# **Minnesota Judicial State Court Salaries**

Prepared for the Minnesota District Judges Association

by

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### **Summary:**

We recommend that the Minnesota State Legislature approve a 4.63% increase for all judicial salaries on July 1, 2017 and another 4.63% increase on July 1, 2018. This would outpace expected inflation by three percentage points each year and, by the end of the biennium, yield a 6.1% real salary increase. We argue this real salary increase is necessary in order to attract sufficient interest from potential judicial candidates and nominees. If salary increases do not outpace inflation, we expect the state will have significant difficulty attracting diverse and high quality candidates to this public service.

## **Analysis:**

From 2002-2008 increases in Minnesota's judicial salaries failed to keep pace with inflation. This was followed by a salary freeze from 2008-2012. In response to this, the *Minnesota Judicial State Court Salaries* report and following addendum prepared by Karine S. Moe, PhD in 2013 and 2014, recommended that the Minnesota State Legislature approve 5.8% annual increases in judicial salaries. Increases in judicial salaries were approved, but were not the full raises recommended by Dr. Moe.

The salary increases since 2013 restored Minnesota's inflation-adjusted judicial salaries to their 2002 levels, as shown in Figures 1, 2, and 3 and Table 1 below. Judicial salaries in other states grew as fast or faster, however, so by 2015, Minnesota's ranking had slipped to 31<sup>st</sup> nationally for Supreme Court justices and 27<sup>th</sup> nationally for appellate court judges. Minnesota's ranking held at 31<sup>st</sup> nationally for district court judges. Ranking information is shown in Table 2. Minnesota judges now earn below the national median in all categories. Rankings adjusted for cost of living place Minnesota 25<sup>th</sup> for district court judges, right at the national median (i.e. half of the states pay more than Minnesota and half pay less).

Table 3 shows the real percentage increase that would be necessary for Minnesota to assume each ranking. Real percentage increases are increases in excess of the increases necessary to keep pace with inflation. Expected inflation for the near future is 1.63%. We recommend raises of 4.63% over the next biennium, which would outpace expected inflation by three percentage points and yield a 6.1% real salary increase. Assuming other states maintain only inflation related salary increases, this would push Minnesota to 12<sup>th</sup> in the national rankings, which is the cutoff for the first quartile (i.e. 25% of the states pay more than Minnesota and 75% pay less). We further recommend a subsequent raise of 3.63% in each year of the following biennium, which would outpace inflation by two percentage points each year for a total real salary increase

<sup>&</sup>lt;sup>1</sup> In Table 3, and in much of what follows, we focus on the cost of living adjusted (COLA) district court salaries.

<sup>&</sup>lt;sup>2</sup> Federal Reserve branches in both <u>Minneapolis</u> and <u>Cleveland</u> report 1.63% as the latest estimate for 5-year expected inflation. This estimate is subject to change, and we recommend policymakers consult the up-to-date estimates.

over the next four years of 10.4%.<sup>3</sup> Table 7 shows our recommended salary increases through 2020. We provide economic justification for this below.

While a jump in the national rankings may be politically desirable, our rationale for the recommended salary increase has little to do with the relative strength of the state's judicial salaries. The reality is that the market for judges is state specific, so the national comparisons are of limited relevance. A more economically relevant comparison is to consider the outside labor market opportunities for Minnesota's pool of judicial candidates. That is, what could judges earn if they decided not to be judges? With this in mind, we compare Minnesota's judicial salaries to salaries for attorneys in the public and private sector.

While the national rankings may make for a good barometer of where the state falls relative to its peers, the forgone salaries that judges could have earned as attorneys will have a direct influence on the size and quality of the pool of potential judicial candidates and appointees. Salaries that are significantly below private sector averages hinder efforts to recruit high quality applicants to public service. If public sector salaries lag private sector salaries, the state will likely experience detrimental shortages in judicial talent.<sup>4</sup>

Starting salaries for Minneapolis private law firms vary by the size of the firm and the attorney's years of experience, as shown in Table 4. In Table 5 we compare the salary of a Minnesota district court judge to a midrange salary for a lawyer with 4-9 years of experience. We find that district court judges earn 39% less than attorneys at large law firms and 21% less than attorneys at midsized law firms. The results are similar when comparing judges to corporate attorneys at large and midsized companies. These differences are even larger when district judges are compared to senior attorneys with ten or more years of experience. While a career as an attorney in a private law firm or as a private corporate attorney is not perfectly comparable with a career as a district court judge, this shows that large and midsize firms and corporations may be drawing away would-be applicants for judicial positions.

