Introduction

A number of recent studies on the growing demand for U.S. physicians has forecasted a looming doctor shortage. One such study suggests that the U.S. could face a shortfall of over 100,000 doctors by 2030.1

If a crisis in medical talent is to be averted, health care stakeholders will need to coordinate efforts to better understand and correct many of the inefficiencies within the medical job market. A key factor in analyzing the market, and how it might be improved to meet projected increases in demand, is physician compensation.

This study aims to provide a snapshot of physician compensation trends, as well as a sequential view of the market year-over-year. The report draws on the responses of more than 65,000 licensed U.S. doctors to produce the most comprehensive view of physician compensation available. It details how compensation has changed from 2016 to 2017, evaluating trends across: metropolitan areas, medical specialties, and gender.

Health care is organized and delivered through local systems. For this reason, this report analyzed compensation in 50 U.S. metropolitan areas, examining how salary trends compare across regions. Our hope is these findings contribute to a better understanding of why some areas may see more severe physician shortages than others. In addition, the compensation data in this report reveals a range of salaries for more than 40 medical specialties – providing insight for medical students selecting a specialty, as well as for health systems and other stakeholders tracking the supply of medical talent.

Lastly, in 2017, for the first time, more women than men enrolled in U.S. medical schools.2 To ensure women remain in the medical profession, they must be compensated fairly. Yet we continue to observe a significant disparity in compensation when delineated by gender.

With over 70 percent of all U.S. doctors as members, Doximity is the largest medical social network and uniquely positioned to perform this analysis.
National Gender Wage Gap Persists, Despite Compensation Increase

Nationally, there was a 4 percent increase in physician compensation between 2016 and 2017. Given the local nature of health care markets, compensation varied significantly between metropolitan statistical areas (MSAs). At a high-level, less populated MSAs tend to have a higher average compensation compared to larger cities.
KEY FINDINGS

Physician Compensation Rankings by Metro Area

As we found last year, metro areas with lower average compensation tended to have more academic institutions, which can pay slightly lower than private institutions. The presence of large medical schools in an area also ensures a strong pipeline of well qualified doctors competing for a relatively fixed number of medical positions. This may have a dampening effect on compensation.

Metro areas with the HIGHEST compensation for physicians in 2017:
1. Charlotte, NC — $402,273
2. Milwaukee, WI — $398,431
3. Jacksonville, FL — $379,820
4. Indianapolis, IN — $378,011
5. San Jose, CA — $376,585
6. Phoenix, AZ — $372,669
7. Kansas City, MO — $372,555
8. Dallas, TX — $371,398
9. Los Angeles, CA — $371,227
10. Salt Lake City, UT — $370,472

Metro areas with the LOWEST compensation for physicians in 2017:
1. Durham, NC — $282,035
2. Ann Arbor, MI — $302,692
3. Baltimore, MD — $304,002
4. New Haven, CT — $308,262
5. Rochester, NY — $312,503
6. Washington, DC — $312,834
7. Denver, CO — $313,895
8. Philadelphia, PA — $315,930
9. Boston, MA — $316,630
10. Charleston, SC — $319,115
KEY FINDINGS

Compensation Growth Increased in Most Metro Areas

While the growth rate in compensation varied significantly by MSA, the trend in compensation nationally was higher.

Metro areas with the **HIGHEST** growth rate in compensation between 2016 and 2017:
1. Charleston, SC — 12%
2. Milwaukee, WI — 7%
3. Austin, TX — 7%
4. San Francisco, CA — 7%
5. Las Vegas, NV — 7%
6. Los Angeles, CA — 6%
7. Salt Lake City, UT — 6%
8. San Diego, CA — 6%
9. Atlanta, GA — 6%
10. San Antonio, TX — 6%

Metro areas with the **LOWEST** growth rate in compensation between 2016 and 2017:
1. Houston, TX — -2%
2. Rochester, NY — -1%
3. Bridgeport, CT — -1%
4. Cleveland, OH — 1%
5. Orlando, FL — 1%
6. Louisville, KY — 1%
7. Durham, NC — 2%
8. New Haven, CT — 2%
9. Hartford, CT — 2%
10. Pittsburgh, PA — 2%
KEY FINDINGS

Compensation for Female Physicians Varied by Metro Area

We also evaluated the differences in how male and female physicians were paid in 2017. In 2016, the average national gender gap among physicians was 26.5 percent less per year, and on average, female doctors made $91,284 less than what the average male doctor made.

