ILLINOIS MINE SUBSIDENCE INSURANCE FUND

HISTORICAL RECORD
MISSION OF THE FUND

The Illinois Mine Subsidence Insurance Fund is a non-governmental tax paying entity created by the Illinois General Assembly. The purpose of the Fund is to assure financial resources are available to owners of property damaged by mine subsidence so those damages can be repaired.

The Fund does this by:

• providing reinsurance to insurance companies,

• conducting geotechnical investigations to determine if mine subsidence caused the damage,

• supporting research to mitigate structural damage, and

• educating the public about the use of insurance to lessen the risk of financial loss resulting from mine subsidence.
Contents

Preface .................................................. 3
Minning in Illinois ................................. 5
First Reports of Mine Subsidence ......... 15
Creation of the Fund .............................. 22
Management ........................................ 29
Operations ........................................... 35
Governance .......................................... 37
Claims and Investigations ...................... 41
Research and Education ......................... 45
Industry and Public Relations ............... 51
Financial Analysis ................................. 53
Staff .................................................. 59
Chronology of Significant Events .......... 60
Perspectives ......................................... 62
Preface

A retrospective look at the events leading up to the establishment of the Illinois Mine Subsidence Insurance Fund in 1979 provides basic insight as to why and how it came into existence. This historical record will take you through the early years of mining in Illinois, to the devastating effects of mine subsidence and the damage it causes. It will provide a glimpse into the manner in which Illinois legislators came together to take on this extraordinary challenge of finding a private solution to the very public problem of mine subsidence damage, and how they ultimately rose to the occasion for their constituents. It will document how the Fund has advanced through the years in the areas of research, education and financial health under the guidance of a dedicated Board of Directors, a diligent management team, and the invaluable outside partnerships formed through the years.

There is no question that from its inception, the Fund has helped lessen the financial consequences for thousands of Illinois residents whose properties have been affected by mine subsidence, and facilitated insurance to provide a measure of security to hundreds of thousands of Illinois property owners who are at risk of sustaining mine subsidence damage in future years. All who have taken part in forming, governing and managing the Fund are true pioneers in a field where no previous blueprint existed, and have earned their place in the history of one of the most unique and successful initiatives to date in Illinois. The Fund stands as a testament to the great heights of achievement that can be reached when government works in tandem with private enterprise to arrive at creative and workable solutions for the greater good of all.

Kathleen A. Moran
IMSIF Industry Relations/Consumer Education Manager
Cross-section of a Room and Pillar mine wherein pillars of coal were left unmined to support the mine roof. Over time, these pillars deteriorate, causing collapse or “subsidence” within the mine.
Mining has long figured prominently in the history of Illinois. According to the Illinois State Geological Survey (ISGS), Illinois has the largest known bituminous coal reserves in the country, with estimates of 200 billion tons lying underground and spanning nearly two-thirds of the state. Jackson County was home to the first recorded coal mine in Illinois over 200 years ago. In 1832, mining began in St. Clair County, with a reported six thousand tons hauled in wagons from the Belleville district to St. Louis, Missouri that year. The United States Census Report of 1840 documented the total output of coal from Illinois at 16,967 tons distributed over nineteen counties.

One of the oldest forms of mining, the Room and Pillar method, used a 4-step process wherein the coal seam was cut, drilled and blasted, and then loaded into cars for removal. Early room and pillar mines were formed in irregular, random patterns in which as much as 50% of the coal was left behind in the form of pillars which held up the mine roof, providing safety for the miners.

As mechanization developed, rooms 20 to 30 feet wide were cut into the coal bed leaving a series of 100-foot wide pillars or columns of coal, forming a grid-like pattern. The mechanized method produced anywhere from 4 to 15 tons of coal per minute, more than the old room and pillar method would produce in an entire day.
Over time, perhaps years, decades or even centuries, these pillars will gradually deteriorate and disintegrate, causing collapse or “subsidence” within the mine. Structures built over or in close proximity to a mine can be severely damaged from mine subsidence as the foundation of the structure is subjected to sinking, shifting, contraction and/or expansion caused by the subsidence.

Sag subsidence, the most common type of mine subsidence, appears as a gentle depression in the ground and can spread over an area as large as several acres. Pit subsidence, less common, forms a bell-shaped hole 6-8 feet deep and from 2-40 feet across and occurs when a shallow mine roof collapses.

WHAT IS MINE SUBSIDENCE?

Mine Subsidence is the sinking or shifting of the ground surface resulting from collapse of an underground mine — most commonly of an old coal mine.

Sag subsidence, the most common type of mine subsidence, appears as a gentle depression in the ground and can spread over an area as large as several acres. Collapse of pillars supporting the mine roof is a typical cause.

Pit subsidence forms a bell-shaped hole 6-8 feet deep and from 2-40 feet across and occurs when a shallow mine roof collapses.
For many years, mining was not tightly regulated and rapidly developed beneath sparsely populated land. As cities and towns expanded over or near old abandoned mines, the stage was set for mine subsidence damage to appear. Today, the ISGS estimates that approximately 201,000 acres of urban and built-up lands in Illinois are undermined or in close proximity to underground mines. Predominantly within that acreage, there are an estimated 333,000 housing units with possible mine subsidence exposure.

Most experts agree that room and pillar mines will eventually experience some degree of collapse, but currently there is no way to know when or exactly where mine subsidence will occur. The unpredictability of mine subsidence is attributed to many variables that factor into the equation, such as size, depth and age of the mine, and soil and weather conditions.

**BLOCK DIAGRAM OF A TYPICAL SAG SUBSIDENCE EVENT**

A. Wooden frame house in tension zone. Foundation has pulled apart and dropped away from the superstructure in one corner.

B. Road in compression zone. Asphalt has buckled.

C. Brick house in tension zone. Walls, ceilings, and floors have cracked.
For many years, mining was not tightly regulated and rapidly developed beneath sparsely populated land. As cities and towns expanded over or near old abandoned mines, the stage was set for mine subsidence damage to appear.

One of the basic tools in early mining was the pick axe, which was used to break the coal loose from the veins. *Old Ben #8, West Frankfort.*
Top: Early mining was tedious work, requiring both strength and stamina. Mine and location unknown.

Bottom: Driver riding rear end of loaded horse drawn car. ISGS, circa 1936; Majestic Mine, Peabody Coal Company, Old DuQuoin.
Top left: Mine workers hand loading a coal car. The man on the far right is most likely a driver waiting for the car to be filled. ISGS, circa 1920.

Top right: Workers in McLean Coal Mine, Bloomington.

Bottom: Hand-loaded cars passing check station near shaft bottom. ISGS, circa 1920 Peabody Coal Company.
Shumway Coal Mine, Taylorville, 1901-1915.
Top: Picking tables where workers removed roof shale from lump coal before loading into rail cars. ISGS, circa 1920. Chicago, Wilmington & Franklin Coal Company, Orient No. 2 Mine, Franklin County.

Bottom left: The end product of the sorting process was clean coal of uniform sizes. Each size had a different market. ISGS, mine and location unknown.

Bottom right: Little Dog Mine, Gillespie, 1867-1927.
Top: Kathleen Coal Mine, Dowell, 1918 to 1946.

Bottom left: Lumaghi Coal Mine No. 2, Collinsville, 1871-1964.

Bottom right: Peabody Coal Mine No. 43, Saline County, 1928-1942.
Pit subsidence (10 x 20 ft. wide, 5 ft. deep) which occurred next to a house near Streator, IL.
ISGS files/ 1916 Cooperative Coal Mining Series Bulletin 17, Surface Subsidence in Illinois
First Reports of Mine Subsidence

The earliest reports of mine subsidence in Illinois were recorded by the Illinois State Geological Survey, which has been investigating, documenting and publishing information on coal mine subsidence for over a hundred years. However, as subsidence became more prevalent, many property owners were reluctant to discuss or address mine subsidence due to the negative impact it could have on property values. Traditional property insurance policies do not cover earth movement such as mine subsidence, nor was mine subsidence coverage available for purchase. In some cases, reparations could be obtained from coal companies, but as coal companies increasingly went out of business, property owners were left to bear the burden of making costly repairs. In many cases, only cosmetic repairs were made in order to sell damaged homes, leaving unsuspecting buyers with a multitude of potential problems.

The Belleville News-Democrat brought new awareness to the mine subsidence dilemma in 1968, when it reported a story on several Breese homeowners whose properties were damaged by mine subsidence. The O’Fallon Quality Dairy Association, in a failed attempt to arrest mine subsidence, pumped a slurry of concrete and whey directly into the abandoned mine affecting their property. The procedure ultimately had a reverse effect and caused damage to approximately 16 adjacent properties. The homeowners formed an association and successfully sued the Dairy, recovering an undisclosed amount in 1972. Thomas Glover, an official from the US Bureau of Mines in Springfield stated, “As far as I know, it was the first time a group of people said ‘I don’t care who knows. We’ve been sunk and we’re going to do something about it.”