The judicial salary increases that we recommend would not eliminate the gap between judges and private sector attorneys, but it would, at a minimum, halt the steady growth in this gap. The disparity between judicial salaries and private sector salaries has changed remarkably in the last few decades. One way to see this is to consider the comparison between district judges and first year associates at large law firms. In 1983 district court judges earned 72% more than first year associates at top Twin Cities law firms. By 1990 that figure had dropped to 49%, and we

<sup>&</sup>lt;sup>3</sup> Note that the percentage salary increases reported represent annual compounding. The recommendation is that salary increases outpace expected inflation by three percentage points in 2017 and 2018 and by two percentage points in 2019 and 2020. A 3% real increase followed by a 3% real increase yields a 6.1% real increase over the two year period (1.03\*1.03=1.0609). Over the following biennium, a 2% real increase followed by another 2% real increase yields a 4.0% real increase over the two year period (1.02\*1.02=1.0404). Over the four year period, the real increases compound to 10.4% (1.03\*1.03\*1.02\*1.02=1.1037).

<sup>&</sup>lt;sup>4</sup> There is anecdotal evidence of this already happening, and given access to the necessary data, we welcome the opportunity to study this empirically.

<sup>&</sup>lt;sup>5</sup> These salary comparisons ignore benefits, bonuses, incentives, and deferred compensation.

calculate that in 2016 district judges earned only 8% more than first year associates at large firms.<sup>6</sup>

Arguably, positions as private sector attorneys may be fundamentally different from public sector positions, so a better point of comparison may be the salaries of other elected public officials, such as lead county attorneys and assistant county attorneys. Table 6 below depicts the comparison between the salaries of Minnesota district court judges and salaries of metropolitan area county attorneys and highest paid assistant county attorneys. We find that lead county attorneys earn between 6 and 14 percent more than district court judges. Indeed, in two of the four counties, the highest paid assistant county attorney earns more than the judge that they appear before in court.

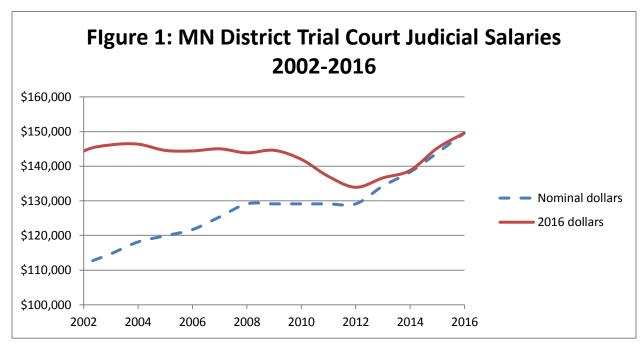
A real raise in Minnesota judicial salaries of 6.1% would bring district court judges on par with lead county attorneys in Hennepin County, although they would still lag behind lead county attorneys in Ramsey, Stearns, and Dakota counties. If the recommended increases this biennium were followed by recommended increases in the next biennium, the resulting 10.4% increase would bring district court judges in line with the average for lead county attorneys in the four county metro area over the next four years.

