

SELF-REGULATION, COMPENSATION, AND THE ETHICAL RECRUITMENT OF OOCYTE DONORS

by AARON D. LEVINE

Over the last couple of decades, oocyte donation has become common, important, and sometimes lucrative. Women who donate eggs are often offered fees, though ostensibly only to offset their expenses and limited to no more than \$10,000, following recommendations adopted by the fertility industry. Is the industry adhering to its recommendations? A study of advertisements published in college newspapers raises questions.

In vitro fertilization, a technique pioneered by Robert Edwards and Patrick Steptoe in the 1970s, first produced a healthy child in 1978.¹ In the three decades since the birth of Louise Brown, the use of IVF has grown rapidly. In 2007, the most recent year for which data on IVF births are available, approximately 1.3 percent of children born in the United States resulted from IVF. In a typical IVF procedure, oocytes are extracted from the intended mother and fertilized by the intended father's sperm in a petri dish. In some cases, however, infertility results from the intended mother's inability to produce viable oocytes. In this situation, one option is for the

couple to use oocytes donated by another woman. The first IVF birth using this approach occurred in Australia in 1983.² Following this success, the practice spread slowly, with couples typically asking friends or relatives to serve as the oocyte donor.

The nature of oocyte donation in the United States changed in 1987 when the Cleveland Clinic started its Oocyte Donation Program, the first in the country to match anonymous donors with infertile couples and to compensate the anonymous donors. The program built on existing practices with sperm donation and allowed parents to select their donor based on national origins, height, and eye color, among other attributes. Oocyte donors were paid \$900 to \$1,200 for participation in the program. This compensation was offered to offset participants'

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direct and indirect costs, not as payment for their oocytes.³

The combination of anonymity and compensation for oocyte donors paved the way for rapid growth of this reproductive practice. In 1987, only seventeen U.S. medical centers offered oocyte donation. By 1990, this number had nearly tripled—forty-eight fertility clinics around the country offered the service. Most of these clinics still required women to find their own donors, but following the lead of the Cleveland Clinic program, an increasing number were providing donors for their patients and brokering a financial transaction between the intended parents and the oocyte donors, who received an average of \$2,000 per donation.⁴

Oocyte donation continued to grow throughout the 1990s and 2000s. According to reports pro-

duced annually by the Centers for Disease Control and Prevention, approximately 4,800 assisted reproductive technology (ART) cycles used donated oocytes by 1995. Ten years later, approximately 16,000 ART cycles used donated oocytes.⁵ The percentage of all ART cycles using donated oocytes increased from approximately 8 percent to 12 percent during this ten-year period. The 1992 law that mandates reporting of fertility clinic success rates does not address compensation for oocyte donation, but most of the women who donated eggs were presumably compensated.

For a variety of reasons, the fertility industry in general and the practice of oocyte donation specifically is not heavily regulated in the United States, particularly compared to other developed countries.⁶ The result is

that the fertility industry in the United States relies heavily on self-regulation, which generally takes the form of guidelines issued by two professional organizations—the American Society for Reproductive Medicine and the Society for Assisted Reproductive Technology.

The research I report here aims to gauge the effectiveness of self-regulation in the fertility industry, particularly as it pertains to the recruitment of oocyte donors. In it, I examine a novel data set—a collection of oocyte donor recruitment ads published in college newspapers across the country—to assess the extent to which the ASRM guidelines for compensating oocyte donors are honored in advertisements that recruit donors.

In brief, my analysis identifies several concerns with the self-regulatory approach. Nearly half of the

How the Data Were Collected

I compiled the data set of egg donor recruitment advertisements in two phases. The first phase, in April 2005, was a pilot study of newspapers at thirty-one randomly selected universities. I identified the mailing address of the major student newspaper at each university, either from the *Gale Directory of Publications and Broadcast Media* or from the Web site of either the newspaper itself or the college or university,¹ and I mailed a letter to each newspaper requesting copies of its two most recently published issues. For the pilot study, I addressed these letters to the highest-ranking member of either the editorial staff or the advertising/business staff. I addressed half of the letters to a specific individual, and half to a position title, such as “business manager.” I included a postage-paid return envelope with each mailing. I received nineteen responses (61 percent). Newspapers from four different schools (13 percent overall, 21 percent of respondents) contained advertisements seeking to recruit oocyte donors. Letters sent to the advertising/business staff generated responses at a significantly higher rate than those sent to editorial staff (90 percent versus 48 percent, $P < 0.01$). Response rates were slightly higher when I sent letters to generic position titles rather than specific individuals (67 percent versus 56 percent, not significant), perhaps because the specific individuals listed on newspaper Web sites or printed directories were occasionally out of date.

Following the pilot study, I replicated the same data collection approach on a larger scale. The starting point for this second data collection was the list of colleges and univer-

sities included in the electronic version of *U.S. News and World Report's* 2006 issue on America's Best Colleges. (An updated version is available at <http://colleges.usnews.rankingsandreviews.com/college>.) I used this listing of institutions of higher education because it also contains data on the SAT or ACT scores of incoming students, which I needed as an explanatory variable. This report included current SAT or ACT data for 1,259 different colleges and universities, and this set of educational institutions formed the basis for my data collection.

