Greenfield Advisors

Economic, Market and Valuation Analysts

Greenfield Advisors' 40th Anniversary:

A Celebration of the Past, Present, and Future

Table of Contents

Foreword

According to recent research by scientists at the Santa Fe Institute, the average publicly traded company has a lifespan of 10 years (before it is bought out, merges, or is liquidated). Despite that, we are a privately held firm, and we are proud to say that our firm, Greenfield Advisors, is celebrating its 40th anniversary this year.

Being part of a successful business isn't just about the bottom line. It's important for us to feel like the place where we work is also a second family. Greenfield Advisors has brought so many great people into our lives—not just our team of analysts past and present, but clients as well. We have had the opportunity to do some amazing things since joining the firm, including meeting and working with people from all walks of life and trekking around the globe.

As we look back on the last 40 years of our company, we can't help but think about how lucky we are to be a part of this journey—a journey that started with our wives Amelia and Lynnda meeting each other at a real estate conference in San Francisco, realizing that we have a lot of work in common, and then introducing us to each other over a cocktail hour. We hope that we have helped enrich Greenfield Advisors half as much as we've learned and grown since joining the firm.

We hope you enjoy this look back at the last four decades, as well as a glimpse into our future. We are proud to not only be a part of Greenfield's history, but also to help lead us to another 40 years of success.

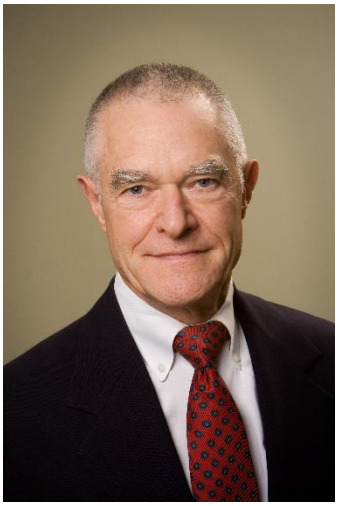
Sincerely,

Clifford A. Lipscomb, Ph.D., MRICS
Director of Economic Research
Cartersville, GA

John A. Kilpatrick, Ph.D., MAI, FRICS
Managing Director
Seattle, WA and Key West, FL

April 2, 2016

I. In the Beginning – A Brief History by Our Founder, Dr. Bill Mundy



I grew up on a farm in Ellensburg, Washington, attended the local high school, and upon graduating, not having the slightest idea what I wanted to do, I joined the Navy and spent two years sailing around the Pacific on an aircraft carrier. After completing active duty, I returned to Ellensburg and enrolled at Central Washington University with the idea of becoming an accountant. After several years of prerequisites and a few accounting courses, I decided that accounting was ill-suited for me. I transferred to Washington State University where I obtained a Bachelor of Science degree in agriculture.

My first job, as a journalist for the *Western Livestock Journal*, involved covering livestock events in the mountains and plains states. Shortly thereafter, I was contacted by Doane Agricultural Service and offered a position as a rural appraiser and farm manager. I was hired to determine the value of a township north of Green Bay, Wisconsin, which had recently been annexed into the City of Green Bay. This is where I met my wife, Mary Ann. Our first date was a bicycle ride. Fifty years later, we are still bicycling together!

From Green Bay we moved to Aurora, Illinois, where I became a farm manager and Mary Ann continued her teaching. I then was transferred to Saint Louis, where I resumed my appraiser role at Doane. While the appraisal work at Doane was absorbing, and Saint Louis was a very interesting city to live in, there was one major drawback: allergies made living in Missouri very unpleasant for both of us. We discovered there is one place in the United States where the problem plant, ragweed, does not thrive—the Pacific Northwest. One brief telephone call was all it took!

A large appraisal firm in Seattle, called Fenton, Conger and Ballaine, with 13 MAIs on their staff, had just signed a contract with the United States Department of Justice to value the Flathead Indian Reservation as part of an Indian claims settlement. No one on the Fenton staff had an agricultural background or significant rural appraisal training. The date of value was 1912, and at that time the majority of the reservation was agricultural land. This was my first major appraisal assignment. After completing the Flathead assignment, my next assignment was to value the Sioux reservation, also for the Department of Justice, as of 1876.

Because the Fenton firm specialized in urban economic analysis, of which I knew very little, I decided to resume my college education, entering the University of Washington and obtaining a Master of Arts degree in urban economics. During this time I began doing consulting, and I eventually took a position with Weyerhaeuser Real Estate Company as their land economist. After some two years, I took a leave of absence, returned to the University of Washington, and obtained my Doctor of Philosophy degree in 1976.

While at the University I became a member of the Appraisal Institute and obtained my MAI designation. I developed curriculum and taught for the Appraisal Institute at various universities throughout the United States. I was also active in the Institute's education committee. It was also during this period that the firm, Bill Mundy and Associates Inc., was formed.

In 1976 with a graduate school colleague, Bob Thorpe, I agreed to jointly lease a three-suite space in the Seattle Tower Building. Bob took the north suite, I took the south one, and the middle suite went to Wendy Kelling, MAI, Vern Kelling's daughter. Thus started the consulting firm, Bill Mundy and Associates, Inc. From the beginning the firm thrived. To a large extent, this was because of the marrying of three interrelated professions: market and survey research for the real estate development industry (mainly home building), economic modeling (trade-off analysis, conjoint measurement), and valuation/appraisal. During this time I also became interested in real estate investing and development. In 1984, I established a new firm, Mundy Associates LLC, to handle the consulting side of the business.

