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## **The Industrial Organization of the Japanese Bar:**

### **Levels and Determinants of Attorney Income**

**By Minoru Nakazato,  
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Using micro-level tax data attorney incomes in 2004 (when the law was changed to make it confidential), we analyze the industrial organization of the Japanese bar. These data suggest two sources of high income: an idiosyncratic return to talent in Tokyo, and a compensating differential for the lack of amenities in the provinces. The most able would-be lawyers (those with the highest opportunity costs) pass the bar-exam equivalent on one of their first tries or abandon the effort and pursue careers outside of law. If they pass, they opt for careers in Tokyo that involve complex litigation and business transactions. This work places a premium on their talent, and from it they earn appropriately high incomes. The less talented face lower opportunity costs, and opt to spend many years studying for the exam. If they do eventually pass, they apparently choose between a relatively low-income career in Tokyo and a provincial career paying a compensating differential.

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For six decades now, modern Japan has made do with few attorneys. As of 2004, it had about 21,000. With roughly 40 percent the U.S. population and 40 percent the GDP, it had but 2 percent as many lawyers.

The dearth has not been for want of applicants for the job. Rather, it has followed from deliberate policy. For over half a century, the government has required all would-be lawyers (bengoshi<sup>1</sup>) to study at its Legal Research and Training Institute (LRTI). Only by attending the LRTI could one become a lawyer, but only by passing a fiercesomely hard entrance exam could one attend the LRTI. From 1968 to 1992, the government kept the pass rate on this exam below 3 percent. Even as recently as 2004, only 2.97 percent passed.

With so many applicants vying for so few slots, logic suggests industry incumbents should be collecting substantial rents. Curiously, however, they seem not to earn stratospheric incomes, and the incomes they do earn vary considerably. Why they earn what they do thus presents one puzzle. Why some lawyers earn more than the mass of their rivals presents a second. And why so many try so hard to join the bar despite the mostly low incomes presents a third.

To explore these questions, we exploit micro-level data from personal tax returns. Through 2004, but no longer, the Japanese government disclosed the tax liabilities of everyone who paid more than 10 million yen (about \$100 thousand) in taxes. About 400 lawyers met this criterion. We take the tax liabilities of these lawyers, collect information about their personal and professional backgrounds, and add analogous information on a random sample of another 1,100 lawyers. Through the resulting dataset, we study the determinants of professional success within the Japanese bar.

These 2004 tax records suggest a market that varies widely by both talent and geography. Because large corporations generally locate their headquarters in Tokyo, most complex business transactions and litigation happen there. Necessarily, they generate the highest returns to legal ability. As a result, the brightest lawyers locate in Tokyo and join the large law firms that specialize in the problems that exploit their talent. Facing high opportunity costs to a legal career, they expect, demand, and earn high pay.

The vast majority of attorneys are different. Lacking the intellectual ability that better-paying corporate employers demand, they incur fewer opportunity costs to studying for the bar (despite their obviously lower odds of passage). Even after repeatedly failing the LRTI exam, many of them keep trying. Eventually, a few of them pass. As lawyers, most of them cannot hope to attract clients who will entrust them with the high-stakes matters that generate large fees. Instead, they either (a) locate in Tokyo and earn modest incomes, or (b) forego the amenities available to professional families there, and work in the provinces for incomes that include a compensating differential reflecting the lower amenity levels.

We begin with a short description of the Japanese legal services industry (Section I). We describe our estimation strategy (II.A), data (II.B), and variables (II.C). Finally, we turn to our tests. We first restate our hypotheses (III.A), and then explain our results (III.B-G).

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<sup>1</sup> For discursive convenience, we translate bengoshi as "lawyer." While standard, the practice is admittedly problematic, given that several other categories of professionals sell legal services as well. We discuss these competitors in Section I.B.

## I. The Japanese Legal Services Industry

### A. The Puzzle:

Subject to draconian entry barriers, the Japanese bar is miniscule yet its members earn only modestly high incomes. If they number so few, why do they not earn stratospheric returns? If they make no more than other high-level white-collar workers, why do so many people try so hard to join them?

Lawyers are indeed scarce in Japan. In 2004, they numbered 21,174.<sup>2</sup> Given the general population, that gave Japan one lawyer for every 6,305 people. By contrast, the U.S. had one lawyer for every 286. The U.K. had one per 547, Germany had one per 651, and even France had one for every 1,488 people (Nihon bengoshi, 2005: 77, 81).

Lawyers are few in Japan because most would-be lawyers flunk what is the equivalent of the bar-exam. Law is an undergraduate major in Japan (and now the subject of post-graduate "law schools"), but those who would practice law must attend what was long the single law school --- the LRTI --- as well. Together with the Supreme Court and bar leaders, the Ministry of Justice (MOJ) controls the entry to this Institute. For most of the post-war period, it flunked most of the people who took the entrance examination.<sup>3</sup>

Lawyers also seem talented. After all, every one of them passed an exam that 97 to 99 percent of test-takers fail. The MOJ hires law professors to write and score the exams, and these professors grade the exams blind.<sup>4</sup> At the very least, the process ought to guarantee extraordinarily high cognitive skills.

At least apparently, therefore, in Japan lawyers are able and scarce. If so, they should be earning rents to both their talent and their artificial scarcity. And because their scarcity should facilitate collusion, they should be pocketing monopoly rents besides.

Yet elite Japanese lawyers do not to earn anything close to the draws of America's "AmLaw 100" partners. From time to time, the Japanese bar association surveys its members about their income. In 1990 they reported a median income of 11 million yen and a mean of 15 million. Come 1999, they still reported a mean 17 million -- about \$146 thousand.<sup>5</sup>

These incomes are high, but not stratospherically so. Mid-level white-collar workers earn less: corporate branch managers in the 1990s (with a mean age of 50) earned about 12 million yen, while a lawyer (by the 1999 survey) in his 40s made 20 million yen and one in his 50s made 22 million. Physicians, however, earn much more. Indeed, a doctor running a private clinic earned a mean 32 million.<sup>6</sup>

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<sup>2</sup> By 2008, they numbered 25,041. We write this paper as of 2004 because that was the last year for which the government released the high-income taxpayer list.

<sup>3</sup> For an insightful analysis, see Ginsburg and Hoetker (2006). Japan recently increased the number of people it passed -- but that in turn led to an increase in the number of people taking the exam. For historical pass rates, see Ramseyer and Nakazato (1999, p. 7 tab. 1); <http://www.moj.go.jp/PRESS/051007-1/17syutu-gou2.html>

<sup>4</sup> For an excellent description of the exam, see Milhaupt and West (2004).

<sup>5</sup> See generally Nihon (2000, 316); Milhaupt and West (2004, p. 219); Alexander and Tan (1984) (which uses the HIT database from the early 1980s).

<sup>6</sup> Nihon (2000); Bengoshi (1991); Ramseyer and Nakazato (1999, p. 14). For studies of physician incomes using the HIT list, see Ramseyer (2009, 2010).

Compared to American lawyers, these incomes perhaps exceed those in mid-tier, but fall short of those of the elite. According to John Heinz and Edward Laumann's (1994, pp. 8-11) classic study of Chicago lawyers, the median attorney in the U.S.A. made about double the national median for all occupations, and the top 12 percent made double that attorney median. On the one hand, 17 million yen does more than double the Japanese national median. On the other hand, it falls far below the incomes earned by the AmLaw 100.

Where U.S. bar examiners pass the majority of those who apply, Japanese examiners pass hardly anyone. With such a brutally restrictive entry barrier, why do incumbents not earn more?

#### B. The Legal Services Industry:

By the late 1980s at least part of the answer to this first puzzle was relatively clear. First, although contemporary Japan and the U.S. have roughly the same median incomes, corporate executives in Japan earn significantly less than in the U.S. (Nakazato Ramseyer and Rasmusen 2006). To the extent that some college graduates who opt for legal careers could have worked in business instead, the compression in Japanese executive compensation should dampen legal incomes too.

Second, Japanese lawyers face a variety of unlicensed competitors.<sup>7</sup> The largest group staffs the legal departments of Japanese corporations. Some 45,000 students major in law as undergraduates at the 93 university law departments (Shiho seido 2001). Upon graduation, most take jobs at private firms. There, many of them draft contracts, manage regulatory filings, and negotiate disputes. At insurance companies, they handle claims over traffic and other accidents. For much of the work that U.S. firms assign to lawyers, Japanese firms hire university-trained but unlicensed legal specialists.

Other competitors operate from various licensed sub-sectors -- some of whom complement the work of attorneys, but some of whom compete with them. "Judicial scriveners" (shiho shoshi; as of 2006, 18,000) draft contracts, and handle paper work for regulatory matters and real estate transactions. "Administrative scriveners" (gyosei shoshi; 39,000) handle government paperwork. "Tax agents" (zeirishi; 69,000) file individual and corporate returns, sell tax planning advice, and negotiate audits. "Patent agents" (benrishi; 6,200) handle filings and disputes over intellectual property. And "notary publics" (koshonin; 540), with their own monopolized niche, draft wills and corporate charters.<sup>8</sup>

Perhaps because of this competition, most Japanese attorneys specialize in the one activity over which courts enforce the unauthorized practice ban: litigation.<sup>9</sup> Traditionally, they operated out of small offices, and most worked in cities with courthouses. As of 2005, nearly 40 percent still practiced alone, and about an equal number practiced in firms of two to five lawyers (Nihon 2005, p. 93). Only in Tokyo and Osaka did anyone work in a firm with more than 20 lawyers. Exclude metropolitan Kobe, Kyoto, Nagoya, and Fukuoka, and no one worked in a firm with more than 10 (id.).

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<sup>7</sup> Ramseyer (1986); Kato (1987). As noted earlier, one could arguably translate these competitors as "lawyer" as well. We reserve "lawyer" for "bengoshi" -- simply because of the rhetorical convenience and because doing so follows general useage.

<sup>8</sup> Numbers from the official web sites of the professional associations of each of the groups, summer 2006.

<sup>9</sup> Bengoshi ho [Attorneys Act], Law No. 205, of 1949, Sec. 72; see Ramseyer (1986).

