Policy Research Perspectives

Recent Changes in Physician Practice Arrangements: Shifts Away from Private Practice and Towards Larger Practice Size Continue Through 2022

By Carol K. Kane, PhD

Introduction

This Policy Research Perspective (PRP) marks the 10th anniversary of the AMA's Physician Practice Benchmark Survey which was first launched in 2012. Although the AMA had been surveying physicians about their practice characteristics as far back as the early 1980s, previous AMA surveys lacked the ability to identify whether a practice was physician-owned or owned by another entity such as a hospital or health system. Research from the late 2000s and early 2010s suggested that hospital ownership was on the rise (see Kane and Emmons, 2013 for a review). Thus, one specific intent of the inaugural 2012 Benchmark Survey was to capture this "new" practice characteristic.

This PRP describes the changes in the ownership and organization of physician practices over the decade since the first Benchmark Survey was fielded. Between 2012 and 2022 the share of physicians who work in practices wholly owned by physicians – private practices – dropped by 13 percentage points from 60.1 percent to 46.7 percent. Practice size has changed, with a continued redistribution of physicians from small to large practices. The percentage of physicians in practices with 10 or fewer physicians fell from 61.4 percent in 2012 to 51.8 percent in 2022. In comparison, the percentage in practices with 50 or more physicians grew from 12.2 percent to 18.3 percent. There have also been changes in practice type. Forty-two percent of physicians worked in single specialty practices and 26.7 percent in multi-specialty practices in 2022, reflecting a shift of about 4 percentage points since 2012 from the former practice type to the latter.

With regard to employment status, 44.0 percent of physicians were owners in 2022, 49.7 percent were employees, and 6.4 percent were independent contractors. This is in great contrast to 2012 when 53.2 percent of physicians were owners and, even more so, to the early and mid-2000s, when around 61 percent of physicians were owners (Wassenaar and Thran 2003; Kane 2009), and the early 1980s when the ownership share was around 76 percent (Kletke, Emmons, and Gillis 1996).

In addition to the focus on the trends mentioned above, this PRP explores the reasons that private practices are sold to hospitals or health systems and the differences between private practices and those that are hospital-owned. It also describes the underlying mechanics of the changes in physician employment status.

Data and methods

The AMA's Physician Practice Benchmark Surveys are nationally representative surveys of post-residency physicians who provide at least 20 hours of patient care per week, are not employed by the federal government, and practice in one of the 50 states or the District of Columbia. The Benchmark Surveys have been conducted on an every other year basis starting in 2012. The samples in all years but the first were drawn from the M3 Global Research panel.[1,2]

Physicians' eligibility for the Benchmark Survey was determined based on information on federal employment, geographic location, and professional activity (e.g., whether retired, in administration, or in patient care) from the AMA Physician Professional Data (PPD)[3] which is licensed by M3 and appended to its panel data. Physicians who were invited to participate in the survey were presented with a series of screener questions to further ensure they met the eligibility criteria.[4] The survey was conducted in September-November 2022 and the final data included 3500 physicians with a response rate of 31 percent.

Several steps were taken to ensure that the final data were representative of the physician population. First, the distributions of physicians in the M3 panel and the population (PPD) were compared to assess areas of over or underrepresentation. Second, targets were set in the fielding process to increase the likelihood that the distribution of the final data mirrored the population. The characteristics of survey respondents were closely monitored with subsequent sample release adjusted to meet those targets.[5] Finally, a weighting methodology and survey weights were constructed by NORC at the University of Chicago to reflect the probability of selection from the M3 panel into the sample and to adjust for non-resolution of eligibility status, differences between respondents and non-respondents, and differences between the distributions of the sample respondents and the population (eligible physicians in the AMA PPD).[6] All estimates presented here are weighted.

This research was determined to be exempt by the AMA's IRB of record.

---

[1] The 2012 sample was drawn from the ePocrates panel. See Kane and Emmons (2013) for more information on the 2012 Benchmark Survey.

[2] At the time of the 2022 Benchmark Survey there were approximately 25,000 verified and "active" and 68,000 "inactive" physicians in the M3 panel who met the survey eligibility criteria laid out above. The definition of an "active" panel member is based on criteria set by the International Organization for Standardization (ISO). Physicians periodically switch between active and inactive status based on their recent survey participation.

[3] The AMA Physician Masterfile was renamed to AMA Physician Professional Data (PPD) in 2023. Established by the AMA in 1906, the PPD includes significant education, training and professional certification information on virtually all Doctors of Medicine (MD) and Doctors of Osteopathic Medicine (DO) in the United States, Puerto Rico, Virgin Islands and certain Pacific Islands. See https://www.ama-assn.org/about/masterfile/ama-physician-masterfile for more information.

[4] Eight percent of the physicians who started the survey were found to be ineligible. The most common reason for this was working part time followed closely by federal employment. This information is not available in the PPD.

[5] Targets were set for specialty, age, gender, census division, and present employment (a PPD variable with broad practice type categories), and whether an AMA member.

[6] Weights accounted for the same factors used in targeting.

Measurement of practice arrangements in the Benchmark Surveys

This PRP's focus is on four aspects of physician practice arrangements collected in the Benchmark Surveys:

- the practice type of the main practice in which physicians work;
- the ownership structure of that practice (practice ownership);
- the number of physicians in that practice (practice size); and
- whether physicians are owners, employees, or independent contractors with their main practice (employment status).