By 1984, the firm employed 13 analysts plus supporting staff. From my perspective, the firm was too large for me to manage alone. Consequently, I downsized the firm to four senior analysts, an office manager (Jean Hager), five research assistants, and myself. [For me, this was an ideal firm size, which was maintained until I sold the firm to John Kilpatrick in 1998.]

In 1980, the United States Congress passed the Comprehensive Environmental Response Compensation Liability Act, more commonly known as CERCLA or Superfund. This law was designed to force polluters that had contaminated real estate with various hazardous substances to clean them up. This law had a significant impact on the value of real estate. For example, the value of a property adjacent to a contaminated property, even though it was clean, was likely to be stigmatized and therefore have its value adversely affected.

Valuing contaminated property became a new challenge for the valuation profession. I had recently been invited to become a member of the Weimer School of Advanced Studies in Real Estate and Land Economics. A prerequisite to becoming a fellow was to perform original research on an appropriate topic, to be vetted by the Weimer school faculty. If the research and paper met the faculty's acceptance, the individual would be admitted as a fellow. My research topic was "A Theory of and Method for Valuing Contaminated Real Property." I was admitted as a fellow, and several publications in academic and professional journals resulted, one being the seminal article "Stigma and Value" (*The Appraisal Journal*, January 1992).

On March 24, 1989, the *Exxon Valdez* ran aground on Bligh Reef in Prince William Sound, Alaska. By this time the firm had established offices in Portland, Oregon, as well as Anchorage and Fairbanks, Alaska. A good client in Alaska was the Chenega Regional Corporation with its subsidiary village corporations. Chenega had retained Mundy Associates to perform a highest and best use study of their real estate holdings in the Sound.

On March 24, I was in Anchorage. I had just presented with a colleague a study to the city regarding historic preservation for the downtown Anchorage metropolitan area. Learning of the

Exxon Valdez running aground and the concern for an oil disaster, I visited the President of the Chenega Corporation, Mike Chittik, and warned him of the devastating impact the oil could have on their property. That day Mundy Associates was retained to monitor and quantify the impacts, especially in relation to value, that the spill would have on all the regional and village corporations' property in Prince William Sound, including village and corporation lands extending west to the westerly end of the Kenai Peninsula.

To quantify the impact, members of the firm, including myself, spent months working with other experts and visiting the oiled areas by boat and plane, meeting with natives to understand their subsistence lifestyle, and using various quantification techniques (such as trade-off analysis) to measure value effects. From the beginning, it was assumed that remuneration for the damages incurred would follow a legal process, which meant a trial. Reports were prepared, discovery took place, and depositions were held at the defendants' law firm, Bogle and Gates (now deceased) in Seattle. The entire staff of Mundy Associates was deposed; my deposition took 30 days.

A jury trial was held in Anchorage. The verdict was $287 million in actual damages plus $5 billion in punitive damages. Exxon's response was "we will never pay this outrageous amount." For years Exxon appealed the verdict, both in the Ninth Circuit and to the U.S. Supreme Court. In the end, the final amount Exxon paid was $507.5 million on December 15, 2009, 20 years later. The lesson learned from this case: litigation frequently does not pay.

Another interesting environmental accident occurred in Northern California on July 14, 1991, when two tank cars in a Union Pacific train derailed on a bridge going across the Sacramento River, just north of Dunsmuir, California. One of the tank cars flipped onto the river bank, ruptured, and released some 19,000 gallons of soil fumigant into the river. The fumigant was so toxic that it killed everything in and along the river for a 41-mile stretch to Lake Shasta. This stretch of the Sacramento River was very important to sports fishing, with many fishing lodges lining the river.

The law firm of Latham and Watkins, plus Union Pacific, retained Mundy Associates to assist them in quantifying the damages and developing a strategy for adequate compensation. Given what happened in the *Exxon Valdez* matter, Union Pacific did not want to litigate. Mundy Associates, using an early version of what is now the Greenfield Automated Valuation Model (GAVM), estimated the damage at $1.43 billion, which became the settlement amount for the affected property owners who had formed a class action, with the help of Latham and Watkins.

Another niche market for valuation services developed by Mundy Associates was valuing natural land. This included large unique ranches, natural habitat areas, national parks and monuments, etc. One of the main purposes for this valuation analysis was the placement on and conveyance of conservation easements. In January 1991, the *Appraisal Journal* published another article, this one authored by myself and Victoria Adams, entitled "The Valuation of High Amenity Natural Land."

Here are a few examples of high amenity valuations done by the firm:

- In 1998 and 1999, the firm valued the 80,000-acre Hearst Ranch. The land surrounds the Hearst Castle, includes the town of San Simeon, and includes several miles of Pacific Ocean frontage. The purpose of the appraisal was to determine the value of a conservation easement to be placed on the ranch. The easement was finally consummated in 2005.