As in the pilot study, I conducted searches to identify the address of the major student newspaper at each of these institutions. I was able to identify addresses for a total of 975 student newspapers. Based on the results of the pilot study, I addressed letters generically to the advertising or business manager at each of these newspapers. These letters requested that a copy of the most recently published issue and one additional recent issue be returned in the enclosed postage-paid envelope. I mailed the letters in April 2006. A total of 366 newspapers responded, yielding an overall response rate of approximately 38 percent. I found advertisements seeking to recruit oocyte donors in newspapers from a total of sixty-three different universities (6 percent overall, 17 percent of respondents). Many of these newspapers contained multiple advertisements for oocyte donors.

1. Gale Research, *Gale Directory of Publications and Broadcast Media* (Detroit, Mich.: Gale Research, 2003).

advertisements offered compensation exceeding recommended levels. In addition, analysis indicated that average SAT scores at the college or university where an advertisement was published were a strong predictor of the compensation offered. This effect was strong and significant for advertisements placed by donor agencies and individual couples, but absent for advertisements placed by fertility clinics, which suggests that donor agencies and couples valued specific donor characteristics and based compensation on these preferences—a violation of the guidelines. These findings call into question the notion that the current self-regulatory framework provides appropriate ethical protections for oocyte donors.

The Ethics of Oocyte Donation

The advent of oocyte donation in the early 1980s and the growth in its use in the ensuing decades have raised several ethical concerns.⁷ These concerns can be broadly divided into two areas: those arising directly from the use of oocyte donation in the context of IVF and those arising from the compensation of oocyte donors. The first set of concerns includes the argument—made primarily by the Roman Catholic Church—that all noncoital reproduction is morally wrong. It also includes concerns that oocyte donation might harm the resulting offspring, perhaps due to confusion associated with having different genetic and gestational mothers. Finally, it also includes the idea, articulated by Daniel Callahan in the context of sperm donation, that anonymous gamete donation is an abrogation of parental responsibilities.⁸ Although these ethical concerns are not fully resolved, they have not hindered the growth of oocyte donation in the United States and are not central to the issues of oocyte donor compensation addressed here.

Compensation for oocyte donation generates another set of ethical issues. Specifically, compensating oocyte donors raises questions about the

commodification of human gametes. Suzanne Holland, for instance, has argued that such commodification “contributes to a diminished sense of human personhood” and ought to be subject to government regulation.⁹ Commodification is a concern whenever any monetary value is placed on human oocytes, but particularly when high values are placed on human oocytes from donors with specific characteristics—a practice that also raises eugenic concerns. High compensation for oocyte donation also inspires concern about the possibility of undue inducement. Even if compensating oocyte donors is not inherently wrong, offering large sums

Three ads, in the *Harvard Crimson*, the *Daily Princetonian*, and *Yale Daily News*, offered \$35,000, and an ad in the *Brown Daily Herald* offered \$50,000 to “an extraordinary egg donor.”

of money may encourage potential donors to discount the risks associated with the process and to choose to donate against their own best interests. This, Bonnie Steinbock argues, is a form of exploitation.¹⁰

At the federal level, one of the few laws to directly address the fertility industry is the Fertility Clinic Success Rate and Certification Act of 1992.¹¹ This law mandates the reporting of success rates at U.S. fertility clinics and leads to annual CDC reports that provide national statistics on the use of IVF and oocyte donation in the United States. The act does not, however, mandate specific medical practices or place any restrictions on oocyte donation or the compensation of oocyte donors. At the state level, regulation of the fertility industry focuses on issues related to health insurance. A total of fourteen states have laws that mandate that health insurers either cover or provide some

plans that cover infertility diagnosis and treatment.¹² Both federal and state laws are largely silent on the subject of compensating oocyte donors. Exceptions are Louisiana, which explicitly prohibits the sale of human oocytes, and Virginia, which formally sanctions such sales.¹³

The guidelines issued by the American Society for Reproductive Medicine and the Society for Assisted Reproductive Technology, which in the United States stand in for formal regulation, cover a wide spectrum of issues related to fertility treatment, including the compensation of oocyte donors. As early as 1986, the American Fertility Society, a precu-

rior to the ASRM, recommended that oocyte donors not be reimbursed for their oocytes.¹⁴ For this reason, the Cleveland Clinic, when it started the first anonymous oocyte donor program, compensated donors for the “direct and indirect costs of their participation.”¹⁵ More recently, the ASRM Ethics Committee has revisited this issue and published a series of guidelines on financial incentives and compensation in the recruitment of oocyte donors.¹⁶ These reports have expressed concern about the risk of undue inducement and exploitation but concluded that limited compensation for oocyte donors can be ethically justified.

The three most recent guidelines each contain essentially identical guidance on the compensation of oocyte donors. The ASRM Ethics Committee wrote that, “although there is no consensus on the precise payment that oocyte donors should receive,

at this time sums of \$5,000 or more require justification and sums above \$10,000 are not appropriate.¹⁷ In addition to these limits on absolute compensation, to minimize concerns about commodification, the ASRM Ethics Committee recommends that, “to avoid putting a price on human gametes or selectively valuing particular human traits, compensation should not vary according to the planned use of the oocytes (for example, research or clinical care), the number or quality of oocytes retrieved, the outcome of prior donation cycles, or the donor’s ethnic or other personal characteristics.”¹⁸

The extent to which these limits on compensation recommended by the ASRM Ethics Committee are appropriate remains an open question. The committee justified its \$5,000 threshold based on an estimate of compensation offered to sperm donors, extrapolated to cover the time associated with oocyte donation.¹⁹ Left unaddressed were the questions

of whether compensation levels for sperm donors were appropriate and whether the sperm and oocyte donation processes were sufficiently similar to justify this analogy. The Ethics Committee noted differences between the two processes and concluded that the “lengthier time period of commitment” and increased “discomfort, risk and physical intrusion” associated with oocyte donation when compared to sperm donation supported substantially higher payments to oocyte donors.²⁰ The magnitude of this payment differential was not explored, but it may have been the unstated rationale for the ASRM’s recommendation that compensation not exceed \$10,000.

