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Talent Matters:

Judicial Productivity and Speed in Japan

By J. Mark Ramseyer*

Abstract: To study the determinants of judicial productivity and speed (measured by published opinions), I examine all 348 trial-court civil medical malpractice opinions published in Japan between 1995 and 2004. For comparative purposes, I add 120 randomly selected civil judgments from the same period. The data cover 706 judges (about a third of the Japanese bench). I find: (A) Productivity correlates with apparent intellectual ability and effort. The judges who attended the most selective universities, who passed the bar exam most quickly, and who were chosen by the courts for an elite career track publish the most opinions. (B) Adjudicatory speed correlates with apparent ability and effort too, but institutional experience counts as well. As the courts acquired increasing experience with malpractice cases, the pace of adjudication quickened.

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Talent Matters:

Judicial Productivity and Speed in Japan

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Using data from Japan, I examine judge-level determinants of productivity (defined as opinions published per year) and speed (time from filing to judgment) in the courts. Toward that end, I collect all 348 district-court civil medical malpractice opinions published in any reporter between 1995 and 2004. For comparison, I add 120 randomly selected civil judgments from the same period. The resulting dataset covers 706 judges, or not quite a third of the Japanese bench. For reasons of data availability, I limit the study to published opinions.

I find that talent matters. First, productivity correlates with apparent intellectual ability and effort. The judges who attended the most selective universities, who passed the bar exam most quickly, and who were chosen by the courts for an elite career track write the most published opinions. Second, adjudicatory speed correlates with apparent ability and effort too. Again, the most talented judges decide cases more quickly than the others. Institutional experience matters as well, however. As the courts acquired experience with malpractice cases, the speed at which they handled the cases increased as well.

Note several preliminary but basic qualifications. I do not measure "judicial efficiency" itself. Any inquiry into the efficiency of an institutional arrangement involves an inquiry into its costs as well as its performance. The costs here include price -- for the judge-level characteristics that (according to this study) correlate with productivity and speed are exactly the characteristics that Nakazato, Ramseyer & Rasmusen (2010) find correlate with high incomes in the private bar. The better the judge, the higher his shadow wage. Japanese courts might increase productivity and speed by hiring more talented judges, but they would need to pay higher salaries to attract them.

In turn, performance involves more than productivity and speed. It also involves adjudicatory quality. Unfortunately, I lack the information to gauge the quality either of the trials conducted or of the opinions written. Because Japanese judges rarely cite other cases, I cannot replicate the citation studies used in the U.S. either.

And productivity involves more than published opinions. Although Japanese judges write opinions in all cases they decide (civil cases do not involve juries), (a) the reporters publish only a minority of opinions, and (b) many cases settle before a judge writes any opinion at all. Some high-quality judges might (only might) regularly route disputants into settlement at an early stage. Alas, Japanese courts do not disclose judge-level information about either the total number of cases decided (whether published or unpublished), or the total number of cases settled out of court.

One must start somewhere. Subject to these very real qualifications, I offer an examination of the judge-level determinants both (i) of the number of opinions a judge publishes each year, and (ii) of the time it takes him to issue them. I begin by reviewing the literature on judicial productivity and speed, and describe the Japanese court system

(Section I). I discuss my data and variables (Section II). I then summarize the results (Sections III through V).

I. Introduction

A. Literature Review:

Only recently have scholars begun to study the determinants of judicial performance. In three studies, they reach conclusions about the U.S. courts consistent with the findings I report here. Landes, Lessig & Solimine (1998: 321) explore citation patterns in the federal courts. They find that judges from elite law schools and judges with law school honors write opinions that are cited more often than others. Christensen & Szmer (2009) examine delays. They find both that more experienced judges are slower (they attribute it to "burn-out"), and that graduates of elite law schools are faster. Choi, Gulati & Posner (2010) study the determinants of published opinions among U.S. district court judges. They find that graduates of elite law schools publish more.

Other empirically inclined scholars have taken a variety of tacks. As an alternative to simple citation studies, Klein & Morrisroe (1999) examine references to the name of a judge as a measure of his prestige. They do not, however, try to predict prestige with judge-level variables. Bhattacharya & Smyth (2001) use Klein & Morrisroe's prestige metric to study the Australian courts. They conclude that younger and more conservative judges have more influence.

Cauthen & latzer (2008), Binford, et al. (2007), Cecil (1985), and Lindquist (2007) explore the determinants of judicial delays but do not consider the characteristics of individual judges. Songer (1988) and Hettinger, Lindquist & Martinek (2006) consider judge-level factors, but only those related to politics. Beenstock & Haitovsky (2004) examine the relation between judicial productivity and caseload in Israeli courts. They conclude that judges respond to lower caseloads by working less. Using U.S. data on judicial vacancies, Binder & Matlzman (2009: 132-33) reach the opposite conclusion.

B. Japan:

Ironically, the bureaucratic nature of the Japanese courts may facilitate the study of the impact of judicial talent on performance.[1] The administrative office of the courts (the "Secretariat") hires judges who closely resemble each other on many dimensions. That essential similarity magnifies the effect of the dimensions on which they do differ, and in this article I focus the impact of those remaining characteristics.

The Secretariat appoints its recruits immediately after they graduate from the one national law school, the Legal Research & Training Institute (LRTI).[2] Although critics urge it to hire practicing lawyers, to date it has seldom done so. The LRTI, in turn, admits students on the basis of a (mostly blindly graded) annual examination. During the period in question (the system recently changed), the pass rate on this exam hovered below 3 percent. Most people who took it never passed, and those who did typically passed only after failing it five or six times first.

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[1] I take this description from Ramseyer & Rasmusen (2003). A nice description of the system appears in Law (2009).

[2] The system recently changed. Japanese universities now offer graduate-level professionally oriented "law schools." Most sudents currently enter the LRTI only after time in these post-graduate "law schools." See generally West (2007).

Students in Japan who would become lawyers, judges, or prosecutors usually studied law as an undergraduate subject. They then took the entrance examination to the LRTI. If they passed, they studied there for two years (recently changed). Upon graduation, they took jobs in private practice, on the bench, or in the prosecutorial office. Those who never passed typically worked in the legal departments of the large corporations.