- Within Salmon Lake, in Montana, is the 30-acre Sourdough Island. In the early 1980s, Bruce Vorhaeuer built an 18,000-square-foot log home and research center with a motel-type guest wing of seven one-and two-bedroom townhouse units for guests and research staff. During the summer, the property is accessible only by boat and helicopter. In the winter, one can drive a vehicle across the frozen lake to access the center. Around 1990 Mr. Vorhaeuer purchased a large yacht that was moored in Lake Union, Seattle, Washington, on a contract from Dennis Washington, a wealthy Montana contractor. Mr. Vorhaeuer ran into significant financial difficulty in 1990–91 due to a failed attempt at the Montana Senatorial seat and a lawsuit from an automobile accident. Mr. Washington foreclosed on the yacht loan in 1991 because of non-payment. Mr. Vorhaeuer torched the yacht to collect insurance proceeds. He was charged with arson. In 1992 Mr. Vorhaeuer committed suicide. Mr. Washington took possession of the property, then donated it to the University of Montana. Mundy Associates appraised the property for the University of Montana as a part of the donation.

- In 1994, the firm was hired by the State of Utah to value their in-holdings within national parks and monuments. The purpose was a large land exchange enabling the federal government to consolidate park and monument ownership in exchange for non-park/monument mineral lands. The valuation analysis included lands in Bryce, Zion, Canyonlands, Arches, Dinosaur National Monument, and Navajo Indian Reservation. The analysis included an extensive survey of archaeology.

During this time, the firm had performed a highest and best use analysis and appraisal of some 1,400,000 acres of private ownership extending from Alaska to Chile and Argentina.

In 1996, I started a national search for a buyer of the consulting firm. I wanted to find a buyer with credentials and interests similar to mine (a Ph.D. with experience in real estate consultation and valuation with a litigation “twist”). In early 1998, Mary Ann and I met with John and Lynnda Kilpatrick in Asheville, North Carolina. John then traveled to Seattle and was introduced to the firm. Shortly thereafter, he and I signed a buy/sell agreement and John and his family moved to Seattle.

John worked for the firm as an employee for several years, then became a partner and acquired stock in the firm over four years, until he owned the firm outright. I formally retired from the firm on January 1, 2008. I now spend my summers working my farm east of Cle Elum, Washington, where I produce timothy hay (exported to Japan), wine grapes, fruit, berries, and a large garden. In the winters, my wife and I bicycle throughout the equatorial and southern hemisphere.

II. From Mundy, Jarvis & Associates to Greenfield Advisors

There are various reasons to change the name of a company: rebranding, shedding an old business model, concluding a merger, or changing the corporate structure. Changing a name is never easy, but it is often a smart move. As befits our several decades of activity, our firm has had several names, often reflecting organizational changes that Bill Mundy put into effect.

Greenfield Advisors started out in 1976 as Bill Mundy & Associates, Inc., providing a variety of real estate related services.

Greenfield Advisors

Economic, Market and Valuation Analysts

That company also invested in a few unusual services, like Hager Word Processing. It is typical of Dr. Mundy's entrepreneurial spirit that he invested in a new technology—word processing—long before the marketplace had moved on from laborious typewritten and mimeographed reports *en masse*. MJ&A offered the first versions of complex valuation and appraisal, exploring the myriad variations and applications of stigma and its effect on real estate.

There were few employees and many consultants involved with the company, as Dr. Mundy preferred to oversee a very fluid company that could easily change its size depending on the amount of work available. That fluidity allowed Dr. Mundy to rapidly swell his workforce when he was engaged by the Alaska Native Corporations because of the infamous *Exxon Valdez* oil spill.

When that project concluded several years later, Dr. Mundy began to contemplate exiting the appraisal industry, and the company changed with his plans, becoming Mundy & Associates. In 1998, he brought in a new Senior Analyst, John Kilpatrick, who was slated to eventually succeed Dr. Mundy at the helm of the firm. Together, they began to shift the company's direction as well as the ownership.

In 2004, the company shifted its model further and began to focus strongly on complex valuation litigation and expert witness work. This area of analytics was perfect for the scholarly background and analytical depth our employees increasingly possessed. In 2005, as Kilpatrick took over more of the day-to-day management of the firm, he decided that the name of the firm should reflect more than a single person, even the firm's principal. And so began the process of choosing a new name for the firm.

Despite the assistance of several marketing specialists and consultants, all of the ideas we came up with were quickly discarded… or the *good* ones were already taken! The firm spent months being frustrated, and reluctant to take the easy route the consultants were recommending: to create a completely new word (a la Google, or InSys). The dilemma was finally solved by a firm called The Graves Group, which had also guided the re-branding of one of Seattle's top law firms (Preston Gates and Ellis, headed up by none other than Bill Gates). After extensive analysis, the firm was guided to "Greenfield Advisors," and in June of 2005, we finalized the process and announced the new name.

More than 10 years later, the "shiny" has worn off our name, and we take it for granted, even as we have diversified the activities of the firm. One thing hasn't changed: all through the years, we have upheld the core tenets of our mission, to be the best real estate valuation company in the world.

