## **Defending Your Life**

by Gregory A. Dreher

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By Gregory A. Dreher, FSA, MAAA

I pushed the vacuum cleaner back in the closet and checked my desk. I moved the few stacks of paper into one of my drawers. From the camera on my computer, no one can see the clutter that tends to collect in between cleanings. Few people care to meet in person nowadays, so it's always a hassle for me to clean up my home office when I have a face to face appointment.

I judged my office clean enough. I started a pot of coffee and reviewed my clients' details. Married, early 50's, middle income, concerned about retirement. Just the kind of people who could benefit from the services of a personal actuary.

I spotted an unfamiliar car pulling up to the curb. Soon, a couple approached my house. I headed to the door to greet my clients. "James Johnson, personal actuary," I said, offering my hand.

"Janine Parker," the woman replied.

"Andrew Prescott," said the gentleman.

"Come in," I continued, motioning to the first floor office. "Coffee?"

"No thanks," Janine replied.

"I'll have a cup," Andrew said. His wife glanced at him. "But just one cup."

I poured a cup of coffee for Andrew and one for myself. "Remind me, is coffee good or bad for you this week?" I commented, chuckling. No matter how many contradictory studies appeared in the media, I wasn't going to stop drinking coffee.

"So how did you learn about my practice?" I asked the couple.

"One of our friends consulted with you last year. She said you focused just on planning for retirement, not on selling products," Janine explained.

"That's true," I replied. "A lot of people who call themselves personal actuaries make their money through the selling of investment and annuity products, or are part of a larger group that sells these products. They also tend to focus on the upper income market. Me, I just want people to better understand the realities of the demographics that will underlie their later years. I want you to be able to speak to your own financial advisor, and be better prepared to protect yourselves in your golden years. And I only charge a nominal fee, because I consider my work to be a public service."

Andrew stared at the framed certificate on my wall. "You became a Fellow in 2063?" he asked.

"That's correct," I said. "While I considered the profession when I was in college, more years ago than I care to admit, I fell into an area of computer science research that ended up becoming one unexpected career. Now that I'm retired from that, I wanted to find a way to give back."

"And how did that bring you to this actuarial work?" Janine asked.

"I lived through the financial crisis brought on largely by demographics, demographics people were too willing to ignore," I said. "Coming to a new social compact on the balance between work and retirement, between the younger and older generations, between sacrifice and comfort, wasn't easy. And still today, people need help being honest with their personal situations."

I took a sip of coffee. "And I'm glad you're taking that step."

"So where do we start?" Andrew asked.

"Have you had personal genetic assessments? Any risk for diseases? Do you have genetic markers for longevity?" I asked.

"We've had the assessments, and they were normal," Andrew said.

"Then you can expect good health into your late eighties, and your planning should start with retirement at 75," I said. I paid attention to my clients, gauging their reaction. This step was arguably the most important part of my consultation. One benefit of the rare face to face meetings was that it made recognizing the clients' reactions easier.

Andrew and Janine did not look happy at hearing that. The idea of retiring at 65 was sufficiently ingrained in human consciousness that even the last century's incredible advances in health and wellness couldn't displace it. The new social contract required a later retirement date, and government policy set a normal retirement age of 75. Retiring early wasn't frowned upon. Doing so, however, required that you took responsibility for providing for yourself.

"We were really hoping to have more time to spend on ourselves," Andrew said.

"We've already given up so much," Janine continued.

"I understand the challenges in saving for retirement," I said. "You said you have a child, right?"

"Yes, Michael. He's recently graduated, and found a good engineering job," Janine said proudly.

"Would he be able to support you?" I asked.

"Oh, heavens no!" Janine said.

"He has college debt, and with starting work in a new city, and saving for his own household, we couldn't ask that of him," Andrew said.

"Now imagine every person in America of your age, asking him to support them. That's the problem with the social insurance programs from the turn of the century," I explained. "They were imbalanced. They simply put too much of a demand on the working age population. Promises were made, but they couldn't be kept, so they weren't."

I turned my pad to face the couple. "I've provided a list of common retirement strategies, and calculated several illustrations for each, under different economic forecasts. I'd like you to pay particular attention to the survival rates and disability risks. Are you prepared if one of you lives past age 100? Can you handle an extended period of infirmity?"

