services that has occurred over the past 15 years has been substantial and by itself can account for a substantial portion of the decline in lawyers' real median incomes. Lawyers' share of the income pie has declined noticeably. This reflects the reality that lawyers' real incomes have not kept pace with the growth of incomes experienced by most other professionals.

Table 3 Charting the Growth of the Employment of Paralegals and Legal Assistants: The United States and Montana, 2001–2020

Year	Total Employment of Lawyers, Median State in the U.S	Total Employment of Paralegals and Legal Assistants, Median State in the U.S	Paralegals and Legal Assistants Per Lawyer, Median State in the U.S	Paralegals and Legal Assistants Per Lawyer, Montana
2001	5,981	2,500	0.492	0.226
2002	5,280	2,450	0.464	0.203
2003	5,415	2,955	0.546	0.218
2004	5,560	2,720	0.489	0.253
2005	5,960	3,050	0.510	0.353
2006	5,780	3,140	0.543	0.381
2007	5,630	3,170	0.563	0.387
2008	5,950	3,420	0.575	0.318
2009	6,000	3,480	0.556	0.458
2010	6,440	3,580	0.544	0.466
2011	6,380	3,470	0.548	0.550
2012	6,635	3,635	0.526	0.457
2013	6,650	3,550	0.517	0.518
2014	7,105	3,670	0.517	0.519
2015	6,680	3,530	0.513	0.479
2016	6,530	3,790	0.580	0.447
2017	6,280	3,630	0.578	0.475
2018	6,420	4,060	0.632	0.452
2019	6,640	4,490	0.676	0.471
2020	6,890	4,350	0.631	0.492

Source: Bureau of Labor Statistics, BLS Occupational Employment (OES) for States, <https://stats.bls.gov/oes>. Note that the Bureau of Labor Statistics estimate of the number of lawyers in Montana is less than the number of active lawyers reported in Montana by the American Bar Association (ABA), www.americanbar.org/content/dam/aba/administrative/market_research/2021-national-lawyer-population-survey.pdf, for 2021. Other years' data may be found at the same location

**Per Capita and Per Lawyer Measures of the Number
of Federal District Court Cases:
U.S. and Montana, 2001-2020**



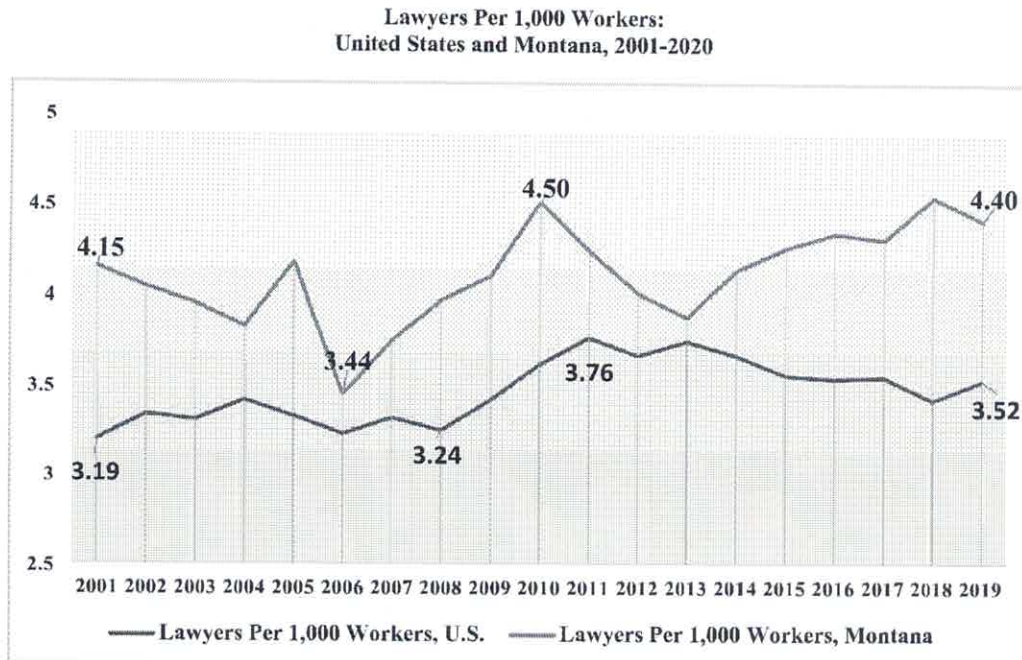
Graph 5 Per Capita and Per Lawyer Measures of the Number of Federal District Court Cases: U.S. and Montana, 2001–2020. Source: United States Department of Justice (2021) for the number of federal district court cases, the Bureau of Labor Statistics (2021) for the number of lawyers, and FRED (2021) for populations

