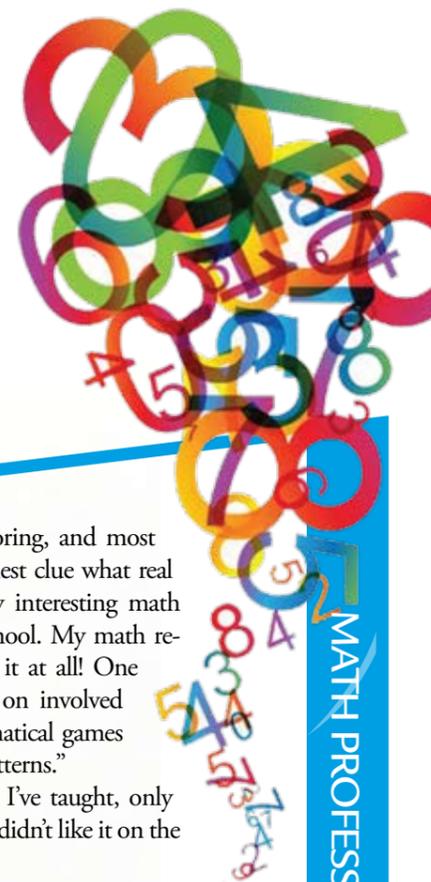


# You do what?

## A Look at Unconventional Careers

AZRIELA JAFFE



MATH PROFESSOR and MATHEMATICIAN

*Frum* women tend to pursue certain professions — teaching, speech therapy, graphic design. But there's no halachah that says that we can't thrive in other work environments. Meet five women with unusual professions, and hear how, and why, they choose their jobs

**S**pending even a half hour with Dena Cowen-Morton of Cincinnati will likely be enough to convince you that math is fun. In Dena's words, "It's gorgeous!" The love for all things mathematical runs in Dena's blood. She was raised in Buffalo, New York, where her dad is a mathematician and college professor. She recalls when she first knew she wanted to follow in his footsteps:

"In third grade, my dad came to speak to my class. He had us make Möbius strips [strips of paper, half-twisted and attached at the ends]. He asked us, 'What will happen if we cut them in half?' We all knew that if you cut it in half, you'll get two pieces. But that's not what happened! I thought that was the coolest thing ever. Right then and there, I decided that I also wanted to be mathematician. And I never wavered, all through high school and beyond."

### *It All Adds Up*

Dena has channeled her contagious love for math into a job description tailor-made for her. She holds a PhD in math from Johns Hopkins University in Baltimore, and she is a tenured full-time professor at Xavier University in Cincinnati. As expected of a tenured professor, she spends many hours in research, as well as teaching. She teaches a class called "Math and Creativity," which she jokes "is for people who think they hate math."

Dena explains why she usually has to convince people that math can be fun:  
"A lot of people have no idea what math is. High school

algebra can be boring, and most people don't have the foggiest clue what real math is, because the really interesting math isn't normally taught in school. My math research has no numbers in it at all! One research project I worked on involved a really cool set of mathematical games that we colored to make patterns."

"Out of 500 students I've taught, only two have ever told me they didn't like it on the course evaluations."

### *Number Professions*

Dena sees the occasional *frum* woman at professional math association meetings, but women are still a minority in mathematical fields. That said, for a woman with talent who enjoys math, there are many professional opportunities for *parnassah*.

"An actuary can make a good living right out of college; the actuarial company will pay for the exams. Some women who love math become teachers — or even lawyers, because math teaches how you to think logically. Mathematicians design models in the field of biomathematics, design web pages, work on Wall Street, and hold government jobs. In fact, the National Security Agency (NSA) located between Baltimore and Washington, DC, is one of largest employer of mathematicians in the country. Many *frum* employees work there."

Dena teaches three days a week, getting home before her kids return from school; is home with her three girls two days a week; and works on her research and class preparation while her husband is with the children. Her research commitments keep her from enjoying any extended vacation over the summertime, but that's a small price she is willing to pay. She teaches a variety of courses including calculus, cryptology (secret codes), topology (an offshoot of geometry), and math and creativity to college students eager to learn from the professor they hear is super-cool and fun.



Reva Rubenstein, a Monsey mother, is a professional artist. Her mother, a professional artist herself, warned her that “there’s no money in art,” but Reva naturally gravitated to the field. She studied in Rika Breuer’s Teachers Seminary in Washington Heights, and then received a bachelor’s degree in art from Hunter College in New York City. Earning the degree gave her the initial confidence to call herself an artist. Over the past three decades, she has found many avenues for turning that talent into *parmassah*.