III. The Arrival of Dr. John Kilpatrick in 1998

As noted, by the late 1990s, Dr. Mundy had realized the need for a succession plan. Several ideas were considered, including merger with a similar Seattle-based firm. However, while Mundy Associates was indeed a Pacific-northwest centric firm, its national reputation, ongoing publication record, and application of advanced methods to complex projects necessitated someone with both an academic and practitioner set of qualifications. In short order, he narrowed the job description to someone with a Ph.D., with appraisal and other "practitioner" real estate experience, and who was either an MAI or MAI candidate with the Appraisal Institute.

The search generally focused on newly minted Ph.D.s in real estate and related fields. By some good fortune, Dr. Mundy was the first *practitioner* Fellow of the Weimer School for Advanced Real Estate Studies, part of the famed Homer Hoyt Institute. He turned to his colleagues at the Weimer School, and with their help he developed a short list of younger Ph.D.s who fit the description and who were recommended by the top scholars in the field. By early 1998, one name emerged from the pack—John Kilpatrick, a soon-to-be-minted Ph.D. in Finance from the University of South Carolina.

Dr. John Kilpatrick came to Mundy Associates with a resume nearly form-fitted to the task at hand. Earning his MBA in 1981, he had been a finance and real estate practitioner in Columbia, South Carolina, for most of the 1990s. He helped open the Dean Witter office in Columbia, making Dean Witter at the time the only stock brokerage firm with offices in all 50 states. In 1984, he left to become CFO of a real estate construction and development company, and at the same time began appraising real estate part-time as a side venture. In 1988, he left the larger company to form his own small consulting, brokerage, and construction business, developing subdivisions and assisting clients with real estate developments. In 1990, after the Savings and Loan Crisis, he realized there were significant questions to be answered in the

housing finance field and opted to return to the University of South Carolina—coincidentally in Columbia—where the Finance department had an excellent concentration in real estate.

Also by coincidence, South Carolina's real estate program had a close relationship with the Weimer School. Dr. Arthur Warner, who headed up the program until 1991, was one of the founders of the Weimer School, and Dr. Ronald Rogers, who was Kilpatrick's dissertation advisor, was named a Weimer School Fellow the same year as Dr. Mundy.

Kilpatrick's Ph.D. work had a fairly unique and fortuitous side trip. At that time. Dr. Paul Huray was the University's Senior Vice President (later, Vice Provost) for Research. Each year, Dr. Huray selected one of the top incoming Ph.D. candidates, university-wide, to be his research assistant, developing large-scale, multi-institutional and multi-disciplinary research proposals. In 1990, upon the recommendation of then-University President Arthur Smith, Dr. Huray named Kilpatrick to this prestigious assistantship. Until 1993, Dr. Huray also spent two days per week in the White House as a Fellow in the Office of Science and Technology Policy as an advisor to President Bush, and after 1993 (after the Clinton election), Dr. Huray was kept on by the White House as a treaty negotiator on technology matters.

As such, Dr. Kilpatrick spent a significant amount of time working independently on complex research organization and funding matters, and he was able to interface with some of the nation's leading scholars and researchers as well as the top federal funding agencies. Dr. Kilpatrick was able to continue as Dr. Huray's assistant for all four years of his Ph.D. study. While working under Dr. Huray, Kilpatrick helped develop the South Carolina Supercomputer Network, and in 1994 he was named the first full-time Administrator of the Network. During his time at the University, Dr. Kilpatrick was also named the Arthur Warner Fellow by the South Carolina Association of Realtors, a National Graduate Fellow by the Appraisal Institute, and was also awarded a national graduate fellowship in real estate by the CCIM Institute. While working with Dr. Huray, Kilpatrick was integral to projects funded by the National Science Foundation, DARPA, and numerous other federal agencies.

Kilpatrick's experience as a practitioner in the 1980s and a university academic in the 1990s gave him the necessary criteria to join Dr. Mundy's firm and begin a multi-year tutelage to eventually step into Dr. Mundy's shoes. Kilpatrick's more specific experience, working under Dr. Huray and with leading scholars in a variety of fields, gave him an understanding of what *excellence* in research looked like, how to achieve top results in a given field, and how to maintain an organization at a high level of performance.

Dr. Kilpatrick continues to maintain his academic relationships, and indeed the ongoing publication and scholarship record at the firm is one of the major factors that sets it apart as a top real estate valuation and consulting firm. For several years, he was a Visiting Scholar in the Newman Department of Real Estate, Zicklin School of Business, Baruch College, in Manhattan. He continues to this day to serve as a member of the National Board of Advisors to the Carson College of Business at Washington State University. He's on the Editorial Board of the *Journal of*

Sustainable Real Estate, served until last year on the Editorial Board of the *Appraisal Journal* (and continues to serve on their review board), and serves as a reviewer for the prestigious *Journal of Real Estate Research*. In 2013, when Oxford University Press was putting together a two-volume text on real estate, they naturally turned to Dr. Kilpatrick to author the chapter on valuation. He has been honored by his peers in numerous fashions, but perhaps most notably in 2014, his alma mater, the Moore School of Business at the University of South Carolina, brought him back to be the keynote speaker for the Graduate Hooding Ceremony, joining a list of past speakers including former Governor and U.S. Energy Secretary Richard Riley, Ogilvy & Mather CEO Charlotte Beers, and Famed Football Coach Lou Holtz.