Another measure of the declining use of lawyer's services is captured by the number of cases brought to Federal district courtrooms. Graph 5, which traces rates at which certain cases⁴ are brought in federal courts, provides some evidence of a decline in litigiousness. Since 2001, the number of cases brought in federal district courts has declined both on per capita and per lawyer bases. It is reasonable to assume that this has reduced the demand for certain legal services though it should be noted that Montana has been more substantially more litigious than the typical state. Except for this tendency, it is reasonable to assume that lawyers incomes in Montana might have declined even more.

5 An oversupply of lawyers?

It is often alleged that there is an oversupply of lawyers relative to the demand for their services (for example, *Lawyer's Weekly*, 2020). Graph 6 demonstrates there is some basis for this assertion. Both in the United States and in Montana, there were more lawyers per 1,000 workers of all types in 2020 than there were in 2001. Nevertheless, in the United States, the number of lawyers per worker has been in gradual decline since 2011, while in Montana, the number of lawyers per 1,000 workers has fallen almost 10% since 2018.

⁴ Civil and criminal cases.



Graph 6 Lawyers per 1,000 workers: United States and Montana, 2001–2020. Source: Bureau of Labor Statistics (2021)

If there are too many lawyers, then why don't labor markets make appropriate price and quantity adjustments to diminish or eliminate the problem? An important reason for the languid reactions in lawyers' labor markets is the new lawyer pipeline ordinarily is three years in length because this is usual time it takes a law student to earn her J.D. Add to this the time she takes studying for her state's bar examination and what emerges is a 3.5-year to 4.0-year delay that often is baked into supply side adjustments.

The most immediate labor market signal concerning lawyers is the Law School Admissions Test (LSAT), which typically is required of anyone seeking admission to a law school. In 2020, 100,545 individuals sat for LSAT, up 30.3% over 2019. This was the highest number of test takers since 2010. Montana experienced a 28.2% increase in LSAT takers between 2019 and 2020 (Law School Admissions Council 2021). Given the evidence we have presented concerning the declining real incomes of lawyers and the falling share of the income pie accounted for by lawyers' activities, one only can wonder if many of those taking the LSAT were knowledgeable about labor market conditions.

But behavioral adjustments do occur. The number of first-year law students pursuing a J.D. degree in 2020 (39,395) was down one-quarter from its 2014 peak of 52,488 (American Bar Association 2021). This means that a substantial majority of the students who sit for the LSAT ultimately do not enroll in a law school. The decline in those choosing to attend a law school has been particularly steep among men, who constituted only 47% of the 2020 first-year J.D. class. In 2001, men accounted for 54% of first-year J.D. enrollees (American Bar Association 2021).

Prospective law students as a group eventually do pay attention to what is happening in labor markets for lawyers, albeit in a tardy fashion. This is one of the reasons why lawyers' incomes tend to oscillate, and Ezekiel's original salary cobweb model (1938) has some relevance in the market for lawyers. This cobweb, however, does not depict a single year, but multiple years or perhaps even one-half a decade.

If one's definition of an oversupply of workers in a given occupation is an extended period of falling worker real incomes, then it is apparent there is an oversupply of lawyers in both the United States and Montana. Still, the falling real incomes of lawyers are the product of the interaction of supply and demand and we should not forget the declining relative demand for lawyers' services, the apparent reduced willingness of clients to pay for lawyers' services, and in some cases, declining litigiousness.