Only at the Tokyo international firms have lawyers done much besides litigate.<sup>10</sup> By 2005, the largest of these international firms (Nishimura & Asahi) exceeded 200 lawyers, and offered the full panoply of corporate services. By 2008, it exceeded 400. A small group of Americans who obtained special licenses during the post-war occupation once dominated this international market. No more. Those men are retired by now (though four remained on the rolls in 2004; Nihon bengoshi 2005, p. 70), and only a few of the current firms (principally Anderson Mori Tomotsune) trace their lineage directly to them. Instead, most Western lawyers in Tokyo work for the large U.S. (e.g., Morrison & Forester) and U.K. law firms (e.g., Clifford Chance). Several of these now include many Japanese lawyers as well.<sup>11</sup>

## II. Empirics

### A. The Estimation Strategy

Plausibly, lawyer incomes in Japan depend on individual characteristics (e.g., talent and experience), the number of lawyers in a particular prefecture, the amount of non-lawyer competition, the need for legal services, and the amenities of living in the prefecture. To see which of these are most important, one might use a regression equation of the following form. In effect, this constitutes a demand equation for lawyer  $i$  in prefecture  $j$ :

$$(1) \text{Income}_{ij} = a_0 + a_1 * \text{talent}_i + a_2 * \text{quantity}_j + a_3 * \text{competition}_j + a_4 * \text{demand-shifters}_j + \text{disturbance}_i$$

As we will explain, our income data consist of the exact tax bills for lawyers paying over a certain threshold plus, and for poorer lawyers the knowledge that those lawyers had tax bills somewhere below the threshold. We will therefore use tobit regressions, which will allow us to include all of this information—including the hazy but informative fact about the poorer lawyers--- in our regression estimate.

For reasons discussed below, we suspect that Tokyo is a special market. It is large, but size is not the only reason it is special. It constitutes the overwhelming location of choice for the corporate headquarters of large exchange-listed firms, and firms assign their major legal work out of headquarters. As a result, we do not expect the Tokyo market to follow the same demand specification as the other prefectures, even correcting for size. Merely correcting for the heteroskedasticity resulting from one observation with so much higher values for quantity, competition, and the demand shifters is not correction enough, because we would not expect the true coefficients to be the same for Tokyo.

We will therefore use two different sets of regressions. First, we will drop the prefectural variables and just include the individual-lawyer variables to compare Tokyo with other locations. If we use **Tokyo** to denote a dummy variable for the lawyer's job location and interact it with the individual characteristics, equation (1) becomes:

$$(2) \text{Income}_{ij} = b_0 + b_1 * \text{talent}_i + c_0 * \text{Tokyo}_i + c_1 * \text{Tokyo}_i * \text{talent}_i + \text{disturbance}_{ij}$$

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<sup>10</sup> And virtually none dropped out of the bar. Only about 100 lawyers per year drop their registration. See Nihon bengoshi (2005: 74).

<sup>11</sup> For a directory to this corporate legal services market, see Nikkei Business (2005).

We would expect job location to be endogenous, because a lawyer who for some unmodelled reason has a high income (that is, whose value of the individual disturbance is large and positive) may be more likely to choose to locate in Tokyo. The instrument we will use is a lawyer's hometown. If a lawyer's hometown is a determinant of his location choice, it is correlated with his location but not, we assume, with his income, holding his ability constant.<sup>12</sup>

Equation (2) is as much as we can do for Tokyo, since its prefecture-level variables have a unique effect. We can, however, exploit variation among the other prefectures to estimate Equation (1) for them. Yet Equation (1) has a problem that Equation (2) does not: it includes the quantity of lawyers and quasi-lawyer competitors in a prefecture and those are endogenous variables, depending on the incomes the lawyers and competitors can expect to earn in that prefecture. As is typical in demand equation estimation, we need instruments for quantities. The amenities of living in the prefecture are something that would affect the supply of lawyers and their competitors but not the demand, and so make suitable instruments.

#### B. Data:

1. Tax data coverage. -- For our estimations, we turn to the incomes of individual, named, attorneys in the year 2004. We obtain this information from tax data. Through the 2004 taxable year, the tax office published the names, addresses, and tax liabilities of those taxpayers who reported the highest incomes. The amount of liability that triggered this public disclosure varied over the years, but in 2004 stood at 10 million yen (at the end-of-2004 exchange rate of 102.68 yen/\$, about \$97,000).

Starting with the 2005 taxable year, these taxpayer data are no longer available. Under the Personal Information Protection Act passed then, the government may not release a variety of private information.<sup>13</sup> Because tax liabilities fall within the scope of the ban, the government will not release the taxpayer lists. Our 2004 data thus represent the last available set of this information,

For all lawyers on this high-income taxpayer (HIT) list, we enter the actual taxes they paid in 2004. For all lawyers not on the list, we know only that they paid less than 10 million yen. Because our data are thus “censored below” at 10 million, we use tobit regressions.

In 2004, some 73,000 Japanese paid 10 million yen or more in taxes. As discussed earlier, compared to the U.S. this is few. Japan has about half the population of the U.S., and roughly the same median household income. Yet in 2003, U.S. taxpayers filed 536,000 returns with adjusted gross incomes of over \$500,000, an income which in Japan conservatively would pay 10 million yen in taxes. U.S. taxpayers filed nearly 181,000 returns with incomes over \$1,000,000 ([www.irs.gov](http://www.irs.gov)).

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<sup>12</sup> There are two reasons why our instrument could be correlated with the disturbance term in the demand equation. First, a lawyer born in the prefecture might be more productive there, say because of family connections in the local business community. If that is true, the hometown variable ought to be a separate regressor, not an instrument. Second, a lawyer might accept a lower income in his hometown than an outsider would, and if there were enough hometown returnees, such a lawyer might be the marginal supplier and affect the income level. For those concerned by our choice of instrument, we will offer both instrumented and uninstrumented specifications in Table 4.

<sup>13</sup> Kojin joho no hogo ni kansuru horitsu [Act Relating to the Protection of Personal Information], Law No. 57 of 2003.

We obtained our tax data from the Japanese affiliate of the D&B credit rating service, Tokyo shoko risaachi (TSR 2004). Naturally, TSR uses the data for credit investigations. In some cases, it has added the professional affiliation of the taxpayers. Where it did, we generally followed that identification. We obtain our information on attorney backgrounds from the 2005 directory of the Japan Federation of Bar Associations (JFBA; Horitsu 2005).

Since hand-collecting background data incurs an extra cost for each observation and observations for which we have tax data are the most crucial, we use stratified sampling--- we include all of the lawyers for which we have tax data, and a random sample of others. The JFBA directory records the backgrounds of all 21,000 attorneys in private practice. We first found the background of 1,120 lawyers selected randomly from this list (because of lingering differences reflecting the differing regulatory regime under the U.S. occupation before 1972, we exclude Okinawa). Of these 1,120 attorneys, just 23 are on the HIT list. Because the TSR database includes 381 other HIT lawyers, we enter the tax and background data for all of those attorneys as well. This procedure leaves us with a dataset of 1,501 lawyers, of whom 404 paid taxes of over 10 million yen.

Japanese taxpayers pay a tax of 37 percent on ordinary income beyond 18 million yen.<sup>14</sup> For a crude approximation of income from tax liability, readers thus can simply divide the liability by .37. To illustrate a more nuanced approach, in Table 1 we use standard deductions and the full rate schedule to calculate the actual income that would generate the taxes given. By this approach, to owe 10 million yen in taxes, an attorney would need to make 39.9 million yen (\$390 thousand).

[Insert Table 1 about here.]

In Table 2 we detail the tax liabilities of several high-income lawyers. Highest-ranking Shin Ushijima paid 227 million yen in taxes, suggesting income of perhaps \$6 million. Among Japanese taxpayers in all occupations, he ranked 185th. Although Ushijima does not work at one of the prominent international firms, he did work at such a firm before starting his own.<sup>15</sup> The fact that he never appeared on the HIT list before suggests he received a windfall in 2004, or recognized substantial capital gains. Note that his income includes non-law returns: he has written at least six novels (several of which do well on the Amazon sales rank)<sup>16</sup> and holds senior offices with several corporations.

[Insert Table 2 about here.]

From Ushijima's 227 million, tax liabilities fall quickly. Fifth-ranked Nobuo Takai paid less than half as much tax, and even he (born in 1937, and nearing the end of his career) had made the HIT list only four other times. For some more modestly (if still highly) paid lawyers, however, the high incomes come often. The 20th ranked lawyer earned about \$1.7 million, and the 50th and 100th ranked (both partners at a major international firm) earned \$1.1 million to

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<sup>14</sup> Shotoku zei ho [Income Tax Act], Law No. 33 of 1965, Sec. 89, as amended by Shotokuzeito futan keigen sochi ho [Act for Measures to Reduce the Burden of the Income and Other Taxes], Law No. 8 of 1999.

<sup>15</sup> See <http://www.ushijima-law.gr.jp/lawyers/partners/su.html> (March 2007).

<sup>16</sup> <http://www.amazon.co.jp/> searching Ushijima Shin (in Japanese) (March 2007).

\$750 thousand. Perhaps 58 years old, number 20 had appeared on the HIT list 17 times before. By age 44, number 50 had been on it seven times already.

2. Limitations. -- As a source of information, tax records inherently present several limitations. Most obviously, taxpayers have an incentive to underreport. With a top marginal bracket of 37 percent, the incentive is significant. Although the Japanese tax and prosecutors' offices punish cheaters severely, our data will still include some lawyers who hide income.

Second, the amount of underreporting will increase as firm size falls. If a lawyer in solo practice takes his fee in cash, he need never enter it on his books. If he practices with 50 partners, he will need to keep an accurate set of books in order to split revenue and expenses. If he hopes to cheat the government, he will then have to keep two parallel sets of books -- a process that obviously increases the risk that auditors will catch him. Because the large offices are overwhelmingly in Tokyo, this underreporting will depress Tokyo incomes relative to those in the provinces.

Third, as the example of Ushijima illustrates, to the extent attorneys have income from other sources, their taxable income will overstate their returns from legal practice. Because the attorneys with the highest such returns will accumulate the greatest wealth, over time they will also tend to earn the most investment income. As a result, the fraction of taxable income from legal practice should fall both with age and with taxable income.

Fourth, some law firms may compensate their partners through untaxed perquisites (e.g., housing, automobiles). As common as these practices are among senior corporate executives, however, they appear (according to our conversations with lawyers) to be rare among law firm partners.