### Not Hot Dogs in Central Park

Reva’s career path has taken some interesting turns. “Over the years, I’ve done many things as an artist. One of my first jobs was with a company that printed wedding invitations. The boss scolded me that if I wasn’t interested in being precise to one-sixteenth of an inch, I might as well sell hot dogs in Central Park, where a little more or a little less sauerkraut wouldn’t make a difference. I cried a bit, and then went back to work.

“I worked for a printer in Brooklyn for a number of years, and loved the environment and the job. It’s so exciting to see your work coming off a printing press, duplicated thousands of times, even if it’s only an advertisement for breakfast cereal or a school journal.”

“Once I became a mother, I started working freelance — I was my own boss, rather than having a nine-to-five job. For years, I did the layout for a well-known Jewish publication. The best part was reading the articles before they were published. I’ve also done calligraphy, including *kesubos*, family trees, wedding presents, and lots and lots of monograms for invitations.”

Reva also works as a muralist, a job she thoroughly enjoys.

“It’s very exciting to let the walls talk. When children see dancing *tzedakah* boxes, or smiling menorahs, or *alef-beis* letters painted on the walls, they absorb the messages naturally. When I was little, my mother allowed us to paint clouds on our bedroom walls. Since then, I’ve loved working big — on large walls, up on a ladder. First, I make a sketch on paper and get approval from the client, and then I sketch it on the walls before beginning the actual painting.

“Choosing the colors is always an intense decision. I always go lighter,

since when a color is splashed across a wall, it looks darker than the little square chip they show you in the paint store. The hours fly by when I paint walls, and I get my exercise at the same time.”

### Get Your Foot in the Door

Reva advises *frum* women with artistic talent to parlay this love into a job.

“When computer graphics replaced razor blades and T-squares, I learned a few computer programs so I could do magazine and book work to keep up. Now, anyone going into graphics should probably learn web design, since print media is being replaced with electronic communication. But just knowing Photoshop doesn’t give you a sense of design or a unique, creative view that makes you an artist. That you develop from looking at everything around you.”

“When it comes to getting your first job in art, I’d advise you to take whatever position you can get. I took a job as a secretary in an advertising business, hoping to get my foot in the door, even though I have no secretarial skills. It was there that I learned typesetting, which led to my job at the printer. Each step led to the next, even though a lot of the work was more mechanical than creative.”

Another place for a *frum* artist to look for work, Reva says, is in our schools. They need bulletin boards, flyers, posters — anything to make the learning more *geshmack*. It’s a great way to combine *chinuch* with art. Reva has taught art at various grade levels, and enjoys watching her students develop their creativity and enjoy a subject where there is no one right answer!

“You don’t go into art to make lots of money, although in commercial graphic art or advertising you can get a well-paying job. You do art to give expression to your *neshamah*. If you have an artistic soul that wants to draw, or write, or dance, or act, it will make you feel happy and fulfilled if you can find a *frum* outlet for your talents. And, if you can get paid to do work you enjoy, you’ll always be happy to go to work.”

## PROFESSIONAL ARTIST



Debbie Schachter, mother, grandmother, and Edison, NJ, resident, is a self-admitted geek. Luckily for her, she’s been able to channel her natural curiosity and love of learning into a lifelong career as a scientist and researcher. She now holds the title of “principal scientist for advanced therapeutics and regenerative medicine” at Johnson & Johnson.

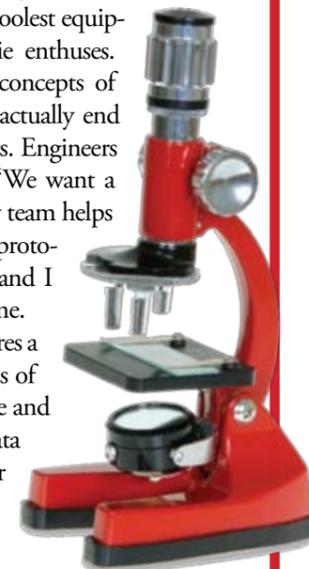
### From Idea to Product

En route to earning her PhD from Rutgers University in 2000, Debbie was a graduate student in organic chemistry, and worked at Union Carbide Dow in research and technical support. She joined Johnson & Johnson in 2003, first as a senior scientist, and then promoted to principal scientist and project supervisor.

Her area of expertise is early stage research — or, as she refers to it, “discovery research.” Whereas Debbie once spent her time in the lab doing primary research, she now spends her days in front of a computer analyzing data, and in the office supervising lab workers, analysts, and processing engineers. Debbie sometimes misses lab work, but she also wants to see her science career grow; it’s a natural evolution to move from lab to computer when a scientist ascends the ranks.