"That's a lot of money," Andrew whispered.

"I've also assembled information on a variety of insurance and investment vehicles that can help fund your retirement and support you in your golden years," I continued. "Now, I'll remind you that I'm not a licensed financial advisor, so I've only discussed these products in broad terms. All have their strengths and weaknesses. I'd like you to read over these descriptions before consulting your financial advisor."

I touched my datakey to the screen, collecting the presentation and supporting files. Janine pulled out her phone, and with a tap, I transferred the files.

"I wonder if our best bet for retirement is the Show?" Janine asked.

"You know, that's an area of interest for me," I said. "For a small additional fee, I'll analyze your financial history and compare it to the typical competitor." I pulled up a lengthy legal document on my pad. "If you're interested, sign here."

Andrew and Janine nodded. With a tap of their datakeys, they signed the document and paid the small additional charge.

"I can have this ready in two days," I said. "Would you like to schedule another in person appointment, or would you prefer to handle it online?"

"I think online will be fine," Andrew said.

Janine reached her hand across the table. "Thank you for your time, Mr. Johnson," she said.

I shook her hand, and then her husband's hand. "The pleasure is all mine."

After my clients left, I fired up a computer program to dissect their financial history. It takes most of a day to run, and since I had no other appointments, I headed to the basement to exercise. Stepping onto the elliptical machine, I turned on the monitor, and brought up an episode of the show.

Remarkably, this television program helped lead me to my current job.

Even a later retirement age and other benefit changes couldn't save the existing universal social insurance programs. The increasing needs of the retired population fought the high costs burdening a struggling working population. Two changes that saved the programs were individuals voluntarily ceding their benefits to those needier, and a nontax source of revenue for these programs.

And television was the solution, the method by which both of these changes happened.

"The Show" is one of the most popular shows on television, and has been for decades. It is actually several linked shows, and while they've changed over the years, the archetypes are well established. The first program is known as *The Heart of the Community*. It's a reality television program, about ordinary people sacrificing for the benefit of their fellow man. The guest hosts range from actors and athletes who earned millions decades ago to Main Street business owners to frugal farm families. The one thing they all have is a knowledge that their own efforts have made them secure in retirement, and a desire to share some of their own social insurance benefits with those more in need.

Voluntary programs like this, whether paying higher tax rates or passing on entitlement benefits, were traditionally failures. But give someone a chance to be on television? All of the sudden, there was incredible interest, enough to sustain a television series for dozens of years.

The program is your typical reality television fare. We hear about nine families and their struggles through the years. We learn about illnesses, accidents, and natural disasters. There are a lot of slow motion camera shots over old grainy photos from the bad times. I know it's just Photoshop at work, since no one's old enough to have any real photographs, but as a narrative device, it still works. There's a chance for the studio audience and the live viewers to vote, but the biggest prize is always given by the guest host, the Heart of the Community. He or she is the one being honored for sharing his or her wealth.

But I don't care for that show.

What I find most entertaining about the whole "show" concept is that for every episode, there are actually twelve families heading to the studio. The nine most worthy participate in *Community*. The other three? Well, they appear on what's become my favorite show on television.

"Three families came looking to win, but their fate is in the hands of today's contestants. Two families will be rewarded. One will be punished.

"Welcome to the pricing game of your life. This is... Defending Your Life!

"And here's your host... Jade Mills!"

The announcer's booming voice segued into the bouncy theme song of the game show. The camera focused on the silver-haired host as he crossed the stage. The perfectly-styled hair with the slight upturn, the gleaming white teeth, the smile, the stage personality—the host captured the very essence of the classic game show hosts from a century prior. The music, the stage, and the studio audience all hearkened back to the golden age of television game shows.

As the applause faded, the host addressed the audience. "Thank you, Rod. Now, let's meet today's contestants."

"Defending the life of the Tucker family, here's Shawn Savoy!" the announcer called. The camera focused on the first of the three contestants, seated behind a podium with a digital screen, and moved down the line as the announcer continued his introductions. "Defending the life of the Campbell-Gordon family, this is Liz Brooks! And defending the life of the Wissler family, here's our defending champion, Wes Montale!"