In the survey, physicians indicate which one of nine practice types (plus an additional fill-in category) best describes their main practice:

- Solo practice
- Single specialty group practice
- Multi-specialty group practice
- Faculty practice plan
- Hospital
- Ambulatory surgical center
- Urgent care facility
- Medical school
- Health maintenance organization (HMO)/managed care organization (MCO)

Physicians who indicate that their main practice is a hospital are asked to clarify whether they work *directly for a hospital* or for a practice *owned by a hospital*. Physicians who work directly for a hospital fall under the "direct hospital employee/contractor" category in the exhibits in this report. This category is considered both a practice type and a practice ownership structure. Physicians who indicate that they work for a practice owned by a hospital are asked a second time to identify their practice type (this time excluding the hospital category) and are categorized in this report according to that response.

For practice ownership structure, physicians (other than those who selected "hospital" as a practice type) are presented with six options (plus an additional fill-in category). The private equity option was added in 2020:

- Wholly owned by one or more physicians in the practice
- Jointly owned between physicians and a hospital, hospital system
- Wholly owned by a hospital, hospital system, or health system
- Wholly owned by an HMO/MCO
- Wholly owned by a not-for-profit foundation
- Wholly or jointly owned by a private equity firm

For ease of exposition in the remainder of this report, practices that are wholly owned by physicians are referred to as "private" and those that have at least some hospital or health system ownership as "hospital-owned."

Physicians are asked how many physicians are in their main practice and are asked to include all sites or practice locations as well as themselves in their answer. Finally, physicians report whether they are owners, employees, or independent contractors in their main practice. Of all the characteristics described in this report, employment status is the only one that focuses on the individual physician rather than on the practice.

Practice ownership

The most dramatic shift over the last 10 years has been in practice ownership (Exhibit 1). Between 2012 and 2022 the share of physicians who work in private practices fell by 13 percentage points from 60.1 percent to 46.7 percent. Importantly, those percentages include physicians who have an ownership share in the practice as well as those who are employed in the practice (typically younger physicians) or contract with the practice. In contrast, the share of physicians who are directly employed by or contract directly with a hospital increased from 5.6 percent to 9.6 percent, and those who work in a hospital-owned practice from 23.4 percent to 31.3 percent. These directional changes were also present between 2020 and 2022 but none were statistically significant except the decrease in the share of physicians in private practices, from 49.1 percent to 46.7 percent, and a marginally significant increase in the "other" category. In 2022, 4.5 percent of physicians belonged to a practice that was owned by a private equity group, similar to the percentage in 2020.

For most specialties, the percentage of physicians in private practice was similar and ranged from 41.2 percent among general surgeons to 49.7 percent among radiologists (Exhibit 2). The exceptions were emergency medicine physicians and surgical subspecialists with 37.0 percent and 63.3 percent of physicians in private practice, respectively.

The data show that by far, the most cited reason for hospital and health system acquisition had to do with payment (Exhibit 3). Eighty percent of physicians indicated that the need to better negotiate favorable (higher) payment rates with payers was a very important (46.1 percent) or important (33.4 percent) reason as to why their practice was sold to or acquired by a hospital or health system.[7] Next were the need to better manage payers' regulatory and administrative requirements and the need to improve access to costly resources. Each was flagged by about 70 percent of physicians as a very important or important reason.[8]

Practice size

The decade over which the Physician Practice Benchmark Survey has been fielded has also seen a redistribution of physicians from small to large practices (Exhibit 4). In 2012, 61.4 percent of physicians worked in practices that had 10 or fewer physicians—40.0 percent in practices with fewer than 5 and 21.4 percent in practices with between 5 and 10 physicians. By 2022, the share of physicians in the smallest size category decreased dramatically, to 32.8 percent, while the share of physicians in practices with 5 to 10 physicians changed less, with a decrease to 19.0 percent. In 2022, 51.8 of physicians worked in practices with 10 or fewer physicians.

The move away from the smallest practice size category has been matched with a redistribution of physicians to the largest. The share of physicians in practices with at least 50 physicians grew from 12.2 percent to 18.3 percent between 2012 and 2022. In contrast, the shares of physicians in mid-sized practices (those with 11 to 24 and 25 to 49 physicians) remained relatively stable over this period.

---

[7] These estimates are based on physicians whose practices had been acquired by a hospital or health system after 2012 and who were a practice member at the time of that acquisition.

[8] Other choices included to better complete for employees, to increase availability of additional services that patients need, and to make it easier to participate in risk-based payment models.

Practice type

Single-specialty practices accounted for the largest share of physicians in 2022 (41.8 percent) followed by multi-specialty group practices (26.7 percent), solo practices (12.9 percent), and a direct employment or contracting relationship with a hospital (9.6 percent) (Exhibit 5). Over the last 10 years the shares of physicians in multi-specialty practices and who have a direct employment or contracting relationship with a hospital have each grown by about 4 percentage points. In contrast, the shares of physicians in solo practices and in single specialty group practices each decreased by around 4 percentage points.

Physician specialties differ regarding whether they stand alone as a single specialty practice or are paired with other disciplines in a multi-specialty practice (Exhibit 6). Obstetricians/gynecologists, anesthesiologists, radiologists have the largest shares – each over 50 percent – of physicians who practice in single specialty groups. Pediatricians also had a relatively high share (48.0 percent) of physicians in this practice type. General internists were the specialty least likely to work in a single specialty practice (27.8 percent).

In contrast, working in a multi-specialty group was most common among general internists and family medicine physicians, with shares around 35 percent, followed closely by general surgeons and internal medicine subspecialists, with shares near 30 percent. Solo practice remains most common among psychiatrists and general internists, among whom around 22 percent of physicians were in that practice type. In other specialty categories the percentage of physicians in solo practice was under 20 percent and in some, under 10 percent.