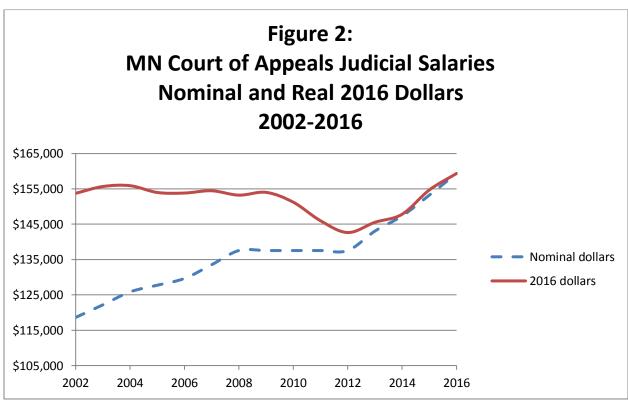
The concern we raise about the discrepancy between judicial salaries and attorneys' salaries in both the private and public sector is not about status or prestige. We are motivated by basic labor market dynamics. If judicial salaries are below what potential judges can earn as attorneys, not only will there be a smaller pool of interested candidates, but there may also be a detrimental selection effect. A positive selection effect would be that only those who are most committed to public service will be interested in judicial roles. A negative selection effect would be that only those with sufficient wealth and/or non-labor income will be interested in judicial roles. This may make it harder to attract under-represented groups to the bench if under-represented groups are less likely to have a spouse or partner with high earnings potential.

In conclusion, we leave it to others to make the case for the importance of a diverse and high quality judicial labor force and only offer our view as economists: if judicial salaries stagnate, it will become increasingly difficult to attract a diverse and high quality pool of potential judicial talent. Our recommended increases of 4.63% over each of the next two years and 3.63% over each of the following two years will bring district judges on par with metro area county attorneys and make a dent in the gap between district court judges and local private sector attorneys. The bulk of our analysis focuses on district court judges, but we expect salary increases to have a beneficial impact at all levels of the judiciary.

<sup>&</sup>lt;sup>6</sup> Statistics for 1983 and 1990 are cited in "Minnesota Judicial State Court Salaries, 2013" by Dr. Karine Moe. She references earlier research by Dr. Karl Egge who prepared a similar report in 2001.

# **Appendix:**





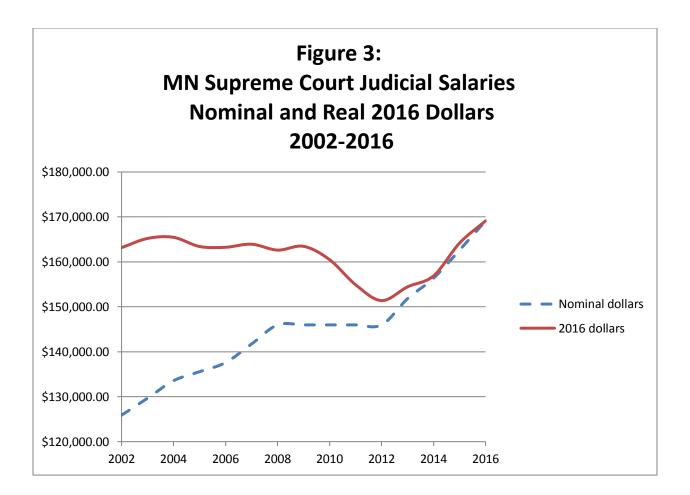


Table 1: Minnesota Judicial Salaries, Nominal and Real, 2002-2016

|      | Supreme Court |               |           |               |  |
|------|---------------|---------------|-----------|---------------|--|
|      | Chief Justice |               | Associat  | e Justices    |  |
| Year | Nominal       | Real (2016\$) | Nominal   | Real (2016\$) |  |
| 2002 | \$138,487     | \$179,491     | \$125,897 | \$163,173     |  |
| 2003 | \$142,641     | \$181,738     | \$129,674 | \$165,216     |  |
| 2004 | \$146,920     | \$182,010     | \$133,564 | \$165,463     |  |
| 2005 | \$149,124     | \$179,765     | \$135,567 | \$163,422     |  |
| 2006 | \$151,361     | \$179,579     | \$137,601 | \$163,254     |  |
| 2007 | \$155,902     | \$180,328     | \$141,729 | \$163,934     |  |
| 2008 | \$160,579     | \$178,883     | \$145,981 | \$162,621     |  |
| 2009 | \$160,579     | \$179,803     | \$145,981 | \$163,458     |  |
| 2010 | \$160,579     | \$176,543     | \$145,981 | \$160,494     |  |
| 2011 | \$160,579     | \$170,417     | \$145,981 | \$154,925     |  |
| 2012 | \$160,579     | \$166,530     | \$145,981 | \$151,391     |  |
| 2013 | \$167,002     | \$169,897     | \$151,820 | \$154,452     |  |
| 2014 | \$172,012     | \$172,578     | \$156,375 | \$156,890     |  |
| 2015 | \$178,892     | \$180,607     | \$162,630 | \$164,189     |  |
| 2016 | \$186,048     | \$186,048     | \$169,135 | \$169,135     |  |