Most years, the Secretariat hired 70 to 130 new judges a year. Over the course of their careers, these judges moved through a series of appointments, generally at three-year intervals. Virtually all of them spent some time in courts considered undesirable, and virtually all also spent time in coveted Tokyo or Osaka appointments. The more talented the judge, the more time he spent in urban courts. The more plebian his abilities, the longer he worked in the outback.[3]

II. Data and Variables

A. Data:

1. Introduction. -- As in the U.S., so in Japan: the time a judge needs to decide a case depends on the type of dispute. The days he needs to hear evidence, study the law, decide motions, and write an opinion all vary by field. In some fields, litigants call many witnesses; in others they use almost none. Some types of cases raise complex technical issues; others are simple. Some include new and unsettled questions; others follow established precedent.

To hold constant this field-specific variation, I focus on one closely defined group of disputes: medical malpractice. I search for "medical malpractice" in the "Hanrei taikei" database (a Japanese equivalent to Lexis or Westlaw), and code every district court opinion published in some venue (either a public or commercial reporter) from 1995 to 2004.[4] This yields 351 opinions. I drop the three criminal cases, and focus on the resulting 348 civil decisions. Because most (not all) of these cases involve three-judge panels, this process produces 926 judge-case observations. Because many judges published multiple malpractice opinions, it generates a dataset with 706 judges

2. Biases. -- As alluded to above, this approach introduces several biases. First, we have known at least since Priest & Klein (1984) that litigated cases -- whether published or no -- are not a random sample of all disputes. Instead, they constitute those disputes that the parties chose not to settle out-of-court. If some judges facilitate settlement more effectively than others, they will appear less often in my published-opinion database.

What is more, the various court reporters never publish most opinions. In 2004, they included only 1.9 percent (1,358) of all civil judgments. If I exclude default judgments, they published 3.0 percent (from Hanrei taikei data base; Shiho tokei, 2004: tab. 20). They do publish a larger fraction of malpractice opinions, but even here they

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[3] I do not consider the politics of this arrangement here. The subject is discussed at length in Ramseyer & Rasmusen (2003), Ramseyer & Rasmusen (2006), Ramseyer (2008), and Ramseyer (2009). For the controversy over the possible politicization of the Japanese courts, see Haley (2007) and Upham (2005).

[4] That is, under "jiko," I search for "iryo kago." Hanrei taikei is published by the Dai-ichi hoki firm. Eighteen cases that appeared in the search were dropped as not involving malpractice.

pick only a minority. From 1998 to 2004, the Japanese courts issued 2,298 civil judgments in medical malpractice cases (summing Table 1 Column (3)). During the same period, the reporters published only 229 (10.0 percent).

[Insert Table 1 about here.]

Given that the Japanese courts employ about 2,000-2,500 career (i.e., non-summary-court) judges, my dataset samples about one in three. Because I select the judges from those who published opinions, I obviously bias the sample against those judges who settle disputes or write only unpublished decisions. To investigate the scope of this bias, I collect biographical information on all 89 judges who graduated from the LRTI in 1976. As appropriate, I compare the basic malpractice dataset against these 1976 judges.

Second, medical malpractice cases differ systematically from other civil suits: they involve higher stakes, more difficult factual questions, and (at least in the early 1990s) more novel legal issues. To investigate these potential biases, I code twelve randomly selected civil damage actions from each year from 1995 to 2004.[5] Here too, I rely on the Hanrei taikei database. I again compare the judges from this dataset to the malpractice judges as appropriate.

Third, publication venue could reflect a further bias. The courts publish some Japanese opinions in their official reporters, while private commercial firms publish the rest. Plausibly, the courts pick opinions with an eye toward the precedent they hope to encourage; the commercial reporters pick the opinions they think will sell magazine subscriptions.

The judges in this dataset are not -- at least in any obvious fashion -- tailoring their decisions for their effective supervisors in the Secretariat. Of all the malpractice opinions they wrote, only fifteen appeared in the official reporters. The rest appeared in the commercial reporters.

B. Variables:

I use these data to construct the following variables. Summary statistics appear in Table 2.

[Insert Table 2 about here.]

1. Case-level variables. --

Time-to-Judgment: Number of years from the year of filing to the judgment.
Demand Value: the total amount demanded by the plaintiff in a case.
MedMal: 1 if a case involved medical malpractice; 0 otherwise.
Tokyo: 1 if a case was decided by the Tokyo District Court; 0 otherwise.
Osaka: 1 if a case was decided by the Osaka District Court; 0 otherwise.

2. Judge-level variables. --

Productivity: Number of decisions published per year on the bench, 1995-2004. This includes all decisions, not just those in malpractice.
High Productivity: 1 if **Productivity** is greater than 2; 0 otherwise.
U Tokyo: 1 if a judge graduated from the University of Tokyo; 0 otherwise.

[5] One case per month, generally the last civil damage action decided that month.

U Kyoto: 1 if a judge graduated from the University of Kyoto; 0 otherwise.

Hitotsubashi U: 1 if a judge graduated from Hitotsubashi University; 0 otherwise.

Elite U: 1 if a judge graduated from one of the three top national universities (University of Tokyo, University of Kyoto, and Hitotsubashi University); 0 otherwise.

Flunks: the number of years a judge failed the entrance examination to the LRTI, estimated by a judge's year of birth.

Low Flunks: 1 if **Flunks** is less than 2; 0 otherwise.

TDC Start: 1 if a judge started his career at the Tokyo District Court; 0 otherwise.

Seniority: Number of years since graduation from the LRTI.

Judicial Expertise: Number of published medical malpractice decisions (in this dataset) in which judge participated before an opinion.

3. Court-level variables (for Figure 1). --

Av Delay: Mean time from filing to decision for ordinary civil cases, 1998, by district court.

Case98/Judge: Number of ordinary civil cases per judge, 1998, by district court.

III. Measured Judicial Talent

A. Introduction:

When the Secretariat hires a new class of judges, it has available to it three sets of information about the talent each new hire brings to the job: (a) it knows the selectivity of the university he attended; (b) it knows his age, and from it can estimate the number of times he failed the LRTI exam; and (c) because LRTI students work as interns in the courts, it has direct information about the quality of the work he produces.

Traditionally, the Secretariat has taken those new judges that it considered most promising and started them with a three-year stint at the Tokyo District Court. Thereafter, it circulated them through a variety of posts. At least initially, however, it started them in Tokyo.