“I love my work. It might sound like it’s boring, working in a lab or sitting in front of a computer all day, but in this day and age, we get to work with the coolest equipment, and product concepts,” Debbie enthuses. “I’m helping to transform the early concepts of a product into something that could actually end up in the marketplace, helping patients. Engineers come to a group like mine and say, ‘We want a product that does X, Y, and Z, and my team helps to translate that idea into a working prototype. When the data comes together and I see the story evolve, that’s glamour to me.”

“That said, research definitely requires a mathematical and analytical bent. Tons of data is being thrown at you all the time and you have to ask yourself, ‘What is the data telling me? How do I put it all together to understand what I’m seeing?’



## RESEARCH SCIENTIST

### Getting Past Introverted

Debbie reflects on what personality type is best suited for this line of work, and what are its most challenging aspects:

“Scientists are generally introverted, geeky, personality types — it’s not just a stereotype, it’s true. The higher up you go in science, the more likely it is that you’ll be giving presentations to executive management, and at professional conferences outside the company, so that can be quite challenging for an introverted person.

“Some scientists prefer to be in the lab all the time. If so, they only need to get a bachelor’s or a masters of science in chemistry or biology to be a lab technician or associate scientist. A scientist involved in strategic planning and team leadership is expected to have a PhD.”

The job can be great for *frum* mothers, although once you hit the upper echelons, the balancing act becomes more difficult.

“I enjoyed working in the lab. When I was home, I was free from my job. Now, I take my work challenges home with me and it’s sometimes difficult to get work out of my head. I work at least forty-eight hours a week, sometimes including Sundays, and I travel a good deal for the job as well.

“My work team is primarily male engineers, so it can be lonely, missing female communication at work. If a *frum* woman wants a science career that is less male-dominated, I would steer her in the direction of biology, rather than chemical engineering, as there are many women now employed in all aspects of biology.

“I love my career, and enjoy meeting fascinating professionals all over the world and mentoring younger scientists. The thrill of discovery in science is still there for me.”

**R**os Dimenstein of Los Angeles wears the title of wife, mother — and, for the last three years, safety engineer for the State of California Division of Occupational Safety and Health. As a state inspector, she issues citations to employers who violate Title 8 of the California Code of Regulations by putting their employees at risk in some way.

“I tell people off the job that I’m basically a glorified Jewish mother, warning workers to be careful so they won’t get injured,” she jokes.

“Unfortunately, most of my assignments are responding to industrial accidents after someone already has been hurt. Because construction is a very dangerous field and I’m a civil engineer, I’m mostly assigned to accidents at construction sites.”

### Try, Try Again

How do construction workers react when a *frum* woman shows up at their site? “The construction managers tend to respect me when they see the initials PE (professional engineer) by my name,” Ros says.

You don’t get those initials next to your name without a whole lot of effort. Ros wanted to enter a profession right out of school. She earned a bachelor’s degree in engineering, but then she had to pass a national eight-hour board exam, plus two specialized exams covering surveying and seismic engineering. She recalls what it took to pass these exams: “I passed the eight-hour exam the first time. But the specialized exams were enormously challenging: I took it six times before passing it! Many engineers give up, but I persevered. Nowhere on my license does it state how many times it took me to pass!”

What Ros didn’t know when she pursued engineering is

that she’d end up in a job that would be so people-oriented. “My last two engineering jobs — three years with Caltrans [the state transportation department] and ten years with two regional water quality control boards — involved environmental engineering, and were much less people-oriented. My current job is far more fulfilling because I have the opportunity to prevent accidents and make the workplace safer for employees. I feel I’ve finally found my niche, and for that I am very grateful.”

### Blessing in Disguise

Ros has developed investigative and interrogation skills that would serve her well if she was ever to go into police work or law.

“We have to come unannounced the first time we go to a job site to investigate an accident or complaint. This is so we can see the way things are really done. We’re careful not to divulge who complained (usually an employee), or even what the complaint was about. We ask about all kinds of things, not just the issue we came to investigate. It definitely takes some finesse and a thick skin.

“When I took the job, I thought I would see all kinds of freak accidents and become paranoid about safety, but the accidents I’ve seen are very preventable. Oftentimes a six-year-old would know not to do the things that result in most of these injuries, but workers often feel pressured for one reason or another to take great risks on the job.”

Is Ros greeted with animosity when she shows up at the worksite?