The mine subsidence issue came to a head in the same year, when an estimated 100 homes were damaged by mine subsidence in the Canterbury
Manor area in Belleville. Residents formed the Canterbury Manor Citizens Association, an advocacy group that lobbied for federal and state funding for an exploratory drilling project. The proposed project, which involved an experimental backfilling procedure, had previously been successfully implemented in both Pennsylvania and Wyoming. In spite of these efforts, it would be several years before a drilling project was sanctioned.

Also in the early 1970’s, the District Superintendent for the Old Harmony School Building in Belleville began noticing damage in the walkway, an increasing number of cracks in walls and floors and problems opening and closing doors. After emerging safety issues became a major concern, the school was permanently vacated.

Mine subsidence was getting frequent press in the local papers, igniting movements that attracted the attention of both State and Federal legislators. Among those legislators who committed to addressing the issue of mine subsidence were State Representatives Celeste Stiehl (R-Belleville), Monroe Flinn (D-Cahokia), Don Brummet (D-Vandalia), Joseph Lucco (D-Edwardsville), Mel Price (D-East St Louis), State Sen. Sam Vadalabene (D-Edwardsville), and House Minority leader George H. Ryan (R-Kankakee).

Legislation sponsored by Sen. Vadalabene and Reps. Brummet and Lucco to appropriate funds for a $3 million dollar backfill experiment in three Belleville areas – one of which was Canterbury – was introduced and passed unanimously by both the House and Senate, a testament to the bipartisan support from leaders of both parties.

By 1977, the US Bureau of Mines estimated the amount of mine subsidence damage in Belleville at $8 million dollars.
MINE SUBSIDENCE DAMAGE

A structure need not lie directly over a mine to be affected by mine subsidence. It is extremely difficult to accurately gauge how far a property must be from a mine to ensure that it will be unaffected by mine subsidence. Each subsidence event is unique, and the range of ground movement is influenced by the angle of draw created by the subsurface collapse, the depth of the mine, and soil composition. Rock and soil movement caused by mine subsidence often progresses very slowly. Damages may appear suddenly at first, and then continue to occur gradually over many years. Cracks may open in basement floors, then widen or grow over time. Concrete or brick foundation walls may bulge or crack, while the chimney, porch or steps may tilt in opposite directions or even separate from the house. The most severe mine subsidence damage is usually to the foundation and underlying structure of the property. Unlike fire, windstorm or other more common property losses which usually last for a few hours or less, most mine subsidence occurrences last for many years, sometimes decades, and final repairs are not recommended until after the damaging movement has ceased.

Mine subsidence damage may not be easily detectable from the street view. This home sustained extensive damage to the foundation, construction joints in the driveway, garage door frames and brick veneer. Inside damage included large cracks which appeared in the basement walls and floor, and large gaps between the kitchen walls and flooring.
TYPICAL EXTERIOR DAMAGE CAUSED BY MINE SUBSIDENCE TO SIDEWALKS, DRIVEWAYS, AND BUILDINGS.
INTERIOR DAMAGE MAY FIRST APPEAR AS CRACKS IN BASEMENT FLOORS OR WALLS; FOUNDATION DAMAGE MAY BE EXTENSIVE.
MINE SUBSIDENCE WAS THE CAUSE OF EXTENSIVE DAMAGE TO A MACOUPIN COUNTY ELEMENTARY SCHOOL IN 2009.
TWO HOMES SEVERELY AFFECTED BY MINE SUBSIDENCE.
By the mid 1970’s, both Representatives Celeste Stiehl (R-Belleville) and Monroe Flinn (D-Cahokia) had introduced bills to the Illinois House to provide a means for mine subsidence insurance to Illinois property owners. Their approaches were different: Rep. Stiehl proposed that mine subsidence coverage be included on existing property policies in counties with considerable undermining for an additional premium, with right of refusal by the insured. Under Rep. Flinn’s proposal, a severance tax would be placed on coal. Funds from the tax would be used to subsidize the insurance. Public sub-committee hearings were held in Belleville, Maryville and Marion which intensified Rep. Stiehl’s efforts to gain support for her proposed bill.

On September 1, 1978, after two years of painstaking efforts from downstate legislators to secure support of proposed mine subsidence bills, Gov. James Thompson signed a bill sponsored by Rep. Celeste Stiehl (R-Belleville), State Rep. Monroe Flinn (D-Cahokia), and State Senators Gene Johns (D-Marion) and Sam Vadalabene (D-Edwardsville) making Illinois the second state (after Pennsylvania) to provide a mechanism for mine subsidence coverage to property owners. Ken Smith, Deputy Director of the Department of Insurance at the time, was the person mainly responsible for the actual drafting of the bill. The Abandoned Mined Lands Reclamation Council, headed by Lt. Governor George Ryan, a strong supporter of the mine subsidence legislation, provided essential background information to legislators. Much of the data was compiled by Robert D. Gibson, a geologist working for the Council. Through the years, Gibson has continued to offer ongoing support to the Fund, and remains a valued colleague.

At the signing, Governor James Thompson proclaimed: “This is an innovative bill. It should be viewed as an experiment that will be watched closely by every state in the nation.”
Left: Robert D. Gibson, a geologist working for the Abandoned Mined Lands Reclamation Council was responsible for collecting critical data needed to foster support for mine subsidence legislation.

Below: “An Historic First – it was a moment of great pride, achievement and satisfaction when Governor Thompson signed the mine subsidence insurance bill into law.” – Rep. Celeste Stiehl. Reprinted with permission from the Belleville News Democrat.
The Mine Subsidence Act is two-fold: it first requires all Illinois Insurers to make mine subsidence insurance coverage available to property owners in Illinois, and secondly established the Illinois Mine Subsidence Insurance Fund (the Fund) as a private reinsurer to Insurers for paid losses.

The Fund’s statutory responsibilities include providing reinsurance for losses from mine subsidence to insurers, establishing rates and rating schedules, providing underwriting guidance to insurers, investigating reported mine subsidence claims to determine if mine subsidence is the cause of damage, educating the public about mine subsidence issues and supporting research that may help to reduce or mitigate mine subsidence damage. Indisputably, the most creative part of this insurance solution was how the program would be facilitated.
IN REP. STIEHL’S WORDS:

“It took two sessions to get the bill passed. The first year was a year of education for the legislature as well as careful study of interests who would be affected. By the second session we had rewritten the measure into a well-drawn balance of interests, and I must credit Ken Smith, Deputy Director of the Illinois Department of Insurance, for the structure we proposed. He actually drafted the bill.”

“He felt the state could create the Fund and then get out of the picture – that a new state agency wasn’t necessary to solve the problem.”

“So the task of providing mine subsidence insurance was kept within the realm of private insurance companies. The system would operate in conventional fashion – collecting premiums and paying losses on mine subsidence events as they occur.”

“The bill specified a $500,000 start-up loan from the state to help it get going. That was it. It wouldn’t cost the Illinois taxpayer a cent.”

In actuality, the Fund received and became fully operational on a $100,000 loan from the state, one-fifth the amount authorized by the bill. The loan was fully recompensed well before the appointed terms for re-payment.

Administration of the Fund was statutorily given to the Industry Placement Facility (IPF) with regulatory responsibility provided by the Illinois Department of Insurance. Operations were to be facilitated through the Illinois FAIR Plan Association (IFPA). Although the vision shared by legislators was an innovative solution to the problem of mine subsidence damage, the logistics required to implement the new program proved to be problematic, especially when it came to developing a rate structure and a method for reporting premium. The greatest challenge was the lack of industry or historical experience to draw from in applying sound insurance principles to the risks and damage of ground movement caused by mine subsidence. There was no precise estimate of risk exposure; no conventional basis for determining the amount of premium necessary to cover paid losses.

Undoubtedly the most instrumental figure for creating the blueprint necessary for moving the Fund forward to a fully operational program was Edmund W. Murphy, Assistant General Manager of the IFPA. Murphy built a solid knowledge base for the Fund from ground zero through a number of activities. In an effort to obtain any available information on mine subsidence, Murphy contacted other states with significant underground mining. Mining maps filed with the state were studied and catalogued for use in learning more about where mine subsidence claims might originate. Coordination was arranged with groups such as the U.S. Bureau of Mines, the Illinois State Geological Survey, and other governmental agencies both federal and state, with responsibility for, and interest in, underground mining. International conferences were attended. Papers were researched and written on the particular type of mine subsidence that occurs in Illinois because of the state’s prairie soils. Affiliation was sought with other organizations that studied mine subsidence and the damage it can cause to structures.
Murphy worked hard to establish open communication between the administrators of the program and insurers, as all navigated their way through the issues of underwriting, premium reporting and claim processing. By August 1980, the Fund was fully functional, operating out of the same office as the IFPA. Reinsurance claim handling was assigned to John Novak, Vice President of the Metropolitan Chicago Loss Bureau, while geotechnical investigations were completely outsourced. The maximum amount of reinsurance available was initially $50,000 for both residential and commercial properties. Procedures were established for primary insurers to cede premiums on a quarterly basis, which would be used to pay claims and operational expenses of the Fund. The ceding commission rate paid to the carriers was set at 30%. The Industry Placement Facility Board of Directors assumed the dual role of governing both the IFPA and the Fund until 1983, when a separate Governing Committee for the Fund was established.