Even if the precise monetary thresholds represent pragmatic, if somewhat arbitrary, decisions by the ASRM Ethics Committee, they may still serve a valuable ethical purpose. The monetary threshold at which potential oocyte donors begin to discount risks likely varies between in-

dividuals, but if these compensation limits protect a substantial number of potential donors from undue inducement and exploitation, they may be justified on consequentialist grounds. The undue inducement of oocyte donors remains a largely hypothetical concern at this point, however, which calls this justification into question. In the absence of evidence documenting these risks, limits to compensation are difficult to justify, and one may even wonder whether compensation limits represent, at least in part, a form of price fixing.²¹

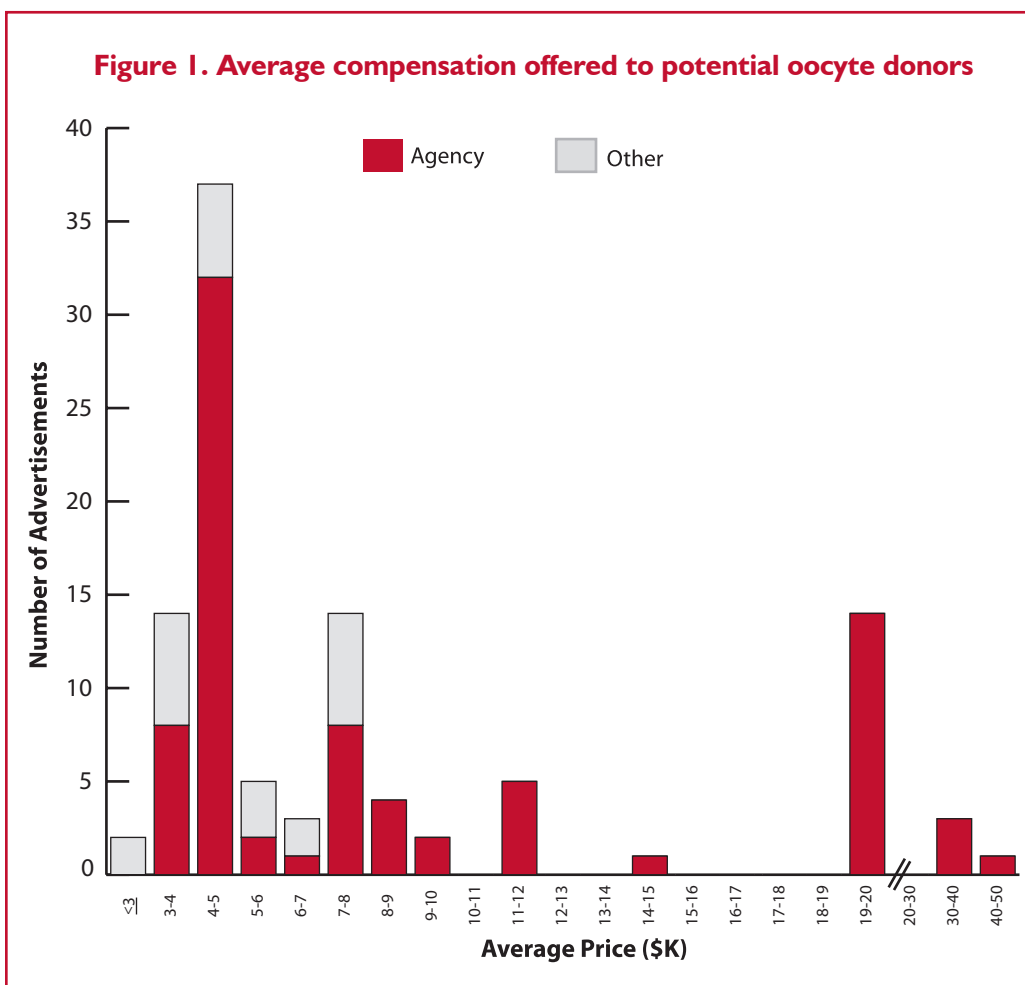
Concerns about the effectiveness of self-regulation in the fertility industry, particularly as it pertains to compensation for oocyte donation, have emerged from time to time. These have typically been voiced in the mainstream media after an advertisement offering compensation far in excess of the limits recommended in the ASRM guidelines has come to light. Although no comprehensive database of these advertise-

Table I. Descriptive statistics of study variables

<i>Variable</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Min.</i>	<i>Max.</i>
Minimum compensation	\$8,833	\$8,030	\$3,000	\$50,000
Average compensation	\$9,190	\$7,972	\$3,000	\$50,000
Maximum compensation	\$9,548	\$8,012	\$3,000	\$50,000
Appearance requirement	0.14	0.35	0	1
Ethnicity requirement	0.23	0.42	0	1
Agency	0.77	0.42	0	1
Clinic/hospital	0.20	0.40	0	1
Couple	0.17	0.38	0	1
State IVF demand	453	323	132	1,802
Average school SAT	1,192	168	864	1,490
Minimum or average school SAT	1,177	152	864	1,490

This analysis is based on a sample of 105 advertisements. The three compensation variables show similar distributions because the minimum, average, and maximum were the same for the 80 percent of advertisements that offered a single level of compensation. Both the twenty-fifth percentile and median values for each of these variables was \$5,000. The seventy-fifth percentile was \$8,000, \$9,000, and \$10,000 for the minimum, average, and maximum compensation variables, respectively.