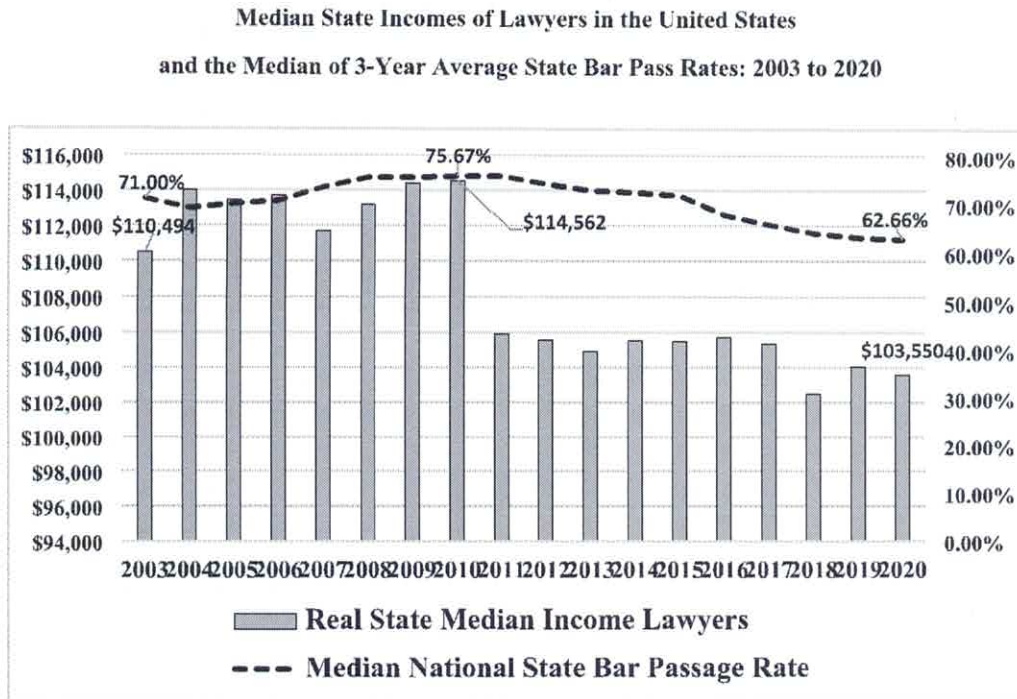
6 Bar examinations

To practice law legally in most jurisdictions, an individual must graduate from an accredited law school, be of good character, and pass the appropriate state's bar examination. The idea that passing a state bar examination should represent a *sine qua non* for practicing as a lawyer have been under considerable attack in recent years. Some object to the bar examination's restriction of entry into the profession and allege that it is designed primarily to protect the incomes of incumbent lawyers; others decry the disparate impact of the examination upon minority candidates and label the procedure structural racism; still others note that the COVID pandemic destroyed the timing of the examinations in 2020 and thereby put a huge and seemingly arbitrary dent in the prospective incomes that might have been earned by those who would have passed examinations not administered.

Our focus here is upon the possible impact that the bar examination might have upon lawyers' incomes. The first significant look at this issue was supplied by Holen (1965) who found a negative and statistically significant relationship between bar examination pass rates and lawyers' incomes. Carroll and Gaston (1977) found much the same result in their 1977 study. Maurizi (1979), on the other hand, found only mixed support for the pass rate/lawyer income connection. Except for Carroll and Gaston's use of 1974 data, however, all these studies relied upon data from the 1940s and 1950s.

Though also performed when supply and demand conditions for lawyers were different from those today, the most commonly cited evidence in this arena has been contributed by Getz et al. (1981), who proceeded from the assumption that "...most licensure legislation has been sought by special interest groups desiring insulation from competitors" (at 863–4). The trio focused on lawyers' earnings in 59 standard metropolitan statistical areas (SMAs) and concluded, perhaps to their surprise, that "...bar exams may not be anticompetitive" (at 879) and they "may serve a valuable social purpose" (at 881).

Our approach differs from that of Getz et al. (1981) in that our focus is on the earnings of lawyers at the state level rather than inside SMAs. Graph 7 visualizes the relationship between the median state bar pass rates in our 51 jurisdictions and the



Graph 7 Median State Incomes of Lawyers in the United States and the Median of 3-Year Average State Bar Pass Rates: 2003 to 2020

real median incomes of lawyers in those locations. The simple correlation between this year's income and next year's bar pass rate is -0.277 . The salient statistical questions that flow from this correlation coefficient are whether there is cause and effect involved and if the relationship endures after the influence of other possible explanatory factors are considered.

We now reverse our direction of causation and inquire as to the determinants of state bar pass rates. Table 4 supplies both an ordinary least squares and a fixed effects regression designed to explain the rolling 3-year average of bar examination pass rates.

Are bar examination pass rates influenced either by the how many lawyers already exist in a state or by what has been happening to lawyers' real incomes? With respect to the first assertion, the ordinary least squares regression tells us that the number of lawyers per 1,000 persons in a state has a strong negative influence on bar examination pass rates. The negative sign on the estimated coefficient of this variable in the fixed effects regression provides some support for this scenario but that the analogous coefficient fails to achieve statistical significance in the fixed effects regression. Even so, one can make something of a case that bar examination graders act as if they are rationing pass rates on the basis of existing lawyer intensity in their state.