By design, no financial subsidy of any kind is provided by the insurance industry, the Federal Government or the State of Illinois. Aside from offering mine subsidence reinsurance and establishing rates and rating schedules, responsibilities of the Fund include conducting geotechnical investigations to determine if mine subsidence is the cause of damage to the insured property, providing underwriting guidance to primary insurers, and supporting research to help reduce or mitigate mine subsidence losses consistent with the public interest.

In 1994, the Fund formally and completely separated from the IFPA in every sense, moving into its own office space and engaging a full staff to facilitate operations. Edmund W. Murphy was officially appointed General Manager of the Fund by the Governing Committee.
Two of the most influential champions for the Fund: (left) Edmund W. Murphy, named General Manager, and later President and CEO, who was responsible for facilitating the operations of the Fund once the legislation was passed; (right) Representative Celeste Stiehl, the legislator whose vision and relentless focus triumphed after countless obstacles and hurdles.
Early on in his role as the first General Manager (later named President and CEO), it is unlikely that Edmund Murphy envisioned the impact of his role in the history of the Fund. Devising the framework necessary to implement and manage the daily operations of the Fund fell squarely on his shoulders. His propensity for developing effective relationships was evidenced by the impressive partnerships he formed with legislators, regulators, geologists, mining industry officials and insurance professionals. In his twenty-five year tenure, Murphy continued to exceed expectations in the areas of geotechnical research, public education, and reinsurance administration. His influence with the Board of Directors was critical to initiating and funding major collaborative research projects such as the collection and digitization of mine maps. He placed considerable emphasis on public education, conducting on-site town meetings, sponsoring long running media campaigns, producing an informational video, and authoring a wealth of educational materials made available to consumers. His decision to build an in-house geotechnical staff to share knowledge and explore opportunities for mitigating research resulted in a team that is highly regarded for its expertise in the science of mine subsidence.

Murphy’s contribution extended well beyond the formative years of the Fund. During his tenure, maximum coverage was increased twice, from $50,000 to $100,000 in 1986, and to $350,000 in 1991. In 1994 he instituted legislation to separate the residential and commercial sub-funds as a means to protect the assets of each sub-fund from the financial results of the other. He also created brochures for distribution to both insurance producers and consumers, and commissioned the production of a video featuring Dr. James Mahar, a geotechnical consultant for the Fund.
Probably least recognized, yet significantly contributing to the success of the Fund from past to present, was Murphy’s conviction that because of the uniqueness of the organization, it was and is essential that the Board of Directors be comprised of individuals with diversified backgrounds and expertise in areas such as insurance, mining, finance, law and banking. Equally important is the longevity of dedicated Board members who have acquired a vast knowledge of mine subsidence through the years. To that end, the Fund has been very fortunate to have had Board members of the highest caliber, serving their terms with commitment and purposeful regard for all stakeholders.

Murphy retired in 2005, and his successor, Randolph J. Beck, was appointed by the Board of Directors after a nationwide search of distinguished candidates. Beck was a 25-year veteran in the insurance industry, with his most recent position being the President of the New Jersey Insurance Underwriting Association.

With partnerships in place and finances reasonably sound, Beck first set his focus on charting a course for the future, using a methodical approach. He actively engaged all members of his staff in creating a Mission Statement and a dynamic Strategic Plan. He commissioned a new logo to better convey the brand of the Fund.

Beck, like Murphy, fully supported both Research and Education. Two significant advancements in assessing mine subsidence risk were developed by the Illinois State Geological Survey through a partnership sanctioned by Beck, which directly impacted Illinois property owners and the insurance industry. Both are detailed in the chapter on Research and Education.

To promote mine subsidence education, Beck hired a production company to create a public awareness video for property owners which was distributed to insurance companies, schools and libraries, and is streamed from the Fund’s website. It incorporates footage of actual claimants who gave unscripted first-hand accounts of their experiences; it also includes a strong message from the Director of Insurance at the time, Michael McRaith, which emphasizes the core priority of the Fund.
“In 1979 the Illinois General Assembly passed the law that made Illinois the 2nd State in the country to require insurance companies to offer mine subsidence insurance to homeowners and commercial property owners around the State. The Act established the Illinois Mine Subsidence Fund which effectively created a reinsurance mechanism to provide reinsurance to the Insurers who offer mine subsidence coverage to homeowners and commercial property owners.”

“The Fund is not a State agency. It is the product of statute created by the General Assembly, but it is a private enterprise funded by private dollars and an example of a public/private partnership.”

“The core priority for any insurance enterprise is that premiums received from a consumer are invested and protected; that they’re safe guarded so that in the event there’s a claim, the company has to be strong enough to pay the claim. The Mine Subsidence Insurance Fund has been operated from the beginning with that as a core priority. And, in the future, that is how it will continue to be operated.”

– Former Director Michael McRaith

Beck also oversaw the development of a full line of brochures on specific topics such as obtaining mine subsidence insurance, mine subsidence and the damage it causes, buying and selling properties affected by mine subsidence, claim investigations and what to expect after mine subsidence is confirmed to be the cause of damage. The final brochure in this series was a collaborative effort with ISGS Geologist and earthquake expert Robert A. Bauer, which details the differences between mine subsidence damage and earthquake damage. It addresses a growing concern of both the Fund and Insurers that, should an earthquake occur in Illinois, it is possible that Insurers would receive an onslaught of mine subsidence claims from property owners having no earthquake coverage; and it underscores the need for both types of insurance for properties at risk from both perils, since there is no evidence to date that earthquakes cause mine subsidence. All brochures are made available at no cost to consumers as well as industry professionals who may wish to use them for training or distribution.
Other notable accomplishments by Beck were:

- The formation of a Geotechnical Advisory Committee comprised of leading national experts in the fields of mining, soil properties, structural foundation design and mine subsidence
- The successful bid for a 2007 amendment to the Illinois Statute to allow the Fund and the Department of Insurance to set maximum mine subsidence limits without legislative action, to alleviate the burden on the legislative body
- Increases in the maximum limits for both residential and commercial properties from $350,000 to $750,000
- The digitization of approximately 1,000 field survey books
- A successful tenure in maintaining financial integrity of the Fund, despite dramatic events in the financial markets that ballooned into an unprecedented national crisis beginning in 2008.

In 2009, the Department of Insurance conducted a financial and market conduct examination of the Fund, followed by a “Special Targeted Examination of the Fund” in 2011. While it may have been a particularly challenging phase for the Fund staff and management, it did present an opportunity for Fund management to take a fresh and introspective look at all processes and components in place. The most significant DOI recommendations called for a decrease in commission rates for residential business only, and language changes in the By-laws that better correspond with the Illinois Statute. In the end, the examination served to reinforce what management had known all along; that the Fund operated in a manner of complete transparency, which Murphy instilled and Beck maintained, and will continue to do so as the Fund moves forward.
Perhaps the greatest testament to the overall management of the Fund and the environment created for staff thus far, is the longevity and dedication it has evoked. The average length of service among present full time employees is, at this writing, over 20 years.

When Beck announced his upcoming retirement, to be effective in 2013, the search was on for his replacement as President and CEO. Again, the Board considered many qualified candidates vying for the position. Among them was a long tenured employee, Heidi Weber, whose 24-year role as Chief Financial Officer for the Fund made her a favored choice. Ms. Weber already had a good working relationship with the Board, she was highly respected among staff and management, had an impeccable reputation in the Industry, and her experience and knowledge in both mine subsidence and finance made for a seamless transition to her new role. Her vision for the future of the Fund is far-reaching, as she leads the Fund through major organizational changes and succession plans for several retiring key employees and plots the course for the future.

In Weber’s short tenure, she has overseen the reorganization of the management structure in the geotechnical office, the replacement of two retiring long tenured managers and addition of three new hires to the investigative team. She has actively pursued opportunities for promoting research that will most benefit the Fund’s stakeholders, and has most recently engaged the University of Kentucky to undertake a study on remote sensing technology. Presently used in China, this technology has the potential to mirror mine subsidence claim investigations to a previously unattainable degree of accuracy, while lowering the amount of time and resources that are spent to obtain data in the present day.

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The original IMSIF logo had clear, clean lines and a subtle reference to ground subsidence. However, to some observers, the outline of Illinois reinforced a common misconception that the Fund is a State agency.