Figure I. Average compensation offered to potential oocyte donors



ments exists, ads promising as much as \$100,000 have appeared in college newspapers.²²

To date, only a few studies have looked empirically at the compensation offered to oocyte donors in the United States. Most notable among these is a survey, conducted in April 2006 on behalf of the Society for Assisted Reproductive Technology, of fertility clinics that were SART members.²³ This survey concluded that the national average for oocyte donor compensation was approximately \$4,200 but found notable geographic variations, with the highest average compensation levels occurring in the East/Northeast (\$5,018) and West (\$4,820). While most clinics paid a standard fee to all donors, one out of five clinics reported that compensation could vary with donor characteristics such as ethnicity or prior fertility history, raising concerns that some of

these clinics might be in violation of ASRM guidelines. Another study examined how well sixty-six oocyte donor and surrogacy agencies that had previously signed an agreement with SART to abide by ASRM guidelines had actually complied with them.²⁴ The study found that a “substantial number of egg donor agencies in the United States” had not.

Oocyte Donor Recruitment Advertisements

My aim in conducting the study reported here was to contribute to the growing literature on the recruitment of oocyte donors. The study focuses on the recruitment of oocyte donors through advertisements placed in newspapers at colleges and universities in the United States. I collected these advertisements from newspapers returned to me follow-

ing mailings to college newspapers in April 2005 and April 2006 (see the sidebar for details). In total, I collected 111 advertisements from 65 different student newspapers. Most of my analysis below focuses on the data I collected in 2006. This data set contains 105 advertisements found in 63 different student newspapers. When the same advertisement was placed in multiple issues of the same student newspaper, I counted it only once, but when the same advertisement was found in newspapers at different colleges or universities, I counted each as an individual advertisement. I found a large majority of these advertisements in newspapers published in April 2006 (73 percent), with most of the remainder coming from March 2006 issues (19 percent). Because my focus in this study is the compensation offered to oocyte donors, I excluded approximately twenty oocyte

donor recruitment advertisements that did not indicate the amount of compensation offered from the analysis. These data are, to my knowledge, the first national cross-sectional sample of oocyte donor recruitment advertisements and provide a unique snapshot of the compensation offered to potential oocyte donors in spring 2006.

I coded several variables for each advertisement. I used three compensation variables: both the minimum and the maximum compensation amounts indicated in each advertisement, as well as the average of these two values. The three variables were the same for the 80 percent of advertisements that listed only a single compensation level, but each of the three was different for the 20 percent of advertisements that offered a range

of compensation levels (\$5,000 to \$10,000, for example). In addition, approximately one-quarter of the advertisements listed specific requirements for potential donors. I created two binary variables to capture these requirements—one for appearance requirements (for example, blue eyes, brown hair, or a specific height range) and one for ethnicity requirements (such as Ashkenazi Jew or Japanese). I did not code advertisements that listed specific characteristics or ethnicities as preferred but not required as having donor requirements.

The advertisements also varied based on the organization or individuals placing them, with most placed either by donor agencies or fertility clinics. For this reason, I created binary variables for these two sources. In addition, I created a binary vari-

able to indicate whether each advertisement appeared to be for a single couple. Couples placing these advertisements often mentioned affiliations with either a donor agency or a fertility clinic, so these categories were not mutually exclusive. The variable labeled “average school SAT” equaled the average of the twenty-fifth percentile and seventy-fifth percentile of the SAT scores of incoming students at that school in 2003, as reported in *U.S. News and World Report*.²⁵ I calculated the “minimum or average school SAT” variable in the same manner, except that for twenty-one advertisements that specified a minimum SAT score, this specified requirement replaced the calculated value. In addition to these variables that I coded directly from the advertisements, I constructed a “state IVF

Table 2. Regression estimates of factors influencing donor compensation

	<i>Model 1</i>	<i>Model 2</i>
Average school SAT	23.5*** (5.0)	-7.2 (6.7)
Agency	3,276.9*** (1,165.7)	3,510.6*** (961.6)
Couple	3,577.9 (3,233.7)	730.5 (2,138.1)
SAT * agency		26.5*** (6.7)
SAT * couple		38.5** (18.8)
State IVF demand	3.5* (2.1)	2.3 (1.6)
Appearance requirement	1,654.7 (2,344.2)	1,374.5 (2,938.2)
Ethnicity requirement	1,007.7 (2,304.2)	3,934.5 (3,181.4)
Constant	3,980.9*** (1,305.5)	3,531.4*** (1,160.6)
F	18.4***	22.9***
R ²	0.48	0.60

OLS regression estimates are shown on the first line of each cell with heteroskedasticity-robust standard errors in parentheses below. Two summary statistics are provided: F indicates the f-statistic testing the significance of the model as a whole, and R² indicates that fraction of variation in the dependent variable explained by the independent variables. To ease interpretation of the interaction terms, the school SAT variable was mean-centered. The sample size was 105 for both models.

* P < 0.1, ** P < 0.05, *** P < 0.01

demand” variable based on data in the Centers for Disease Control and Prevention’s 2005 ART report.²⁶ This variable equaled the number of IVF cycles per million residents in that state in 2005. Summary statistics for all variables are shown in Table 1.