Last, even before 2005 some wealthy Japanese resented the publication of their tax bills (though we hear anecdotally that some small-town lawyers were proud of making the list). To skirt disclosure, they could do one of two things. First, they could pay a penalty and submit their return late. The tax office included on its list only those high-income taxpayers who filed within 2 weeks of the March 15 return deadline. By filing after April 1, they could avoid publication. Second, they could file an initial return that included only income below the amount that triggered disclosure, and then submit an amended return with the remaining income. Because the tax office compiled its list from the initial returns, they could avoid publication this way too. We do not know how many taxpayers used either strategy.

3. Other considerations. -- As a crude check on the reliability of our data, we compared a lawyer's 2004 tax liability with the average land price of the neighborhood in which he lived (obtained from Toyo 2005). To maintain comparability, we limited our sample to attorneys in the greater Tokyo area. The correlation coefficient between a lawyer's 2004 tax liability (with 10 million entered for those not on the HIT list) and the land values in his residential neighborhood is 0.19 -- statistically significant at greater than the 0.1 percent level. Lawyers reporting higher incomes do live in more expensive areas.

In addition, when we learned that one large firm paid its "equity partners" more favorably than the others, we obtained the equity roster. We then compared their incomes with those of the other partners. The equity partners did indeed report higher incomes.

Parenthetically, note the following: in Japan, couples may not file joint returns; taxpayers with rising incomes may not use "income averaging" across years; gains from the sale or exchange of real estate are taxed at 15 percent if held over 5 years and at 30 percent if held for



5 years or less; and pension payments are taxed at lower rates than salaries. For complex reasons detailed in Nakazato, Ramseyer, and Rasmusen (2009), our data exclude most taxes on dividends from exchange-listed firms, but do include some (though not all) taxes on capital gains from securities transactions.<sup>17</sup>

4. Non-tax data. -- To our tax data, we add a variety of other information. We take the information on the attorneys themselves from the bar association directory (Horitsu 2005). For most prefecture-level data on economic welfare we use standard Japanese statistics (collected in Toba 2005). We obtain our prefectural information on lawyers and law firms from the bar association. “International” firms we define as those that advertise in Martindale-Hubbell (2005), the standard American law directory.

We include only lawyers in private practice, thus excluding judges and prosecutors. We lack information on attorney specialization.

### C. Variables:

We define the following variables, and include selected summary statistics in Table 3.<sup>18</sup>

[Insert Table 3 about here.]

#### 1. Tax variables. –

**Ln Tax Liability:** The log of a lawyer’s 2004 (or 2003) tax liability (in 1000 yen), conditional on appearing on the HIT list.

**Appearances:** The number of times a lawyer has appeared on the HIT list (conditional on appearing in 2004).

**HIT:** 1 if lawyer appeared on the 2004 HIT list; 0 otherwise.

#### 2. Lawyer variables. –

**Flunks:** The estimated number of times a lawyer failed the LRTI entrance exam. In general, an attorney first would have taken the exam at age 21. Accordingly, we calculate **Flunks** using the attorney’s birth year and the year he passed the exam where available; where unavailable, we use university and LRTI graduation years. Elsewhere, we show that a judge’s success within the judiciary is heavily (negatively) correlated with the number of times he failed the exam (Ramseyer & Rasmusen, 2003).

**U.Tokyo:** 1 if an attorney attended the perennially top-ranked University of Tokyo; 0 otherwise. Note that **U.Tokyo** (university) is a different variable than **Tokyo** (location of practice).

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<sup>17</sup> See the discussion in Nakazato, Ramseyer and Rasmusen (2006, 2009). Both dividends and securities capital gains were subject to a national tax of 7 percent.

<sup>18</sup> For example, of our 1120 randomly selected attorneys, 2 percent appeared on the HIT list. Of the 404 HIT list lawyers, tax liabilities ranged from 10,010 to 227,161 (x1000) yen with a median of 16,872 and a mean of 24,756 (x1000) yen. Of the 907 randomly sampled attorneys for whom we can estimate the number of times they failed the LRTI exam, that estimated **Flunks** variable ranged from 0 to 20 (we drop observations with a calculated value greater than 20). The median **Flunks** is 6, and the mean is 6.57.

**Other Tokyo U:** 1 if an attorney graduated from a Tokyo-area university other than the University of Tokyo, 0 otherwise.

**Experience:** Years from LRTI graduation to 2004.

**Sex:** 1 if a lawyer is male; 0 if female.

**International:** 1 if a lawyer works at a firm advertised in Martindale-Hubbell; 0 otherwise.

**Prefectural dummies:** the prefecture in which an attorney is registered to practice

**Birth prefecture:** 1 if an attorney practices where he was born; 0 otherwise. We use this to instrument attorney location in our instrumental variable regressions (Tables 4, 8); where birth prefecture is unavailable, we use a lawyer's registry address (honseki).

**Tokyo:** 1 if a lawyer is registered to work in Tokyo; 0 otherwise.

**Osaka:** 1 if a lawyer is registered to work in Osaka; 0 otherwise.

**Other Metropolitan:** 1 if a lawyer is registered to work in one of the prefectures with big cities: Kanagawa, Chiba, Saitama, Hyogo, Aichi, Hiroshima, Fukuoka, Hokkaido, or Miyagi; 0 otherwise.

**Provincial:** 1 if a lawyer is registered to work in any prefecture other than Tokyo, Osaka, or one of the **Other Metropolitan** prefectures; 0 otherwise.

### 3. Variables for the Prefecture in which a Lawyer Practices. –

**Attorneys:** Total number of attorneys, 2004.

**Income PC:** Per capita income, 2001.

**Bankr'y PC:** Number of judicial declarations of bankruptcy per 1,000 population, 2003.

**Crimes PC:** Criminal Code crimes per 1,000 population, 2003.

**Corp Inc PC:** Corporate income declared to tax office (billions of yen), per 1,000 population, 2002.

**Museums:** Total museums in prefecture (including zoos, aquariums, etc.), 2002.

**Concerts:** Percent of population (10 years old or older) who attend music concerts (for reasons not explained, our source excludes classical concerts), 2001.

**School Internet:** Percent of public schools with high-speed internet access, 2003.

**College Grads:** Percent of population who graduated from a university, 2000.

## III. The Determinants of Income

### A. The Hypotheses, Restated:

1. The puzzle. -- In discussing the structure of the Japanese bar, scholars have routinely noted the scarcity of lawyers, the availability of substitutes, and the difficulty of the LRTI exam. Occasionally, they observe that most lawyers seem to earn modest incomes. Combined, however, these facts leave the puzzles at the heart of this study: what does determine attorney incomes, and (if would-be lawyers face such a high entry barrier but incumbent lawyers make so little) why do so many people try so hard to become lawyers?

2. Limitations. -- To explore these questions, we do not have all the data we would like. Most obviously, we have information only on those who eventually passed the LRTI exam. We know nothing about the thousands who take the exam but never pass. We know nothing about

how well each lawyer performed on his university classes. We know nothing about the actual job offers he received from corporate employers. And we know nothing about how hard he works or what family connections he brings to his law practice.

Still, we do have several key pieces of data. We do know which lawyer graduated from which university, and we know the relative selectivity of these schools. We can estimate how many times a lawyer failed the LRTI exam. We know whether he reported taxable income of at least about \$400,000 and, if he did, what he reported. We know the aggregate rates at which the graduates of the major universities pass the LRTI exam, and we know (informally) which universities corporate employers tend to favor.

3. Testable hypotheses. With the data we do have, we shall explore the following four propositions:

*I. Returns to talent: The intellectually most talented lawyers earn higher incomes than other lawyers.*

This phenomenon results from several factors. Most straightforwardly, cognitively able law graduates offer their clients an unusually valuable product. Because corporate employers also value these men and women as non-lawyer employees, however, especially able law students bring to their legal education a high shadow-wage. Unless they rationally anticipate high incomes from legal practice, they will not rationally join the bar.

Note that many intellectual skills generalize. To the extent that they do, the association between talent and income should hold whether we measure talent by the selectivity of the university a lawyer attended or by the number of times he failed the LRTI exam.

*II. Locational returns (A): The intellectually most talented lawyers earn the highest return to their abilities in Tokyo.*

Clients can use the intellectual skills of the best lawyers most profitably on the highest-stake transactions and disputes. Disproportionately, corporations distribute these high-stake assignments out of their corporate headquarters. Because most large Japanese corporations operate out of Tokyo, the most talented lawyers should earn the largest rents to their cognitive abilities there.

*III. Locational returns (B): Lawyers of ordinary talent earn lower incomes in Tokyo than elsewhere.*

Because of the many amenities available in Tokyo, the city remains the residence of choice for professional families. Lawyers in Tokyo will thus compete their incomes down to relatively low levels. Lawyers who choose to practice elsewhere, however, will in turn earn rents that compensate for the lack of similar amenities there. Indeed, they may earn scarcity or monopoly rents besides.

*IV. University and LRTI attempts: Lawyers who graduated from the schools most favored by corporate employers tend to have passed the LRTI exam on one of their initial tries.*

Necessarily, the graduates of the schools favored by the corporate employers incur the highest opportunity costs to studying for the LRTI exam. A graduate of a school shunned by the highest-paying employers can rationally choose to take and re-take the exam for years. A graduate courted by those employers will more likely abandon the LRTI exam after a few preliminary attempts and accept the coveted corporate job instead.

4. Composite explanation. -- In turn, these four hypotheses together comprise the heart of our explanation for the puzzles above (Sec. III.A.1.):

Some would-be lawyers are very talented. They pass the LRTI exam on one of their first attempts, and proceed to make high incomes (Hypothesis I). They make those high incomes by handling the highest-stake transactions and disputes. Because the biggest firms distribute those assignments out of Tokyo, these lawyers earn the highest returns to their talent there (Hypothesis II).

Tokyo offers professional families an extremely wide range of amenities. As a result, non-elite lawyers tend to choose to practice elsewhere only if the practice offers a compensating differential (Hypothesis III).

Most would-be lawyers fit the backgrounds of these non-elite lawyers. As university graduates, they do not receive lucrative job offers. Given their lower opportunity costs, they willingly devote many years to passing the LRTI exam. Shunned by the most desirable corporate employers anyway, they sit for the bar-exam-equivalent year after year -- even when they can expect incomes that their more talented peers would dismiss as modest at best (Hypothesis IV).