Table 1, Continued: Minnesota Judicial Salaries, Nominal and Real, 2002-2016

|      | Court of Appeals |               |           |               |  |  |
|------|------------------|---------------|-----------|---------------|--|--|
|      | Chief Judge      |               | Juc       | lges          |  |  |
| Year | Nominal          | Real (2016\$) | Nominal   | Real (2016\$) |  |  |
| 2002 | \$124,558        | \$161,438     | \$118,627 | \$153,751     |  |  |
| 2003 | \$128,295        | \$163,460     | \$122,186 | \$155,677     |  |  |
| 2004 | \$132,144        | \$163,704     | \$125,852 | \$155,910     |  |  |
| 2005 | \$134,126        | \$161,685     | \$127,740 | \$153,987     |  |  |
| 2006 | \$136,138        | \$161,518     | \$129,656 | \$153,827     |  |  |
| 2007 | \$140,222        | \$162,191     | \$133,546 | \$154,469     |  |  |
| 2008 | \$144,429        | \$160,892     | \$137,552 | \$153,231     |  |  |
| 2009 | \$144,429        | \$161,720     | \$137,552 | \$154,019     |  |  |
| 2010 | \$144,429        | \$158,787     | \$137,552 | \$151,227     |  |  |
| 2011 | \$144,429        | \$153,278     | \$137,552 | \$145,979     |  |  |
| 2012 | \$144,429        | \$149,781     | \$137,552 | \$142,649     |  |  |
| 2013 | \$150,206        | \$152,810     | \$143,064 | \$145,544     |  |  |
| 2014 | \$154,712        | \$155,221     | \$147,346 | \$147,831     |  |  |
| 2015 | \$160,900        | \$162,442     | \$153,240 | \$154,709     |  |  |
| 2016 | \$167,336        | \$167,336     | \$159,370 | \$159,370     |  |  |

Table 1, continued: Minnesota Judicial Salaries, Nominal and Real, 2002-2016

|      | District Trial Courts |               |           |               |  |  |
|------|-----------------------|---------------|-----------|---------------|--|--|
|      | Chief                 | Judge         | Judges    |               |  |  |
| Year | Nominal               | Real (2016\$) | Nominal   | Real (2016\$) |  |  |
| 2002 | \$116,926             | \$151,546     | \$111,359 | \$144,331     |  |  |
| 2003 | \$120,434             | \$153,444     | \$114,700 | \$146,139     |  |  |
| 2004 | \$124,047             | \$153,674     | \$118,141 | \$146,357     |  |  |
| 2005 | \$125,908             | \$151,779     | \$119,913 | \$144,552     |  |  |
| 2006 | \$127,797             | \$151,622     | \$121,712 | \$144,402     |  |  |
| 2007 | \$131,631             | \$152,254     | \$125,363 | \$145,004     |  |  |
| 2008 | \$135,580             | \$151,035     | \$129,124 | \$143,843     |  |  |
| 2009 | \$135,580             | \$151,811     | \$129,124 | \$144,582     |  |  |
| 2010 | \$135,580             | \$149,059     | \$129,124 | \$141,961     |  |  |
| 2011 | \$135,580             | \$143,886     | \$129,124 | \$137,035     |  |  |
| 2012 | \$135,580             | \$140,604     | \$129,124 | \$133,909     |  |  |
| 2013 | \$141,003             | \$143,447     | \$134,289 | \$136,617     |  |  |
| 2014 | \$145,233             | \$145,711     | \$138,318 | \$138,773     |  |  |
| 2015 | \$151,042             | \$152,490     | \$143,851 | \$145,230     |  |  |
| 2016 | \$157,084             | \$157,084     | \$149,605 | \$149,605     |  |  |

Note: Real salaries are adjusted to 2016 dollars using the Bureau of Labor Statistics CPI-U for the Minneapolis-St. Paul metropolitan region.