In turn, each of the three contestants gave their brief biographical introduction. Name, hometown, interests. Each contestant was young and telegenic, with an unbridled enthusiasm that couldn't help but make the viewer feel excited to watch. As a connoisseur of classic game shows, I recognized the archetype from every game show. It's only the different hairstyles and clothing that distinguishes a contestant on *Defending Your Life* from a contestant on a 1970s or 2020s game show.

"Here's how the game is played," Jade said, reciting the rules with a practiced ease. "In each round, we'll highlight a major purchase from one of our three families. Our contestants will win big cash prizes for coming closest to the actual purchase price of each item. Come within one percent, and they'll earn a cool million dollar bonus!

"But it's up to each contestant to defend the life of their chosen family. If they're not closest to the actual cost, that's a strike for their family. Three strikes, and they're out. And you know what that means!" The roar of the audience made it quite clear they knew what that means.

"Our contestants have had two hours to meet with their families. Will it be enough? Let's play... Defending Your Life!"

Behind the host, a giant screen flared to life, a jumble of colors coalescing into a three by three grid of categories. Jade looked at the third contestant. "Wes, you won the roll backstage, and get to choose the first category."

"Jade, I'm going to go with Drive My Car," the contestant replied.

The box with the words Drive My Car expanded to fill the screen, before being replaced by two images. The inset image showed the Wissler family, talking about their own struggles. It's just like any participant on *Heart of the Community*. But because this is *Defending Your Life*, the viewer gets to contrast this image with a look at the Wissler family's past.

A younger Evan and Mary Wissler appeared on the main screen, browsing the selection at a local car dealer. They settle on Evan's dream car, a Ford Mustang from the launch of the line's eighth generation in 2037, as they turned in the keys to a 2034 Chrysler. As Evan shook hands with the salesman, the picture froze on the image of the purchased car.

"That's a brand new 2037 Ford Mustang GT," Jade announced. Words appeared on the screen as the game show host described the purchase, providing more details on the car's features. "How much did the Wisslers spend on this car?"

The three contestants began considering their answers. Meanwhile, on my monitor, I saw a variety of car ads pop up. Since I was on my home network, these ads were inspired by on my own car purchases over the years. I've learned over my life to never doubt the ability of advertisers to get their message in front of my eyes. I'd almost prefer sitting through traditional commercials.

I tuned out the ads as I watched the three contestants continue to ponder their choice. To do well on this game show requires knowing a lot about the time value of money, but more specifically, about how the price of different products changed over time. Where cars have seen constant increases in price, outdated computers and home entertainment systems are much harder to judge. Is it any wonder that I, an actuary, enjoy this show?

The camera then focused on the Wisslers, sitting in the audience. The juxtaposition of their sincere words against evidence of their past profligate spending had made them uncomfortable. They sweated, their fate placed in the hands of a game show contestant.

The first contestant to guess was Shawn, who suggested \$78,000. He made a valiant attempt, given that he didn't look old enough to remember cars selling for five figures, but I knew it was definitely too high. Liz then said \$52,000.

Wes, as the Defender for this round, had the advantage of going last. All he had to do was go lower. I watched as he weighed his choice, the audience screaming suggestions. His hesitation told me he was going to go in between the prices, and thus lose the round.

Sure enough, after Wes guessed \$60,000, Jade revealed the actual purchase price to be \$44,302. A horn buzzed. "And that's Strike One for our defending champion," he announced. Each contestant's winnings appeared on the screens of their podiums, \$50,000, \$25,000, and \$10,000.

"Now Liz, as the winner of that round, you get to choose: play or pass?" Jade said.

To pass to Shawn meant avoiding the possibility of earning a strike in the second round, but then she'd have to choose in the third round. It's a tough strategic call when a contestant has two strikes, but less so this early in the game. Liz was ready to go. "I'll play, Jade!"

"Then choose your category," he replied.

"I'll take Vacation, All I Ever Wanted," she proclaimed.

Again, the giant screen showcased the contestant's chosen family. As Logan Campbell and Madison Gordon shared their tale of woe in the corner, the viewers could see them in their late middle age, enjoying a tropical vacation.

"And that's eight days, seven nights at an all-inclusive resort in the Bahamas, plus airfare. What a great way to spend a February in 2051! But how much did it cost?" the host asked. On my screen, advertisers "helpfully" suggested vacations I might like to take.