“The greatest compliment I got so far was from a foreman who said I was a blessing in disguise, since now his workers would really be more careful knowing that Cal OSHA

comes to the site and issues citations when things aren’t being done right. He was very safety conscious, but had a hard time getting his workers to follow the rules.

Isn’t this an unusual career for a *frum* woman? “Well, in my professional life, covering my hair has taken on a whole new meaning. I wear a hard hat over my *tichel!* Once in a while, I even wear steel-toed boots along with my jean skirt! I look a little like a beast of burden with my waist pack holding my tape measure and whatever else I need, my camera around my neck, all my forms in a bag over my shoulder and a clipboard in hand. Half of this job is juggling all the accoutrements we need to collect our evidence for the case at hand.

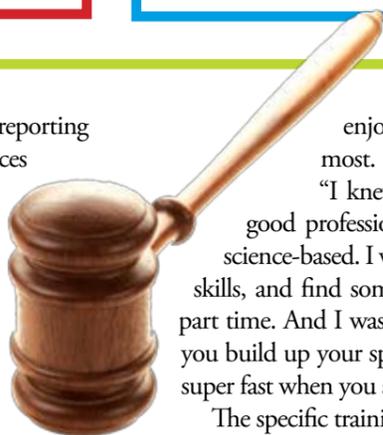
“At home I threaten to issue citations when I see tripping hazards, but no one seems too concerned. Still, my husband has to admit that I do wear the hard hat in the family.”

**T**here is a rumor that the profession of court reporting will soon be obsolete, as technological advances reduce the need for a person to transcribe depositions and court proceedings word for word. This rumor, although completely untrue, has nevertheless created a shortage of trained court reporters. Those who do enter the field have little trouble finding lucrative freelance work.

Pam Lehmann, a Baltimore mom of four, is delighted with how this profession allows her to juggle work and family. She enrolled in a court reporting certification course when she was expecting her fourth child in 1996. She had already earned a bachelor’s and a master’s in psychology, and she was a school administrative director. She wanted a profession that was more family friendly, and was intrigued by the flexible hours of freelance court reporting.

### Adventures in Court

Perhaps you never thought that court-reporting would be considered an “adventurous” job, but that’s exactly what Pam loves about it. She never knows what the job will bring, and she



enjoys that aspect of her profession the most.

“I knew the therapies (speech, OT, etc.) are good professions for *frum* women, but they are all science-based. I was looking to capitalize on my English skills, and find something that would allow me to work part time. And I was a fast enough typist — for this work, you build up your speed. You don’t have to be able to type super fast when you start.

The specific training program that Pam enrolled in is no longer being offered, but she advises that community colleges — or court reporting agencies themselves — may offer similar certification programs. The length of the training depends on the individual’s ability to pass the transcription tests at the required speeds (180 words per minute on literary material, 200 words per minute on jury charge, and 225 words per minute on question-and-answer). The training lasts until the individual attains the required proficiency, which typically takes between two and four years.

“After I graduated, I started working as a court reporter on depositions,” says Pam. “I’m an independent contractor, so I can

tell them when I want to work. I took off three weeks before my son’s bar mitzvah, and when I was ready to come back to work, my job was still there. For the Yamim Tovim and Pesach, I can work whenever I want. And I find the work really fascinating. I am typing every word someone says in a deposition, verbatim. It’s always something different. I get to hear people’s stories, recounting the most dramatic aspects of their lives. I also choose to work three to four days a week, usually no more than thirty hours, which is perfect for my family’s needs.”

### Flexible and Varied

Although Pam finds court reporting to be the most family-friendly profession she’s encountered, she does offer this caution to women looking into it:

“I don’t do courtroom work, because if I were to be part of a court case that ran over on Friday afternoon, I would not be allowed to just say, ‘I have to leave now for Shabbos.’ Although freelance court reporting for deposition work is flexible, I stay away from court-related assignments that might interfere with

Shabbos and Yamim Tovim.

“Also, you have to be very flexible in this kind of work. When I go to a deposition, I never know what I’m getting into. I could be there for one hour, or five hours. I have to be sure that I don’t make any urgent plans that might conflict with the deposition.

“I’ll also say that the schooling is very challenging, and there is a large dropout rate. It takes a lot of perseverance to learn court reporting, so you need to have a tenacious personality. It’s the kind of skill that builds up over time. You also need to have strong English skills going into it: you need to spell, punctuate, and comprehend what people are saying, sometimes with accents, at a very high speed. It really helps to have a broad base of knowledge, because you can be called in for a construction job, an accounting job, or a medical one, and the terminology for each is entirely different.”