Differences between private and hospital-owned practices

There are striking differences between the traditional private practice and practices that are hospital-owned and to which an increasing share of physicians belong (Exhibit 7). First, private practices tend to be small. Fifty-two percent of physicians in private practices are in practices with fewer than five physicians. This is in comparison to 17.4 percent of physicians in hospital-owned practices. In contrast, while only 10.5 percent of physicians in private practices have a practice size of 50 or more, this is the case for 31.4 percent of physicians in hospital-owned practices. The shares of physicians in the intermediate size categories (five to 10, 11 to 24, and 25 to 49) are all larger for hospital-owned practices but the differences are not as great as in the smallest and largest size categories.[9]

Private and hospital-owned practices differ in terms of how they are organized. Eighty-one percent of physicians in private practices characterize their practice as a solo or single specialty practice compared to only 37.0 percent of physicians in hospital-owned practices.[10] In contrast, 18.2 percent

[9] Similar conclusions are reached after excluding physicians in solo practices from the private practice category to compare only physicians in "group" practices across the two ownership types. First, physicians in hospital-owned practices are "concentrated" in large practices while physicians in private practice are concentrated in those that are small. In addition, the shares of physicians in the intervening size categories (five to 10, 11 to 24, and 25 to 49 physicians) are even more similar when physicians in solo practices are excluded than when they are included.
[10] Among physicians in private practices, 53.2 percent are in single specialty practices and 27.6 percent are in solo practices.

of private practice physicians work in multi-specialty practices compared to 43.5 percent of physicians in hospital-owned practices.

In addition, private practices and hospital-owned practices differ in terms of their inclusion of primary care. A practice is considered to include primary care if the surveyed physician is in a primary care specialty or if their practice includes primary care physicians.[11] Sixty-one percent of physicians in hospital-owned practices work in practices that include primary care compared to 44.9 percent of physicians in private practice. In the hospital-owned setting, a large majority of primary care occurs in multi-specialty groups. In fact, 39.0 percent of physicians who work in hospital-owned practices do so in multi-specialty groups that include primary care. In contrast, primary care in private practice is typically provided in the solo or single specialty setting, with 30.9 percent of private practice physicians working in a solo or single specialty primary care practice and only 13.7 percent working in a multi-specialty practice that includes primary care.

Employment status

In 2022, 49.7 percent of physicians were employees, 44.0 percent were owners, and 6.4 percent were independent contractors (Exhibit 5). The 2022 data depict a landscape very different than in the first year of the Benchmark Survey (2012) when 41.8 percent of physicians were employees and 53.2 percent were owners. The ownership share dropped 9 percentage points over this period. Women physicians were less likely to be owners than men in 2022, 35.7 percent compared to 48.6 percent, and more likely to be employees, 56.9 percent compared to 45.6 percent (data not shown in Exhibits).[12,13]

Comparing ownership shares for different age groups and looking at changes over time within one cohort provides some insights that explain the overall drop in the ownership share (Exhibit 8). First, the behavior of physicians has changed. For example, in 2012, 44.3 percent of physicians under the age of 45 were owners. But, by 2022, only 31.7 percent of physicians under the age of 45 were owners. This suggests that a smaller percentage of each successive class of physicians has started their post-residency career in an ownership position. Decreases are also evident for the other age groups in the table, although that for the youngest age group (a 13 percentage point drop) is the largest.

Second, the employment status of young physicians is different than that of older physicians. In 2022, for example, 51.3 percent of physicians aged 55 and over compared to 31.7 percent of physicians under age 45 were owners. This indicates that when physicians retire, those who are owners are not replaced in the workforce on a one-to-one basis. Rather, they tend to be replaced by physicians who are, although not exclusively, employees. This age differential is not new. In 2012 older physicians were also more likely to be owners (59.6 percent of physicians aged 55 and over compared to 44.3 percent of physicians under age 45).

[11] In the Benchmark Survey, physicians not in primary care are asked whether their practice includes primary care physicians.
[12] Currently, only a binary measure of gender is available in the PPD.
[13] Estimates are not presented by race and ethnicity due to small sample size and the inability to factor those variables into the weighting process.

Finally, the changes for one cohort of physicians – those born between 1958 and 1967 – help round out the understanding of the changes in ownership share. In 2012, when that cohort of physicians was between the ages of 45 and 54, 53.9 percent were owners. In 2022, when that cohort was between the ages of 55 and 64, 49.7 percent were owners. It is notable and perhaps surprising how small the drop is within this cohort – only 4 percentage points – compared to the drop of 9 percentage points among all physicians. Thus, it appears that the marked drop in the percentage of physicians who are owners over the last decade was not due to established physicians becoming employees in droves, but rather to new physicians making different decisions than older physicians, and to successive generations of physicians increasingly choosing employment rather than ownership after residency.

Discussion

This 10th anniversary of the AMA's Physician Practice Benchmark Survey offers the opportunity to reflect on the changes in physician practice not only over the past decade but also over the longer term. One of the most notable changes has been the decrease in the percentage of physicians who work in practices that are owned entirely by physicians – private practices. The share of physicians in private practice decreased from 60.1 percent in 2012 to 46.7 percent in 2022. Although prior AMA physician surveys (as well as other sources of data on physician practice arrangements) were not designed to specifically capture this information, a combination of estimates suggests that the percentage of physicians in private practice was in the range of 67 percent to 72 percent in the mid-1990s through early 2000s (Gonzalez, 1995; Gonzalez and Zhang, 1998; Wassenaar and Thran, 2003). That range assumes that all owner physicians worked in a practice that was wholly owned by physicians (and, for example, not in one that was jointly owned by a hospital or health system) and that all group practice or freestanding sites in which employed physicians worked were wholly owned by physicians. In the 1980s, when more than 70 percent of physicians were owners (Kletke, Emmons, and Gillis, 1996) the share of physicians in private practice would have been even higher than that, perhaps even approaching 80 percent.