Our two regressions yield competing results with respect to the question of whether bar examination pass rates are sensitive to lawyer incomes. Getz et al. (1981, at 867) suggested that: "If the exam is anticompetitive, a positive correlation would be expected between the difficult of securing admission to the bar and

Table 4 The Determinants of State Bar Pass Rates: 46 States Plus the District of Columbia, 2001–2020. The dependent variable is the rolling 3-Year average of state bar examination pass rates

State-Level Variables	(1)	(2)
	46 States + DC (ordinary least squares)	46 States + DC (cross-section and period fixed effects)
Constant	92.1515 (2.6452)***	100.7862 (23.2914)***
Lawyers Per 1,000 Employees (-1)	-0.1483 (0.0121)***	-0.1516 (0.1056)
Ratio of Paralegals and Related to Lawyers (-1)	-0.1649 (0.0207)***	-0.0082 (0.0217)
Real GDP (billions) (-1)	-0.0085 (0.0007)***	0.0012 (0.0020)
Real Median HH Income (000 s) (-1)	-0.2595 (0.0416)***	0.0327 (0.0570)
Real Median Lawyer Income (-1)	-0.0376 (0.0186)***	0.0038 (0.0204)
Percent Population Urban (-1)	0.1140 (0.0264)***	-0.4206 (0.2756)
Percent Bachelor's Degree or More, 25–44 Years	0.1982 (0.0606)***	0.0978 (0.2045)
R ² Adj	0.317	0.817
F-Statistic	51.1***	48.4***
Likelihood Ratio Test for Heteroskedasticity	$p=0.259$	
Hausman Test	$p=0.288$	
Cross-Sections	51	51
Observations	758	758

*** = Statistically significant at the 0.01 level; ** = 0.05 level; * = 0.10 level

White corrected diagonal standard errors in parentheses appear below estimated coefficients

All monetary values are real and expressed in terms of June 2020 prices

attorney income.” If we gave heed only to the ordinary least squares regression, then we could conclude that this behavior is commonplace in the United States. However, the positive sign on the lawyer income variable in the fixed effects regression disputes this notion.

The -0.277 correlation coefficient noted above between bar examination pass rates and lawyers’ incomes is sufficiently large that a connection between pass rates on state bar examinations and lawyers’ incomes cannot be casually dismissed. More work needs to be done on this issue with more sophisticated estimation models.

7 Final thoughts

What two thousand years ago Saint Paul peevishly labeled “filthy lucre”⁵ --- the real incomes earned by individuals --- typically exercises the most important influence on the supply of lawyers. However, a variety of other factors intrude and because of

⁵ St. Paul in his Epistle to Titus, Chapter I, Verse 11: “whose mouths must be stopped, who subvert whole houses, teaching things they ought not, for filthy lucre’s sake.” In *King James Bible Online*, www.kingjamesbibleonline.org.

the time-consuming fashion in which new lawyers are produced, supply-side adjustments for lawyers occur slowly and often trail more dynamic demand-side situation changes by several years.

Would lawyers' real incomes increase if, say, 10% of the existing stable of attorneys disappeared? Of course, but we would expect much the same if an analogous supply restriction were imposed in nearly any other labor market. The United States may have too many lawyers if the goal is to avoid further declines in lawyers' real incomes; however, one should not forget the contribution of demand-side phenomena to this situation.

Would higher rates of failure on state bar examinations increase the real incomes of lawyers? Yes, but one can see in Graph 7 the current median value of state bar examination pass rates is at its lowest point in two decades.

The most frequently proposed remedy relating to an over-supply of lawyers involves additional supply-side restrictions on entry into the legal profession. We invoke mainstream economic teaching when we aver that meaningful supply-side restrictions on the number of individuals who can enter an occupation seldom are good for consumers and usually lower consumer welfare. The exercise of supply-side monopoly power nearly always turns out to be a recipe for a redistribution of income away from consumers.

The bottom line is that changes in demand-side market conditions for lawyers often have been overlooked. This new world includes the automation of legal tasks, the rise of paralegals, and at least in some arenas, a decline in litigiousness. The net effect has been to reduce the proportion of national product that is being spent on legal services.

Will labor market conditions for lawyers change during this decade? Herbert Stein, who chaired the President's Council of Economic Advisors under two presidents, uttered what has become a famous tautology, "Things that cannot go on forever, don't." (Hanson 2019). We should not forget this maxim as we think about the now two-decade long downward trend in the real compensation of lawyers.

Declarations

Conflicts of interest The authors have no conflicts of interest to declare.

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