The major design elements of the logo adopted in 2008 include:

- Roofline – a reference to structures and the reason for creating the Fund: to provide a means for affording mine subsidence insurance to property owners.
- Sunken “S” – helps visualize subsidence.
- Heavy Foundation – represents the stability and financial strength of the Fund.
- The use of both the full name of the Fund and its acronym is intentionally used to strengthen the brand and increase name recognition.
By law, all insurance companies authorized to write basic property insurance in Illinois are required to enter into a Reinsurance Agreement with the Fund and offer mine subsidence insurance coverage on property policies insuring structures in certain counties, and to make such coverage available upon request in other counties. Under the terms of the Agreement, the Fund agrees to reinsure 100% of the insurer’s statutory mine subsidence insurance coverage, subject to all conditions of the insurer’s policy, and to reimburse the insurer for all such amounts reasonably and properly paid policyholders for claims resulting from mine subsidence and for authorized fees, subject to the conditions and limitations contained in the Statute, Agreement and Plan of Operation. Each Insurer is required to submit a report on mine subsidence transactions and remit ceded premiums to the Fund on a quarterly basis. Commissions are retained by the Insurer at the rate set forth by the Fund and approved by the Director of Insurance. Each ceding company is also required to report mine subsidence claim activity as it is reported by its policyholders.

In the 34 counties where underground mining has been most prevalent (see Counties Map p.36), the Statute requires that mine subsidence coverage be included in the policy. The coverage may be rejected by the property owner by signing a waiver provided by the insurance company. In the remaining counties, coverage is available upon request by the property owner.

In addition to providing reinsurance to primary insurers, the Fund is also responsible for conducting geotechnical investigations to determine if mine subsidence caused the damage, establishing rates and rating schedules, providing underwriting guidance to primary insurers, educating the public about mine subsidence issues and supporting research that may help to reduce or mitigate mine subsidence losses.
Daily operations are managed by a small staff of insurance and geotechnical professionals. The Fund’s corporate office is headquartered in Chicago, while the geotechnical investigation staff operates out of St. Clair County. Presently, the combined number of full time employees for both offices totals 19.
As outlined in legislation, the Fund is governed by an eleven-member Board of Directors, with each director being elected or appointed to a three-year term. Six directors are elected by the insurance industry, four are public members and one is a licensed insurance producer. The latter five members are appointed by the Director of Insurance. The Director also reviews and approves rates, the Articles of Governance and the Plan of Operation.

The fundamental responsibility of the Board of Directors is to foster the long-term success of the Fund. Since there are no state funds or insurance industry assessment mechanisms to provide additional financial security for Illinois consumers who suffer mine subsidence damage, the primary objective of the Board and Officers of the Fund is to establish and maintain sufficient financial resources to pay current and future reinsurance claims.

Governance activities of the Board of Directors include selecting the Chief Executive Officer (CEO) and assessing his or her performance, reviewing and authorizing strategic plans and related operating budgets, hiring and reviewing work of outside auditors, investment managers and actuaries to ensure compliance with financial and legal requirements, and periodically evaluating the organization’s overall results. The Board carries out its governance responsibilities through oversight, while daily operational activities are the responsibility of the CEO and management staff.

The IMSIF Nominating Committee seeks to employ a competency based succession planning process that will allow for identifying and attracting directors who bring a range of needed professional skills, backgrounds, and diversity that is reflective of the IMSIF mission and commitment to its stakeholders. Although Directors often serve multiple 3 year terms, turnover is inevitable. The Fund strives to maintain a small pool of potential candidates for possible future election or appointment to the Board.
To provide for a highly effective Board, the Fund strives to include a mix of directors with collective expertise or experience in the following areas:

- Property Insurance Underwriting
- Property Insurance Claim Handling
- Property Insurance Management/Leadership
- Financial Literacy
- Fixed Income/Equity Investment Management
- Coal or Mining Industry
- Insurance Brokerage
- Legal
- Actuarial

In its 37-year history, the Fund has indeed been fortunate to have found the highest caliber of men and women to serve as Board Directors. Although individual members may change, the perpetual guidance and leadership from these dedicated professionals are greatly responsible for the success of the Fund and for moving it forward as technology and the insurance industry advance.
The Fund owes a debt of gratitude to the many past and present Board members who have served with dedication and purposeful commitment to all stakeholders of the Fund.

Top left: Roy C. Wehde, retired from his position as IMSIF Board Chairman in 1988, and had been associated with the Fund since its first year. Originally a board member of the Industry Placement Facility designated by the legislature to administer Fund activities, Mr. Wehde became its Chairman in 1983 and oversaw the establishment of a separate Governing Committee for the Fund later that year. During the early years, when the Fund operated with virtually no information on frequency and severity of losses, nor with the knowledge of special procedures necessary for the handling of claims, Mr. Wehde’s steadfast hand helped build the strong foundation that would evolve into the organization it has become.

Top center: Past Chairman David J. Queior (left) pictured with Edmund W. Murphy (right) in 1989. Mr. Queior had an extensive career in the insurance industry and has been an active proponent of the Fund from its inception.

Top right: Charles M. Hill, Sr., Past Chairman. Mr. Hill’s expertise in the banking industry has provided insight and clarity on financial matters throughout the Fund’s history.

Bottom: 1989 Board of Directors. From left: K. Steve Williams, Charles M. Hill, Sr., David J. Queior (Chairman, seated), Barry McCall, Edmund W. Murphy (IMSIF General Manager), Richard Roth, Celeste Stiehl, Emil R. Johnson, Lawrence W. Rosser (seated), Edward Clark.
Top left: Past Chairman Robert Ostgulen has served on the Board of Directors since 1999. His experience as a former Vice President of Underwriting for a primary insurer has been a steady influence in creating policies and charting the course for the Fund.


Bottom left: IMSIF Board members and Department of Insurance representatives prepare for a guided tour of a mine in 2003. The IMSIF Board remains actively engaged in mine subsidence awareness and has periodically toured mines and properties with mine subsidence damage.

Bottom right: Chairman Dorothy Even and President and CEO Heidi M. Weber confer before the 2017 Annual Meeting. Ms. Even is a former executive in the Insurance/Investments industry and, aside from her expertise, brings a fresh perspective to the Board.
In the early years, considerable effort was spent cultivating a body of knowledge for use in mine subsidence investigations. Mine subsidence damage bears a footprint that is sometimes similar to that of other forms of ground movement, such as settling, the effects of water, freeze-thaw cycling and other natural and man-induced factors. Therefore, the focus of expertise was centered on determining whether claimed damage was actually caused by mine subsidence. Equally important is the ability to determine whether damage occurred within the policy term and knowing when ground movement has ceased.

The first order of business was to build a team that could recognize and evaluate mine subsidence damage, and navigate through a claim process that might take years to complete. John Novak, Vice President of the Metropolitan Chicago Loss Bureau was contracted to establish procedures for cause and origin investigations of mine subsidence claims. He laid the groundwork for fair and unbiased claim investigations and processes, and played a major role in the early years of IMSIF claim operations.

Independent claim adjusters were identified and trained to support the investigation process. The Fund also relied heavily on outside geotechnical consultants for their expertise and assistance on complicated claims. In addition to paid consultants, Robert A. Bauer, Principal Engineering Geologist with the ISGS, who had been previously tapped to provide background for pre-legislation hearings and public meetings, was a valuable technical resource for the investigative team. Years later, Bauer would accept an appointment to the IMSIF Geotechnical Advisory Committee and, in most recent years, continue to offer his expertise to the Fund as a distinguished authority on earthquakes.
When Novak retired in 1992, Murphy selected John Farnetti, an experienced property adjuster, to manage the claims department. As the Claims Manager based out of Chicago, Farnetti was responsible for the in-house geotechnical staff based in St. Clair County. His responsibilities encompassed directing reinsurance business related to claims with all Illinois property insurers. As a reinsurer, the Fund does not directly adjust claims or correspond with insureds. All communications are sent by the Fund to the company claim adjusters, who, in turn, are responsible for informing their insureds.

The IMSIF investigative team, comprised of surveyors, geologists and engineers, work together to first determine if mine subsidence is the cause of damage, and if so, to then monitor the rate and direction of ground movement. Today, this team of mine subsidence professionals, through a meticulous process of data collection and experience, has become one of the foremost authorities on mine subsidence investigations.
One of the most significant developments in IMSIF claim history, was the creation of the Designated Adjuster Program. Up until 2001, primary insurers were responsible for the initial inspection of mine subsidence claims to determine that mine subsidence could be a possible cause of damage. The company adjuster would be required to take photos and measurements of the damaged property and conduct technical observations to identify a pattern of damage that was consistent with that often caused by mine subsidence; the adjuster would then be required to submit the report to the Fund. A growing problem emerged in maintaining trained company adjusters, due to the relative infrequency of mine subsidence claims and a high turnover within companies. By 2001, John Farnetti, now the Vice President of Reinsurance Operations, found himself devoting a considerable amount of time conducting adjuster training with Primary Insurers, and devised a plan to lessen the burden on Insurers. He proposed a Designated Adjuster Program wherein the Fund would identify a pool of independent claim adjusters and train them in all aspects of mine subsidence inspections. Although adjuster fees would be paid by the Fund, they would report to the primary insurers’ claim supervisors with unbiased and accurate reports. The program was approved by management and launched in 2001, with very favorable reception among a test group of insurers. By 2002, all companies were using the program. Aside from being a resolution to the problem at hand, claimants have also greatly benefitted from this program. When insureds first meet with designated adjusters for the initial inspection of their property, they are greeted with a professionally trained and well informed mine subsidence professional who will address their questions or concerns.
Top left: Former IMSIF geologist Stephen Danner (left) and IMSIF surveyor Dave Owens (right) install a survey monument.
Top right: IMSIF geotechnical investigator Joe Robertson plots locations on a digitized map.
Bottom: IMSIF surveyors Rance Olliges (left) and Dave Owens (right) use precision automatic levels to read elevations.
THE IMPORTANCE OF FUNDED RESEARCH

The deep commitment on the part of the Board of Directors and management to explore, expand and refine their knowledge of mine subsidence, mitigation techniques and geotechnical investigations has been the driving force behind the IMSIF research program.