Here in his own words is Dr. John Kilpatrick discussing his career-changing move:

"In 1998, I was basically an east-coast guy. I was born in Virginia, studied in Maryland and South Carolina, had lived my entire life within 100 miles of the eastern seaboard, and even my travels abroad had been to Europe. More to the point, I was lucky to have been able to pursue my Ph.D. in a city where I already had substantial roots. I had four children, a house, membership in local clubs, and friends and family. My wife, who had also been a "Gamecock" undergraduate and graduate student, was equally, firmly affixed in the midlands of South Carolina.

Thus, when approached with the idea of moving thousands of miles from home, to join—and eventually lead—Mundy Associates, my first instinctive response was a firm "no." But, it didn't take long for reality to set in. For a real estate guy, with a focus on complex asset valuation models, I was being offered the singularly best job in America, if not the world. Bill Mundy had developed a global reputation as one of the best thinkers in the real estate appraisal field. (Note—shortly after joining the firm, I had the pleasure of being interviewed by the Japan Real Estate Institute. They noted that they regarded Dr. Mundy as the second most important person in real estate appraisal in America, the first being Mundy's frequent collaborator and co-author, the late Dr. William Kinnard.)

With that in mind, I couldn't really turn down the opportunity. It was more than just the money or the acclaim or the large step up the rungs of the career ladder. Internally, it was the opportunity to apply all of my intellectual skills in the arena which had been my profession for so many years. I could draw together not only professional skills in appraisal, finance, and real estate, but also use what I'd learned about building and running a world-class operation. For those who are familiar with Maslow's Hierarchy of Needs, it was the opportunity for both professional and personal self-actualization.

Bill Mundy and I met in Asheville, North Carolina, in the early spring of 1998 and we hit it off quite well. We were, and still are, very different people. That said, we both had an appreciation for the application of intellectual rigor to the valuation process. Lynnda and I visited Seattle

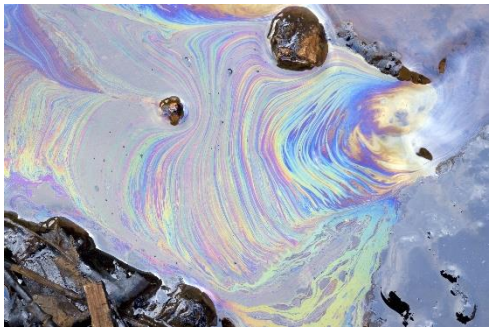
later that spring, and by summer, I was organizing my affairs to pack the covered wagon and head across the prairie and mountains to the far-distant Pacific Northwest.

It's a move I've never regretted."

IV. Transitioning

We asked Dr. Kilpatrick to describe the transition and evolution of the firm since he joined 18 years ago. The rest of this section is again in his own words.

"Sports fans all know that a baseball team aims for the World Series. Thirty major league teams start the season and two end up in the Series. One takes home the pennant. For the rest of their lives, those players will all be known for their World Series victory.



However, there are 162 games in a regular season, not including the pre-season and the post-season. The stuff learned in those *other* games is what dictates who will get to the Series. At Greenfield, the same is true with our work. We're best known for the "World Series" events, like the *Exxon Valdez* oil spill litigation, the Hurricane Katrina consulting and litigation, the BP *Deepwater Horizon* oil spill litigation, and the residential mortgage-backed securities (RMBS) litigation. Thousands of lesser-known but equally interesting projects have kept our firm busy and growing for 40 years.

If Dr. Mundy had not been on the forefront of the *Exxon Valdez* case and had not published on the topics he gleaned from that case, we would not be set up as leading experts on contingent valuation today. Dr. Mundy's early work on stigma set the stage for work we continue to do to this day. (And as will be discussed elsewhere in this monograph, one of Dr. Mundy's early *Appraisal Journal* articles on valuation of contaminated property was named one of the nine most important "thought pieces" in the first 75 years of that publication.)

But of course, it's the World Series victories for which a team is best known, and it's the roster of big cases for which this firm has built its reputation over the years. Necessity may not be the mother of invention, but it is certainly a close relative. In the early 2000s, Bill Mundy was slowly transitioning the day-to-day leadership of the firm to me. With any small consulting or services firm, the roles of "manager" and "rainmaker" go hand-in-hand. While it's possible for the two roles to be bifurcated (and indeed, many successful firms do this, and larger firms do it out of necessity), the team members invariably look to the rainmakers to set the agenda and strategy for the firm. Thus, with the small firm we had in the early 2000s, a transition of leadership meant that I had to also have a strategy for how and where the firm would earn a living.

For those not familiar with the operation of a consulting or service firm, this may seem a bit strange. After all, McDonald's tinkers with the menu from time to time, but they are still the basic "burger, fries, and a drink" joint they were 50 years ago. However, in the consulting field —of which appraisal is simply a subset—client needs may change rapidly over time.

Computer services come to mind. I recently had the pleasure of chatting with a computer consultant who has been in the business 26 years. He's completely reinvented himself and his suite of services three times during that period. He started consulting on architectural CAD-CAM drawings. Immediately preceding the millennium, he was recast as a COBOL consultant, working on "older" mainframes that may have shut down due to programming problems when the calendars clicked over to the year 2000 (considered to be a major issue 16 years ago, on which business, industry, and government had to spend billions of dollars). Today he is a cyber security expert. While all of these may seem to be computer related, they required major retooling of his skillset, certifications, and analytical tools.