I have access to some but not all of the information available to the Secretariat. I know the university a judge attended (item (a)). Like the administrative office, I can estimate the number of times he failed the LRTI exam (item (b)). And although I do not directly know how well he performed during his LRTI internship (item (c)), I do know whether the Secretariat started him at the Tokyo District Court. Given that it decided the initial posting on the basis of all three factors, that posting gives me an indirect measure even of a judge's performance at the LRTI.

B. University Selectivity:

The most selective Japanese universities choose their students exclusively through a blindly graded examination. For most of the post-war period, the three universities with the most selective law departments have been the University of Tokyo, the University of Kyoto, and Hitotsubashi University. Among the 706 judges in my basic dataset, 22 percent attended the University of Tokyo, 6 percent attended Kyoto, and 1 percent attended Hitotsubashi University. Among the 89 students from the class of 1976, 16 percent attended Tokyo, 20 percent attended Kyoto, and 2 percent attended Hitotsubashi.

Imperfectly to be sure, the entrance examinations to these schools test a student's basic cognitive skills and industriousness. In part, the examinations select for the ability to solve difficult problems accurately and quickly. Not to put too fine a point on it, they select for intelligence. In part as well, they select for a willingness to study hard and long. The less intelligent students will not pass these exams no matter how hard they study, but even brilliant students will not pass them unless they study hard.

C. LRTI Pass Rate:

During the years at stake, the entrance examination to the LRTI tested much the same skills as the university entrance exam. Like the universities, the LRTI admitted its students primarily on the basis of a blindly graded examination. It admitted about 500 (recently changed). Given the number who applied, this yielded a pass rate that varied from 1 to 3 percent.

Because of the low pass rate, most LRTI applicants never passed and those who did pass did so only after many tries. The repeated failures appear in the age at which a student graduated from the LRTI. One who passed while still in college would graduate from the LRTI at age 24. Among the 706 judges in the dataset, only 21 managed this feat.

Students who pass selective university admissions tests also tend to pass the LRTI exam. The graduates of Tokyo, Kyoto and Hitotsubashi Universities, for example, failed the exam only 3.24 times; the other judges failed it 4.01 times (the difference is significant at the 99 percent level). In the private sector, lawyers typically failed it 6.57 times (Nakazato, Ramseyer & Rasmusen, 2010). Of the 21 judges who passed the exam on their first try, 48 percent attended one the three elite schools. Of the 99 judges who passed it on one of their first two tries, 43 percent attended them.

D. Initial Appointment:

For most of the post-war period, the Secretariat started the new recruits it found most promising at the Tokyo District Court (Ramseyer & Rasmusen, 2006). As a result, an initial appointment to that court signaled "fast-track" status. Predictably, judges on this fast track tended to have attended selective schools and passed the LRTI exam quickly.

Of the 706 judges in the medical malpractice dataset, 163 began at the Tokyo District Court. Among those Tokyo-starters, 47 percent attended Tokyo, Kyoto, or Hitotsubashi University. Among the rest, only 24 percent did. The TDC starters failed the LRTI exam 2.94 times; the rest failed it 4.04 times. Both differences are significant at the 99 percent level.

In the first column of Table 3 Panel A, I regress (through probit) an initial appointment to the Tokyo District Court on a judge's university, on the number of times he failed the LRTI exam, and (since the ratio of Tokyo openings to the number of new hires changed over time) his **Seniority**. As the numbers above suggest, graduates of the University of Tokyo and judges who failed the LRTI exam the fewest times were most likely to start at the Tokyo District Court.

[Include Table 3 about here.]

In Panel B, I run the same regression on all judges hired in 1976. The coefficient on **Flunks** remains strongly negative. Given the smaller sample size, the university variables are no longer significant.

IV. Ability and Productivity

If (1) universities, the LRTI, and the Secretariat select students, lawyers, and judges for intelligence and effort, (2) highly intelligent, hard-working judges work more productively than others, and (3) those most talented judges do not disproportionately promote settlements, then **Elite U**, **Flunks**, and **TDC Start** should correlate with measured **Productivity**. They do. The correlation between **Productivity** and each of the three measures is .17, -.20, and .14 (with each significant at the 99 percent level).

The more talented judges (measured by the judge-level variables used here) publish substantially more opinions. The judges who attended one of the top three universities published 5.19 opinions per year (all opinions, not just those in malpractice), while the rest published 3.13. Those who passed the LRTI exam on one of their first two tries published 6.92 opinions, while the others published 3.23. And those who started at the Tokyo District Court published 5.18 opinions while the others published 3.32. Again, each of these differences is significant at the 99 percent level.

In Table 4 Panel A, I regress **Productivity** on these various background characteristics. Each of the three talent variables is strongly significant, whether I run the regression on a univariate basis or with all variables together. To avoid any bias created by selecting judges from published opinions, in Panel C I run the same regressions on the Class of 1976. The coefficient on **Elite U** becomes insignificant, but the rest of the results remain.

[Include Table 4 about here.]

Perhaps, however, the higher publication rates for these elite judges reflect not their talent but their post. Perhaps, in other words, the Secretariat disproportionately appoints its most talented judges to Tokyo.[6] Suppose further that litigants disproportionately file the most newsworthy cases in the big cities. If so, then the private reporters will disproportionately publish Tokyo and Osaka cases. If the courts appoint their most talented judges to these cities, then **Productivity** would correlate with the measures of talent even if the talented judges wrote no more opinions than anyone else.

To address this possibility, I add current appointment in Tokyo as an independent variable. Importantly, in Panel A Column (5) both the set of three talent variables and **Tokyo** are statistically significant. Tokyo judges publish more than the others, even if I hold judicial talent constant, but the more talented judges publish more than the others, even if I hold appointment to Tokyo constant.

When I divide the dataset into Tokyo judges and others (Panel B), talent remains important. Even among the judges appointed to Tokyo courts, the more talented publish more opinions than the rest (Column (1)). Among the judges outside Tokyo, the more talented publish more than the others as well (Column (2)).

V. Speed

A. Introduction:

[6] After all, it does appoint them there for their initial post. In Columns (2) and (3) of Table 3, I run the same regression as the Column (1) initial-posting regression, but use as the dependent variable whether a senior judge (i.e., one no longer in his initial post) spent any time during 1995-97 in either the Tokyo or the Osaka courts. The results: Tokyo and Osaka judges are indeed more talented than the others.