In 2017, the physician gender gap remained stubborn at 27.7 percent, and female doctors earned $105,000 less than their male counterparts. In fact, in evaluating this data at the local level, more than half of the 50 metro areas saw the physician gender wage gap increase.

Metro areas where female physicians were paid the HIGHEST average annual salary in 2017:
1. Milwaukee, WI — $313,857
2. San Jose, CA — $307,630
3. Las Vegas, NV — $301,018
4. Charlotte, NC — $299,722
5. Minneapolis, MN — $296,379
6. Dallas, TX — $295,809
7. Tampa, FL — $295,635
8. Indianapolis, IN — $293,590
9. Phoenix, AZ — $293,528
10. San Francisco, CA — $289,944

In terms of compensation, while it’s better to be a female physician in Milwaukee than in any of the other 50 metro areas, she still earns on average $114,054 less than a male physician in the highest-paid metro area for men, Charlotte, NC.

Metro areas where female physicians were paid the LOWEST average annual salary in 2017:
1. Durham, NC — $225,486
2. Charleston, SC — $226,188
3. Ann Arbor, MI — $232,638
4. New Haven, CT — $233,700
5. Providence, RI — $245,986
6. Baltimore, MD — $247,147
7. Denver, CO — $252,077
8. Washington, DC — $252,217
9. Cincinnati, OH — $255,590
10. Nashville, TN — $256,319
KEY FINDINGS

The Gender Wage Gap Continued Across Metro Areas

As in 2016, female physicians did not out-earn their male counterparts in any of the top 50 metro areas. And in 2017, there were 25 metro areas where the gap was greater than $100,000, and none where the gender wage gap, in absolute dollars, was less than $68,000. The gender wage gap in absolute dollars ranged from $68,758 in Rochester, NY to $134,499 in Charleston, SC.3

Metro areas with the SMALLEST gender wage gaps in 2017:
1. Las Vegas, NV — female physicians earn 20 percent less, or a difference of $73,654
2. Rochester, NY — 21% or $68,758 less
3. Hartford, CT — 22% or $80,596 less
4. Detroit, MI — 23% or $79,431 less
5. Sacramento, CA — 23% or $86,180 less

Metro areas with the LARGEST gender wage gaps in 2017:
1. Charleston, SC — female physicians earn 37% less, or a difference of $134,499
2. Kansas City, MO — 32% or $131,996 less
3. Nashville, TN — 32% or $118,706 less
4. Providence, RI — 31% or $108,796 less
5. Riverside, CA — 31% or $115,991 less
KEY FINDINGS

The Gender Wage Gap Persisted from 2016 to 2017

From 2016 to 2017, the gender wage gap remained consistent nationally, but at the metropolitan level, there was wide variation. Of the top 50 metro areas, more than half saw the gender wage gap increase.

Metro areas with **DECREASES** in the gender wage gap from 2016 to 2017:
1. Las Vegas, NV — 7%
2. Orlando, FL — 5%
3. Detroit, MI — 5%
4. Columbus, OH — 3%
5. Durham, NC — 3%
6. Charlotte, NC — 3%
7. San Jose, CA — 3%
8. Philadelphia, PA — 3%
9. Virginia Beach, VA — 3%
10. Pittsburgh, PA — 2%