Responses to the 2022 Benchmark Survey indicated that the need to better negotiate favorable (higher) payment rates with payers, better manage payers' regulatory and administrative requirements, and improve access to costly resources were the most important motivations for private practices selling to hospitals or health systems. This is, perhaps, not surprising given that physician payment in the Medicare program[14] declined greatly between 2001 and 2023 after adjusting for inflation in practice costs (American Medical Association March 2023) and that a large majority of physicians describe the burden associated with prior authorization as high or extremely high (American Medical Association February 2023). Stagnant payment rates in the face of the rising costs of private practice were also cited as a reason for selling to a hospital over a decade ago (O'Malley, et al., 2011).

Other research also supports a decrease in the percentage of physicians in private practice. A report based on the IQVIA OneKey data estimates that 52 percent of physicians were employed by hospitals in January 2022 (up from 47 percent in January 2019), 22 percent were employed by

[14] Medicare is an important component of practice revenue. Across all physicians, an average of 29.4 percent of patients were covered by Medicare in 2022. Eighty-eight percent of physicians had at least one Medicare patient (author's analysis of AMA 2022 Physician Practice Survey).

corporate entities (up from 15 percent), and only 26 percent were independent (down from 38 percent) (Physicians Advocacy Institute 2022). The "hospital employed" designation in the report is shorthand for physicians in practices with a parent organization that is an integrated delivery network (IDN). The "corporate entity employed" designation includes physicians with a parent organization that is *not an IDN*. As such, it includes, but is not limited to, health insurers, private equity firms, and corporate entities that own multiple physician practices. Around 40 percent of physicians with an ownership stake in their practice indicate that their practice is structured as an S or C *corporation* (Kane, 2021). Thus, it is likely that many of the physicians classified as "corporate entity employed" would be considered in private practice under the definitions used in the Benchmark Survey.

The percentage of physicians working in private equity owned groups was 4.5 percent in 2022, statistically no different from that in 2020. The 2022 share is consistent with recent research (published since the AMA's last PRP on this topic) that examined private equity penetration in specialties often pointed to as private equity targets: dermatology, gastroenterology, obstetrics/gynecology, ophthalmology, orthopedics, and urology. The highest estimated private equity shares among them were in dermatology, 7.5 percent (Singh, Polsky, and Song, 2022) and 9.0 percent (Braun, Bond, Qian, Zhang, and Casalino, 2021), and gastroenterology, 7 percent[15] (Gilreath, Patel, Suh, and Brill, 2021).[16] Reporting on private equity acquisitions often focuses on the number of "deals" and their dollar value. However, knowing the number of deals without also knowing the number of potential targets (e.g., the total number of physician practices) does not translate easily into the share of physicians in practices that are private equity owned. Dollar values for acquisitions can run into the billions of dollars and "seem big" but, without appropriate context – the value of all potential targets – are not particular useful or relevant to measuring private equity shares in medicine.

There have also been changes in practice size and practice type over the period of the Benchmark Survey. First, there has been a redistribution of physicians from the smallest practice size category to the largest. The percentage of physicians in practices with fewer than five physicians fell from 40.0 percent to 32.8 percent and the percentage of physician in practices with 50 or more physicians increased from 12.2 percent to 18.3 percent. In line with those changes, there has also been a redistribution from physicians in single to multi-specialty practices. Although single specialty practices continue to account for the greatest share of physicians – 41.8 percent in 2022 – this share is about 4 percentage points lower than it was in 2012. The share of physicians in multi-specialty practices grew by about 5 percentage points to 26.7 percent.

Given the decrease in private practice, it is not surprising that the percentage of physicians who are owners – and who make up a large majority of physicians in private practice – has decreased as well. By the top-line numbers, the percentage of physicians who were owners fell from 53.2 percent in 2012 to 44.0 percent in 2022. In 2012, 44.3 percent of physicians under the age of 45 were owners. But, by 2022, owners accounted for only 31.7 percent of physicians in that same age group.

[15] The paper estimates that 1000 gastroenterologists were in private equity groups. With around 14,000 physicians in that specialty this corresponds to a 7 percent penetration rate.
[16] The last published research on private equity shares in anesthesiology (Zhu, Hua, and Polsky, 2020) predates the last PRP on this topic. Those authors estimate that 1894 anesthesiologists were involved in private equity purchases between 2013 and 2016. That amounts to an approximate 4 percent share of that specialty.

Further, new physicians are much less likely to be owners than the retiring physicians they are replacing. To illustrate, in 2022, 51.3 percent of physicians aged 55 and over were owners.

Fifty-four percent of physicians aged 45 to 54 in 2012 were owners. Perhaps surprising, 10 years later, the ownership share of that cohort (physicians born between 1958 and 1967) at ages 55 to 64, was 49.7 percent, only 4 percentage points lower. Thus, it appears that the primary vehicle for the drop in ownership is the retirement of older physicians (who tend to be owners) and the falling percentage of new physicians who choose (or are able to choose) to be owners. In contrast, the changed employment status of established physicians over the course of their careers is a lesser factor.

References

American Medical Association. 2022 AMA prior authorization (PA) physician survey. February 2023. https://www.ama-assn.org/system/files/prior-authorization-survey.pdf

American Medical Association. Medicare updates compared to inflation (2001-2023). March 2023. https://www.ama-assn.org/system/files/ama-medicare-gaps-chart-grassroots-insert.pdf

Braun, RT. Bond, AM. Qian, Y. Zhang, M. Casalino, LP. Private equity in dermatology: effect on price, utilization, and spending. Health Affairs (Millwood). 2021;(40): 727-735. May 2021. https://www.healthaffairs.org/doi/epdf/10.1377/hlthaff.2020.02062

Gilreath, M. Patel, NC. Suh, J. Brill, JV. Gastroenterology physician practice management and private equity: thriving in uncertain times. Clinical Gastroenterology and Hepatology (American Gastroenterological Association) 2021;19:1084–1087. https://www.cghjournal.org/action/showPdf?pii=S1542-3565%2821%2900279-2

Gonzalez, ML. Physician marketplace statistics 1995. Chicago (IL): American Medical Association; 1996.