## B. The Basic Premium on Talent:

1. The premium on talent. -- Bright lawyers earn more than dull (Hypothesis I). This straightforward point emerges clearly even in the summary statistics, where the high-income lawyers show an unusual facility with exams. Although our randomly sampled lawyers failed the LRTI entrance exam a mean 6.57 times (**Flunks**), the high-income lawyers failed it only 4.97 times.<sup>19</sup> Where 74 percent of the randomly sampled lawyers failed it 4 or more times, only 55 percent of the high-income lawyers did (Table 3 Panels A, B). Where only 16 percent of our randomly sampled lawyers attended the perennially first-ranked University of Tokyo, 31 percent of the high-income lawyers went there (Tab. 3 Pan. A).<sup>20</sup>

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<sup>19</sup> According to another study, the median successful applicant in 1994 was passing the exam 4 years after his initial attempt. 18.4 percent were passing it 9 or more years after their initial attempt. See Miyazawa (1995, p. 77); Ramseyer and Nakazato (1999, p. 9). The median **Flunks** among our randomly sampled lawyers is 6. The difference between that figure and Miyazawa's 1994 figure probably reflects in part the difference between the 3.3 percent pass rate in 1994 and the sub-2 percent pass rate during the late 1970s and early 1980s. See Ramseyer and Nakazato (1999, p. 7).

<sup>20</sup> Admission to the University of Tokyo is solely by a blindly graded exam. Where many other universities test accumulated knowledge, the University of Tokyo takes pains to focus less on knowledge and more on intelligence. That its tests successfully do so is a widely accepted conclusion within Japan.

Regression results using the entire dataset, both Tokyo and non-Tokyo and the individual-characteristics approach of Equation (2), confirm the premium on talent. In Table 4 Columns (1) and (2) (Col. (2) includes prefectural dummies), we regress (through tobit) an attorney's logged tax liability on four variables reflecting his personal characteristics: **Flunks**, **U Tokyo**, **Experience** (along with its squared term), and **Male**. According to the results, lawyers with University of Tokyo degrees and low **Flunks** earn significantly more than others. By column (2), someone with a Tokyo degree earns 85% more, and someone with the median of 6 flunks earns 15% less than someone with 5 flunks. Men earn 50% more than women. And because many lawyers remain members of the bar even after they effectively retire, the effect of **Experience** is non-linear. By the specification in Column (1), the effect peaks at 23.5 years -- implying peak earnings for the average lawyer in his early 50s. The coefficient sizes from regression (2) indicate that a lawyer with 10 years of experience will earn 4.8% more than one with 9 years of experience.<sup>21</sup>

[Insert Table 4 about here.]

2. Opportunity costs. -- a. The hypothesis. If the talented law faculty graduates can earn a premium as lawyers, they can also earn a premium in the general corporate market -- and it is this shadow wage that explains who takes the LRTI exam how many times. More specifically, we propose (following Hypothesis IV) that:

(a) Students from the most prestigious universities face the highest opportunity costs to studying for the LRTI exam. If they pass it on one of their first tries, they join an elite Tokyo law firm and earn high incomes. If they fail to pass within a few years, they abandon the effort and take a position with a large corporate employer.

(b) Students from the less selective universities (and probably -- we lack the data -- with the lowest grades) lack those outside offers. Facing much lower opportunity costs, they disproportionately opt to study for the exam year after year.

Restated, the bar oversamples the top and the bottom of the population of aspiring lawyers. The most talented would-be lawyers pass the exam on one of their first tries, and join the bar. The least talented receive no attractive corporate job offers anyway, so they keep taking the exam -- and a few eventually pass. Those in the middle drop out of the test-taking pool. Smart enough to be admitted to a top university or to graduate near the top of a middle-tier school, they receive good non-lawyer job offers. Not smart enough to ace every test they take, they fail the LRTI exam on their first tries. The Japanese bar contains many lawyers from the most- and least-talented groups. Disproportionately, it lacks those from the middle.

b. The data. The data below are consistent with this story. To be sure, we lack the information necessary to test this account directly. We have no information on the students who took the exam and failed -- and no way to know how many would-be lawyers from the various schools chose to sit for the exam an additional time, contingent on having failed the previous time. We have information only on those who eventually passed. With this information,

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<sup>21</sup> The coefficient impacts in this paragraph are calculated as follows, since the dependent variable is logged. 85% =  $\exp(.617) - 1$ . 7.8% =  $[\exp(-6 \cdot .080) - \exp(-5 \cdot .080)] / \exp(-5 \cdot .080)$ . 50% =  $\exp(.409) - 1$ . 4.8% =  $([\exp(10 \cdot .086 - 10 \cdot 10 \cdot .002)] - [\exp(9 \cdot .086 - 9 \cdot 9 \cdot .002)]) / [\exp(9 \cdot .086 - 9 \cdot 9 \cdot .002)]$ .

however, we can partition lawyers by the school they attended -- a rough index for the opportunity costs to studying for the LRTI exam. We can then examine the percentage of lawyers from different schools who failed the LRTI exam various times (Figure 1).

More specifically, in Figure 1 we calculate the cumulative distribution of lawyers by the number of **Flunks** for three tiers of schools. We use for this inquiry only the randomly sampled lawyers. In Tier 1 (**Elite U**), we include lawyers from the University of Tokyo, University of Kyoto, and Hitotsubashi University. They constitute 288 lawyers, or 32 percent of the total. In Tier 2 (**Middle U**), we include 12 less selective universities (495 lawyers; 54 percent). And in Tier 3 (**Nonelite U**), we include the rest of the bar (127 lawyers; 14 percent). For each tier, we then give the cumulative distribution by **Flunks**.

[Insert Figure 1 about here.]

Disproportionately, the lawyers from the three elite schools include men and women who passed the exam on one of their very first tries; they do not include those who passed only after many years. Graduates of the elite schools do not quit taking the test after four or five times because everyone who wants to become a lawyer passes. From other data, we know that even University of Tokyo graduates pass at only an 8.2 percent rate (Ramseyer and Nakazato, p. 8). At that pace, only after 8 years would even 50 percent of them have become lawyers.

To estimate crudely the number of **Elite U** graduates who would be in the bar if they did not drop out of the test-taking pool, we add a fourth curve to Figure 1. On this curve, we give the fraction of lawyers who would be in the bar after each attempt number if they passed at the University of Tokyo average of 8.2 percent and kept taking the test until they did so. Note that the actual cumulative distribution of **Elite U** graduates lies substantially above this line. If **Elite U** graduates did not drop out of the pool, 50 percent of the graduates would have flunked the exam 8 times or more. In fact, only 26 percent had. At the elite schools, those who fail to pass the exam on one of their first tries simply quit taking the test.

By contrast, among the graduates of the other universities, a far larger proportion of lawyers did not pass the exam until a much later try. Instead of dropping out of the test-taking pool (as the **Elite U** graduates did), they apparently kept sitting for the exam. Most of them passed it (if they passed it at all) only after five or more tries -- a time by which the graduates of the elite universities had all but disappeared. Even though the vast majority of graduates from all schools fail the exam, in other words, the bar excludes graduates of elite universities who passed it on later attempts.

Consider the specifics. Among the members of the bar, 28 percent of the **Elite U** graduates passed the bar within 3 times (**Flunks**  $\leq$  3), but only 9 percent of the graduates of the **Nonelite U**. A majority of the latter pass the bar only after the 8th try (**Flunks**  $\leq$  8), by which time the bar already includes 74 percent of the **Elite U** graduates who will ever join. The difference between the mean **Flunks** for the **Elite U** and **Middle U** tier graduates is statistically significant at the 1 percent level (two-tailed test). The difference between the **Middle U** and **Nonelite U** graduates is similarly significant at the 1 percent level.

In an admittedly more speculative vein, data from the HIT-list lawyers similarly illustrates the contrast between high- and low-opportunity cost lawyers. Given that both the legal and corporate job markets reward talent, those lawyers who eventually earned high incomes probably received the most attractive offers from corporate employers at the beginning of their careers. Consistent with that hypothesis, the HIT list lawyers disproportionately passed the

LRTI exam early. Among the elite university graduates 28 percent may have passed the exam within 3 times, but among the HIT-list lawyers 32 percent had (Figure 2). Seventy-four percent of the elite university graduates had passed it within 8 times, but 80 percent of the HIT list lawyers had.

[Insert Figure 2 about here.]

c. The opportunity cost trigger. Students incur the most severe opportunity costs when preparation for the LRTI exam cuts them off from their university's placement machinery. In general, they can take the exam four times and still retain access to that machinery. They can take it once (or perhaps twice) during their first four years in college. They can take it another time by delaying graduation a year, and they can take it another couple of times enrolling in a master's program. After that, however, getting a job offer from a corporate employer becomes more difficult.

As a result, the graduates taking the exam beyond these four times will tend to be graduates whose credentials make them less attractive for corporate employment. The bulk of the people taking the exam are not the University of Tokyo elite who choose between the bar and a managerial post at NEC. The data indicate that the elite students attack the exam three or four times and then settle for the almost-as-good NEC job to which their credentials give them access. Instead, most of the people taking the exam are men and women with weaker credentials but for whom credentials don't matter if they pass the exam.<sup>22</sup> For them, a job as an attorney apparently offers very good prospects -- prospects worth the sacrifice of several years of incomeless and high-risk study for the exam.

### C. The Tokyo Penalty:

Should an average (*i.e.*, non-elite) lawyer choose to work in Tokyo, we reason (Hypothesis III) that he will pay a price. Tokyo offers the widest array of urban amenities in Japan, and for that reason remains a perennial favorite among professionals. Japan may have only 21,000 lawyers, but half of them (10,300) work in Tokyo. Although Japan has 6,030 people per lawyer, Tokyo has only 1,206 (Nihon 2005, pp. 77, 81). That puts the city behind the nation of Germany's 651 citizens per lawyer, but ahead of France with its 1,488.

According to the data, the resulting competition creates an income penalty for lawyers who stay in Tokyo. Return to Table 3's summary statistics. Tokyo lawyers are more talented than the provincial lawyers: 25 percent of them attended the University of Tokyo compared to 12 percent in the provinces, and they flunked the LRTI exam 6.3 times compared to 7.5 for the provincial lawyers. Yet Tokyo lawyers are poorer: only 1.8 percent (181) of the 10,263 Tokyo lawyers appeared on the HIT list compared to 3.4 percent (119) of the 3,460 outside of Tokyo, Osaka, and the **Metropolitan** prefectures (of the randomly sampled lawyers, 1 and 5 percent respectively; see Table 3).