Metro areas with **INCREASES** in the gender wage gap from 2016 to 2017
1. Charleston, SC — -9%
2. Ann Arbor, MI — -8%
3. Riverside, CA — -8%
4. Providence, RI — -6%
5. Indianapolis, IN — -6%
6. Portland, OR — -6%
7. Kansas City, MO — -6%
8. Salt Lake City, UT — -5%
9. Minneapolis, MN — -5%
10. New Haven, CT — -5%

In general, metro areas where the gender wage gap was larger saw that gap worsen from 2016 to 2017, and metro areas where the gender wage gap was smaller saw that gap improve.
KEY FINDINGS

Compensation Varied by Medical Specialty

In general, medical specialties with more advanced training tend to demand higher salaries. However, not all specialties enjoy significantly higher average compensation.

The five medical specialties with the **HIGHEST** average annual compensation:

- Neurosurgery: $662,755
- Thoracic Surgery: $602,745
- Orthopaedic Surgery: $537,568
- Vascular Surgery: $476,300
- Plastic Surgery: $473,212

The five medical specialties with the **LOWEST** average annual compensation:

- Pediatric Hematology & Oncology: $208,524
- Pediatric Infectious Disease: $191,735
- Pediatric Endocrinology: $214,911
- Pediatrics: $221,900
- Preventive Medicine: $231,838
KEY FINDINGS

The 20 specialties with the highest average annual compensation

- Neurosurgery $663K
- Thoracic Surgery $603K
- Orthopaedic Surgery $538K
- Vascular Surgery $476K
- Plastic Surgery $473K
- Cardiology $473K
- Radiation Oncology $468K
- Gastroenterology $456K
- Dermatology $434K
- Radiology $431K
- Otolaryngology (ENT) $431K
- Urology $427K
- Anesthesiology $409K
- Oncology $404K
- Ophthalmology $391K
- General Surgery $382K
- Colon & Rectal Surgery $380K
- Hematology $372K
- Pulmonology $354K
- Emergency Medicine $336K
### KEY FINDINGS

*The 20 specialties with the LOWEST average annual compensation*

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Average Annual Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatric Infectious Disease</td>
<td>$192K</td>
</tr>
<tr>
<td>Pediatric Hematology &amp; Oncology</td>
<td>$209K</td>
</tr>
<tr>
<td>Pediatric Endocrinology</td>
<td>$215K</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>$222K</td>
</tr>
<tr>
<td>Preventive Medicine</td>
<td>$232K</td>
</tr>
<tr>
<td>Medicine/Pediatrics</td>
<td>$232K</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>$241K</td>
</tr>
<tr>
<td>Geriatrics</td>
<td>$245K</td>
</tr>
<tr>
<td>Medical Genetics</td>
<td>$247K</td>
</tr>
<tr>
<td>Pediatric Gastroenterology</td>
<td>$255K</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>$260K</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>$265K</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>$266K</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>$268K</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>$270K</td>
</tr>
<tr>
<td>Pediatric Emergency Medicine</td>
<td>$274K</td>
</tr>
<tr>
<td>Pediatric Cardiology</td>
<td>$283K</td>
</tr>
<tr>
<td>Neurology</td>
<td>$286K</td>
</tr>
<tr>
<td>Occupational Medicine</td>
<td>$290K</td>
</tr>
<tr>
<td>Physical Medicine/RehabK</td>
<td>$304K</td>
</tr>
</tbody>
</table>
KEY FINDINGS

The Gender Wage Gap Continued Within Medical Specialties

As of 2017, there is no medical specialty where women earn more than men. While the gender wage gap ratio within medical specialties was less stark than within metropolitan areas, it was still significant. The gender wage gap in absolute dollars ranged from $29,662 for Pediatric Infectious Disease to $118,014 for Neurosurgery. Generally, medical specialties where physicians earned higher salaries had larger gender wage gaps.