In the early 2000s, as the firm was transitioning leadership (but had not yet rebranded itself "Greenfield Advisors"), we were handed a very well-disguised gift. The firm was still very Seattle-centric, and the State of Washington went through a period of almost zero funding for things that might involve eminent domain takings. Many appraisal and consulting firms in the state lived and breathed off of this work, and indeed our firm did a bit of it… when and if there were complex issues at stake. That said, many local appraisal and consulting firms began looking at our roster of clients and projects, and realized there may be some low-hanging fruit to be picked. While most of our clients—then and now—look for our expertise and realize our methods may be more expensive than other, less effective firms, there are always some clients for which a 50% reduction in fees may make a difference. Further, there were projects and assignments that we had accepted—usually as fillers—which were frankly beneath our expertise.

Thus, the well-disguised gift was an opportunity, about a dozen years ago, to quickly recognize that there were certain types of projects for which we had no competition. We decided then and there to turn away projects that other firms could do as well or even more efficiently than us, and focus our attention and concentration on projects for which there were few other firms. To adapt the idea of Jack Welch, former General Electric CEO, we would concentrate only on projects for which we were one of the top two or three firms in the world, but we would pursue any project for which our expertise set us up to be one of the top two or three firms.

That's a tall order for a small, Seattle-centric consulting firm. Of course, we had several things going in our favor. First, we were headlined by one of the leading scholar/practitioners in the world in Bill Mundy. Second, Seattle is well known for producing world-class firms (Boeing, Microsoft, Peterbilt, Starbucks, Nordstrom's, Costco, the Fred Hutchinson Cancer Center, our own alma mater Weyerhaeuser, and the list goes on). Finally, we already had several top-flight global-scope projects under our belts, and several areas, such as environmentally impaired property, for which we were already recognized as the "best of breed."

Our methodology for this transformation would be very simple. We would double-down on our efforts to publish on methodology and empirical results from our work. Second, we would produce white papers on topics of interest to potential clients. Third, we would focus on capabilities, rather than missions; that is, we would recognize that certain sets of capabilities can be adapted to new types of projects in the ever-changing real estate horizon. Fourth, we would quietly market ourselves to firms and decision makers who may not know about us but who may, from time to time, need firms with our skill sets. Fifth, we would avoid projects where our expertise would get watered down.

There were other tools we brought to bear, and certainly our branding and brand management was an important part of our marketing focus. However, avoiding projects where our expertise would get watered down became a key element. As it happens, most appraisers are on "approved" lists for various lenders. Residential appraisers get nearly all of their business from lenders or appraisal management companies for whom they are "on a list." Commercial appraisers may do a variety of consulting projects, often a lot of litigation, but still depend heavily on commercial financing appraisals from lenders. We avoided these, since this was not really an area in which we could excel, and for that reason the simple management of these relationships would be a distraction. Little did we realize that in a few years, many of these financial institutions would be the focus of RMBS litigation. By avoiding needless involvements with these institutions, we had no conflicts when more intellectually interesting projects came along.

V. The Present, Part I (2007–2012)

In 2010, the firm hired Dr. Clifford A. Lipscomb as the Director of Economic Research. Here, in his own words, is the story of his arrival at Greenfield.

How I got to Greenfield Advisors is an interesting story. After graduate school, I spent two years working as a Research Economist at the U.S. Department of Commerce, Bureau of Economic Analysis (BEA). After that, I spent five years teaching and conducting research in the Langdale College of Business Administration (LCOBA) at Valdosta State University (Georgia).

A few years into this job, I presented some of my research at the American Real Estate Society annual meetings in San Francisco, California, in April 2007. During one of the social hours, my wife came up to me and told me about a conversation she had with this lady whose husband seems to do research in areas similar to mine. So, I walked over to this covered area inside the hotel and that's where Dr. Kilpatrick and I had our first conversation, a conversation made easier because we are both Southerners. Indeed, we had a lot of overlapping areas of interest. At the end of the conversation, he told me that sometimes they engaged academics to assist on projects

when there was an overload of work. I told him that if the opportunity arose, to keep me in mind.

Literally, one month later, John called me and asked if I would work on the "rice case," which involved damages accruing to farmers in the Midwest and Southeast from genetically modified rice ending up on their properties. So, I flew to Baton Rouge and sifted through legal documents for an entire day. That was my first real introduction to the work that Greenfield Advisors does.

From there, I worked for Greenfield during the summers from 2007 until 2009. Then, in the fall of 2009, I convinced John and his wife Lynnda to pass through Valdosta and speak to my students on their way from Tennessee (where we were working on the Tennessee Valley Authority [TVA] coal ash pond spill case) to Florida. John graciously took an entire day and spoke to two of my classes and gave a public lecture that evening to the entire business school. Afterwards, over dinner at our house, I asked John suddenly "So, are we going to make this happen?" This meant whether we were going to create a position at the firm for me… a topic that we had discussed on the phone briefly once or twice. About 30 minutes later, we had an agreement in principle.