Compensation Offered to Potential Oocyte Donors

My primary focus in this study was whether the average compensation offered in these advertisements was consistent with the ASRM guidelines. As shown in Figure 1, fifty-three (about 50 percent) of the advertisements offered \$5,000 or less in compensation. All of these advertisements and the organizations or couples that placed them comply with the ethics committee’s guidelines for total compensation. Among these fifty-three advertisements, average compensation ranged from \$3,000 (the sole compensation offered by two fertility clinics, one in California and one in Florida), to \$5,000, the average compensation listed in thirty-two advertisements. Average compensation of \$5,000, the maximum compensation level acceptable under the ASRM guidelines without justification, was both the modal and median value among the entire set of 105 advertisements.

I compared these fifty-three advertisements with the remaining fifty-two that offered average compensation in excess of \$5,000. I found significant differences between these two groups for the average school SAT (1,102 versus 1,283, $t = -6.51$, $p < 0.001$, $n = 105$), state IVF demand (312 versus 597, $t = -4.98$, $p < 0.001$, $n = 105$), and appearance requirement variables (2 percent versus 27 percent, $t = -3.86$, $p < 0.001$, $n = 105$). The differences in the percentage of advertisements in each group that were placed by agencies, clinics, and couples did not reach standard significance levels. These initial comparisons suggest that some clinics and donor agencies may offer compensation in excess of \$5,000 to

meet higher demand in specific states or to recruit donors with specific characteristics.

Twenty-eight advertisements (27 percent) offered an average compensation between \$5,000 and \$10,000, a range that, according to the ASRM Ethics Committee, requires justification.²⁷ No specific guidance is provided regarding acceptable justifications, so it is difficult to determine if these advertisements comply with or violate the guidelines. Several of the advertisements in this category included specific requirements, asking only for Jewish donors, for instance, or only for donors with brown hair. Since the ASRM Ethics Committee has written that compensation should not vary according to the donor’s ethnic or other personal characteristics, these sorts of donor-specific requirements are presumably not appropriate justification for a compensation level exceeding \$5,000.

The final twenty-four advertisements (23 percent) offered an average compensation exceeding \$10,000, an amount that the ASRM Ethics Committee has written is “not appropriate.”²⁸ A donor agency placed each of these advertisements, and most contained appearance or ethnicity requirements. Many of the advertisements in this category offered \$20,000 in compensation, but a small number exceeded this amount. Three ads in the data set offered \$35,000. These ads, all identical, ran in the *Harvard Crimson*, *Daily Princetonian* and *Yale Daily News* in April 2006. This particular advertisement was placed by a donor agency on behalf of a specific couple and sought a truly exceptional woman—one who was attractive, athletic, less than twenty-nine years old, and had a GPA over 3.5 and a SAT score over 1,400. One advertisement offered \$50,000. This advertisement, placed in the *Brown Daily Herald* in March 2006 by a different donor agency on behalf of a private couple, sought an “extraordinary egg donor” between the ages of eighteen and twenty-six.

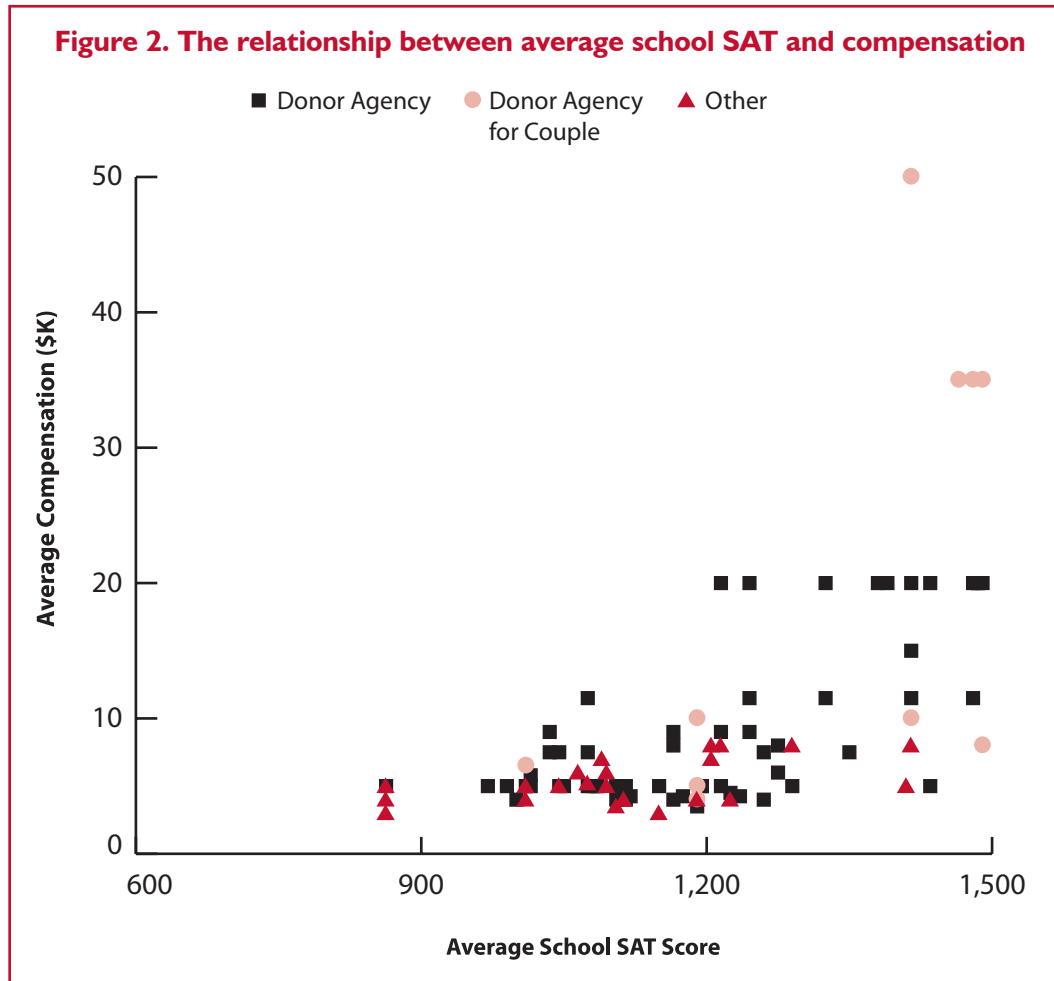
These data suggest that violation of the ASRM Ethics Committee’s compensation guidelines is relatively common. Nearly half of the advertisements identified offered an average compensation in excess of \$5,000. Each of these advertisements and the donor agencies, fertility clinics, or couples that placed them are potentially in violation of ASRM guidelines. Almost one-quarter (23 percent) of the advertisements offered compensation in excess of \$10,000, a clear violation of ASRM guidelines.