Table 2: Salary rankings, including cost of living adjusted (COLA) trial court rankings, for Minnesota

|                                    | State Court Ranking <sup>1</sup> |      |
|------------------------------------|----------------------------------|------|
|                                    | 2012                             | 2015 |
| Supreme Court Justice              | 28                               | 31   |
| Appellate Court Judge <sup>2</sup> | 23                               | 27   |
| Trial Court Judge                  | 31                               | 31   |
| COLA Trial Court Judge Ranking     | 34                               | 25   |

<sup>&</sup>lt;sup>1</sup> Highest paid rank=1 and lowest paid rank=51 (includes the District of Columbia)

Source: National Center for State Courts, "Survey of Judicial Salaries," Vol. 40, No. 2, 2016 and Vol. 37, No. 1, 2012.

<sup>&</sup>lt;sup>2</sup> Appellate salaries ranked 1-39 in 2012 and 1-40 in 2015 (only 39 states had appellate courts in 2012, and 40 states had appellate courts as of July 2015)

Table 3: Complete cost of living adjusted (COLA) trial court judge salary rankings, 2015

| 2015 COLA     | State                | 2015 COLA district trial | % (real) change for MN |
|---------------|----------------------|--------------------------|------------------------|
| adjusted rank | State                | court judge salary       | to reach rank          |
| 1             | Tennessee            | \$176,845                | 27.3%                  |
| 2             | Illinois             | \$170,096                | 22.5%                  |
| 3             | Delaware             | \$169,885                | 22.3%                  |
| 4<br>5        | Arkansas             | \$169,073                | 21.7%                  |
| 5             | Pennsylvania         | \$153,769                | 10.7%                  |
| 6             | Georgia              | \$151,292                | 8.9%                   |
| 7             | Nebraska             | \$150,707                | 8.5%                   |
| 8             | Nevada               | \$150,544                | 8.4%                   |
| 9             | Virginia             | \$149,404                | 7.6%                   |
| 10            | Utah                 | \$147,770                | 6.4%                   |
| 11            | Louisiana            | \$147,651                | 6.3%                   |
| 12            | Texas                | \$146,784                | 5.7%                   |
| 13            | Colorado             | \$146,619                | 5.6%                   |
| 14            | Missouri             | \$145,828                | 5.0%                   |
| 15            | Hawaii               | \$144,851                | 4.3%                   |
| 16            | District of Columbia | \$143,702                | 3.5%                   |
| 17            | Iowa                 | \$143,565                | 3.4%                   |
| 18            | Wyoming              | \$141,012                | 1.5%                   |
| 19            | Alabama              | \$140,984                | 1.5%                   |
| 20            | Alaska               | \$140,890                | 1.5%                   |
| 21            | California           | \$140,369                | 1.1%                   |
| 22            | Washington           | \$139,715                | 0.6%                   |
| 23            | Florida              | \$139,683                | 0.6%                   |
| 24            | Michigan             | \$139,123                | 0.2%                   |
| 25            | Minnesota            | \$138,873                |                        |
| 26            | Indiana              | \$138,326                | -0.4%                  |
| 27            | Mississippi          | \$136,709                | -1.6%                  |
| 28            | Arizona              | \$136,537                | -1.7%                  |
| 29            | Maryland             | \$136,118                | -2.0%                  |
| 30            | New Jersey           | \$135,881                | -2.2%                  |
| 31            | North Dakota         | \$135,439                | -2.5%                  |
| 32            | South Carolina       | \$135,132                | -2.7%                  |
| 33            | Oklahoma             | \$134,482                | -3.2%                  |
| 34            | Kentucky             | \$130,513                | -6.0%                  |
| 35            | Wisconsin            | \$128,686                | -7.3%                  |
| 36            | West Virginia        | \$128,543                | -7.4%                  |
| 37            | Connecticut          | \$125,646                | -9.5%                  |
| 38            | North Carolina       | \$124,253                | -10.5%                 |
| 39            | Ohio                 | \$123,222                | -11.3%                 |
| 40            | South Dakota         | \$122,845                | -11.5%                 |
| 41            | Idaho                | \$122,485                | -11.8%                 |
| 42            | Rhode Island         | \$121,619                | -12.4%                 |
| 43            | Montana              | \$121,390                | -12.6%                 |
| 44            | Massachusetts        | \$118,791                | -14.5%                 |
| 45            | Kansas               | \$117,870                | -15.1%                 |