The one sticky factor was that John wanted us to move to Seattle, just like he had done about 11 years earlier to take over the firm from Bill Mundy. I knew that my family would not be on-board with that idea, so I enumerated at least four or five reasons why the firm needed an East Coast presence (e.g., almost all of our clients were in the Eastern time zone at that time). At the end, John said, "OK, call Lisa on Monday and make it happen." That was the easiest job interview I've ever had. This conversation occurred in October 2009. By Thanksgiving, I had given my resignation notice to LCOBA and had the entire final semester to finish all of my projects to ensure a smooth transition to Greenfield Advisors (and smooth move back to my hometown of Cartersville, Georgia) in May 2010.

We opened the first East Coast office in Atlanta, Georgia, in the summer of 2010. At its peak, we had three employees (including me); two of those employees are still with us today (Abigail Mooney and me). After a few years of having an office with an Atlanta address, Abigail moved to the Seattle office. So, for a few years, I was the only employee outside Seattle. During this time, I worked from home. Then in the summer of 2014, Greenfield Advisors began leasing a property in my hometown of Cartersville, Georgia, where the office remains today. Now, we have five employees in Cartersville—me, our head of marketing, our head of new business initiatives, and two analysts. If we add any additional staff here, we may have to consider a larger space.

From 2007 through 2012, Greenfield Advisors worked on a large number of class action lawsuits involving environmentally impaired properties. Some of the more (in)famous were the Jacksonville, Maryland, and Merced, California, cases. In Maryland, we worked on several cases for the Law Offices of Peter Angelos. Mr. Angelos owns the Baltimore Orioles baseball club. Before I joined the firm full-time, I spent the better part of a day explaining regression analysis

to Mr. Angelos in his conference room. It is certainly an experience I'll never forget, as he was listening to me talk about regression analysis while simultaneously deciding which free agents he wanted to sign up for the upcoming baseball season.

In the Merced case, I remember leading a focus group in Fresno, California, and visiting the contaminated area. What made this case so memorable is that there were two events that we were asked to disentangle—one was a flood and one was the chromium contamination that resulted from the flood. After we were able to show two separate valuation impacts on the local neighborhood, the case settled.

Other big cases we worked on during this time include the TVA Kingston coal ash spill (Tennessee) and the *Deepwater Horizon* BP oil spill (in the Gulf of Mexico).

VI. The Present, Part II (2013–2016)

Most recently, when the phone rings, it's often an attorney calling about our expertise in residential mortgage-backed securities (RMBS) cases. One of the fallouts of the mortgage meltdown in the late 2000s was a colossal failure of RMBS to provide the returns to investors as described in the various securities offerings. Starting in the late 2000s and early 2010s, lawsuits were being filed by the investors in and other related parties to these security offerings to get some of their money back. A few years later, as the litigation proceeded, we started to hear about experts being needed to offer opinions on the appraisals being conducted as part of the underwriting activities being done before large numbers of properties were securitized and then sold on the secondary market. We started getting calls about expert witness services in this arena. It quickly became a large part of our work, and the environmentally contaminated property work took on a much smaller percentage of our work.

As part of our work in the RMBS space, we generally have two different types of analyses that we do. First, we use our automated valuation model (AVM) to retrospectively value properties at the time of loan origination. Second, we use our credibility assessment model (CAM) to determine whether appraisals supporting the loan underwriting process were completed credibly and comply with professional appraisal standards.

VII. The Future

With the hiring of Joshua Salisbury, our Manager of New Business Initiatives, we are focusing on non-traditional areas of interest that leverage our existing talents in database architecture, economics, statistics, computer programming, and analysis. A few of those areas include EB-5, REITs, capital raising, and providing analytical product development with third parties.

In the second half of 2015, we spoke with attorneys working on the EB-5 Immigrant Investor Program, which handles visas for foreign investors who want to immigrate to the United States. We found a few ways Greenfield could utilize its strong team of analysts. EB-5 visas require business plans and economic impact studies. We are currently active in this space.

The economic analyses needed for an EB-5 visa require a close look at the feasibility of a business in a specific location. Our specialty is examining complex situations in an economic and real estate setting. For a proposal to be approved by the U.S. Citizenship and Immigration Service, it must be able to show not only a need for the business, but also a blueprint for success. Along with the economic analysis, Greenfield Advisors also provides business plans for EB-5 clients. The plans are a step-by-step guide to setting up the business and keeping it working efficiently and with a profit for years to come.

The Cartersville office's analysts completed their first plans and earned rave reviews from clients, cementing them as the go-to team for our new EB-5 partners.

In addition to the business plans, we also began utilizing our strong team of analysts and economists to provide due diligence services to the EB-5 immigrant investor visa program, including EB-5 regional centers, projects, issuers, and investors. Greenfield comes well prepared with a staff that has FINRA Series 79 (investment banking), Series 82 (capital raising), and Series 63 (state) licensing, as the SEC increases its oversight of this booming market.

We also branched out into a few new directions. A few years ago these possibilities were just dreams, but today we're making them happen. With Bartow Street Capital we are capitalizing on our deep expertise in real estate and healthcare. We launched this division to raise capital for developers, companies, and funds, leveraging our team's years of experience and broad relationships with institutions, family offices, and private equity and venture capital funds.