Factors Influencing Oocyte Donor Compensation

Plainly, the compensation offered to potential donors varies substantially from donor to donor. In the data set I examined, the minimum compensation offered was \$3,000, and the maximum was \$50,000. This range, based on a sample of newspaper advertisements, probably understates the actual range—at least on the high end, since advertisements offering as much as \$100,000 have been reported.²⁹ What explains the wide variation? Is it variability in regional demand, as suggested by the recent SART-sponsored survey?³⁰ Is it the search for donors who meet specific requirements for appearance, height, ethnicity, or intelligence? Or is it some combination of these and perhaps other factors? The cross-sectional sample of donor recruitment advertisements collected in this study offers a unique opportunity to explore the factors that influence compensation.

Previous discussions of oocyte donor compensation, particularly in the mass media, have drawn attention to the possibility that SAT scores influence compensation.³¹ This relationship is illustrated in Figure 2, which plots the average compensation offered in each advertisement against the SAT score of incoming students at the school where the advertisement was placed. A quick look is enough to see that most of the advertisements offering compensation of \$20,000

Figure 2. The relationship between average school SAT and compensation



or more were found at schools with high average SAT scores. The figure also distinguishes advertisements placed by donor agencies on behalf of specific couples, advertisements that were placed by donor agencies and do not mention a specific couple, and other advertisements. Many of the advertisements offering higher compensation and targeting higher SAT scores were placed by donor agencies, which suggests that the source of the advertisement may be an important element in this relationship.

More systematically exploring the factors that influence donor compensation requires a brief detour into the nuts and bolts of statistical analysis. Specifically, I analyzed the data using an ordinary least squares regression framework, with average compensation as the dependent variable. Independent variables included the agency, couple, appearance re-

quirement, and ethnicity requirement variables (all binary indicators), the state IVF demand variable, and the SAT variables. Results from the regression analysis are shown in Table 2.

Several of the independent variables were statistically significant predictors of the average compensation offered to potential oocyte donors.³² In the first model shown in Table 2, the average school SAT, state IVF demand, and agency variables were all significant. Holding all else equal, an increase of one hundred SAT points in the score of a typical incoming student increased the compensation offered to oocyte donors at that college or university by \$2,350. Similarly, an increase of one hundred IVF cycles per million residents in the state increased the offered compensation by \$350. Finally, holding all else equal, advertisements placed by donor agen-

cies offered nearly \$3,300 more in compensation than other advertisements. The finding that compensation varies with SAT score suggests that, in violation of the ethical guidelines, at least some fertility clinics, donor agencies, or couples are considering donors' personal characteristics in the compensation they offer.

Model 2 incorporates two new variables designed to examine whether the relationship between the average compensation and the average school SAT variables differed depending on who placed the advertisements (for instance, donor agencies or specific couples). Both of these new variables were statistically significant, indicating that this relationship varies by source. For general advertisements placed by donor agencies, an increase of one hundred points in the SAT score of a typical incoming student increased the com-

penetration offered to oocyte donors by \$1,930. For advertisements placed on behalf of a specific couple, a similar increase in the SAT score of a typical incoming student increased the compensation offered by \$3,130. Finally, for advertisements placed by a donor agency on behalf of a specific couple, an increase of one hundred SAT points increased the compensation offered by \$5,780. In the second model, the coefficient on the average school SAT score variable does not reach standard significance levels.³³ This suggests that average school SAT score does not significantly influence compensation for general advertisements placed by fertility clinics.

To evaluate the robustness of these results, I also examined several alternative specifications. (None of these are shown in the figures.) These included replicating Model 1 while replacing the “average school SAT” variable with the “minimum or average school SAT” variable. This has the effect of lowering the SAT value for universities with very high average SAT scores. Despite this change, all of the same variables remain significant and have similar coefficients. In addition, I examined the effect of using minimum rather than average compensation as the dependent variable. This approach yielded generally similar results, both in terms of the coefficients that were significant and the magnitude of their values. Finally, I examined the use of regional indicator variables. These variables were significant but had generally the same effect as the state IVF demand variable. With the exception of the state IVF demand variable, including the regional indicator variables did not substantially alter either the significance or the coefficients of the other independent variables of interest.