Early on and through the Fund’s first decade, efforts were concentrated on developing information essential to mine subsidence investigations. Ronald E. Yarbrough, Professor of Earth Sciences at Southern Illinois University and President of Geo-Technical Associates, Inc., worked extensively with the Fund in those early years. In 1987, Dr. Yarbrough wrote,

“When the first need for specific information on mine subsidence arose during public hearings and in passing the law for mine subsidence insurance, they drew on several of us with backgrounds in the geology and mining fields to provide it.”

“Since then, our job is to put solid data beneath the years of theories and anecdotal information about mine subsidence. We’ve been helpful to the Fund, to the insurance industry, to the utility companies, and to the people of Illinois. From the first publications of the Illinois Geological Survey in 1911 until documents prepared for the legislature in the late 1970’s, little had been published on mine subsidence. Little had been written elsewhere in the United States as had been done in mining areas like those of England, Belgium, and Germany.”

“So we’re in new territory, and as a researcher and teacher, I like that. It’s been an opportunity to take the research and classroom out in to the neighborhoods and towns of Southern Illinois.”
In addition to Yarbrough, the Fund was fortunate to have partnered with and worked alongside leading authorities in the fields of earth science, mining and engineering. Among those experts were Dr. James Mahar, a University of Illinois professor with an extensive background in civil engineering and geological research and Dr. Gennaro G. Marino, geotechnical engineer and expert in the science of mine subsidence, whose extensive research in mines, risk assessment and mitigation has made him a leading authority in the science of mine subsidence. The Fund also teamed up with the U.S. Bureau of Mines and the Universities of Illinois, Tennessee and Kentucky. Notable projects included studies on structural movement and damage to foundations, displacement, tilt, retrofitting, longwall mining, time domain reflectometry and catastrophic exposures.

With the introduction of the Internet and a rapidly changing technological landscape, more avenues for research and development became available. Great strides were made through a partnership with the Illinois State Geological Survey (ISGS) for the collection and digitization of mine maps. This project lasted over a decade, as the ISGS team worked to meticulously uncover and identify mines in each quadrangle of Illinois counties.

Two remarkable breakthroughs occurred as a result of the Fund’s partnership with the ISGS, greatly impacting a property owner’s ability to assess mine subsidence risk. The first was the 2009 revision of The Proximity of Underground Mines to Urban and Developed Lands in Illinois, by Christopher Korose, Andrew G. Louchios and Scott D. Elrick. The report combined census data with Geospatial map layers to calculate and tabulate statistics on the acreages and numbers of housing units having possible mine subsidence exposure. Included were easy to read county maps, illustrating areas of mine subsidence exposure and population density.
This report led to the significant discovery of concentrated areas of possible mine subsidence exposure in counties where overall mining was less prevalent. Prior to this report, mine subsidence was not considered a serious concern in those counties with a proportionately low percentage of underground mining to overall land area. Subsequently, mine subsidence insurance was rarely purchased.

The second breakthrough was the development of the Coal Mine Viewer, an internet based search tool which allows users to enter a specific property address. The application then returns a map indicating known underground mines and the zones surrounding the mines that could possibly be subject to mine subsidence.

These two developments impacted consumers far more than any other research to date, enhancing their ability to make well informed decisions on whether to purchase mine subsidence insurance. As a result, more property owners with exposure to loss are buying the insurance, while those outside of known mine areas are saving premium dollars.
RESEARCH AND EDUCATION

Research is, without a doubt, the compass that helps chart the course of the Fund. To date, the Illinois Mine Subsidence Insurance Fund has disbursed over $2,000,000 for research funding. The latest project, begun in 2016, is being conducted by the University of Kentucky and is exploring the utility of Interferometric synthetic aperture radar (InSAR), a rapidly evolving remote sensing technology that uses satellite radar data to measure sub-centimeter-scale ground movement. This research has the potential to revolutionize the manner in which mine subsidence investigations are conducted.

COMMITMENT TO MINE SUBSIDENCE EDUCATION

Research and education go hand in hand. Once mine subsidence research is conducted and new information obtained, it is essential that all efforts be made to deliver that information to those who will benefit from it, including property owners, insurers, agents, real estate professionals and lending institutions. IMSIF uses many methods of delivery, depending on the targeted audience. Usually, bulletins or circulars are created for insurers and their producers. Brochures and videos are developed for all stakeholders.

In the past, the Fund has commissioned direct mailings to property owners, legislators, schools and libraries in targeted areas, and has also engaged in media campaigns when deemed appropriate. As a result of the research data developed from the 2009 update of the ISGS Proximity Report, a pro-active media campaign was launched targeting highly populated areas in “non-mandatory” counties – those counties where mine subsidence coverage is not required to be automatically included on property policies, but rather may be requested by the insured. Prior to this report, property owners in non-mandatory counties rarely purchased mine subsidence coverage. The report identified areas within these counties where thousands of property owners were found to be located in zones with possible mine subsidence exposure. Ads were placed in local papers and weekly shopper publications, and press releases went out in Macon, Henry, Hardin, Pope, Livingston, Woodford, Marsh, Shelby and McLean counties, alerting residents in the affected areas to the possible exposure, along with information on the availability of insurance coverage to offset the risk. Editors of newspapers and periodicals were contacted in the hopes of generating interest in a story that could impact
Top: The Fund has developed a full line of brochures which are available to property owners and insurance, real estate and banking professionals who conduct business in mine subsidence affected areas.

Bottom: The Fund relied on the expertise of ISGS geologist Robert A. Bauer to help create a brochure detailing the differences between mine subsidence damage and earthquake damage.
thousands of their readers. Although it is impossible to measure the success of such a campaign, ads and articles appeared in publications reaching over 65,000 households. Insurance trade associations were contacted and readily agreed to help the Fund facilitate its efforts to educate by allowing the Fund to author articles in their digital news magazines and bulletins, with distribution to more than 26,000 email addresses.

It should be noted that while an enormous benefit to consumers, mine subsidence education and tools for risk assessment also promote “adverse selection.” Adverse selection describes a situation where an imbalance in an exposure group is created when persons who perceive a high probability of loss buy insurance to a much greater degree than those who perceive a low probability of loss. All other elements remaining constant, adverse selection increases the Fund’s risk of higher loss ratios and reduced surplus. The Fund’s mission to promote education continually holds tension with its mission to remain financially viable. The Fund remains fully committed to both.

The Fund also accepts invitations for speaking engagements to industry groups and town meetings, participates in trade shows and seminars to promote mine subsidence education, and has provided classes that offer continuing education credits for producers.

The IMSIF website is a valuable source of education to consumers. It contains information on the history of mining and mine subsidence, mine subsidence damage, how to assess mine subsidence risk and how to obtain insurance coverage. It also offers links to the Mine Subsidence Act, Disclosure laws, Department of Insurance, ISGS maps and tools, and a contact page where the user can submit a question or comment and get a prompt answer during business hours.

The Fund also welcomes the opportunity to directly educate through phone calls from consumers and industry professionals, and provides a phone number on all communications, as well as the website. The opportunity to educate first hand and dispel misguided information is considered both a service and a responsibility. The Fund does not support or oppose issues pertaining to public policy, but is strictly a source of information for consumers, the insurance industry and decision makers.
Industry and Public Relations

The emphasis that Fund management has placed on building relationships within the insurance industry has given considerable weight to the strength of its partnerships, and demonstrates a pro-active approach to serving its stakeholders. The Fund works hard to provide assistance to insurance companies and producers. The IMSIF website contains a password protected area for insurance companies to access all IMSIF circulars containing information on rates, underwriting, claim and premium reporting, and provides a Frequently Asked Questions section. In addition, the IMSIF Industry Relations Manager is available via phone or email. Since mine subsidence is a peril with which many company underwriters, adjusters and producers are unfamiliar due to company turnover or infrequency of claims, it is essential that adequate resources and tools are available to support the professionals that have direct contact with consumers.