To explore the Tokyo penalty more closely, in Column (3) of Table 4 we add three geographical variables (**Tokyo** is the omitted variable). As with the summary statistics, lawyers in the provinces earn higher incomes than those in Tokyo, a phenomenon accentuated by the

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<sup>22</sup> A notable case is that of Moohyun Roh in the similar Korean legal system. The son of a poor farmer, he did not attend college, but studied on his own and passed the bar exam in 1975 at age 29. *Wikipedia*, "Roh\_Moo-hyun," [http://en.wikipedia.org/wiki/Roh\\_Moo-hyun](http://en.wikipedia.org/wiki/Roh_Moo-hyun) (May 23, 2009).

higher cost of living, and those in the other metropolitan centers earn about as much as the Tokyo lawyers. Puzzlingly, those in the second-largest city of Osaka earn significantly less. With most of the amenities available in Tokyo, Osaka is an attractive place for a professional family, but brings a somewhat different regional flavor. Because most large firms locate their corporate headquarters in Tokyo, however, Osaka lacks the high-value-added legal work that rewards unusual legal talent. If attorneys chose freely between the two metropolitan areas, incomes would match. Column (3), however, suggests they may not.<sup>23</sup>

Because lawyers choose where to practice with an eye on their expected incomes, location is endogenous, as explained earlier. Location affects income, but expected income affects location too. Accordingly, in Column (5) we offer instrumental variables tobit regressions, instrumenting the geographical variables with a dummy for whether the attorney works in his home prefecture. One would think that a lawyer's hometown affects his location choice without being affected by lawyer incomes at that location.<sup>24</sup>

The Tokyo penalty now emerges more clearly still: Osaka lawyers no longer significantly underperform those in Tokyo (thus, the Col. (3) Osaka penalty may simply be an artifact of a misspecified equation), and both **Other Metropolitan** and **Provincial** lawyers earn more than Tokyo lawyers.<sup>25</sup> In specification (5) we see that almost all the non-location coefficients are very close to their values and significances in Columns (1) and (2) (which omitted location), with the exception of **Male**, which is now smaller and insignificant. This suggests that the apparent effect of being **Male** (the 50% premium stated earlier) may reflect the greater willingness of men (less likely to have a professional working spouse) to locate outside of Tokyo. Column (5) implies that lawyers who choose to practice in a non-Osaka metropolitan area instead of Tokyo earn 34% more (at the marginal 10% significance level), and those who choose a non-metropolitan area earn 47% more (at the 1% significance level).<sup>26</sup>

#### D. The Tokyo Premium on Talent:

1. The geographical premium. -- These results are consistent with the claim (Hypothesis II) that talented lawyers choose Tokyo despite the general financial penalty because the complex practice places a premium on their abilities. Most of the largest Japanese corporations maintain their headquarters in Tokyo, and most corporations assign their complex and demanding legal work out of headquarters. As a result, the most talented lawyers should earn the highest return on their abilities in Tokyo -- and so they do.

In Columns (4) and (6) of Table 4, we use the full specification of equation (1), and interact **Flunks** and **U.Tokyo** (the lawyer's college) with **Tokyo** (his job location). Both

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<sup>23</sup> The cost-of-living index in Osaka for March 2007 was 108.4 by one index, while the measure for Tokyo was 122.1. <http://www.finfacts.ie/costofliving.htm>

<sup>24</sup> But see the qualifications given in note 9, above.

<sup>25</sup> The differential patterns to tax evasion suggest that this Tokyo penalty may be even larger than we observe. The rich Tokyo lawyers work at large firms, where systematic tax evasion is hard. The rich provincial lawyers mostly work in one-lawyer firms where cash receipts need never be entered on the books. On the other hand, however, partners at the large Tokyo firms (particularly those with "closed book" accounts (i.e., accounts not open to junior partners) may use one of the means of avoiding appearing on the HIT list, while attorneys in small cities may welcome their appearance on the HIT list as a badge of success.

<sup>26</sup> 34% =  $\exp(.295)-1$ . 47% =  $\exp(.386)-1$ .



interacted variables now emerge as strongly significant: low **Flunk** scores lead to higher incomes in Tokyo than they do elsewhere, and so does a University of Tokyo degree. Attorneys who attend an elite university and pass the bar-exam equivalent on their first or second try may earn more regardless of where they practice, in other words, but they earn an additional return on their talent in Tokyo that they would not find elsewhere.<sup>27</sup> The absence of significant coefficients on the **Experience** and **Experience Squared** interaction terms indicates that experience has the same curvilinear effect everywhere, whether in Tokyo or beyond. As in column (5), the **Male** effect disappears in Columns (4) and (6) -- consistent with its resulting from a conflation with locational choice.

Outside of Tokyo, Columns (4) and (6) suggest that talent has only a small effect. In both columns, the coefficient on **U.Tokyo** is no longer significant, and in Column (6) the coefficient on **Flunks** is not significant either. As noted earlier, Column (2) implies that for Japan generally someone with a Tokyo degree earns 85% extra, and someone with the median of 6 flunks earns 7.8% less than someone with 5 flunks. Column (6) finds insignificant effects (with the wrong sign) for non-Tokyo Japan, but within Tokyo the number changes to a 332% income premium for someone with a University of Tokyo degree, and a 19% income loss for someone with 6 flunks instead of 5.<sup>28</sup> The premium on intellectual ability in Tokyo is huge.

2. The international firms. -- Many of the most talented lawyers earn their high return by affiliating themselves with one of the large Tokyo "international firms" (which are firms that offer cross-border services, not necessarily foreign firms). The lawyers who choose these firms (and who are hired by them) are indeed able. Where University of Tokyo graduates constitute 16 percent of our random sample and 25 percent of our Tokyo random sample, they are 57 percent of the randomly sampled international firm lawyers. Where the randomly sampled lawyers flunked the LRTI exam 6.57 times, the randomly sampled international lawyers flunked it only 4.31 times.

At the international firms, these talented lawyers earn high incomes. The international lawyers constitute 5 percent of the random sample, but 22 percent of the HIT list. They are 11 percent of the Tokyo random sample, but 49 percent of the Tokyo HIT list. The decision to work at such a firm is obviously endogenous to expected income, but were we to include **International** in our Column (1) Table 4 regression (a regression we ran but do not report in the table), the coefficient would be positive and significant at more than the 1 percent level.

Over the past several decades, the international firms have grown consistently (and exponentially), and as they did the tendency for talented lawyers to join them has increased too. Of our randomly sampled University of Tokyo graduates who passed the LRTI exam on one of their first 4 tries, 23 percent work at one of the Tokyo international firms. Among those with 20 years or less experience, 54 percent work there. But among those who joined the bar in the last decade, 63 percent do. Of the most talented young lawyers, in short, nearly two-thirds join an international firm.

#### E. The Dynamics of Locational Choice:

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<sup>27</sup> Although the Male\*Tokyo interaction term generates a large coefficient in regression (5), its magnitude is not reliable (its significance disappears in regression (6) once we use instruments for location). There are only two women on the HIT list outside of Tokyo, so their idiosyncrasies would drive any result.

<sup>28</sup>  $332\% = \exp(1.465) - 1$ .  $19.0\% = [\exp(-6 * .212) - \exp(-5 * .212)] / \exp(-5 * .212)$ .

Our data suggest that the differential returns to talent in Tokyo and the provinces create a selection effect among those who enter the bar. The brightest young lawyers opt for careers in the capital (Hypothesis II). The complex work in Tokyo generates a rent to their unusual talent, and they earn correspondingly high income. The other lawyers, however, apparently choose between hardship pay in the provinces, and a Tokyo career that lacks both high income and glamour (Hypothesis III).

Table 5 shows the locational choice in more detail. For these purposes, we define an "elite" lawyer as a University of Tokyo graduate who passes the LRTI exam on one of his first four tries (**Flunks**  $\leq 3$ ). According to Column (1), elite lawyers earn substantially higher incomes in Tokyo (often at one of the international firms) than elsewhere. According to Column (2), nobody else obtains a clear advantage from being in Tokyo, and -- indeed -- the sign of the coefficient is negative (see also Tab. 4 Cols. (3), (5))

[Insert Table 5 about here.]

In Table 5 Column (3), we regress (through probit) the locational choice each lawyer makes (**Tokyo** = 1) on his background. Those with low **Flunk** scores and with University of Tokyo degrees opt for Tokyo careers. Although graduates of other Tokyo schools also tend to stay in Tokyo, the lower marginal effect suggests they less often stay than those from the University of Tokyo. Among University of Tokyo graduates, 72 percent choose to work in the city. Among those from other Tokyo universities, only 62 percent do. And among those from all other universities, only 42 percent do.

The implications are straightforward. The most talented lawyers earn more in Tokyo than the provinces, and tend to opt for Tokyo jobs. The less talented earn more in the provinces, and tend to opt for provincial jobs. Presumably (we cannot test this directly), the less talented lawyers who choose nevertheless to practice in Tokyo do so because they value the amenities Tokyo provides. They could earn higher high income in the moderate-sized city of Kumamoto, but opt instead for the lower incomes in Tokyo. Apparently, they appreciate the nonpecuniary benefits attached to Tokyo residence more highly than the accompanying income penalty.

#### F. Robustness Checks:

In Table 6 we explore whether our basic findings are robust to alternative specifications. Toward that end, in Panel A of Table 7 we experiment with other regression techniques. The three alternatives of OLS, probit, and Poisson regression all reach much the same result as tobit. In all four regressions the coefficient on **Flunks** is significantly negative, and that on **U. Tokyo** is significantly positive. Whether we use the tobit regressions discussed earlier (Column (1)), whether we limit ourselves to taxpayers on the HIT list (Column (2)), whether we use as our dependent variable a HIT-list dummy (Column (3)), or whether we use as that dependent variable the number of times a lawyer appeared on the HIT list (Column (4)) -- we obtain consistent results, regardless of the specification.

[Insert Table 6 about here.]

In Panel B, we repeat our principal regressions on logged 2003 tax liability. Because we have 2003 tax data only on those lawyers who also appeared on the 2004 list, the exercise is imperfect. Again, however, we obtain results consistent with the ones in our main regressions. In our basic Column (1) regression, the marginal effects on **Flunks** and **U Tokyo** are significant in the predicted directions. In Columns (3) and (5), the regressions indicate that lawyers in the provinces and lesser cities report higher incomes than attorneys in Tokyo. And in Column (4), the coefficients show that the University of Tokyo graduates and low-**Flunk** attorneys earn the largest premium in Tokyo.