Gonzalez, ML. Zhang, P. Physician marketplace statistics 1997/1998. Chicago (IL): American Medical Association; 1998.

Kane CK. The practice arrangements of patient care physicians, 2007-2008: an analysis by age, cohort, and gender. Chicago (IL): American Medical Association; 2009. Policy Research Perspective 2009-6.

Kane CK. Recent changes in physician practice arrangements: private practice dropped to less than 50 percent of physicians in 2020. Chicago (IL): American Medical Association; 2021. Policy Research Perspective 2021-3. https://www.ama-assn.org/system/files/2021-05/2020-prp-physician-practice-arrangements.pdf

Kane CK. Emmons, DW. New data on physician practice arrangements: private practice remains strong despite shifts toward hospital employment. Chicago (IL): American Medical Association; 2013. Policy Research Perspective 2013-2. https://www.ama-assn.org/sites/ama-assn.org/files/corp/media-browser/premium/health-policy/prp-physician-practice-arrangements_0.pdf

Kletke, PR. Emmons, DW. Gillis, KD. Current trends in physicians' practice arrangements: from owners to employees. JAMA (American Medical Association). 1996;276(7):555–60. https://jamanetwork.com/journals/jama/fullarticle/406731

O'Malley, et al. Greenville & Spartanburg: surging hospital employment of physicians poses opportunities and challenges. Washington (DC): Center for Studying Health System Change; 2011 Feb. (Community Report No. 6). http://www.hschange.org/CONTENT/1189/1189.pdf

Physician Advocacy Institute. COVID-19's impact on acquisitions of physician practices and physician employment 2019-2021. April 2022. https://www.physiciansadvocacyinstitute.org/PAI-Research/Physician-Employment-and-Practice-Acquisitions-Trends-2019-21

Singh, Y. Zhu, JM. Polsky, D. Song, D. Geographic variation in private equity penetration across select office-based physician specialties in the US. JAMA Health Forum (American Medical Association). 2022;3(4):e220825. https://jamanetwork.com/journals/jama-health-forum/fullarticle/2791722

Wassenaar, JD. Thran, SL. Physician socioeconomic statistics: 2003 edition. Chicago (IL): American Medical Association; 2003.

Zhu, JM. Hua, LM. Polsky, D. Private equity acquisitions of physician medical groups across specialties, 2013-2016. JAMA (American Medical Association). 2020;323(7):663-665. https://jamanetwork.com/journals/jama/fullarticle/2761076

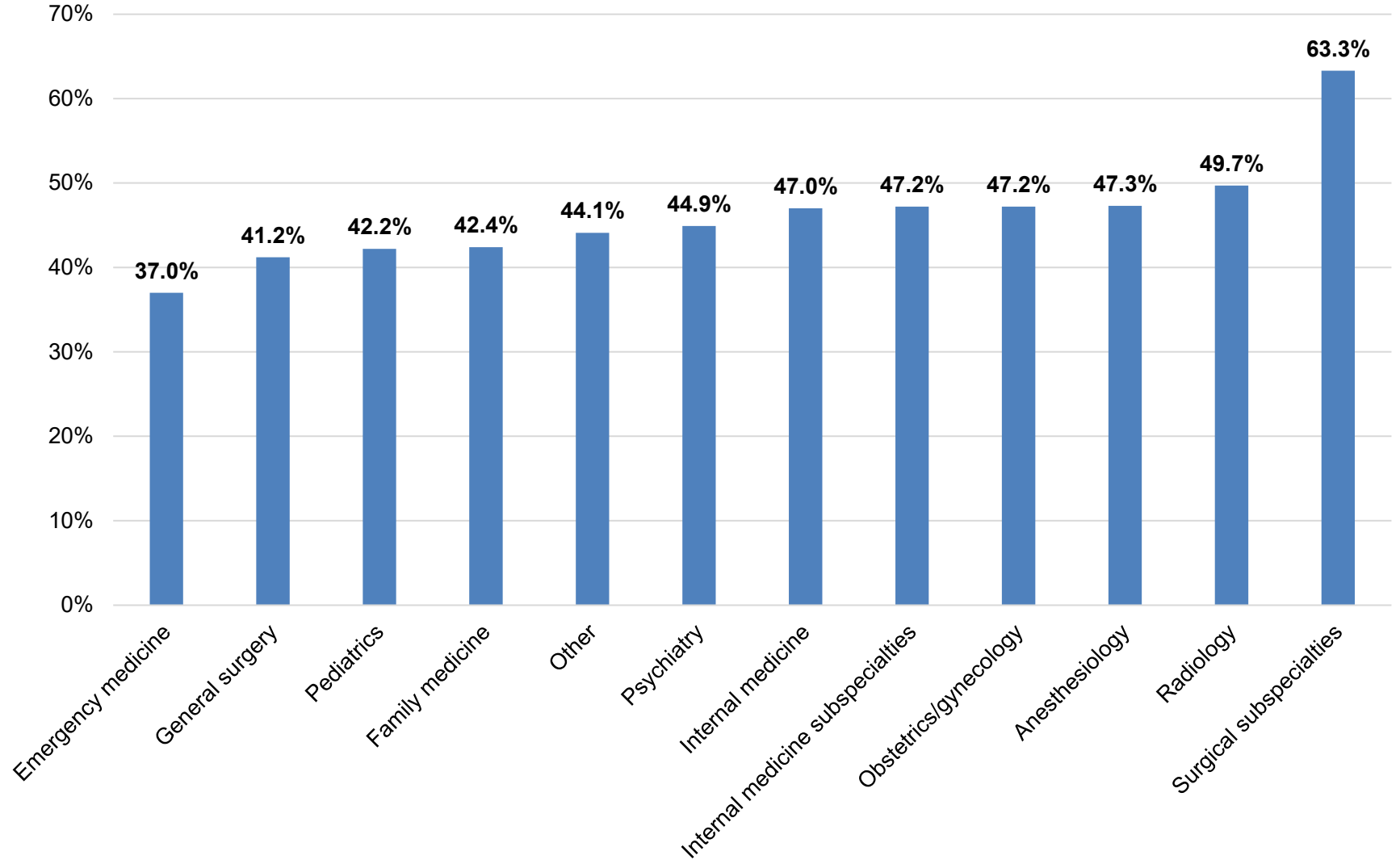
Exhibit 1. Distribution of physicians by practice ownership structure [1]