Essential industry partners include trade associations, such as the Illinois Insurance Association and the Independent Insurance Agents of Illinois. The Fund works with trade associations to help educate their members on issues concerning mine subsidence insurance. Articles have been authored by IMSIF staff for trade journals and newsletters, and every effort is made to attend symposiums, conventions and informational meetings when the invitation is extended. The Fund also participates in roundtable discussions hosted by real estate groups, wherein speakers on numerous issues surrounding property sales draw a sizable crowd and create an extensive exchange of information.

In addition to trade and realtor associations, Fund management appreciates the opportunity to meet with legislators to address their concerns about mine subsidence issues that affect their constituents. These meetings serve to educate legislators and explain common misconceptions about the Fund and its processes.
One of the most valued relationships cultivated to date has been with the Illinois Department of Insurance (DOI). Early on, Deputy Director Ken Smith took an active part in drafting the Mine Subsidence Bill, and continued a cooperative and open working relationship with the Fund. Throughout the years, the Fund has been fortunate to work closely with many of the appointed Directors and DOI staff. Representatives from the DOI are invited to attend and observe every IMSIF Board meeting, and have done so since the Fund’s inception.

Although typically, a reinsurer does not have direct contact with consumers, the Fund is contacted on a daily basis by property owners having general mine subsidence questions or seeking guidance. Staff is on hand to personally answer phone calls and strives to leave every caller with a positive image of the Fund.

Aside from reciprocity of information, every interchange with individuals or organizations is considered a valuable opportunity for management to take the pulse of the industry and assess the accuracy of information, or lack of it, “on the street.” It helps to identify areas where education or resources are most needed and affords a way for industry partners to have a voice in fostering solutions. Maintaining good industry and public relations is considered essential to the continued success of the Fund.

The emphasis that Fund management has placed on building relationships within the insurance industry has given considerable weight to the strength of its partnerships, and demonstrates a pro-active approach to serving its stakeholders.
ACHIEVING FINANCIAL STRENGTH

The Illinois Mine Subsidence Insurance Fund, unlike most private corporations, was formed without traditional capitalization. The legislation establishing the Fund provided a start-up loan for the program, which was fully repaid by 1986. The Fund received no other loans or subsidies, and operates as a private, taxable entity without any taxpayer funding or industry assessment mechanism. The Fund is structured most similar to a mutual insurance company. Policyholders’ surplus is accumulated and retained to guard against deteriorating or volatile claims experience, the possibility of catastrophic loss, the inherent uncertainty in loss reserving, and the risks of declining financial markets. The Fund’s primary objective is long-term solvency, not unlimited financial growth.

From its inception in 1979 through its tenth year, the Fund consistently reported modest net income. This accumulation of surplus served as a buffer for leaner times which were to follow. In 1990, the Fund recorded its first net loss. Continued net losses recorded in subsequent years were largely a result of the ability to better interpret the maturing data used to estimate and project loss reserves. With the absolute necessity of building a healthy surplus, the Fund’s focus shifted to analyzing the company’s accumulated data and determining how to chart a course toward financial recovery and ultimately, achieving financial strength.

By 1992, the Fund had obtained more raw data on mine subsidence losses than any other insurance entity or program to date. Geological surveys, mining and engineering tests, repair techniques and mapping of known undermined areas were being undertaken and studied to further the understanding of mine subsidence. But from an insurance perspective, the relatively small number of confirmed mine subsidence claims made historical loss experience and trends erratic and, more importantly, insufficient to form the basis for precisely evaluating risk or adequately projecting premium rates.
In a financial summary for the years 1991-1994, Edmund Murphy, General Manager for the Fund wrote:

“The Fund has received approximately 5000 claims since it was established. Historically less than 15% of the losses reported during a particular year have been confirmed to have been caused by mine subsidence. In 1992, that figure soared to nearly 20%, representing a 35% increase. Since 1991, when the General Assembly increased coverage limits from $100,000 to $350,000 per structure, the average loss payment has also risen. The compound effect was that the surplus plummeted to the lowest level in Fund history.”

“The financial statements do not portray a healthy picture. It is important to recognize that the Fund uses statutory accrual basis accounting practices, prescribed or permitted by the Illinois Department of Insurance. Unlike most governmental entities, the Fund does not use cash basis accounting. If the financial statements were presented on a cash basis, the surplus would be positive. Because the Fund does account for its future liabilities, the financial position indicates a negative surplus condition. However, the Fund does have substantial assets and has never experienced cash flow problems. The Fund has never had to liquidate investments to pay for losses, nor has any debt been incurred. Management feels that the Fund is fully capable of meeting its financial obligations as they come due.”

To counter the developing pattern of underwriting loss and declining surplus, the Board of Directors and Fund management took a hard look at the available data. Major mine subsidence events in Springfield, Taylorville, and Belleville affected large urban areas, all sustaining higher than average confirmation rates. The number of confirmed mine subsidence claims and the average dollars reimbursed per claim continued to rise. Additional financial and loss analysis was performed in an attempt to formulate a plan to curb further decline. Based on the findings of the analysis, a rate increase was recommended. The Fund’s rates had only been increased once in twelve years, but available coverage limits had risen from $50,000 to $350,000 per structure during the same period. It was recommended that the rate increase should incorporate a separation of commercial and residential risks.
A dual rate structure, with rates segregated for each line of business, was established. The Fund recognized that although the majority of losses were residential risks, there was a higher potential for catastrophic loss on the commercial side due to much higher coverage levels, yet lower premium volume. As a result of actuarial review, it was proposed that commercial rates be increased 100% and residential rates, 25%. With Department of Insurance (DOI) approval, the rates became effective in March 1993.

By mid-year, however, it was clear that further action was necessary. Because new claim data continued to show a high percentage of confirmed mine subsidence claims and increases in the average claim payment, an update to the previous analysis was conducted. Again, the results showed negative development on prior year loss reserves. This information prompted management to immediately formulate and present several plans of action to the Fund’s Board of Directors. Fund management also met in Springfield with DOI officials to review corrective options. The DOI supported action at both the policyholder and industry level to enhance the surplus position. Specifically, a rate increase and a reduction in ceding commission retained by the direct writer were proposed.

To assess these alternatives in more detail, the Fund engaged an actuarial firm to develop a range of potential rate structures which would yield adequate results. The study included a review of claim experience, historical surplus levels and current surplus needs. Most importantly, it incorporated a range of rate and commission changes applied against possible loss development scenarios. This step evaluated the long-range economic impact of a particular change or combination of changes, and established a benchmark for future forecasting and ratemaking needs. It was determined that a rate increase of 10% for commercial risks and 40% for residential risks, in conjunction with a ceding commission reduction from 30% to 20%, could bolster declining surplus levels. The commission rate reduction became effective in January, 1994. Collection of the new premium started in July, 1994.
To further streamline operations, the Fund recommended several changes to the legislation, which became Article XXXVIII.A of the Illinois Insurance Code. The most significant was the creation of two sub-funds to further isolate the commercial and residential risks. This was done primarily as a protective measure for residential risks. Although the rate structure already reflected the different types of risks, completely dividing the risks allowed the Fund to establish separate experience for each category and to assure that the assets accumulated from residential ceded premiums would not be used to pay for damage to commercial buildings. Other legislative amendments changed specific policy provisions, such as moving from a predetermined deductible to one which coincided with the underlying policy.

Those five consecutive years, from 1990 through 1994, have been the only years in the Fund’s history with net losses. The measures taken to reverse the negative trends proved effective, and a combined underwriting gain was reported in 1995 – and every year since. Essentially, the Fund’s deficit position was caused by insufficient and inadequate amounts of available data. Time was the factor needed to develop more mature and predictive claim experience so that reasonable projections of expected losses and adequate rate calculations could be made.

While efforts to strengthen surplus continued and underwriting results continued to be favorable, investment results became a significant driver of the Fund’s financial health. In the beginning years, the Fund grew slowly as awareness of the program and insurer requirements for premium reporting were developed. Initially it was thought that cash would flow in and out of the Fund in relatively quick premium collection and claim payment. But as loss development matured, the lengthy nature of mine subsidence events dictated that final settlements were not distributed immediately. These funds were held in reserve and invested in a conservative portfolio in accordance with guidelines stipulated by the Illinois Department of Insurance, the National Association of Insurance Commissioners, and the Fund’s own stringent investment guidelines.

Fundamentally, the strategy was to hold investment-grade bonds until they matured or were called. Portfolio transactions were conducted by a
brokerage firm, subject to review by the Fund’s Board of Directors. However, the increasing size of the portfolio – from $10 million in 1990 to $53 million in 2000 – necessitated dedicated asset management. By selecting a major investment firm, Loomis Sayles LLP, the Fund gained considerable advantages. The concentration of funds offered more flexibility and efficiency in trading transactions. Engaging an asset management team offered expertise, sophisticated analytic tools and the ability to actively trade securities to produce higher yields.