Additionally, Greenfield Advisors launched a new healthcare practice in 2016. This new division offers clients the ability to value their businesses and technologies in medical products, surgical devices, biotechnology, pharmaceuticals, generics, and distribution. Businesses can be at all stages of development, including seed round/startup, growth, established, and in exit-mode. We also have depth in valuing pharmaceutical, medical device, and diagnostic royalties for universities, hospitals, biotechnology companies, and pharmaceutical companies, and the ability to manage auction processes for those assets.

Based on our extensive experience in real estate and its integration with the broader economy, we created a wholly owned subsidiary, Accre LLC, to begin investing in publicly traded real estate investment trusts (REITs). REITs are excellent real estate investment vehicles that are required to pay at least 90% of their taxable income in the form of shareholder dividends each year. Recent times have seen exciting growth in REITs as an industry; the S&P Dow Jones Indices and investment tool provider MSCI now consider real estate a standalone investment sector under the Global Industry Classification Standard (GICS). Effective August 31, 2016, equity REITs will have their own sector coverage as an asset class, moving them out of financial coverage. This is partly driven by the fact that real estate has become an essential part of any portfolio, with typical recommendations anywhere from 10% to 20%.

At Accre, we are now moving to assist potential clients with this shift toward real estate investment. Our goal is to become a fund of funds, advising others on the appropriate

investment choices to make in the real estate sector through our REIT fund. Accre's investment strategies combine significant knowledge of the U.S. real estate market with macroeconomic research and company analysis. Our market strategies have not only outperformed the market, but have proven resilient to market downturns. In 2015, Accre successfully identified and utilized the top three REIT sectors to outperform the market return. In 2016, our portfolio successfully hedged against the global market turmoil to provide solid returns in an otherwise tumultuous start to the year for the U.S. economy. We continue to expect exceptional results as we invest financially in the U.S. REIT sector.

In addition to these activities, we are in several discussions with data vendors throughout the country who do not have analytical shops in-house but desire to partner with us to provide analytical products to their customers. While these agreements are confidential, we plan to share this information through press releases as appropriate.

VIII. Acknowledgements

It's exciting to look back at four decades of hard work and see how much we've changed. All of our accomplishments and successes would not have been possible without our incredible staff. But we also want to thank every client who we have worked with over the past 40 years. Whether it was a first-time customer who gave us a shot or the colleague we've known since the beginning, we wouldn't be here without you. And a special thank you, in particular, to the Lipscomb and Kilpatrick families for tolerating our sometimes unforgiving work schedules.

IX. Awards

Various employees at the firm have received accolades over the years. We thought we'd share the most recent award-winning manuscripts with you.

Krause, A., and C.A. Lipscomb. Forthcoming 2016. "The Data Preparation Process in Real Estate: Guidance and Review." *Journal of Real Estate Practice and Education*. Adapted from "A Primer on Real Estate Data Cleaning Techniques: Lessons from the Trenches" **(Winner of the 2015 American Real Estate Society Best Manuscript Prize for Real Estate Education, sponsored by Dearborn Real Estate Education)** and "Property-Level Real Estate Data: Processing Techniques and Documentation Review" **(Winner of the 2016 Pacific Rim Real Estate Society Best Refereed Paper).**

Lipscomb, C.A., A. Mooney, and J.A. Kilpatrick. 2013. "Do Survey Results Systematically Differ from Hedonic Regression Results? Evidence from a Residential Property Meta-Analysis." *Journal of Real Estate Literature* 21(2):233–253 **(Winner of the 2014 IAAO Bernard L. Barnard Outstanding Technical Essay Award)**.

Krause, A., R. Throupe, J.A. Kilpatrick, and W. Spiess. 2012. "Contaminated Properties, Trespass, and Underground Rent." *Journal of Property Investment and Finance* 30(3):304–320 (**Designated as a "Highly Commended Award Winner" at the Emerald Publishing Literati Network Awards for Excellence, 2013)**.

Kilpatrick, J.A. “What Is the Error Rate of a Commercial Appraisal?” a Greenfield Advisors Working Paper, winner of the **Appraisal Institute’s Best Appraisal Paper** award at the 2010 meetings of the American Real Estate Society.

Mundy, B. 1992. “The Impact of Hazardous Materials on Property Value.” *The Appraisal Journal* 60(2):155–162. (**Named one of the most influential articles by *The Appraisal Journal* as reflected in David Lennhoff’s 2007 article “Nine Big Ideas: Appraisal Journal Articles That Influenced a Generation.”)**

West Coast
2101 4th Avenue, Suite 820, Seattle, Washington 98121
Phone: 206-623-2935. Fax: 206-623-2985

East Coast
106 N. Bartow Street, Cartersville, Georgia 30120
Phone: 770-334-3952

www.greenfieldadvisors.com

About Greenfield Advisors

Founded in 1976, Greenfield Advisors is a boutique economic and financial analysis firm that provides government and private sector clients with customized consultations and advisory services. Known best for its analysis of complex economic, financial, and real estate situations in high-profile litigation matters, Greenfield Advisors also performs feasibility studies, business plans, and appraisals for its clients. Greenfield Advisors' subsidiary Bartow Street Capital LLC serves as its investment banking and capital raising arm, and its subsidiary Accre LLC acts as an investment principal. Learn more at www.greenfieldadvisors.com or by calling 206-623-2935.