What accounts for the speed at which judges decide the cases they handle? The summary statistics identify three phenomena relevant here: (a) malpractice cases take longer than other cases (Table 2 Panel A); (b) Tokyo courts decide malpractice cases faster than other courts (Table 2 Panel A); and (c) courts have steadily increased the speed with which they decide malpractice cases (Table 1, Table 2 Panel A).

B. Preliminary Hypotheses:

Before turning to the judge-level inquiry, consider three simple hypotheses that might explain the last two phenomena. First, might Tokyo courts decide cases faster because they enjoy a lower per-judge workload?[7] Tokyo represents the business, political, and demographic hub of the country. Although the courts there hear more cases, perhaps the Secretariat staffs it more generously. If Tokyo judges have a lower workload than other judges, perhaps that difference explains the faster turn-around?

The explanation does not work. In Figure 1, I plot mean **Time-to-Judgment** for each of the fifty district courts on the vertical axis. On the horizontal axis, I plot **Case98/Judge** -- the 1998 mean caseload per judge. The number of judges in each court ranged from 7 to 243, with a mean of 22. The number of cases cleared ranged from 337 to 36,263, with a mean of 3,134. **Cases98/Judge** ranged from 37 to 265, with a mean of 132. And mean **Time-to-Judgment** for each court ranged from .54 to 1.54, with a mean of .79.

[Insert Figure 1 about here.]

Figure 1 shows no court-level relation between **Time-to-Judgment** and workload. A simple regression yields a coefficient of .0000165 on **Cases98/Judge** with a t-statistic of .04 and an R-squared of 0.00. The result is consistent with Beenstock & Haitovsky's (2004) findings for Israel: judges respond to lower workloads by reducing effort. What is more, Tokyo judges did not have light workloads anyway. Instead, they had a workload of 149, and a mean **Time-to-Judgment** of 0.74. By both metrics, they stood solidly in the middle of the pack.

Second, might the change over time reflect institutional reform? In 2001, Tokyo and several of the major urban courts introduced specialized medical malpractice panels. Perhaps the pace of malpractice litigation increased because the courts delegated cases to specialists?

This explanation does not work either. Specialized panels may or may not increase speed, but they do not explain the trend in Tables 1 and 2. The courts introduced the panels in 2001. Given average **Time-to-Judgment** in malpractice cases of two to three years, any effect from the panels would not begin to appear in the data until 2003 or 2004. According to Tables 1 and 2, adjudicatory speed increases steadily from 1995 to 2004.

Third, perhaps **Time-to-Judgment** fell because of increased settlement rates. The **Time-to-Judgment** figures in Table 2 Panel A are from the published opinions, and obviously exclude settlements. Those in Table 1, however, represent times for all closed cases. If settlement rates rose (for whatever reason), perhaps that rise explains the increasing pace in Table 1?

[7] Tokyo cases could also be easier, though I have no reason to expect this.

This explanation works no better than the others. As the fourth column in Table 1 shows, settlement rates did not increase. Necessarily, they explain no trend in **Time-to-Judgment**.

C. Judge-Level Hypotheses:

1. Summary statistics. -- If (as Section IV shows) the most talented judges publish more cases than the others, then they might also decide them more quickly than the others. All else equal, one might think that those who published more opinions per year (**Productivity**) would tend to decide each opinion more quickly (**Time-to-Judgment**) -- if cases/year rose, then years/case should fall. In fact, of course, all else is never equal -- hence the empirical issue at stake here.

Over the dataset as a whole, some evidence does indeed tie talent to adjudicatory speed. The correlation between **Time-to-Judgment** and **Low Flunks** (passing the LRTI on one of the first two tries) is -.06 (significant at the 95 percent level). Its correlation to **TDC Start** is -.08 (significant at the 99 percent level). And its correlation with **High Productivity** is -.12 (significant at the 99 percent level). The correlation between **Elite U** and adjudicatory speed, however, is insignificant.

Additionally, consider some basic contrasts. Those judges who failed the LRTI fewer than two times (**Low Flunks** = 1) decide cases in 3.73 years, while the others take 4.12 years. Those who started at the Tokyo District Court decide cases in 3.73 years, while the others decide them in 4.16 years. And those with **High Productivity** decide them in 3.86 years, while the others decide in 4.40. The first difference is significant at the 95 percent level, the other two at the 99 percent level.

2. Which judge? -- Judges decide the significant civil cases, however, on three-judge panels. Probably, one of the judges on the panel does most of the work. Because all three sign the opinion, they themselves do not disclose who did. Instead, they merely list themselves by seniority, from oldest to youngest.

Plausibly, the panels might assign the job of writing the opinion by seniority. They might assign it to the youngest judge or, just as plausibly, assign it to the oldest. In Table 5, I regress **Time-to-Judgment** on judge-level variables, on the amount at stake in a dispute, on court location, and on location interacted with a medical malpractice dummy. In the first three columns, I calculate the results for the first-, second-, and third-listed judges separately. In the fourth column, I add judge-level variables for all three judges. As a robustness check, in the fifth column I use all judges but cluster the errors by opinion.

[Include Table 5 about here.]

Note the substantially higher R^2 for the first column: the attributes of the most senior judge explain adjudicatory speed much more than those of the second- or third-listed judge. Indeed, the adjusted R^2 is nearly twice as large in the first column than as in the others. It is larger even than in regressions using the characteristics of all the judges (fourth and fifth columns).

3. Judge-level characteristics. -- In Table 6, I examine judge-level determinants of judicial speed. Toward that end, I regress **Time-to-Judgment** on a variety of judge-specific variables. Given the results of Table 5, I limit the data to the most senior judge

on a panel. In Column (1), I use **Elite U**, **Low Flunks**, and **TDC Start**. In Column (2), I use **Productivity**. To capture possible judge-level expertise, in Column (3) I add **Judicial Expertise**: the number of medical malpractice opinions a judge authored (within this dataset) before the given case. In Column (4), I run the regression with all of the explanatory variables together. And in all regressions, I include the **Seniority** of a judge, the amount demanded by the plaintiff at the outset, and a dummy variable equal to 1 if the case involves medical malpractice. Because many of the judges authored multiple opinions, in Columns (1) through (4) I use random judge effects.

[Include Table 6 about here.]