#### G. The Determinants of Provincial Income:

Among the half of all lawyers who choose not to work in Tokyo, who earns the highest incomes? For these lawyers, we can exploit variation in prefecture-level variables, as in equation (1) above. In Table 7 we take as our data all lawyers not practicing in Tokyo and regress an attorney's logged tax liability on his personal variables and a series of characteristics about the prefecture. Consistently, those who failed the LRTI exam fewer times earn more than those who failed it more often. The University of Tokyo degree, however, earns a lawyer no advantage, consistent with our Table 4 regressions. As in prior regressions, income peaks after about two decades of work, and men make more than women.

[Insert Table 7 about here.]

Because prices depend on quantities, we include in Table 7 the number of attorneys per prefecture. To be sure, most provincial attorneys simply work where they were born. Among our randomly sampled lawyers outside of Tokyo, Osaka, and the **Metropolitan** areas, 79 percent work where they were born. Yet only 64 percent of those **Metropolitan** lawyers were born where they work, and only 37 percent of the Osaka lawyers and only 38 percent of the Tokyo lawyers were born there. A LRTI graduate from rural Miyazaki will not open a practice in rural Niigata, it seems, but he may well decide to stay in Osaka.

In Table 7, we offer a demand equation for lawyers. Because the price of legal services also depends on the quantity supplied, we include the number of lawyers per capita for each prefecture (**AttorneysPC**). Because quantity is also in the supply equation, we instrument it by the amenities available in the prefecture -- a variable in the supply equation but not demand. As proxies for the level of amenities available there: **Museums**, **Concerts**, **School Internet**, and **College Grads**. We use these, too, to instrument for the number of **Judicial ScrivenersPC**. These instruments seem at least to be correlated with **AttorneysPC** and **Judicial Scriveners PC**; the correlation coefficients are .50 and .49. For comparison, we include a straight tobit specification with no instruments (Col. (6)).

Regression (1) is instrumental variables tobit, with all the variables included, **AttorneysPC** and **Judicial Scriveners PC** instrumented, the Newey two-step method used for estimation, and robust standard errors computed by bootstrapping (the Stata command *ivtobit, twostep vce(bootstrap)*). We will focus on this regression. We include the other specifications and regression methods to confirm the robustness of the results.

As one would expect, an increase in the number of attorneys lowers attorney incomes in a prefecture.<sup>29</sup> The number of judicial scriveners increases it (it is insignificant in Regression (1)

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<sup>29</sup> On prefecture-level changes in the number of attorneys, see Ginsburg and Hoetker (2006, pp. 38-39).

but not (2) or (6)), however, implying that attorneys and scriveners are more complements than substitutes. As before, **Flunks** reduces income. Oddly enough, a University of Tokyo degree hurts rather than helps, though the result is not altogether robust. Perhaps the University of Tokyo graduates who opt for careers in the provinces are less talented on unobserved dimensions; like a Yale graduate working in a post office, perhaps the degree indicates a problem rather than a talent. **Experience** comes in as one would expect, causing income to peak in late middle age.

Turn now to the other prefecture-specific variables. First, higher per capita incomes in the general population lead to higher attorney income. People in richer prefectures buy legal services poorer people do without.

Second, bankruptcies are positively associated with attorney incomes. When a firm fails, it and its creditors take a variety of strategies that may rely on an attorney's services (the correlation between bankruptcies per capita and litigation per capita is .94). Per capita income held constant, attorneys in prefectures with more bankruptcies earn higher incomes.

Third, serious crimes are not associated with high attorney incomes. Criminal defense work rarely makes lawyers rich in the U.S., and does not do so in Japan either.

Fourth, higher corporate income in a prefecture appears to hurt lawyer incomes rather than help it, and the result is robust. We cannot explain this, but note that the coefficient is only -.003, a very small effect when the mean level of corporate income is 47.

Regression (2) omits the bankruptcy, crime, and corporate income variables as more speculative than the others. The only real change is that **Judicial ScrivenersPC** doubles its coefficient size and becomes highly significant. Regression (3) takes the opposite tack and omits **Judicial ScrivenersPC**. Corporate income per capita now loses its significance.

Regressions (4), (5), and (6) return to specification (1) but change the estimation method. Regression (4) uses ordinary standard errors rather than robust ones. The coefficients are identical without that heteroskedasticity correction, and the standard errors are little changed except that **Male** becomes significant without the bootstrapped standard errors.<sup>30</sup> Regression (5) drops all the lawyers not on the High Income Taxpayer list and uses linear instrumental variables rather than tobit. The result is that almost every variable except **Flunks** loses its statistical significance, and coefficient sizes generally fall. Regression (6) uses tobit, but does not instrument for **AttorneysPC** and **Judicial Scriveners PC**. The results are similar to regression (1).

#### IV. Conclusions

Data on Japanese attorney incomes present a large contrast between the market for legal services in Tokyo and the market everywhere else. As the locus for complex transactions and litigation, Tokyo attracts the most talented lawyers. Disproportionately, they locate there, and earn high incomes.

Less-talented would-be lawyers face lower opportunity costs to a legal career. Willingly, they spend many years studying to pass the bar-exam equivalent. A few pass; most do not. Those who do pass now face a locational choice. They could choose to practice in Tokyo. There, they will enjoy the amenities Tokyo provides professional families, but (lacking unusual

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<sup>30</sup> There are only two women on the HIT list outside of Tokyo, however, so this may well be a spurious effect.

talent) will have little access to high-paying work. Alternatively, they could leave Tokyo entirely. They will make do without the many amenities it provides, but in exchange earn a significant compensating differential.

**Table 1: Calculating Income from Tax Liability**

The amount of income that would generate a tax liability of 10 million yen is about 39.9 million yen. To reach this conclusion, we make the following calculations:

A. The Principles:

1. Assume the taxpayer has only salary income. If so, he will have the standard salary income deduction of 5 percent plus 1,700,000 yen. See Shotoku ze ho [Income Tax Act], Law No. 33 of 1965, Sec. 28.

2. Assume further that this taxpayer has no children, no life insurance, no charitable donations, no medical expenses, etc.. If so, he will have only the three basic personal deductions: his own deduction, his spouse' deduction, and a social security deduction. Assume the last equals 1 million yen (in fact, it varies by salary level). See Shotoku ze ho, Secs. 74, 83, 86.

* Basic personal deduction	380,000 yen
* Sousal deduction	380,000
* Social security deduction	1,000,000

3. A taxpayer with an income in this range will face the full maximum marginal rate: 37 percent. The actual amount of the tax is given as 37 percent of his income, less a deduction of 2.49 million yen.

4. This taxpayer will also have the currently standard lump-sum tax credit of 250,000 yen. Shotokuzei to futan keigen sochi ho [Act to Reduce the Burden of the Income Tax], Law. 8 of 1999, Sec. 6.

B. Tax calculation:

Gross income:	39,900,000
Salary income:	
39,900,000 x .95 - 1,700,000 =	36,205,000
Taxable income:	
36,205,000	
380,000	
380,000	
<u>- 1,000,000</u>	
34,445,000	34,445,000
Income Tax:	
34,445,000 x .37 - 2,490,000 =	10,254,650
Less lump-sum tax credit:	
10,254,650 - 250,000 =	10,004,650

**Table 2: Selected High-Income Lawyers**

<u>Rank</u> (att)* <u>(all)**</u>	Name	Firm	Pref.	YOB	Bar pass	University	Taxes	Number of Appearances
1 185	Shin Ushijima	Ushijima sogo	Tokyo	1949	1974	U Tokyo	227,161	1
5 770	Nobuo Takai	Takai law	Tokyo	1937	1960	U Tokyo	106,749	5
10 1,315	Mutuo Tahara	Habataki	Osaka	1943	1966	Kyoto U	80,344	12
20 2,061	Yuichi Suzuki	Tokyo keizai	Tokyo	1946	1972	Keio U	64,171	18
50 4,566	Shin Kikuchi	Mori Hamada	Tokyo	1960	1981	U Tokyo	43,013	7
100 10,449	T. Shinagawa	Mori Hamada	Tokyo	1958	1982	U Tokyo	28,653	1
200 30,273	Sentaro Arai	Arai law	Tokyo	1938	1961	Meiji U	16,966	9

Notes: \* Rank among attorneys. \*\* Rank among all taxpayers. Taxes are in x1000 yen. "Number of Appearances." gives the number of times the lawyer has appeared on the HIT list.

Sources: Horitsu shimbunsha, ed., Zenkoku bengoshi taikan [National Survey of Lawyers] (Tokyo: Horitsu shimbun sha, 2005); Tokyo shoko risaachi, ed., Zenkoku kogaku nozeisha meibo [National Registry of High-Income Taxpayers] (Tokyo: Tokyo shoko risaachi, 2004) (CD-ROM version).

**Table 3. Attorney Characteristics: Summary Statistics**

A. Introduction:

	Random Sample					High-Income-Taxpayer				
	n	min	median	mean	max	n	min	median	mean	max
HIT*	1120			.02						
Tax Liability						404	10,010	16,872	24,756	227,161
Flunks	904	0	6	6.57	20	377	0	4	4.97	18
U Tokyo	1120	0		.16	1	404	0		.31	1
Tokyo location	1120	0		.47	1	404	0		.45	1
Osaka location	1120	0		.13	1	404	0		.03	1
Other Metropolitan	1120	0		.24	1	404	0		.23	1
Provinces	1120	0		.16	1	404	0		.29	1

B. Income Levels and Lawyer Characteristics:

	Random	High Income
Mean Flunks	6.57	4.97
% Flunks > 3	74.2	55.2
% International	5.7	22.3
% U Tokyo	15.9	31.4
% Chuo U	19.3	17.8
% Tokyo	46.7	44.8
n	1120	404

C. Geography and Lawyer Characteristics:1. *Random Sample*

	Tokyo	Osaka	Other Metro	Provinc'l
% U Tokyo	24.7	5.4	7.1	12.3
% Chuo U	24.9	6.0	16.0	19.0
% High Income	1.0	<0.1	3.3	5.0
Mean Flunks	6.32	6.31	6.65	7.50
% Flunks > 3	70.5	69.8	77.7	85.6
n	523	149	184	179

2. *High Income Taxpayers*

% U Tokyo	59.7	0	5.4	11.8
% Chuo U	12.7	0	20.4	25.2
Mean Flunks	3.38	4.00	6.20	6.79
% Flunks > 3	37.6	54.5	72.8	71.0
n	181	11	93	107

Notes: Panels B and C give the relevant figure for the population of lawyers in each column. In Panel B, among the high-income lawyers, the mean Flunks score was 4.97. In Panel C, among the randomly sampled Tokyo lawyers, 24.7 percent came from the University of Tokyo.