**IMSIF INVESTMENT OBJECTIVES**

1. To preserve the funds entrusted to the Fund.
2. To maintain adequate liquidity to ensure a sound operating position.
3. To achieve a competitive rate of return, consistent with the limitations dictated by this policy.

**MAINTAINING FINANCIAL STRENGTH**

Through the years, the question of “How much surplus is enough?” has been a recurring theme addressed by the Board of Directors and management. Studies have been conducted and continue to be updated on a regular basis.

As a single peril reinsurer with very limited geographic spread of risk and no options for traditional capitalization, the Fund faces unique challenges when it comes to financial stability. It does not have the diversification of business that allows most reinsurance companies to overcome an unexpected catastrophic event. Somewhat like flood or earthquake, mine subsidence events tend to be of relatively low frequency, while producing severe damages per event. Unlike flood or earthquake, when nearly all damage occurs within a matter of hours, mine subsidence damage may continue and increase over the span of several years, sometimes decades.
Early estimates of damages may be low compared to the ultimate cost of repairs. In addition, mine subsidence losses have proven to be extremely variable and particularly difficult to predict from year to year. When a mine subsidence event occurs in a heavily populated neighborhood or a developed commercial area, the impact to surplus can be substantial and similar to a hurricane in its catastrophic effect.

Again, the Fund’s financial resources are derived solely from policyholder premium and investment income. The Fund does not assess primary insurers, and does not have access to state tax revenues to support operations. Financial assets are invested in a high quality, well-diversified, fixed-income portfolio, and its investment policy dictates preservation of capital as its primary objective.

In a 2014 address to a trade affiliation group, CEO Heidi Weber stated, “We believe our continued success comes from staying focused on our mission: to assure that financial resources remain readily available to Illinois owners of buildings damaged by mine subsidence. Over the past 35 years the Fund has reimbursed nearly $170 million to insurance companies representing over 2000 claimants. The exposure is astonishing. The Illinois State Geological Survey estimates over 300,000 structures may be undermined in Illinois and most, if not all mines, we are told, will eventually subside. Maintaining our financial strength is paramount to our sustainability and success and will remain the commitment to our stakeholders.”
Staff

CHICAGO
Heidi M. Weber  
President & Chief Executive Officer
Marc C. Lovrak  
Vice President Reinsurance Operations
Kathleen A. Moran  
Industry Relations/Consumer Education Manager
Patricia F. Bednarek  
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Sheila Dean  
Administration
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Diana Solis  
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General Counsel

Staff

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Vice President & Chief Financial Officer, Manager of Caseyville Office
Michael A. Anderson  
Geotechnical Investigations
Anthony Caudillo  
Rodman
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Gregory J. Gollaher  
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Darrell Hein  
Geotechnical Investigations
Bryce Kaemmerer  
Geotechnical Investigations
Rance Olliges  
Geotechnical Investigations
David J. Owens  
Geotechnical Investigations
Joe Robertson  
Geotechnical Investigations
Terry Woodcock  
Administration

James E. Betke recently retired as General Counsel for the Fund, having faithfully provided guidance and representation for more than 27 years.
## Chronology of Significant Events

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>1979</td>
<td>The Illinois Mine Subsidence Insurance Fund created by Act of Illinois General Assembly. Coverage available for both residential structures and commercial buildings. Reinsurance maximum set at $50,000 per structure/building. Ceding commission rate set at 30%. Edmund W. Murphy named General Manager.</td>
</tr>
<tr>
<td>1986</td>
<td>Reinsurance maximum increased to $100,000 per structure/building.</td>
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<tr>
<td>1989</td>
<td>In-house geotechnical operation established.</td>
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<tr>
<td>1990</td>
<td>First of five consecutive years of financial net loss resulting in $3.7 million negative policyholder surplus balance at the end of 1994, precipitating counteractive measures through 1994.</td>
</tr>
<tr>
<td>1991</td>
<td>Reinsurance maximum increased to $350,000 per structure/building. Uniform rate increase of 25%.</td>
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<tr>
<td>1992</td>
<td>Added residential living unit (condo) coverage with maximum of $15,000 per unit. Hired in-house professional claim management.</td>
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<tr>
<td>1993</td>
<td>Residential rate increase of 25%. Commercial rate increase of 100%.</td>
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<tr>
<td>1994</td>
<td>Separated from FAIR Plan. Established independent Board of Directors. Established separate residential and commercial sub-funds to protect the assets of each sub-fund from the financial results of the other. Ceding commission rate reduced to 20%. Residential rate increase of 40%. Commercial rate increase of 10%.</td>
</tr>
<tr>
<td>Year</td>
<td>Event</td>
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| 1996 | Amended statute to allow Fund and Department of Insurance (DOI) to establish reinsurance maximum limits within range of $200,000 to $350,000 without legislative action, to alleviate burden on legislative body  
  Residential rate increase of 20%  
  Commercial rate increase of 20% |
| 2000 | Outsourced investment management |
| 2001 | Established Designated Adjuster Program |
| 2003 | Residential rate increase of 18% |
| 2005 | Edmund W. Murphy retires  
  Randolph J. Beck appointed President and Chief Executive Officer |
| 2007 | Amended statute to allow Fund and DOI to set maximum limits without legislative action, to alleviate burden on legislative body  
  Formation of Geotechnical Advisory Committee |
| 2008 | Reinsurance maximum increased to $750,000 per structure on residential structures only  
  Adopted new logo |
| 2009 | Released consumer video on DVD to schools, libraries, and added to newly designed website |
| 2010 | DOI conducts financial and market conduct examination of the Fund |
| 2011 | Second DOI Examiner opens “Special Targeted Examination of the Fund”  
  Internet Coal Mine Viewer developed by the Illinois State Geological Survey through partnership with the Fund  
  Reinsurance maximum increased to $750,000 per building on commercial properties |
| 2012 | DOI concludes both examinations of the Fund |
| 2013 | Determination made by DOI that 20% ceding commission rate on residential business did not accurately reflect current actual costs to primary insurers  
  Ceding commission rate reduced to 15% on residential business only  
  Residential rate decrease of 10%  
  Randolph J. Beck retires  
  Heidi M. Weber appointed President and Chief Executive Officer |
| 2014 | Commercial rate decrease of 13.8% |
In the more than 35 year history of the Fund, there have been many contributors to its success story. The following perspectives are provided by just a few of those contributors willing to share insights from their own experiences.

**Robert A. Bauer, Engineering Geologist, Illinois State Geological Survey**

I worked on background Illinois subsidence information for pre-legislation hearings and public meetings. Occasionally consulted with IMSIF on individual cases. I authored the Mine Subsidence for Homeowners publication, gave a presentation to the Board on earthquake vs. mine subsidence damage and collaborated with Kathy Moran on the earthquake brochure.

The Fund was started through a state representative, Ms. Stiehl, addressing a problem in her district. Legislation was based in part on best science and case histories at the time and was the first mine subsidence insurance program in the nation administered by an insurance association and not a state agency.
Randolph Beck, Retired IMSIF President and CEO

As the second President of IMSIF, I was very fortunate to inherit a group of talented and experienced professionals. For years, they had conscientiously worked to investigate all submitted claims, fully paying those caused by mine subsidence; and carefully managing the financial resources of the Fund. Likewise, Board members were interested and involved, practiced diligent oversight, with an emphasis on long term financial solvency. The strategic planning process we implemented established additional stakeholders, and identified their business interests and expectations. We developed the mission statement, and agreed the assets held by the Fund are most correctly recognized as “policyholders’ surplus”. The next question became “how much surplus is enough?”

Risk assessment is an ongoing process that must reflect the changing nature of hazards or threats. During my tenure, the Fund experienced periods of higher than expected numbers of confirmed claims, as well as larger than average claim payment amounts. Nevertheless, policyholders’ surplus continued to grow. The Fund also experienced significant changes in the political/regulatory environment, with disapproving attention perhaps attracted by increased surplus. The subsequent examinations created significant disruption to the Fund’s operations, and posed additional threats to the organization. Eventually, more pragmatic individuals prevailed; and balance was restored to the regulatory environment.

Unfortunately, questions about the necessary amount of surplus were not resolved. At times, reasonable people may disagree on issues like the best use of money. Therefore, the Fund must continuously seek feedback from key stakeholders to measure their level of satisfaction with its performance. The one certainty is that the environment in which the Fund operates will continue to change. As Benjamin Franklin wrote, “It is a convenient thing to be a reasonable person, since it enables one to find or make a reason for everything one has a mind to do”.

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Perspectives
63
Cheri Chenoweth, Associate Geologist, Illinois State Geological Survey

We at the ISGS appreciate the opportunity to work with the Fund to improve our responses to the public, and I especially appreciate the FAQ on your website that allows me to tell the public requestors what to do if they suspect subsidence. My geologic experience only allows me to answer if a site is undermined, and the additional resources you provide help me answer questions more completely.