Talent indeed correlates with speed, albeit less consistently than with productivity. First, judges who passed the LRTI exam on one of their first two tries (**Low Flunks**) are fast. Although the effect is only haphazardly statistically significant, the magnitude -- nearly a half-year faster -- is large. Second, judges with **High Productivity** scores also decide cases faster. Here, the effect is strongly significant statistically. Third, judges with past experience in malpractice cases seem to decide current cases faster (more on this below). Last, whether a judge attended an elite university or started at the Tokyo District Court is not associated with faster adjudicatory times.

Note several other effects. First, speed tracks youth. The older the judge, the longer he takes to decide a case. For every ten years on the bench, he takes nearly a half-year longer. Second, cases with large amounts at stake require more time. The effect is strongly significant statistically, but the magnitude is small: every additional 10 million yen (about $100,000) a plaintiff demands slows the case by about half a month. Third, malpractice cases take about two years more than the typical civil dispute.

I include two robustness checks in the table. In Column (5), I run the full Column (4) specification without random judge effects. The results track Column (4), but with higher significance levels. In Column (6), I run the Column (4) specification with only the malpractice cases. The significance levels are lower, but otherwise the results are largely the same.

4. Expertise. -- (a) Introduction. The declining **Time-to-Judgment** figures in Tables 1 and 2 suggest that experience matters: the greater the experience, the faster the speed. But which experience? Is it

(i) judge: the experience of the judge,

(ii) court: the experience of the specific court, or

(iii) legal system: the experience of the legal system as a whole?

Experience could plausibly matter at each of the three levels. A judge who handled malpractice cases in the past might know the law, the type of records medical institutions kept, the kind of questions that arise about expert testimony. A court that handled malpractice cases in the past might have developed institutional shortcuts to facilitate adjudication. A legal system that amassed a body of malpractice cases could offer judges a detailed set of precedents by which to decide the routine questions.

(b) Tokyo. The Tokyo courts handle malpractice disputes fastest. As noted earlier, they do have the most talented judges, but the regressions hold measured talent constant. According to Column (1) in Table 7, Tokyo courts decide malpractice cases a half-year faster than the other courts -- even if I hold talent constant. Tokyo courts are

not faster generally: Column (2) shows no Tokyo advantage in the non-malpractice cases. Instead, Tokyo courts are faster only in malpractice cases.

Earlier tables had anticipated this result. Cursorily, Table 2 Panel A had suggested that Tokyo courts were faster in malpractice cases. So too had the regressions in Table 5. The coefficient on **Tokyo** itself was not significant: Tokyo courts did not handle all cases quickly. Instead, the coefficient on **Tokyo** was significant only when interacted with **MedMal**. Medical malpractice cases took 1.2 years longer than other civil cases in Tokyo, but 1.9 years longer in Osaka and 2.1 years longer elsewhere.

(c) Judge- and court-level expertise. And yet, the faster times in Tokyo need not imply that the court-level expertise is what matters. Because the Tokyo courts hear the most malpractice cases, individual Tokyo judges will have more malpractice experience than judges elsewhere. The faster time in Tokyo could simply reflect the effect of their judge-level experience.

In precisely that vein, Table 6 suggests that judge-level expertise does indeed matter: **Judicial Expertise** (measured as the number of malpractice opinions a judge has published in the past) affects the time it takes a judge to decide a malpractice case in the present. Even as judges rotate in and out of Tokyo, those with the most experience seem to decide the cases fastest. Perhaps, the table seems to suggest, the crucial learning occurs at the level of the judge.

Recall, however, the definition of **Judicial Expertise**: the number of prior malpractice cases a judge has decided within this dataset. To construct the dataset, I examine all malpractice opinions from 1995 to 2004. Obviously, the **Judicial Expertise** variable -- as defined for this dataset -- will increase from 1995 to 2004. According to Table 1, however, adjudicatory time in malpractice cases fell steadily over 1995-2004. Potentially, the significant coefficient on **Judicial Expertise** might capture the general decline in **Time-to-Judgment** for malpractice cases over the period.

In Column (3), I limit the data to the malpractice cases, and add year variables. Note several observations. First, the coefficient on **Judicial Expertise** is no longer significant. Once I include dummy variables for the year of decision, the significance of the **Judicial Expertise** variable disappears. Apparently, its significance in Column (1) did not reflect the importance of any judge-level expertise. Instead, it captured the effect of the secular decline in **Time-to-Judgment** more generally.

Second, the coefficients on the year dummies are economically large and statistically significant. The omitted year is 2004. Compared to the **Time-to-Judgment** in 2004, the **Time-to-Judgment** in 1995 is nearly two full years longer. That time gradually declined to about one year by 2000, and continued to fall thereafter. Indeed, after 2000 the difference with the **Time-to-Judgment** in 2004 was no longer statistically significant.

In Column (4), I limit the dataset to those judges with no prior opinions in a malpractice cases (**Judicial Expertise** = 0). Note that the pattern of coefficients on the year dummies is very close to those in Column (3). Even among those judges with no apparent experience in malpractice, the **Time-to-Judgment** in malpractice cases fell steadily from 1995 to 2004. The experience that mattered was not personal. It was institutional.

(d) Which court? Regressions (3) and (4) in Table 7 suggest that the experience that matters is institutional rather than individual. That said, the statement leaves unanswered the question of which institution, and how? Is it the experience of the particular court? Or does experience diffuse across court lines?

To explore this question, in Regressions (5) and (6), I divide the database between Tokyo and other courts. Given that plaintiffs bring one in three malpractice claims in Tokyo, the experience is overwhelmingly Tokyo experience. Yet **Times-to-Judgment** do not decline in Tokyo: in Regression (5), only two of the coefficients on year dummies are significant, and the coefficients themselves show no pattern over time. Instead, the decline occurs in the courts outside Tokyo: the coefficients in Regression (6) for the years before 2001 are large and all statistically significant.

In short, expertise matters, but it crosses jurisdictional lines. Tokyo courts have long handled the most malpractice cases. They accumulated precedent and devised ways to handle the complex evidentiary questions raised. As of the mid-1990s, they were substantially faster than courts elsewhere.