\* High-Income-Taxpayer.

For data sources, see Table 2.



**Table 4: Determinants of Attorney Income**

	(1)	(2)	(3)	(4)	(5)	(6)
	Tobit	Tobit	Tobit	Tobit	IV Tobit	IV Tobit
Flunks	<b>-0.070</b> (6.98)***	<b>-0.080</b> (7.44)***	<b>-0.075</b> (7.26)***	<b>-0.024</b> (1.95)*	<b>-0.078</b> (8.64)***	0.025 (0.76)
UTokyo	<b>0.607</b> (7.05)***	<b>0.617</b> (6.76)***	<b>0.589</b> (6.49)***	-0.063 (0.38)	<b>0.662</b> (5.69)***	-0.537 (1.07)
Experience	<b>0.094</b> (7.54)***	<b>0.086</b> (6.84)***	<b>0.088</b> (6.95)***	<b>0.078</b> (3.79)***	<b>0.082</b> (7.63)***	<b>0.084</b> (2.09)**
Experience <sup>2</sup>	<b>-0.002</b> (7.74)***	<b>-0.002</b> (6.97)***	<b>-0.002</b> (7.15)***	<b>-0.001</b> (3.97)***	<b>-0.002</b> (7.65)***	<b>-0.002</b> (2.74)***
Male	<b>0.464</b> (2.71)***	<b>0.409</b> (2.39)**	<b>0.430</b> (2.48)**	<b>1.196</b> (2.60)***	0.362 (1.63)	0.422 (0.15)
Tokyo				<b>1.036</b> (1.73)*		0.626 (0.15)
Osaka			<b>-0.619</b> (3.69)***		-0.383 (1.09)	
Metropolitan			0.057 (0.57)		<b>0.295</b> (1.93)*	
Provinces			<b>0.215</b> (2.16)**		<b>0.386</b> (3.13)***	
Tokyo*Flunks				<b>-0.107</b> (5.03)***		<b>-0.212</b> (2.94)***
Tokyo*U.Tokyo				<b>0.829</b> (4.20)***		<b>1.465</b> (2.10)**
Tokyo*Experience				0.022 (0.89)		-0.01 (0.18)
Tokyo*Experience <sup>2</sup>				0.000 (0.96)		0.000 (0.40)
Tokyo*Male				<b>-0.912</b> (1.83)*		0.103 (0.03)
Constant	<b>7.502</b> (32.17)***	<b>8.001</b> (27.87)***	<b>7.609</b> (32.39)***	<b>6.754</b> (12.24)***	<b>7.64</b> (32.83)***	<b>7.292</b> (2.34)**
Observations	1261	1261	1261	1261	1235	1235
Prefectural dummies	No	Yes	No	No	No	No

Notes: The dependent variable is **Ln Tax Liability**. For data sources, see Table 2. Columns (1) through (4) are tobit coefficients. Unlike in most tobit settings, here the “marginal effects” are the coefficients themselves, because the lower bound of 10 million yen is not the true tax level for lawyers with a low “tax tendency”, but rather means that their tax level was at or below 10 million. z statistic are in parentheses. Stars and boldfacing indicate significance at the 1% (\*\*\*), 5% (\*\*), and 10% (\*) levels. Columns (5) and (6) are instrumental variable tobit with Newey’s two-step estimator. In Column (5) we instrument the regional variables with the hometown of the lawyer, and in Column (6) we do the same for Tokyo. In Columns (2), (3) and (5), the omitted prefecture is Tokyo. Prefectural results are calculated in Regression (2) but not reported.

Figure 1: from other file.

Figure 2: from other file.

**Table 5: A Lawyer's Choice of Where to Practice**

	(1) <b>Elite</b> (U.Tokyo andFlunks<4)	(2) <b>Non-Elite</b>	(3) <b>All Lawyers</b>
Dependent Variable:	Ln(Tax)	Ln(Tax)	Tokyo location
Technique:	Tobit	Tobit	Probit
Flunks	-0.117 (1.32)	<b>-0.049</b> <b>(4.71)***</b>	<b>-0.027</b> <b>(2.83)***</b>
Experience	<b>0.085</b> <b>(3.26)***</b>	<b>0.087</b> <b>(6.17)***</b>	
Experience <sup>2</sup>	<b>-0.002</b> <b>(3.90)***</b>	<b>-0.002</b> <b>(6.04)***</b>	
Male	<b>0.61</b> <b>(1.79)*</b>	<b>0.456</b> <b>(2.36)**</b>	
Tokyo practice	<b>0.924</b> <b>(3.27)***</b>	-0.093 (1.16)	
University of Tokyo			<b>1.501</b> <b>(13.47)***</b>
Other Tokyo University			<b>0.942</b> <b>(10.57)***</b>
Constant	<b>7.671</b> <b>(13.95)***</b>	<b>7.498</b> <b>(27.19)***</b>	<b>-0.612</b> <b>(6.43)***</b>
Observations	167	1094	1261

Notes: The table gives the regression coefficients. Unlike in most tobit settings, here the “marginal effects” are the coefficients themselves, because the lower bound of 10 million yen is not the true tax level for lawyers with a low “tax tendency”, but rather means that their tax level was at or below 10 million. The corresponding z-statistic is below in parentheses. Stars and boldfacing indicate significance at the 1% (\*\*\*), 5% (\*\*), and 10% (\*) levels. **Elite** is as defined in the text. In regression (3), the omitted dummy is “Non-Tokyo University”. For data sources, see Table 2.

**Table 6: Determinants of Attorney Income:  
Robustness Checks**

A. Alternative Regression Forms:

	(1) Tobit	(2) OLS	(3) Probit	(4) Poisson
Dep. Var.:	Ln Tax Liability	Ln Tax Liability	HIT	Num. Appearances.
Flunks	<b>-0.070</b> (6.98)***	<b>-0.034</b> (4.21)***	<b>-0.062</b> (5.86)***	<b>0.014</b> (2.26)**
UTokyo	<b>0.607</b> (7.05)***	<b>0.320</b> (4.58)***	<b>0.496</b> (5.25)***	<b>0.284</b> (5.75)***
Experience	<b>0.094</b> (7.54)***	0.000 (0.01)	<b>0.101</b> (7.85)***	<b>0.040</b> (4.30)***
Experience <sup>2</sup>	<b>-0.002</b> (7.74)***	0.000 (0.17)	<b>-0.002</b> (8.00)***	0.000 (0.09)
Male	<b>0.464</b> (2.71)***	-0.175 (1.07)	<b>0.586</b> (3.18)***	<b>0.476</b> (2.97)***
Constant	<b>7.502</b> (32.17)***	<b>10.177</b> (43.07)***	<b>-1.936</b> (8.16)***	0.048 (0.22)
Observations	1,261	377	1,261	377

**Notes:** The regressions with 377 observations include only those attorneys who paid at least 10 million yen in 2004 taxes. The table gives the regression coefficients followed by the absolute value of the corresponding t- (or z-) statistic in parentheses. Unlike in most tobit settings, here the “marginal effects” are the coefficients themselves, because the lower bound of 10 million yen is not the true tax level for lawyers with a low “tax tendency”, but rather means that their tax level was at or below 10 million. Stars and boldfacing indicate significance at the 1% (\*\*\*), 5% (\*\*), and 10% (\*) levels. The OLS regression’s  $R^2$  is .16.

## B. Using 2003 Tax Liability:

	(1)	(2)	(3)	(4)	(5)
	Tobit	Tobit	Tobit	IV Tobit	IV Tobit
Flunks	<b>-0.072</b> (5.95)***	<b>-0.085</b> (6.55)***	<b>-0.078</b> (6.26)***	<b>-0.032</b> (2.13)**	<b>-0.082</b> (5.97)***
U. Tokyo	<b>0.569</b> (5.62)***	<b>0.596</b> (5.53)***	<b>0.587</b> (5.45)***	0.012 (0.06)	<b>0.659</b> (3.19)***
Experience	<b>0.100</b> (6.64)***	<b>0.091</b> (6.03)***	<b>0.093</b> (6.09)***	0.090 (3.66)***	<b>0.089</b> (5.22)***
Experience <sup>2</sup>	<b>-0.002</b> (6.54)***	<b>-0.002</b> (5.89)***	<b>-0.002</b> (6.02)***	<b>-0.001</b> (3.63)***	<b>-0.002</b> (5.48)***
Male	<b>0.737</b> (3.21)***	<b>0.680</b> (2.95)***	<b>0.693</b> (2.98)***	<b>1.135</b> (2.20)**	<b>0.63</b> (2.40)**
Osaka			<b>-0.447</b> (2.37)**		-0.188 (0.09)
Metropolitan			0.172 (1.44)		0.393 (1.29)
Provinces			<b>0.276</b> (2.35)**		0.428 (1.49)
Constant	<b>6.788</b> (21.67)***	<b>7.268</b> (19.78)***	<b>6.874</b> (21.82)***	<b>6.344</b> (9.85)***	<b>6.883</b> (17.13)***
Tokyo				0.668 (0.93)	
Tokyo * Flunks				<b>-0.107</b> (4.01)***	
Tokyo * U Tokyo				<b>0.748</b> (3.20)***	
Tokyo * Experience				0.012 (-0.40)	
Tokyo * Experience <sup>2</sup>				0.000 (0.52)	
Tokyo * Male				-0.503 (0.87)	
Observations	1,261	1,261	1,261	1,261	1,235

Notes: The dependent variable is **Ln Tax Liability** for 2003, not 2004. For data sources, see Table 2. Unlike in most tobit settings, here the “marginal effects” are the coefficients themselves, because the lower bound of 10 million yen is not the true tax level for lawyers with a low “tax tendency”, but rather means that their tax level was at or below 10 million. z statistics are in parentheses. Stars and boldfacing indicate significance at the 1% (\*\*\*), 5% (\*\*), and 10% (\*) levels. Columns (4) and (5) are instrumental variable tobit with Newey’s two-step estimator. In Column (5) we instrument the regional variables with the hometown of the lawyer, and in Column (4) we do the same for Tokyo. In Columns (3) and (5), the omitted prefecture is Tokyo. Prefectural results are calculated in Column (2) but not reported.