	2012	2014	2016	2018	2020	2022
Wholly owned by physicians (private practice)	60.1%[a]	56.8%	55.8%	54.0%[a]	49.1%[b]	46.7%[a]
At least some hospital ownership (hospital-owned)	23.4%[b]	25.6%	25.4%	26.7%[a]	30.5%	31.3%[a]
Wholly owned by hospital	14.7%	15.6%	16.1%	16.3%[a]	20.1%	20.1%[a]
Jointly owned by physicians and hospital	6.0%[b]	7.3%[c]	6.2%	6.8%	6.4%	6.7%
Unknown whether wholly or jointly owned [2]	2.6%	2.7%	3.1%	3.5%	3.9%	4.5%[a]
Direct hospital employee/contractor	5.6%[a]	7.2%	7.4%	8.0%[c]	9.3%	9.6%[a]
Wholly owned by not-for-profit foundation	6.5%	6.4%	6.7%	6.3%[a]	4.7%	5.2%[b]
Private equity	n/a	n/a	n/a	n/a	4.4%	4.5%
Other [3]	4.4%	4.0%	4.7%	4.9%[a]	2.0%[c]	2.6%[a]
	100%	100%	100%	100%	100%	100%
N	3466	3500	3500	3500	3500	3500

Source: Author's analysis of AMA Physician Practice Benchmark Surveys.

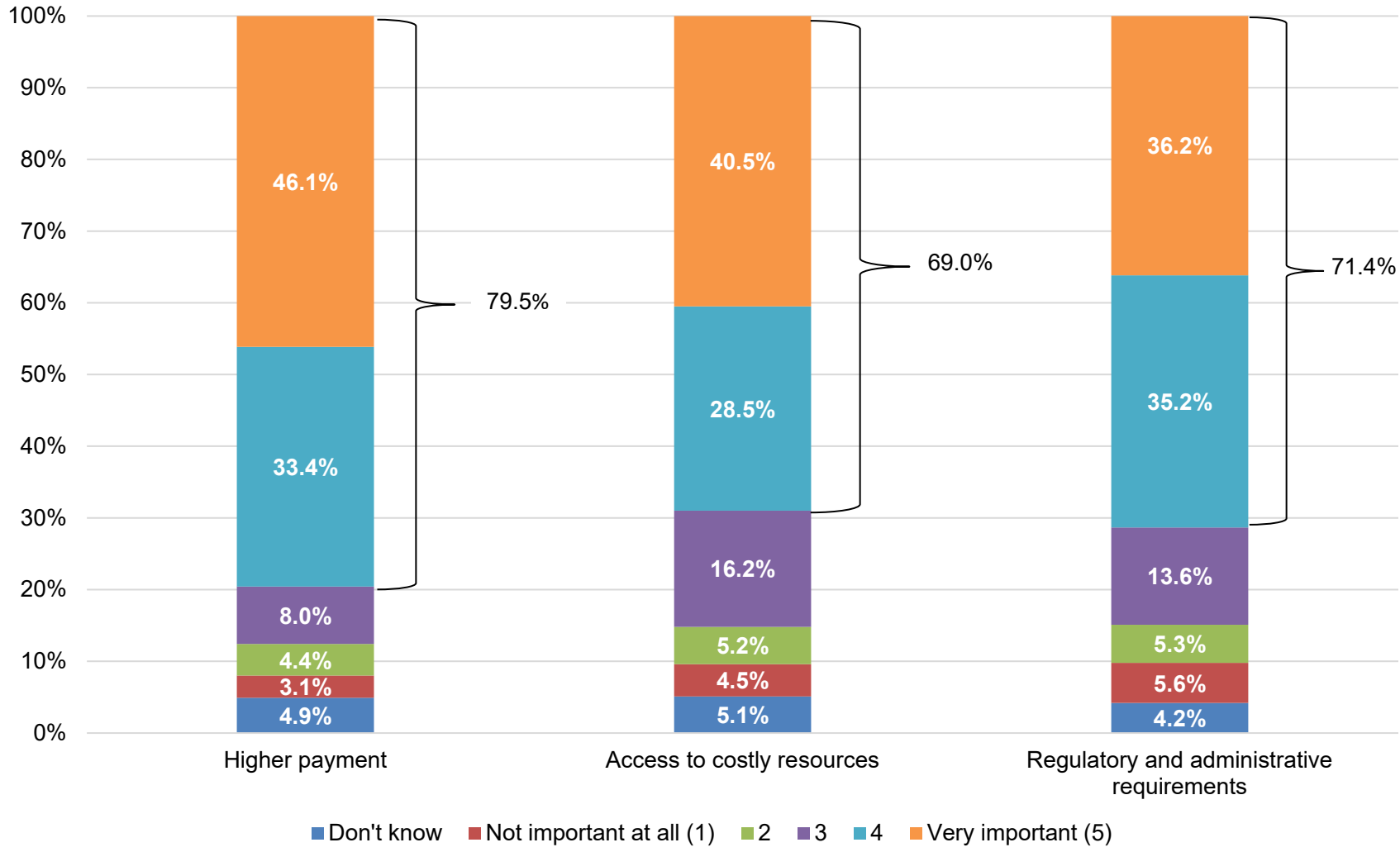
Notes: [1] Significance tests are for changes within ownership structure category. 'a' is p<0.01, 'b' is p<0.05, and 'c' is p<0.10. Indications in each column are for that year and the one following except in the 2022 column where they are for 2012 and 2022. [2]Physicians who indicated their practice type was a hospital and then clarified that their practice was owned by a hospital were not asked to select a practice ownership category. Thus, it is unknown whether their practice was wholly or jointly owned by a hospital. [3] Other includes wholly owned by an HMO/MCO and fill-in responses.