Table 3, continued: Complete cost of living adjusted (COLA) trial court judge salary rankings, 2015

| COLA<br>adjusted<br>rank | State  | COLA district trial court judge salary | % (real) change for MN to reach rank |  |  |
|--------------------------|--|--|--------------------------------------|--|--|
| 46                       | New Hampshire  | \$116,600                              | -16.0%                               |  |  |
| 47                       | New Mexico   | \$114,244                              | -17.7%                               |  |  |
| 48                       | New York   | \$113,960                              | -17.9%                               |  |  |
| 49                       | Vermont  | \$113,031                              | -18.6%                               |  |  |
| 50                       | Oregon   | \$108,880                              | -21.6%                               |  |  |
| 51                       | Maine  | \$99,557                               | -28.3%                               |  |  |
| Source: Natio            | Source: National Center for State Courts, "Survey of Judicial Salaries," Vol. 40, No. 2, 2016. |  |                                      |  |  |

Table 4: Range of estimated starting salaries at Minneapolis private law jobs of varying types and experience levels, 2016

|   | 2016 Low  | 2016 High |
|---|-----------|-----------|
| Senior Lawyer (10+ years experience)        |           |           |
| Large Law Firm                              | \$205,905 | \$296,270 |
| Midsize Law Firm                            | \$172,515 | \$284,610 |
| Small/Midsize Law Firm                      | \$147,870 | \$205,375 |
| Small Law Firm                              | \$114,745 | \$179,935 |
| In-House Corporate Attorney-Large Company   | \$196,365 | \$275,335 |
| In-House Corporate Attorney-Midsize Company | \$157,940 | \$245,125 |
| In-House Corporate Attorney-Small Company   | \$138,595 | \$198,750 |
| Licensed Lawyer (4-9 years experience)      |           |           |
| Large Law Firm                              | \$171,985 | \$242,475 |
| Midsize Law Firm                            | \$143,100 | \$217,830 |
| Small/Midsize Law Firm                      | \$108,915 | \$186,295 |
| Small Law Firm                              | \$85,860  | \$146,810 |
| In-House Corporate Attorney-Large Company   | \$170,130 | \$230,815 |
| In-House Corporate Attorney-Midsize Company | \$145,220 | \$204,050 |
| In-House Corporate Attorney-Small Company   | \$118,190 | \$169,335 |
| Licensed Lawyer (1-3 years experience)      |           |           |
| Large Law Firm                              | \$127,995 | \$171,985 |
| Midsize Law Firm                            | \$99,640  | \$136,475 |
| Small/Midsize Law Firm                      | \$75,790  | \$115,540 |
| Small Law Firm                              | \$65,455  | \$99,110  |
| In-House Corporate Attorney-Large Company   | \$133,295 | \$169,865 |
| In-House Corporate Attorney-Midsize Company | \$105,470 | \$144,690 |
| In-House Corporate Attorney-Small Company   | \$87,185  | \$119,515 |

Note: The data are adjusted for Minneapolis and do not account for bonuses, incentives,

Source: National Robert Half Legal 2016 Salary Guide.

benefits, or retirement packages.

Table 5: Minnesota District Trial Court Judicial salaries relative to median salaries of Minneapolis private sector lawyers with 4-9 years of experience, 2016

|   | 2016 Salary | % Increase Over District<br>Court Judge Salary |
|---|-------------|--|
| Large Law Firm                                  | \$207,230   | 39%  |
| In-House Corporate Attorney-<br>Large Company   | \$200,473   | 34%  |
| Midsize Law Firm                                | \$180,465   | 21%  |
| In-House Corporate Attorney-<br>Midsize Company | \$174,635   | 17%  |
| Small/Midsize Law Firm                          | \$147,605   | -1%  |
| In-House Corporate Attorney-<br>Small Company   | \$143,763   | -4%  |
| Small Law Firm                                  | \$116,335   | -22%   |
| <b>District Court Judge</b>                     | \$149,605   |  |

Source: National Robert Half Legal 2016 Salary Guide.