**Table 7: Determinants of Attorney Incomes outside Tokyo**

	(1)	(2)	(3)	(4)	(5)	(6)
	IV tobit	IV tobit	IV tobit	IV tobit No bootstrapping	IV	tobit
Attorneys PC	<b>-8.895</b> (3.13)***	<b>-8.913</b> (6.05)***	<b>-6.129</b> (2.01)**	<b>-8.895</b> (3.46)***	-2.828 (0.81)	<b>-4.627</b> (4.50)***
Judicial Scriveners PC	3.684 (1.38)	<b>7.354</b> (3.14)***		3.684 (1.55)	1.137 (0.54)	<b>2.135</b> (1.84)*
Flunks	<b>-0.027</b> (3.13)***	<b>-0.023</b> (2.34)**	-0.027 (0.80)	<b>-0.027</b> (2.89)***	<b>-0.016</b> (2.01)**	<b>-0.025</b> (2.51)**
U. Tokyo	<b>-0.182</b> (1.80)*	-0.181 (1.61)	-0.163 (1.04)	-0.182 (1.49)	-0.122 (1.59)	-0.162 (1.44)
Experience	<b>0.038</b> (2.64)***	<b>0.037</b> (2.19)**	<b>0.038</b> (2.02)**	<b>0.038</b> (2.55)**	0.001 (0.09)	<b>0.045</b> (3.20)***
Experience <sup>2</sup>	<b>-0.001</b> (2.69)***	<b>-0.001</b> (2.23)**	-0.001 (1.50)	<b>-0.001</b> (2.61)***	0.000 (0.01)	<b>-0.001</b> (3.41)***
Male	0.786 (0.61)	0.638 (0.42)	0.780 (0.59)	<b>0.786</b> (2.14)**	<b>0.521</b> (1.72)*	<b>0.890</b> (5.39)***
GDP PC	<b>0.642</b> (3.41)***	<b>0.744</b> (5.06)***	<b>0.539</b> (3.38)***	<b>0.642</b> (3.95)***	0.117 (0.60)	<b>0.407</b> (3.85)***
Bankruptcy PC	<b>0.589</b> (3.32)***		<b>0.481</b> (2.61)***	<b>0.589</b> (3.63)***	0.239 (1.29)	<b>0.319</b> (3.54)***
Crime PC	0.011 (0.69)		0.002 (0.06)	0.011 (0.78)	<b>0.025</b> (1.72)*	-0.011 (1.23)
Corporate Income PC	<b>-0.003</b> (2.90)***		-0.002 (0.51)	<b>-0.003</b> (2.64)***	<b>-0.001</b> (1.68)*	<b>-0.001</b> (1.93)*
Constant	<b>4.762</b> (2.30)**	<b>5.202</b> (3.29)***	<b>5.699</b> (2.88)***	<b>4.762</b> (4.70)***	<b>8.043</b> (5.63)***	<b>6.055</b> (9.87)***
Observations	621	621	621	621	197	621

Notes: The dependent variable is **Ln Tax Liability**. PC means “per capita”. We use only those lawyers located outside of Tokyo. These regressions give the regression coefficients with the absolute value of the z statistics below in parentheses. Unlike in most tobit settings, here the “marginal effects” are the coefficients themselves, because the lower bound of 10 million yen is not the true tax level for lawyers with a low “tax tendency”, but rather means that their tax level was at or below 10 million. Stars and boldfacing indicate significance at the 1% (\*\*\*), 5% (\*\*), and 10% (\*) levels. “Ivtobit” means instrumental variables tobit with Newey’s two-step estimator. In these estimations, we instrument **Attorneys** with variables for the amenities available in the prefecture: **Museums, Concerts, School Internet, and College Grads**. For data sources, see Table 2.

**Figure 1: Number of Flunks by School**

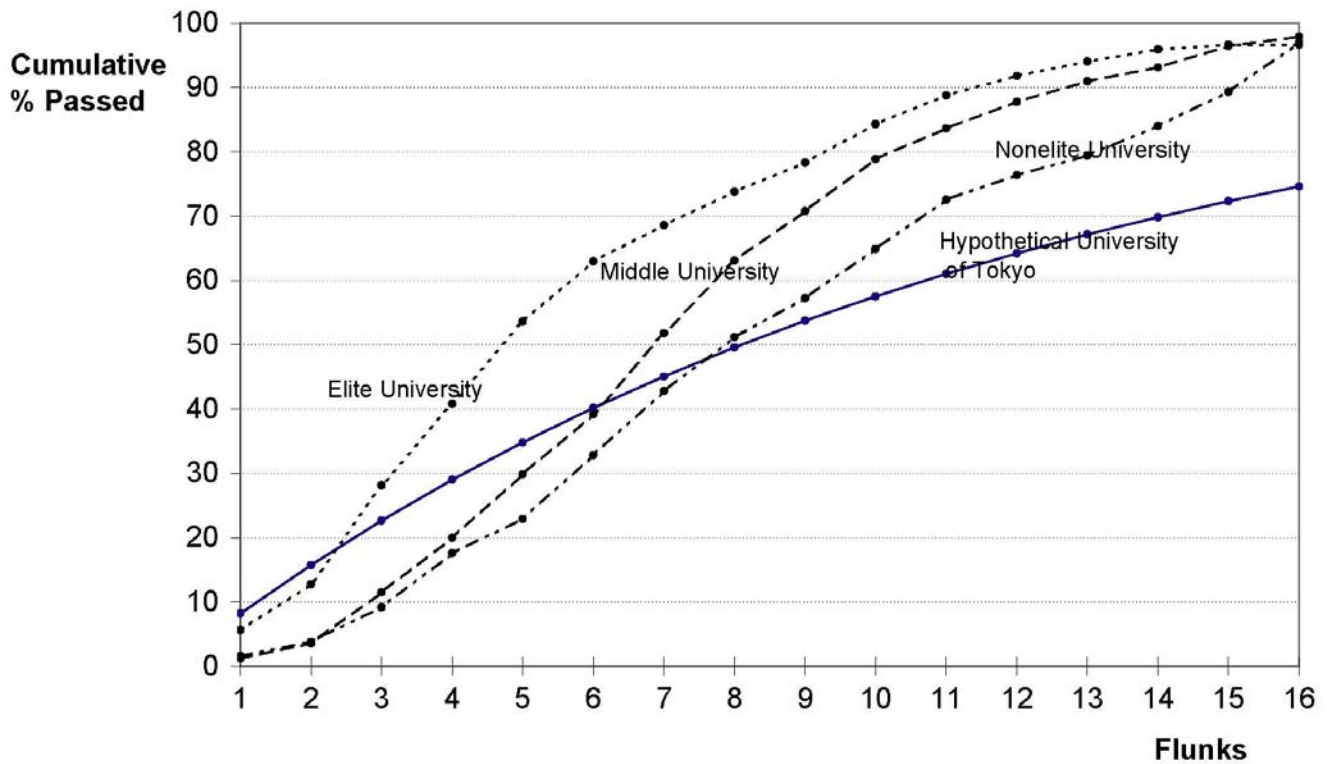
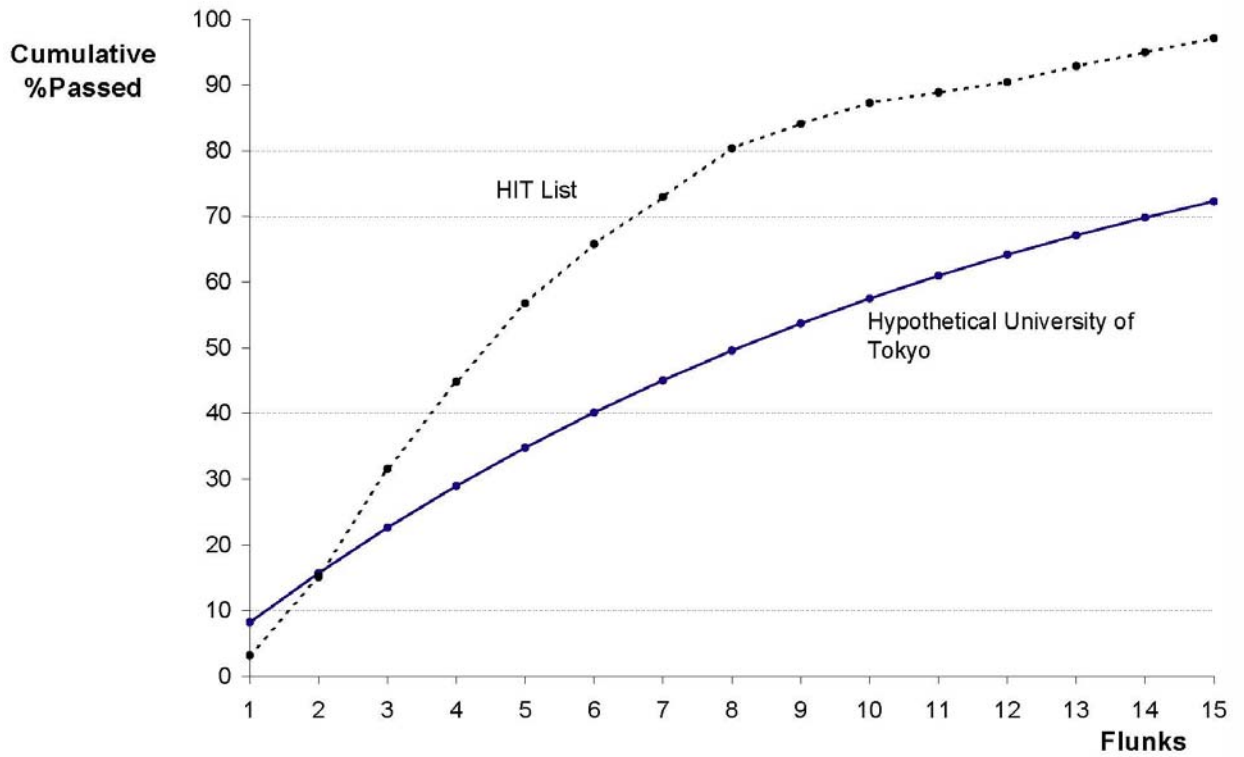


Figure 2: Number of Flunks, HIT Only





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