Again, the audience shouted out suggestions. Wes was first this time. Would he be spooked by his error in the first round, and undershoot this time? Would he remember the high inflation of the 2040s? I shook my head as he said \$11,000. Too low. Man, I could clean up as a contestant. I wish I could be on stage, but I know that could never happen.

I stepped off the elliptical and cooled down for a few minutes midway through the episode. One game normally lasted the full hour, but with good contestants, they could play across multiple episodes, winning even more for themselves and the families they defend. I decided on a leisurely run on the treadmill to finish the episode.

It was an average game, ending on time, with no one winning the million dollar bonus. In the end, the defending champion recovered from his early jitters, but he was outplayed by Liz. When Shawn

earned his third strike, midway through the second board, Wes shook his head. He knew he was behind.

"Rod, let's hear those final tallies!" Jade called.

"Our defending champion has won \$465,000 for himself and for the Wissler family," the announcer said. "But, with a total of \$520,000 for herself and for the Campbell-Gordon family, our new champion is Liz Brooks!" The old couple climbed down the stairs from the audience, embracing the contestant, who couldn't stop hopping with excitement. The amount won is not much more than the average annual salary, but it would be a big help for a family that didn't save enough for retirement when they had the chance.

Jade Mills then walked over to the losing contestant and shook his hand. "Shawn, sorry it didn't work out for you, but you're still going home with \$290,000."

The contestant put on his best fake smile. "I had a great time. Thanks for the opportunity, Jade," he said.

The host then faced the audience. "And that leaves the Tucker family. Rod, tell them what they've won!"

"A three month, all expenses paid stay in Arthur, Nebraska!"

And that was the end of the episode of *Defending Your Life*, and the perfect segue into the third series that makes up "the Show"—the punishment show.

The punishment show, a classic style of reality television game show that puts people into uncomfortable situations, changes every year. This season, the losers of past episodes of *Defending Your Life* found themselves staying in what used to be a leper colony in Hawaii. Next season, though, they'll be moving to rural Nebraska.

Arthur, 1930 promises to be the best punishment show yet. A tiny village in western Nebraska, all but abandoned as of the last census, is being restored to conditions from early last century. The contestants will have to live as our rural ancestors did. No government pensions. No Internet. No computers.

No electricity.	
I can't wait.	

The next afternoon, I reviewed the output of my computer program, a creation based on the research that occupied the first thirty years of my working life. A rudimentary artificial intelligence program, it is capable of creating a picture of a person through time, by sniffing out their electronic footprint.

For a good sixty years, the average person has left an extensive electronic record of their life. Electronic transactions go back even further, but it was the rise of social media years ago that enables my program to work. Every status update, every picture, every tweet, every tag, every check—even when the program used to make them fades into obscurity, the data can never be erased. And with the power of today's computers, they can all be found. One can quite literally recreate the average person's life based on this information.

It took decades for me to refine this program, removing false positives, finding the most relevant facts, and using fuzzy logic to fill in the gaps. For years, my life was research journals and technical conferences. When I created the first working version of my artificial intelligence program, I started my own company. Five years later, I demonstrated my program to a big media company in Los Angeles. When the executive handling the negotiations watched highlights from his life in the year 2033 via my recreations, I knew I had a sale.

And I sold out.

My non-compete agreement prohibits me from developing my program for other media outlets, but it still allows me to use it for other purposes. That includes helping ordinary working couples face the realities of a world where personal responsibility is paramount. I've often thought about whether or not I'd be willing to appear on *Heart of the Community*. I'm certainly set for my retirement, but I'm just not the television type. I'm happy helping people from where I am, the heart of my community.

I watched highlights of the life of Andrew Prescott and Janine Parker, done up in the style of the game show. The graphics are pretty crude, compared to the flawless execution on the show, but it should get the point across. I don't know if they're just afraid to admit it, or if they're truly unaware of the excesses of their personal consumption, but it is clear why they haven't been saving as much as they should.

It's possible they're the kind of people who would do anything to get on television. I suspect a fair number of the contestants on Defending Your Life fit into this category. But just like my suspicion that certain classic game shows chose some less than bright contestants, it doesn't matter, because it all ends up making for good television. Having met Andrew and Janine, I doubt they fit into this category.

Tomorrow's meeting might end up being a little harsh, but it's for the best.

I'm sure they don't want find themselves defending their life.