What my analysis establishes is that, on average, higher donor compensation is associated with advertisements placed in states with higher demand for IVF, schools with higher average SAT scores, and recruitment by donor agencies. Notably, the effect of higher average SAT scores is lim-

ited to advertisements placed by donor agencies and individual couples. As ASRM guidelines prohibit linking compensation to donor personal characteristics, the strong positive relationship between SAT scores and compensation should be cause for concern. This relationship strongly suggests that donor agencies and couples are placing more value on oocytes donated by women with higher SAT scores, which would violate the ASRM guidelines.

Promoting Ethical Oocyte Donor Recruitment

Every week, college and university newspapers around the

members and presumably value this membership. Indeed, compliance with practice and ethical guidelines is a requirement of membership. SART has little leverage, however, over donor agencies. SART has attempted to encourage compliance by maintaining a list of donor agencies that have agreed to abide by the ASRM guidelines.³⁴ Appearing on this list may be beneficial to individual agencies, but how much benefit it offers is unclear. The effectiveness of this approach is also called into question by recent research that found that many of the agencies on this list were offering compensation on their Web sites that clearly violated the guidelines.³⁵ In addition, neither donor agencies

A legal cap on compensation would

eliminate the worst of the abuses.

Alternatively, SART and ASRM might take steps to improve compliance with the current guidelines.

United States contain advertisements designed to recruit oocyte donors. Many of the clinics, donor agencies, and couples that place these advertisements follow the ASRM ethical guidelines, but some do not. Absolute compensation levels offered in individual advertisements often violate these recommendations, and analysis of the data set as a whole suggests that compensation also varies with the personal characteristics of donors, particularly their perceived intelligence, as measured by SAT scores. These results highlight the challenge of using self-regulation to ensure that oocyte donation proceeds in an ethical manner.

These difficulties likely result, at least in part, because violating the ethical guidelines has few serious consequences. SART has some leverage to encourage compliance by fertility clinics, most of which are SART

nor individual couples seeking fertility treatment are members of SART and, thus, do not share the fertility clinics' obligation to follow the guidelines. This differential obligation may explain why average school SAT scores are not associated with compensation for advertisements placed by fertility clinics, while they are strongly associated with compensation offered by donor agencies and individual couples. This finding suggests that self-regulation could prove more effective in the fertility industry if its reach extended beyond fertility clinics to encompass a broader range of players in the industry.

This study examined advertisements offering compensation, rather than the actual compensation itself. This distinction is of little significance if the advertisements found in student newspapers accurately represent the compensation oocyte donors

receive. However, if they are not accurate representations, then worries about violating ASRM guidelines and the associated risk of exploitation may be overstated. The possibility exists that some advertisements offering high compensation are not genuine offers, but rather a ploy to build an agency's list of potential donors using a "bait and switch" tactic.³⁶ This idea gains some credence from the lack of highly compensated donors appearing in follow-up studies of oocyte donors.³⁷ In at least a few cases, however, employees of donor agencies have confirmed that sums as large as \$35,000 or \$50,000 have been paid.³⁸ Even if compensation of \$20,000, \$35,000, or \$50,000 (all levels seen in the sample of oocyte donor recruitment advertisements reported here) represent the fringes of the "market" for oocyte donation and occur only infrequently, they remain ethically problematic.

Action designed to reduce violations of ASRM guidelines must be weighed against the benefits of the current system. Many other countries, including the United Kingdom and Canada, have enacted laws banning or placing strict limits on oocyte donor compensation. These laws generally make donor oocytes less available to patients undergoing IVF and may therefore reduce IVF success rates or even eliminate this option for some couples.³⁹ Legal restrictions may also lead to a black market in oocytes or encourage reproductive tourism.⁴⁰

Others have argued that the United States should regulate the market for human oocytes.⁴¹ If U.S. legislators were to address oocyte donor compensation, they might do well to consider restricting, but not banning, compensation. A cap on compensation, set initially at perhaps \$8,000 or \$10,000 and indexed to inflation, would eliminate the worst of the abuses without eliminating donated oocytes as an option for those struggling with fertility problems. The largest losers under such a policy would be parents who seek donors with specific and rare charac-

Figure 3. Recruitment advertisements in context

EGG DONORS NEEDED
EARN \$5000 - \$10,000+ BY HELPING INFERTILE COUPLES HAVE FAMILIES. VISIT [REDACTED] FOR INFORMATION.

WOMEN 18-22 YEARS OLD
TO AUDITION FOR ADULT VIDEOS. ABSOLUTELY NO EXPERIENCE REQUIRED. FLEXIBLE SCHEDULE, ALL AUDITIONS DONE LOCALLY. AUDITION PAYS CASH. MUST BE 18 AND ABLE TO PROVE IT. SIGNED MODEL RELEASE REQUIRED. CALL [REDACTED] 9AM - 9PM FOR INFORMATION.

EARN \$5000 ANONYMOUS
EGG DONORS NEEDED. EARN \$5000 AND HELP COUPLES ACHIEVE THEIR DREAMS OF HAVING A FAMILY. DONORS MUST BE BETWEEN THE AGES OF 20-30, HAVE A CLEAN HEALTHY HISTORY, AND HEIGHT AND WEIGHT PROPORTIONATE. PLEASE EMAIL US AT: [REDACTED] FOR AN APPLICATION AND MORE INFORMATION.

Reproductive Services 85

THE DAILY encourages all readers to verify the legitimacy of a Reproductive Service company before responding.

As stated in the Fertility and Sterility Ethics Committee Report:
"Although there is no consensus on the precise payment that oocyte donors should receive, at this time sums of \$5,000 or more require justification and sums above \$10,000 go beyond what is appropriate."