Over the succeeding decade, other courts apparently piggy-backed on the expertise and precedent that the Tokyo courts had developed. The lessons learned in Tokyo diffused across the national court system as a whole. Malpractice litigation in Tokyo was already the fastest in the country in 1995. Its speed did not increase over the next decade. Instead, the speed outside Tokyo increased as the other courts apparently learned from the expertise and precedent that the Tokyo courts had amassed.

VI. Conclusions

With data from the Japanese courts, I study the determinants of productivity and speed. Toward that end, I examine all 348 district-court civil medical malpractice opinions published between 1995 and 2004. I add 120 randomly selected civil judgments from the same period, and also examine all judges hired in 1976.

Talent matters. The most productive judges are those who attended the most selective universities, who passed the bar exam most quickly, and who were chosen by the courts for an elite career track. Unambiguously, they publish the most opinions.

The most talented judges are also faster. Speed does not have quite the correlation to talent that productivity does, but the correlation is there nonetheless. Judges with the strongest backgrounds decide cases with the most dispatch.

Experience also matters, but at an institutional level. The Tokyo District Court has long handled the most malpractice cases, and has long decided them most quickly. It does not handle all disputes quickly -- it shows no advantage in the non-malpractice cases. And yet, the Tokyo District Court did not further increase its speed in malpractice cases during the decade. From 1995 to 2004, mean **Times-to-Judgment** in malpractice cases did fall, but not in Tokyo. Instead, they fell elsewhere. The lessons learned in Tokyo travelled across jurisdictional lines, and **Times-to-Judgment** in other courts fell as well.

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Table 1:
Medical Malpractice Cases

	(1) Cases Filed	(2) Cases Closed	(3) Court Decisions	(3)/(2)	Filing to Judgment .
1998	632	582	232	.399	2.93 yr.
1999	678	569	230	.404	2.88
2000	795	691	305	.441	2.97
2001	824	722	334	.463	2.72
2002	906	869	386	.444	2.58
2003	1003	1035	406	.392	2.31
2004	1110	1004	405	.403	2.28

Sources: Saiko saiban sho, ed., Iji kankei sosho jiken no shori jyokyo oyobi heikin shinri kikan [Circumstances of Disposition and Average Trial Length in Medical Litgation], www.courts.go.jp/saikosai/about/iinkai/izikankei/toukei_01.html (accessed, Jan. 14, 2010); Saiko saiban sho, ed., Iji kankei sosho jiken no shukoku bunbetsu kizai kensu oyobi sono wariai [Medical Litigation Cases, by Number and Fraction of Final Disposition], www.courts.go.jp/saikosai/about/iinkai/izikankei/toukei_02.html (accessed, Jan. 14, 2010).

Table 2:
Reported Opinion Database -- Selected Summary Statistics

A. Filing to Judgment Times

	All		Tokyo	
	Med Mal	Non-MM	Med Mal	Non-MM
1995	5.00 (42)	3.11 (9)	4.59 (17)	*
1996	3.93 (41)	1.92 (12)	3.36 (14)	1.29 (7)
1997	4.61 (33)	3.50 (10)	3.33 (12)	*
1998	4.84 (38)	2.30 (10)	3.29 (7)	*
1999	5.13 (23)	1.75 (12)	*	*
2000	4.36 (45)	1.83 (12)	2.83 (6)	*
2001	3.70 (44)	2.67 (12)	3.33 (18)	*
2002	3.55 (29)	2.64 (11)	3.22 (9)	*
2003	3.90 (29)	1.92 (12)	3.36 (11)	1.67 (6)
2004	3.38 (16)	1.78 (9)	*	*

Notes: Mean filing-to-judgment times, in years, followed by number of observations in parentheses. * Five or fewer observations.

B. Judicial Productivity

(All judges)	n	Min	Max	Median	Mean
All Cases	705	.10	77.33	2.40	3.75
Low Flunks	99	.20	77.33	3.25	6.92***
Elite U	209	.10	77.33	2.63	5.19***
TDC Start	162	.13	77.33	3.00	5.18***
Tokyo	212	.40	46.86	3.35	4.82***
Low Flunks	37	.40	46.86	4.44	8.18***
Elite U	79	.70	46.86	3.63	6.42***
TDC Start	96	.40	46.86	3.00	5.12

C. Time to Judgment

(First judge only)	n	Min	Max	Median	Mean
All Cases	441	0	11	4	3.79
Low Flunks	102	0	9	4	3.58
Elite U	170	0	11	3.50	3.85
TDC Start	93	0	9	3.00	3.68
High Prod'y	364	0	11	3.00	3.65***
Tokyo	136	0	10	3.00	3.13***
Low Flunks	34	0	7	3.00	2.85
Elite U	61	0	7	3.00	3.23
TDC Start	52	0	7	3.00	3.13
High Prod'y	125	0	10	3.00	2.99***

Table 2 (Continued)

(First judge only)	n	Min	Max	Median	Mean
Medical Malpractice					
All Cases	339	0	11	4.00	4.27***
Low Flunks	82	0	9	4.00	3.95*
Elite U	133	0	11	4.00	4.32
TDC Start	78	0	9	4.00	4.00*
High Prod'y	272	0	11	4.00	4.22
Tokyo	101	0	10	3.00	3.53***
Low Flunks	23	0	7	3.00	3.22
Elite U	48	0	7	3.00	3.48
TDC Start	42	0	7	3.00	3.43
High Prod'y	90	0	10	3.00	3.39***

Notes: *, **, *** -- Means are different from the values for the contrary case (e.g., Low Flunks = 1 compared to Low Flunks = 0) at levels statistically significant at 10, 5, and 1 % (one-tailed test).

Source: Dai ichi hoki shuppan, ed., Hanrei taikei [All Judicial Cases] (Tokyo: Dai ichi hoki shuppan, 2009) (database).