Note: The data are adjusted for Minneapolis and do not account for bonuses, incentives, benefits, or retirement packages

Table 6: Minnesota District Court Judge Salaries Relative to Metropolitan Area Lead County Attorneys and Senior Assistant County Attorneys, 2016

|                        | Lead County Attorney |   | Highest Paid Assistant<br>County Attorney |   |
|------------------------|----------------------|---|---|---|
|                        | 2016<br>Salary       | % Increase Over District Court Judge Salary | 2016<br>Salary                            | % Increase Over District Court Judge Salary |
| <b>Hennepin County</b> | \$159,015            | 6%  | \$146,221                                 | -2%   |
| Ramsey County          | \$166,592            | 11%   | \$148,916                                 | -0%   |
| <b>Stearns County</b>  | \$165,334            | 11%   | \$160,425                                 | 7%  |
| Dakota County          | \$170,623            | 14%   | \$175,038                                 | 17%   |
| Four County Average    | \$165,391            | 10.6%                                       | \$157,650                                 | 5%  |
| District Court Judge   | \$149,605            |   |   |   |

Sources: National Robert Half Legal 2016 Salary Guide (data are adjusted for Minneapolis and do not account for bonuses, incentives, benefits, or retirement packages) and Minnesota County Attorney Salary Survey (Minnesota County Attorneys Association, 2016).

Note: The Dakota County Chief Deputy Assistant County Attorney 2016 salary range was \$112,024 to \$175,038; the Hennepin County Deputy Assistant County Attorney 2016 salary range was \$91,171 to 146,221; the Ramsey County Assistant County Attorney Division Director 2016 salary ranged from an entry level salary of \$117,205 to a top level salary of \$148,916; and the Stearns County Chief Deputy Assistant County Attorney 2016 salary was \$160, 425.

\$185,159

\$191,881

Table 7: Recommended Minnesota District Trial Court, Appellate Court, and Supreme Court judicial salaries, 2017-2020

| Chief. | Judge/ | Justice |
|--------|--------|---------|
|--------|--------|---------|

| Year | District  | Appellate            | Supreme   |
|------|-----------|----------------------|-----------|
| 2016 | \$157,084 | \$167,336            | \$186,048 |
| 2017 | \$164,357 | \$175,084            | \$194,662 |
| 2018 | \$171,967 | \$183,190            | \$203,675 |
| 2019 | \$178,209 | \$189,840            | \$211,068 |
| 2020 | \$184,678 | \$196,731            | \$218,730 |
|      | Assa      | ociate Judge/Justice |           |
| Year | District  | Appellate            | Supreme   |
| 2016 | \$149,605 | \$159,370            | \$169,135 |
| 2017 | \$156,532 | \$166,749            | \$176,966 |

2020 \$175,885 \$187,366 \$198,846

Note: These salaries represent 4.63% increases in 2017 and 2018, and 3.63% increases in 2019 and 2020. Expected inflation is 1.63%

\$174,469

\$180,803

#### A note about the authors:

\$163,779

\$169,724

2018

2019

*Breanna Arndt* is a student in the M.S. program in Applied Economics at the University of Minnesota. She earned a B.S. from the University of St. Thomas in 2015 and has completed graduate level coursework in applied economics, data analysis, and health policy.

*Kristine West* is an assistant professor of Economics at St. Catherine University. She is an applied microeconomist with expertise in labor economics and public policy analysis. Her research focuses on the economics of public sector labor markets. She earned a Ph.D. in Applied Economics from the University of Minnesota in 2012 and a B.A. from Macalester College in 2001.

Both Dr. West and Ms. Arndt volunteered their time to conduct this analysis. All analysis was conducted independently. Ms. Arndt was responsible for background research, data collection and preliminary analysis and drafts. Dr. West provided oversight and guidance, reviewed the final analysis and co-authored the final draft.