Medical specialties with the LARGEST wage gaps between MEN and WOMEN in 2017

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Men</th>
<th>Women</th>
<th>Percentage Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematology</td>
<td>$392K</td>
<td>$314K</td>
<td>20% LESS</td>
</tr>
<tr>
<td>Occupational Medicine</td>
<td>$301K</td>
<td>$242K</td>
<td>20% LESS</td>
</tr>
<tr>
<td>Urology</td>
<td>$434K</td>
<td>$349K</td>
<td>20% LESS</td>
</tr>
<tr>
<td>Orthopedic Surgery</td>
<td>$543K</td>
<td>$442K</td>
<td>19% LESS</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>$465K</td>
<td>$378K</td>
<td>19% LESS</td>
</tr>
</tbody>
</table>

Medical specialties with the SMALLEST wage gaps between MEN and WOMEN in 2017

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Men</th>
<th>Women</th>
<th>Percentage Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colon and Rectal Surgery</td>
<td>$387K</td>
<td>$331</td>
<td>14% LESS</td>
</tr>
<tr>
<td>Pediatric Infectious Disease</td>
<td>$203K</td>
<td>$173K</td>
<td>15% LESS</td>
</tr>
<tr>
<td>Pediatric Cardiology</td>
<td>$292K</td>
<td>$249K</td>
<td>15% LESS</td>
</tr>
<tr>
<td>Geriatrics</td>
<td>$259K</td>
<td>$221K</td>
<td>15% LESS</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>$484K</td>
<td>$412K</td>
<td>15% LESS</td>
</tr>
</tbody>
</table>
KEY FINDINGS

Compensation Varied by Employment Type

Physician employment in the U.S. has historically been dominated by private practices. Yet, for the first time in 2016, the share of U.S. physicians who own their practice dropped below 50 percent. Given that this represents a significant change in the market structure, it’s important to understand differences in average compensation by employment type.

<table>
<thead>
<tr>
<th>Employment Type</th>
<th>2017 Average Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Specialty Group</td>
<td>$373,240</td>
</tr>
<tr>
<td>Multi-specialty Group</td>
<td>$355,972</td>
</tr>
<tr>
<td>Hospital</td>
<td>$355,094</td>
</tr>
<tr>
<td>Solo Practice</td>
<td>$354,624</td>
</tr>
<tr>
<td>Health System / IDN / ACO</td>
<td>$341,444</td>
</tr>
<tr>
<td>Academic</td>
<td>$338,449</td>
</tr>
<tr>
<td>Healthcare organization</td>
<td>$335,358</td>
</tr>
<tr>
<td>Health Maintenance Organization</td>
<td>$330,523</td>
</tr>
<tr>
<td>Government</td>
<td>$309,241</td>
</tr>
<tr>
<td>Industry / Pharmaceutical</td>
<td>$289,469</td>
</tr>
<tr>
<td>Urgent Care Center / Chain</td>
<td>$252,183</td>
</tr>
</tbody>
</table>
KEY FINDINGS

The Gender Wage Gap Continued by Employment Status

When examining compensation by employment status, the gender wage gap persists. Moreover, the overall wage gap is exacerbated by a lack of female-owned private practices.

Notably, 85 percent of private practices, which have the highest compensation, are owned by male physicians. Of the women-owned practices, female owners still earn $97,227 less than male physician owners.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Women</th>
<th>Men</th>
<th>% Female Physicians</th>
<th>Difference</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner / Partner</td>
<td>$403,266</td>
<td>$306,039</td>
<td>$420,629</td>
<td>15%</td>
<td>$114,590</td>
<td>27.2%</td>
</tr>
<tr>
<td>Independent Contractor</td>
<td>$358,808</td>
<td>$297,803</td>
<td>$375,894</td>
<td>22%</td>
<td>$78,091</td>
<td>20.8%</td>
</tr>
<tr>
<td>Employee</td>
<td>$339,948</td>
<td>$271,629</td>
<td>$366,881</td>
<td>28%</td>
<td>$95,252</td>
<td>26.0%</td>
</tr>
</tbody>
</table>
Conclusion

As in any labor market, compensation is a powerful force. In medicine, it can impact which specialties physicians decide to invest years of training, as well as where they practice. Our geographic data suggests that there are significant opportunities for physicians who would like to live and work in some of the smaller MSAs. This finding also implies that shortages in doctors are becoming prevalent outside of larger cities.