Table 3: Appointments to Tokyo and Osaka

A. Basic Dataset:

Dependent variable:	*TDC Start*	*Tokyo*	*Osaka*
Univ Tokyo	.864 (6.32)***	.232 (1.62)	-.686 (3.41)***
Univ Kyoto	-.188 (0.69)	-.094 (0.42)	.474 (2.20)**
Hitotsubashi U	-.265 (0.44)	1.133 (2.11)**	@
Flunks	-.165 (5.16)***	.019 (0.66)	-.074 (2.14)**
TDC Start		.339 (2.20)**	-.202 (1.04)
Seniority	-.026 (3.54)***	.000 (0.01)	-.323 (1.24)
n	575	497	491
Pseudo R^2	.14	.02	.07

B. Supplementary Class of 76 Dataset:

Dependent variable:	*TDC Start*	*Tokyo*	*Osaka*
Univ Tokyo	-.175 (0.34)	-.112 (0.27)	-.520 (0.94)
Univ Kyoto	-.540 (1.14)	.184 (0.48)	.666 (1.77)*
Hitotsubashi U	.696 (0.60)	+	@
Flunks	-.633 (3.76)***	-.194 (2.16)**	-.185 (1.78)*
TDC Start		.950 (2.32)**	.005 (0.01)
n	.29	.17	.13
Pseudo R^2	89	87	87

Note: *, **, *** -- significant at 10, 5, and 1 percent levels. For Tokyo and Osaka in Panel A, Seniority > 3 only to avoid capturing judges who are still in their first TDC appointment. Judicial classes without university information in the ZSKS are dropped. Regression is Probit. @ -- Dropped (predicts failure perfectly). + -- Dropped (predicts success perfectly). Tokyo and Osaka in 76 dataset are any judges who spend any time in those courts during 1995-97.

Sources: See Table 2.

Table 4:
Judicial Productivity

A. Basic Regressions:

Dependent variable: *Productivity*	(1)	(2)	(3)	(4)	(5)
Elite U	2.060				.907
	(4.60)***				(1.97)**
Flunks		-.478			-.275
		(5.24)***			(2.99)***
TDC Start			1.865		1.276
			(3.82)***		(2.41)**
Tokyo				1.537	1.094
				(3.43)***	(2.35)**
Seniority					.132
					(6.16)***
Adj R^2	.03	.04	.02	.02	.12
n	705	683	705	705	683

B. Regressions by Region:

Dependent variable: *Productivity*	(1)	(2)
Elite U	1.661	.497
	(2.05)**	(0.89)
Flunks	-.352	-.257
	(1.91)**	(2.41)**
TDC Start	.937	1.852
	(1.03)	(2.65)***
Seniority	.190	.107
	(4.29)***	(4.31)***
Region	Tokyo only	Excludes Tokyo
Adj R^2	.15	.08
n	207	476

C. Class of 76 Dataset:

Dependent variable: *Productivity*	(1)	(2)	(3)	(4)	(5)
Elite U	.322				.005
	(0.40)				(0.01)
Flunks		-.405			-.200
		(2.34)**			(0.93)
TDC Start			2.991		2.404
			(3.49)***		(2.40)**
Tokyo				1.477	.452
				(1.94)*	(0.56)
Adj R^2	-.01	.06	.15	.04	.13
n	67	67	67	67	67

Table 4 (Cont'd)

Notes: *, **, *** -- significant at 10, 5, and 1 percent levels. Panel C excludes judge with Productivity over 20. "Tokyo" gives any judge stationed in Tokyo for any period during 1995-97.

Sources: See Table 2.

Table 5:
Court Delays: Which Judge Matters?

Dependent variable: *Time to Judgment*					
Elite U	.276	.065	.386	.149	.149
	(1.40)	(0.27)	(1.08)	(1.07)	(1.07)
Low Flunks	-.464	.416	-.239	-.242	-.242
	(2.01)**	(0.82)	(0.68)	(1.38)	(1.39)
TDC Start	-.050	-.103	-.377	-.076	-.076
	(0.20)	(0.36)	(0.96)	(0.48)	(0.57)
Productivity	-.021	.027	.018	-.006	-.006
	(1.44)	(0.89)	(0.34)	(0.47)	(0.47)
Seniority	.048	.021	.023	.003	.003
	(2.93)***	(1.01)	(0.76)	(0.50)	(0.83)
Demand Value+	.507	.492	.502	.536	.536
	(4.48)***	(3.65)***	(3.28)***	(7.27)***	(3.14)***
Tokyo	-.249	-1.882	-1.733	-1.139	-1.139
	(0.58)	(2.46)**	(2.09)**	(3.33)***	(2.35)**
Osaka	-.312	-.400	-.805	-.807	-.807
	(0.58)	(0.39)	(0.69)	(1.84)**	(1.44)
Med Mal * Tokyo	1.195	2.219	2.105	1.838	1.838
	(3.02)***	(3.47)***	(3.12)***	(6.29)***	(5.72)***
Med Mal * Osaka	1.874	1.470	1.690	2.191	2.191
	(3.45)***	(1.54)	(1.52)	(5.27)***	(4.82)***
Med Mal * Other	2.060	1.614	1.393	1.882	1.882
	(6.60)***	(3.08)***	(2.66)***	(8.00)***	(4.44)***
n	434	331	299	1064	1064
Adj. R^2	.26	.14	.14	.19	.20@
Data:	First Judge	Second Judge	Third Judge	All	All
Regression:	OLS	OLS	OLS	OLS	OLSw/ errors clustered by opinion

Notes: *, **, *** -- significant at 10, 5, and 1 percent levels. + -- given as x 10^8. @ -- R^2.

Sources: See Table 2.

Table 6:
Judge-Level Determinants of Delays (I)

Dependent variable: *Time to judgment*						
Elite U	.175			.199	.219	.321
	(0.76)			(0.86)	(1.10)	(1.17)
Low Flunks	-.459			-.395	-.436	-.494
	(1.70)*			(1.43)	(1.87)*	(1.58)
TDC Start	-.126			-.051	-.215	-.150
	(0.46)			(0.18)	(0.91)	(0.47)
Productivity		-.027		-.024	-.024	-.020
		(1.84)*		(1.53)	(1.70)*	(1.03)
Judicial Exper			-.202	-.204	-.287	-.215
			(2.02)**	(2.06)**	(2.76)***	(2.05)**
Seniority	.043	.042	.042	.049	.050	.050
	(2.50)**	(2.53)**	(2.55)**	(2.87)***	(3.07)***	(2.19)**
Demand Value+	.495	.498	.513	.501	.573	.528
	(4.71)***	(4.76)***	(4.88)***	(4.81)***	(5.02)***	(3.50)***
Med Mal	1.832	1.769	1.930	1.864	2.000	
	(8.00)***	(7.67)***	(8.29)***	(7.94)***	(8.06)***	
Regression:	Random Judge Effects	Random Judge Effects	Random Judge Effects	Random Judge Effects	OLS	Random Judge Effects
Dataset:	All cases	All cases	All cases	All cases	All cases	Med mal
R^2:	.24	.24	.24	.26	.26	.09
n:	434	434	434	434	434	333

Notes: First judge in panel only. *, **, *** -- significant at 10, 5, and 1 percent levels. + -- given as x 10^8.