Exhibit 2. Percentage of physicians in private practice (2022)



Source: Author's analysis of AMA 2022 Physician Practice Benchmark Survey.
Note: Ns are available from the author. All exceed 100.

Exhibit 3. Top three reasons for selling to a hospital



Source: Author's analysis of AMA 2022 Physician Practice Benchmark Survey.
Note: These estimates are based on physicians whose practices had been acquired by a hospital or health system after 2012 and who were practice members at the time of that acquisition (N=282). The bracketed percentage is the sum of important (4) and very important (5).

Exhibit 4. Distribution of physicians by practice size (number of physicians in practice) [1]

	2012	2014	2016	2018	2020	2022
Practice size						
Fewer than 5 physicians	40.0%	40.9%[b]	37.9%[c]	35.7%[c]	33.6%	32.8%[a]
5 to 10	21.4%[c]	19.8%	19.9%	20.8%	20.0%	19.0%[b]
11 to 24	13.4%[c]	12.1%	13.3%	12.7%	11.5%	12.1%
25 to 49	7.1%	6.3%[c]	7.4%	7.6%	7.8%	7.7%
50+ physicians	12.2%	13.5%	13.8%	14.7%[a]	17.2%	18.3%[a]
Direct hospital employee/contractor [2]	5.8%[a]	7.4%	7.7%	8.5%[c]	9.7%	10.1%[a]
	100%	100%	100%	100%	100%	100%
N	3326	3388	3381	3339	3353	3328

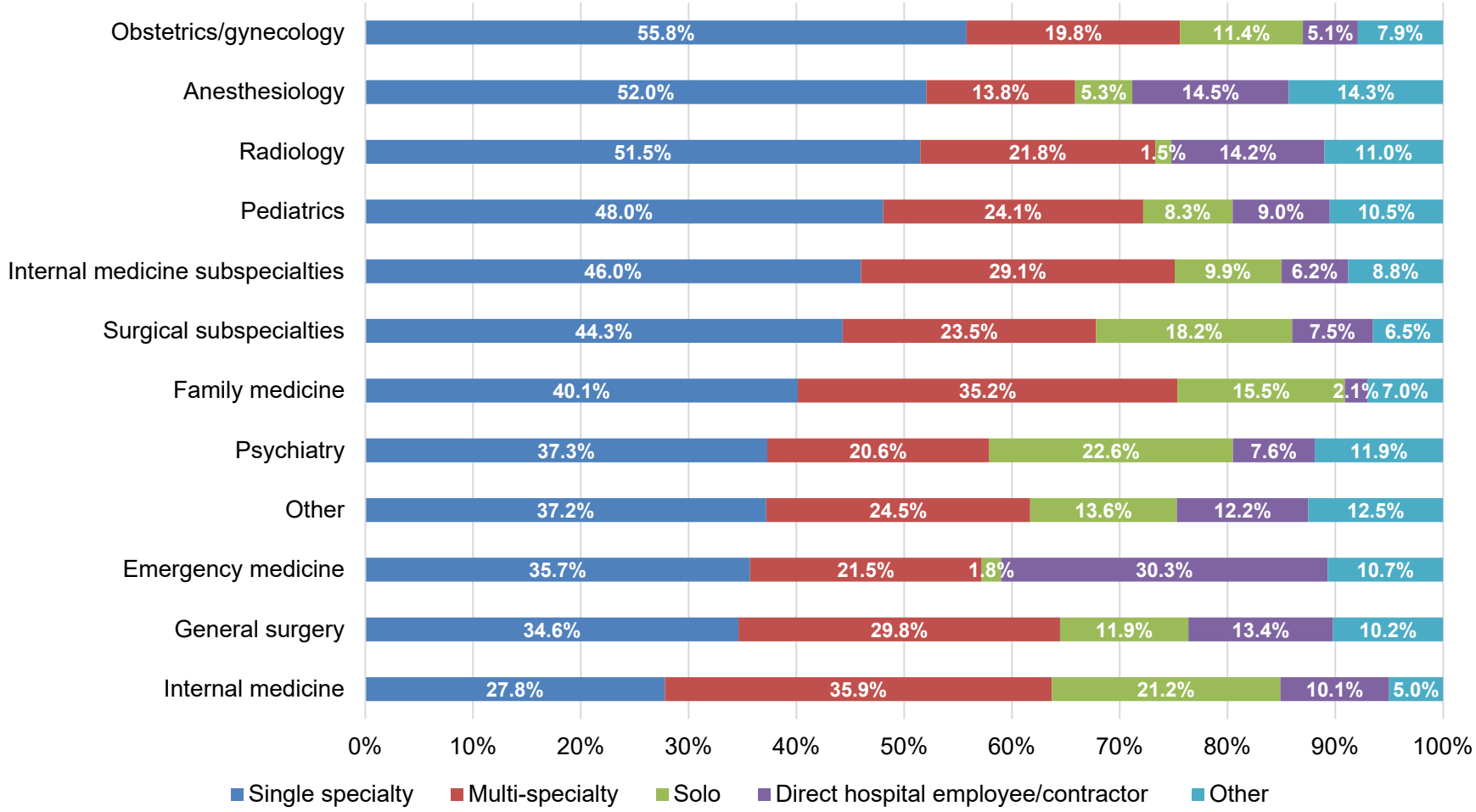
Source: Author's analysis of AMA Physician Practice Benchmark Surveys.
Notes: [1] Significance tests are for changes within practice size category. 'a' is p<0.01, 'b' is p<0.05, and 'c' is p<0.10. Indications in each column are for that year and the one following except in the 2022 column where they are for 2012 and 2022. [2] The percentage of physicians who are direct hospital employees/contractors is slightly larger in Exhibit 4 than in Exhibits 1 and 5 (e.g., for 2022, 10.1% compared to 9.6%). A few (less than 5%) physicians did not know how many physicians were in their practice and are excluded from the estimates in Exhibit 4. Because this makes the denominator in the practice size percentages smaller, it pushes up the direct hospital employee/contractor percentage compared to that in Exhibits 1 and 5.