We also found that a significant gap between male and female compensation continues. Medicine is a highly trained field, and as such, one might expect the gender wage gap to be less prominent here than in other industries. However, the gap endures, despite the level of education required to practice medicine, and market forces suggesting that this gap should shrink.

All medical stakeholders should be aware of the differences in compensation across segments. We hope the trends shown in this report can help better inform medical students, physicians, health care organizations, and health care policymakers.
Methodology

Doximity’s study is drawn from self-reported compensation surveys completed in 2016 and 2017 by more than 65,000 full-time, licensed U.S. physicians who practice at least 40 hours per week. Responses were mapped across metropolitan statistical areas, and the top 50 were ranked by the number of respondents in the data.

To control for differences in specialty, geography, and other provider-specific factors that might influence spending, we estimated a multivariate regression with fixed effects for provider specialty and MSA. We also controlled for how long each provider has practiced medicine and their self-reported average hours worked per week. This regression was estimated using a generalized linear model with a log link and gamma distribution. For the geographic and specialty rankings, we used the predicted values from this regression. For the national numbers on the gap between average gender pay and average pay location of where trained, percentage changes were converted to dollar values by taking marginal effects.

Sources


3. To calculate the size of the gender gap, we examined what percentage of a male physician’s salary a female physician earns. For example, if the average male physician earned $100,000 and the pay gap was 20 percent less, then it means that the average female physician made $80,000 per year.

The metro areas with the overall HIGHEST compensation for primary care providers

1. Charlotte, NC  -  $304,957
2. Milwaukee, WI  -  $300,914
3. Indianapolis, IN  -  $290,009
4. Minneapolis, MN  -  $287,913
5. San Jose, CA  -  $284,119
6. Las Vegas, NV  -  $283,706
7. San Francisco, CA  -  $277,841
8. Dallas, TX  -  $276,849
9. Salt Lake City, UT  -  $276,810
10. Jacksonville, FL  -  $274,689
11. Phoenix, AZ  -  $274,565
12. Tampa, FL  -  $255,859
13. Los Angeles, CA  -  $273,468
14. Kansas City, MO  -  $271,182
15. Sacramento, CA  -  $270,880
16. Austin, TX  -  $270,778
17. Riverside, CA  -  $269,095
18. Bridgeport, CT  -  $267,626
19. Orlando, FL  -  $267,614
20. Atlanta, GA  -  $266,790
21. San Diego, CA  -  $265,813
22. New York, NY  -  $264,713
23. Miami, FL  -  $263,226
24. Louisville, KY  -  $263,199
25. Houston, TX  -  $262,366
APPENDIX

The metro areas with the LOWEST compensation for primary care providers

1. Ann Arbor, MI - $212,015
2. Durham, NC - $219,675
3. Baltimore, MD - $226,756
4. Washington, D.C. - $228,996
5. New Haven, CT - $231,794
6. Charleston, SC - $236,658
7. Boston, MA - $241,222
8. Denver, CO - $242,697
10. Rochester, NY - $245,658
11. Providence, RI - $247,001
12. Virginia Beach, VA - $247,725
13. Columbus, OH - $248,209
14. Detroit, MI - $248,952
15. Cleveland, OH - $249,557
16. Pittsburgh, PA - $253,702
17. Portland, OR - $254,758
18. New Orleans, LA - $255,171
19. San Antonio, TX - $255,238
20. Nashville, TN - $255,955
21. Birmingham, AL - $256,909
22. Seattle, WA - $257,891
23. Hartford, CT - $259,741
24. Cincinnati, OH - $260,455
25. Chicago, IL - $261,870
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The metro areas in which all physicians are paid the HIGHEST average annual salary:

1. Charlotte, NC - $402,273
2. Milwaukee, WI - $398,431
3. Jacksonville, FL - $379,820
4. Indianapolis, IN - $378,011
5. San Jose, CA - $376,585
6. Phoenix, AZ - $372,669
7. Kansas City, MO - $372,555
8. Dallas, TX - $371,398
9. Los Angeles, CA - $371,227
10. Salt Lake City, UT - $370,472
11. San Francisco, CA - $370,013
12. Tampa, FL - $368,139
13. Minneapolis, MN - $367,957
14. Las Vegas, NV - $365,113
15. Riverside, CA - $361,475
16. San Antonio, TX - $359,508
17. Miami, FL - $357,457
18. Atlanta, GA - $355,651
19. Austin, TX - $354,790
20. Louisville, KY - $353,124
21. New York, NY - $352,910
22. San Diego, CA - $351,229
23. Nashville, TN - $350,514
24. New Orleans, LA - $350,320
25. Bridgeport, CT - $350,296
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The metro areas in which physicians are paid the **LOWEST** average annual salary:

1. Durham, NC - $282,035
2. Ann Arbor, MI - $302,692
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5. Rochester, NY - $312,503
6. Washington, D.C. - $312,834
7. Denver, CO - $313,895
8. Philadelphia, PA - $315,930
9. Boston, MA - $316,630
10. Charleston, SC - $319,115
11. Cleveland, OH - $324,578
12. Cincinnati, OH - $326,248
13. Providence, RI - $329,768
14. Detroit, MI - $331,001
15. Virginia Beach, VA - $332,982
16. Columbus, OH - $334,151
17. Houston, TX - $335,170
18. Pittsburgh, PA - $335,241
19. Portland, OR - $340,389
20. Chicago, IL - $340,977
21. Hartford, CT - $341,529
22. Birmingham, AL - $346,659
23. Seattle, WA - $347,240
24. Sacramento, CA - $348,062
25. Orlando, FL - $348,553
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The metro areas in which FEMALE physicians are paid the HIGHEST average annual salary:

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7. Tampa, FL - $295,635
8. Indianapolis, IN - $293,590
9. Phoenix, AZ - $293,528
10. San Francisco, CA - $289,944
11. Sacramento, CA - $289,250
12. Los Angeles, CA - $288,111
13. Jacksonville, FL - $287,873
14. Austin, TX - $282,586
15. Louisville, KY - $281,501
16. San Diego, CA - $281,210
17. Orlando, FL - $279,864
18. New York, NY - $279,620
19. Hartford, CT - $278,303
20. Chicago, IL - $277,335
21. Miami, FL - $276,913
22. Kansas City, MO - $276,735
23. Salt Lake City, UT - $276,392
24. San Antonio, TX - $276,057
25. Atlanta, GA - $275,748
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5. Providence, RI - $245,986
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7. Denver, CO - $252,077
8. Washington, D.C. - $252,217
9. Cincinnati, OH - $255,590
10. Nashville, TN - $256,319
11. Philadelphia, PA - $256,934
12. Pittsburgh, PA - $258,444
13. Boston, MA - $259,162
14. Cleveland, OH - $259,215
15. Birmingham, AL - $261,012
16. Rochester, NY - $261,065
17. Riverside, CA - $263,284
18. Seattle, WA - $267,481
19. Houston, TX - $268,143
20. Portland, OR - $268,474
21. New Orleans, LA - $268,943
22. Virginia Beach, VA - $271,278
23. Detroit, MI - $271,737
24. Columbus, OH - $274,357
25. Bridgeport, CT - $275,585
Founded in 2011, Doximity connects physicians and advanced practice clinicians to make them more successful and productive. Doximity is the largest secure medical network with over 70 percent of all U.S. physicians as members, enabling collaboration across specialties and every major medical center. Doximity is based in San Francisco and was created by the founders of Epocrates and Rock Health.

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