Sources: See Table 2.

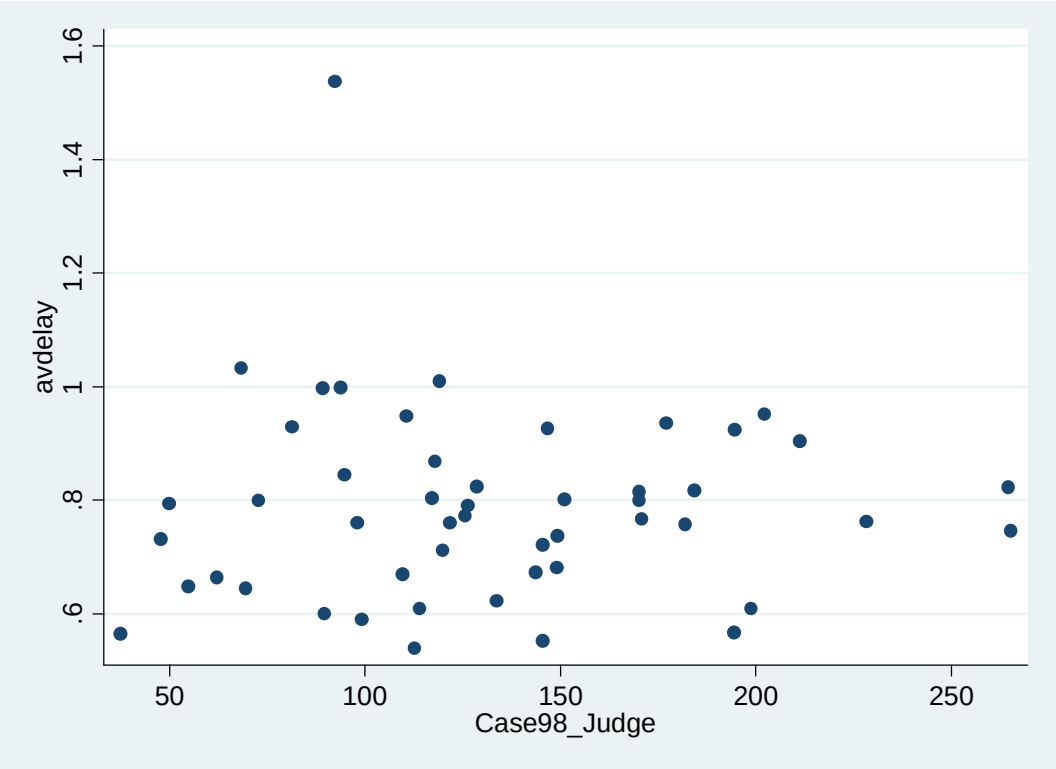
Table 7:
Judge-Level Determinants of Delays (II)

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	*Time to judgment*					
Elite U	.355	-.351	.317	.230	-.417	.616
	(1.31)	(0.86)	(1.20)	(0.76)	(0.86)	(1.92)*
Lo Flunks	-.533	-.269	-.632	-.815	-.406	-.730
	(1.73)*	(0.48)	(2.11)**	(2.44)**	(0.73)	(2.03)**
TDC Start	.048	.339	.111	.264	.333	.067
	(0.15)	(0.62)	(0.35)	(0.73)	(0.65)	(0.16)
Productivity	-.018	-.034	-.023	-.009	-.059	-.017
	(0.95)	(1.30)	(1.22)	(0.46)	(1.27)	(0.81)
Judicial Exper	-.211		-.081		-.067	-.151
	(2.01)**		(0.72)		(0.41)	(0.93)
Seniority	.052	.042	.052	.067	.122	.033
	(2.31)**	(1.58)	(2.32)**	(2.63)***	(2.38)**	(1.31)
Demand Value+	.480	.545	.546	.735	.588	.694
	(3.16)***	(3.80)***	(3.47)***	(2.95)***	(2.19)**	(3.40)***
Tokyo	-.688	-.133	-.784	-1.012		
	(2.43)**	(0.33)	(2.79)***	(3.11)***		
1995			1.759	1.974	1.663	1.995
			(2.98)***	(2.50)**	(1.78)*	(2.64)***
1996			.883	1.516	.117	1.231
			(1.52)	(1.86)*	(0.13)	(1.66)*
1997			1.448	.918	.880	2.005
			(2.40)**	(1.01)	(0.94)	(2.56)**
1998			1.470	1.841	.354	2.041
			(2.56)***	(2.24)**	(0.36)	(2.83)***
1999			1.213	1.625	2.211	1.539
			(1.96)**	(1.89)*	(1.61)	(2.06)**
2000			.949	.913	.200	1.433
			(1.68)*	(1.10)	(0.20)	(2.03)**
2001			.470	.848	-.240	.798
			(0.82)	(1.02)	(0.28)	(1.07)
2002			.393	.785	-.103	.565
			(0.69)	(0.89)	(0.12)	(0.76)
2003			.580	.737	-.181	.981
			(0.98)	(0.82)	(0.20)	(1.30)
Regression:	Random Judge Effects	Random Judge Effects	Random Judge Effects	OLS	Random Judge Effects	Random Judge Effects
Dataset:	Medmal	NonMM	Medmal	Medmal & no JudExp	Medmal & Tokyo	Medmal & not Tokyo
R2:	.13	.20	.19	.22	.24	.16
n:	333	101	333	194	99	234

Notes: First judge in panel only. *, **, *** -- significant at 10, 5, and 1 percent levels. + -- given as x 10^8.

Sources: See Table 2.

Figure 1:
Geographical Variation in Delays



Notes: Units of observation are the district courts. Tokyo District Court has a delay of .74, and a case load of 149.

Sources: Saiko saiban sho, ed., Shiho tokei nempo, 1 -- Minji, gyosei hen [Annual Report of Judicial Statistics, 1 -- Civil and Administrative] tab. 22-3 (Tokyo: Saiko saiban sho jimu so kyoku, 1998).