If you have responded to an ad that seems deceptive, please call The Daily at [REDACTED]

WOMEN
EARN \$18,000-\$24,000 with 6 egg donations in [REDACTED] or across the US
[REDACTED]

teristics and are willing to pay them large sums, and the young women who fulfill these parents' desires and have used donor compensation to fund their education or improve their financial circumstances. Of course, changing the behavior of participants in this segment of the market for oocyte donation would be precisely the point of the suggested policy. Given that a price ceiling could harm some couples and donors and inspire a black market in high-end oocytes, it should be considered only if empirical research establishes that highly compensated oocyte donors are exploited.

Alternatively, SART and ASRM might take steps to improve compliance with the current ethical guidelines, both to reduce concerns about the exploitation of donors and to head off potential legislation. SART currently posts on its Web site a list of donor agencies that have agreed to abide by the ethical guidelines, but compliance is self-reported and unverified. A relatively low-cost improvement to this approach would be verifying compliance, at least through the examination of donor agency Web sites, as done in the recent study

that noted compliance issues among firms included on SART's list.⁴²

Current ASRM Ethics Guidelines instruct fertility clinics to refuse to participate if donor agencies or prospective oocyte recipients have offered oocyte donors "excessive payment that could compromise the donor's free choice."⁴³ Judging from the data I report here, however, many clinics do not comply with this component of the ethical guidelines. SART may want to emphasize this element of its guidelines or add enforcement mechanisms to encourage compliance, as refusing to work with non-compliant donor agencies may offer useful leverage to reduce the risks of undue inducement and exploitation. This approach could impose burdensome administrative requirements on fertility clinics, however. Also, if there is no way of ascertaining that all clinics are abiding by the guidelines, then individual clinics might decide that they are better off breaking ranks and working with noncompliant agencies and couples.

Changes to the format or context of advertisements that seek to recruit oocyte donors may also offer an opportunity to reduce concerns about

exploitation. In the collection of data for this study, a few ads created a perception of exploitation, while others seemed to minimize this risk. Since many oocyte donor recruitment ads are found in the classifieds section, other advertisements found nearby are one relevant contextual factor. For example, on the left side of Figure 3, which shows several oocyte donor recruitment ads and associated material, are two ads above and below an ad recruiting young women to participate in “adult videos.” This placement may imply that oocyte donation and work in the adult video industry are comparable options, at least for college-aged women looking to supplement their income. Although how this placement actually affects potential donors is not clear, the perception it fosters is not in the best interest of the fertility industry, and SART may want to take action to reduce such occurrences.

One approach to reduce these concerns was found in *The Daily*, the student newspaper of the University of Washington. In this newspaper, the classifieds contain a separate section, titled “Reproductive Services,” as shown in the upper right of Figure 3. This approach, which I also found in other student newspapers during this study, separates ads seeking oocyte donors from other ads that may negatively influence the perception of oocyte donation. *The Daily* also prints a short excerpt from the ASRM ethics guidelines at the start of this section. This approach—which was unique to *The Daily* among the newspapers I studied here—may discourage fertility clinics and donor agencies from placing advertisements that violate ASRM guidelines and encourage potential donors to consider risks more carefully before responding to an advertisement. It would be relatively easy for SART to contact major student newspapers and request that they adopt a similar policy. If many newspapers complied with this request, their collective action might, at relatively low cost, increase compliance with ASRM’s ethical guidelines.

One other interesting advertisement is shown in the bottom right of Figure 3. This advertisement offers potential donors \$18,000 to \$24,000 for six donations. It is not clear from the advertisement if donors are asked to commit to six donations initially, or if they can receive proportionally less compensation for a smaller number of donations. Assuming the latter, the advertisement does not appear to violate the ASRM’s ethical guidelines for compensation per donation. Still, recruiting donors for six donations at once is problematic. Due to concerns about health risks to oocyte donors, the ASRM Practice Committee has recommended that individual donors be limited to a total of six cycles.⁴⁴ The advertisement complies with this limit, but it creates the perception that multiple donations are expected. It would be better to recruit women for a single donation and to explore the possibility of future donations only after the initial donation is complete and the donor’s physical and psychological responses to it have been assessed. Although advertisements requesting multiple donations were not common, the ASRM Ethics Committee may want to consider discouraging this practice when it next revises its guidelines.

My analysis focused on the recruitment of oocyte donors through advertisements in student newspapers. It is worth noting that newspapers are only one of several sources through which people can learn about oocyte donation. In a recent retrospective analysis of donor’s experiences, one-quarter of the women surveyed reported that they first heard about oocyte donation in a college or university newspaper.⁴⁵ The results I report here may not be generalizable to the recruitment of oocyte donors through other channels, such as advertisements in community newspapers or online postings on Web sites like Craigslist. Indeed, since student newspapers target the desired age range and segment the population along predictable lines, they are particularly appealing to clinics and do-

nor agencies, especially when donors with specific characteristics are desired. These same attributes, however, make the use of student newspapers to recruit oocyte donors potentially problematic and argue for careful oversight of this recruitment channel.

The results I report here have identified and estimated the prevalence of violations of the ASRM Ethics Committee’s guidelines on the compensation of oocyte donors. The majority of advertisements identified in a unique national sample of oocyte donor recruitment advertisements complied with ASRM guidelines, but a substantial minority did not. Although self-regulation has allowed the fertility industry in the United States to thrive, both SART and ASRM may want to consider strengthening the self-regulatory framework used to oversee recruitment of oocyte donors in order to encourage compliance with their published (but often ignored) ethical guidelines and to ensure that oocyte donors are recruited and compensated in an ethical manner.

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