Exhibit 5. Distribution of physicians by type of practice and employment status [1]

	2012	2014	2016	2018	2020	2022
Practice type						
Solo practice	18.4%	17.1%	16.5%[c]	14.8%	14.0%	12.9%[a]
Single specialty group	45.4%[a]	42.2%	42.8%	42.8%	42.6%	41.8%[a]
Multi-specialty group	22.1%[a]	24.7%	24.6%	25.2%	26.2%	26.7%[a]
Direct hospital employee/contractor	5.6%[a]	7.2%	7.4%	8.0%[c]	9.3%	9.6%[a]
Faculty practice plan	2.7%	2.8%	3.1%	3.0%	2.9%	3.5%[c]
Other [2]	5.8%	5.9%	5.7%	6.2%[b]	5.0%	5.5%
	100%	100%	100%	100%	100%	100%
Employment status						
Employee	41.8%	43.0%[a]	47.1%	47.4%[b]	50.2%	49.7%[a]
Owner	53.2%[b]	50.8%[a]	47.1%	45.9%	44.0%	44.0%[a]
Independent contractor	5.0%[b]	6.2%	5.9%	6.7%	5.8%	6.4%[b]
	100%	100%	100%	100%	100%	100%
N	3466	3500	3500	3500	3500	3500

Source: Author's analysis of AMA Physician Practice Benchmark Surveys.
Notes: [1] Significance tests are for changes within employment status or type of practice category. 'a' is p<0.01, 'b' is p<0.05, and 'c' is p<0.10. Indications in each column are for that year and the one following except in the 2022 column where they are for 2012 and 2022. [2] Other includes ambulatory surgical center, urgent care facility, HMO/MCO, medical school, and fill-in responses.

Exhibit 6. Distribution of physicians by practice type (2022)



Source: Author's analysis of AMA 2022 Physician Practice Benchmark Survey.
Note: Ns are available from the author. All exceed 100.

Exhibit 7. Differences between the distribution of physicians in private practice and in hospital-owned practices (2022) [1,2]

Practice size	**Private practice**	**Hospital-owned practice**
Fewer than 5 physicians	51.9%	17.4% [a]
5 to 10	19.7%	23.5% [b]
11 to 24	11.1%	16.6% [a]
25 to 49	6.8%	11.1% [a]
50+	10.5%	31.4% [a]
N	1674	953
	100%	100%
Practice type and primary care composition	**Private practice**	**Hospital-owned practice**
Solo or single specialty practice	80.8%	37.0% [a]
Includes primary care	30.9%	17.7% [a]
Does not include primary care	49.9%	19.3% [a]
Multi-specialty practice	18.2%	43.5% [a]
Includes primary care	13.7%	39.0% [a]
Does not include primary care	4.5%	4.5%
Other practice type	1.0%	19.6% [a]
Includes primary care	0.2%	4.5% [a]
Does not include primary care	0.8%	15.0% [a]
	100%	100%
Includes primary care	44.9%	61.2% [a]
Does not include primary care	55.1%	38.8% [a]
	100%	100%
N	1692	1059

Source: Author's analysis of AMA 2022 Physician Practice Benchmark Survey.

Notes: [1] Significance tests are for differences between physicians in private and hospital-owned practices. 'a' is $p<0.01$, 'b' is $p<0.05$, and 'c' is $p<0.10$. [2]Comparisons were also made after physicians in solo practice were excluded from the private practice category. Significance tests with that exclusion remain the same except that the differences for size categories 11 to 24 and 25 to 49 are no longer significant.

Exhibit 8. Percentage of physicians who are owners: differences by age and over time [1,2]

	2012	2022	2012 – 2022 change
Under age 45	44.3%	31.7% [a]	-12.6 pct. points
Age 45 to 54	53.9%	43.6% [a]	-10.3 pct. points
Age 55+	59.6%	51.3% [a]	-8.3 pct. points
All physicians	53.2%	44.0% [a]	-9.2 pct. points
	Age 45 to 54 in 2012	**Age 55 to 64 in 2022**	**2012 – 2022 change**
	53.9%	49.7% [c]	-4.2 pct. points

Source: Author's analysis of AMA 2012 and 2022 Physician Practice Benchmark Surveys.
Notes: [1]The bottom panel tracks the cohort of physicians born between 1958 and 1967. In 2012 that cohort was between the ages of 45 and 54 and, in 2022, between the ages of 55 and 64. This comparison tracks the change in employment status of that cohort over their career. [2] Significance tests are for differences between years. 'a' is $p<0.01$, 'b' is $p<0.05$, and 'c' is $p<0.10$.