Tom Denton, IMSIF Geotechnical Investigator

I started with the IMSIF after a previous career in mining where I obtained a practical background of education and experience in mine subsidence engineering. It was about two-thirds of the way into the Fund’s 35-year history and I was immediately impressed by the depth of knowledge of mine subsidence shown by the IMSIF staff and designated adjusters. I quickly learned that the expertise and investigative techniques employed by the Fund are unmatched by any other entity of its kind. I am proud to have a part in fulfilling the Fund’s mission related to the problem of mine subsidence. It has allowed me to continue that service to society that first attracted me to a career in engineering.

Mike Dohm, Independent Designated Adjuster

I cannot imagine the plight of property owners with mine subsidence damage. Without the assistance provided by the Illinois Mine Subsidence Insurance Fund, Illinois property owners would be devastated.
Pam Donnewald, Former Asst. Deputy Director, Illinois Department of Insurance

I thoroughly enjoyed my time working with the Illinois Mine Subsidence Insurance Fund Board of Directors. It’s unfortunate that many property owners are uninformed or misinformed about subsidence and subsidence insurance. Property owners have no other remedies to help them finance repairs of damage due to mine subsidence. Therefore, the cost to purchase the coverage is, in my view, money well spent considering the alternative. I’ll always remember my only trip in to the depth of a working coal mine. Unforgettable. I’ll always appreciate the dedicated industry and consumer representatives I worked with on the Board and the committed and professional staff at the IMSIF.

Scott Elrick, ISGS Acting Head – Coal and Petroleum Geology Section

The ISGS has been a partner, collaborator, and contractor with the IMSIF for some years. We have received funding and support to conduct research on the mine out areas of Illinois and its historical context. IMSIF’s value is best understood when the need for an IMSIF like entity is present!

Ken Giesz, Independent Designated Adjuster

Prior to 1979 there was no insurance coverage available to homeowners and/or businesses for repairs to their property as a result of damaging movement from mine subsidence. The Act creating the Illinois Mine Subsidence Insurance Fund, passed in 1979, has assisted thousands of homeowners, who receive the funds necessary to restore many of these properties to their pre-loss condition.
Phil Gonet, President, Illinois Coal Association

I came on board at the Coal Association in October 2003. I remember Ed Murphy visiting me in 2005 to introduce me to Randy Beck and explain the purpose of the Fund and staff organization. Randy stopped by a couple of times in the last 10 years and also let me know of legislation to increase the amount that the Fund would payout on a claim. When I look back, what strikes me is how little contact I had with the Fund. And this is a good thing. I take it to mean that there was a process to take care of this issue in Illinois, and the process works well.

Charles M. Hill, Sr., IMSIF Director

I joined the IMSIF in 1983 when it was tied to the IFPA. Ed Murphy, the Fund’s manager reported to the General Manager of the IFPA and the Board of the Fair Plan was also the Board of the IMSIF. Ed Murphy set the Fund on a path of independence, became a mine subsidence expert and collaborated with the ISGS to improve our knowledge about the undermined areas; he also hired scientists as consultants to explore new and innovative ways of addressing mine subsidence. He was succeeded by Randy Beck, who guided us through a difficult period created by a Market Conduct Examination and introduced a successful strategic planning process. Heidi Weber, our latest President has already brought inclusionary leadership to the Fund in her short tenure, which has inspired both staff and Board members to become better at their jobs. These decades of executive leadership has resulted in the Fund’s success as a reinsurance company. But beyond the premium reporting, claims determination, actuarial calculations and investment strategy, we are reminded of the real purpose of the Fund. When we visit the homes and businesses affected by mine subsidence, we are reminded of the ultimate purpose of the Fund; to provide assistance and support to the people in need. As the son of a coal miner, I am proud to be associated with the Illinois Mine Subsidence Insurance Fund.
Dr. Gennaro Marino, Ph.D., D.GE. President of Marino Engineering Associates, Inc.

I was a principal investigator on Fund related research on repair to both concrete and block foundations damaged from mine subsidence. I also developed a provisional repair manual for homes, consulted on mine subsidence claims and was on the IMSIF Geotechnical Advisory Committee.

In the past, I have tremendously enjoyed the research I was part of which was supported by the Fund. The Illinois Mine Subsidence Insurance Fund is an invaluable resource for the citizens of Illinois. Not only do they provide support through reinsurance, but they provide easy to understand information on their website. In addition, they are committed to research in the area of mine subsidence in order to provide the finest service possible and are a leader in the field.

B.E. (Red) Meredith, Former Designated Adjuster

Mr. John Novak was charged with the duty to develop the claim procedures for the Fund in the summer of 1979. He called upon four independent adjusters to assist him. Those adjustors were Don Meyers, Norman Wester, myself, and one more I can’t recall from Peoria. As consulting adjusters, we would investigate and handle mine subsidence losses as they were reported. At one time or another, I have worked in most areas of the State developing cause and origin, methods of repair, and repair estimates. In 1989, when the Fund decided to hire their own technical staff, temporary office space was set up at Meredith Adjusting Service for Joe Robertson and Steve Danner, geo-techs for the Fund, for about 6-8 months until the Fairview Heights office was ready.

It has been a great ride and I would like to say the property owners of the State of Illinois are very lucky to have a program such as the Illinois Mine Subsidence Insurance Fund.
Edmund W. Murphy, Retired IMSIF President and CEO

The success of mine subsidence in its early days was very dependent on many people. I had strong support from the Illinois Department of Insurance and Ken Smith, from the Illinois Geological Survey, and from the United States Bureau of Mines, and in all reality, help from many insurance companies. I worked with a Board of Directors that was very supportive. They allowed me a broad latitude in working on the program.

Dave Owens, IMSIF Geotechnical Investigator

I came to the Fund in 1994. Prior to that I worked 16 years for Peabody Coal Co. as a surveyor. I had experience in both surface and underground mining and also in subsidence monitoring. When I started I never thought I would be here working with many of the same people 20 years later. I think that has a lot to say about the people who work here. There are a lot of dedicated and loyal people in this company who bring a high level of expertise. I would say that for the most part, we are like family. When you work with someone long enough, you learn their habits which makes doing your job easier. And we have a great leadership team running the Fund.

Dave Queior, IMSIF Director

When IMSIF was created, no one really had any idea how coverage for this unique peril would be provided, nor how it would be funded. It took a unique combination of state government and insurance industry input and cooperation to create the mechanism that exists now, and which works very effectively. I’m very proud to have been part of that!
Lori Reimers, Government/Legislative Consultant

In addition to the work the Fund’s staff commits to ensuring the public is educated about mine subsidence, we have also worked hard to help elected officials understand what mine subsidence is and how it impacts their constituents. In just the short time I’ve worked with the Fund, Heidi has placed a high priority on building solid relationships with state legislators, especially those in counties where we see significant subsidence, so that they know the Fund is available for any questions their constituents may have and for help in dealing with mine subsidence in their districts. Our work has been very proactive, too. When an old mine that was previously unreported on mine maps was discovered in Springfield, we met immediately with local legislators to explain that knowledge of the mine now meant that some property owners could be susceptible to subsidence and that the Fund was reaching out to each household to make them aware of the new mine map. Heidi and I have also personally delivered IMSIF brochures to legislators’ offices to share with their constituents. I know officials appreciate those extra steps in helping them best serve families they represent. The work that the Fund focuses on building strong, working relationships with legislators and state officials, including the governor and the Department of Insurance, as well as our partners in the insurance industry, significantly enhances IMSIF’s ability to pursue its mission of assuring financial resources are available for those who need it, when they need it.

Joe Robertson, IMSIF Geotechnical Investigator

I have worked at the Fund since 1989. I had the good fortune to go to work for a company called Geotechnical Associates in 1986. The Illinois Mine Subsidence Insurance Fund worked with Geotechnical Associates in its early years to develop some of the techniques we use today. It has been a very rewarding opportunity to work, learn, and grow with the Fund over the years. As an employee of the Fund, I was part of the team that started the field office, I handled the mapping and surveying for the Fund for more the 10 years, I took on the role as a geotechnical investigator, and I even became a
Registered Geologist during my time here. I would also like to add, I have had the privilege to work beside some of the greatest people, who, because of their integrity and devotion have helped make the Fund what it is today (Stephen, Thomas, Allen and Ed, thanks for everything).

Rich Sauget, IMSIF Director

My favorite moments with the Fund happened on our “Field Trips.” The interaction between the Fund administration and Board with the people affected by mine subsidence showed how devastating these events can be. The day in and day out experience that these people have reminds me of a disease. It was an eye-opener for me to see how people cope with the hardship of mine subsidence in their everyday lives.

Todd S. Schenk, IMSIF General Counsel

Although I have held the position of outside General Counsel for only one year, I have already witnessed firsthand the invaluable service the Fund provides to the public. Without the Fund, owners of homes and buildings in Illinois would find it difficult, if not impossible, to insure against the terrible effects of mine subsidence. The availability of mine subsidence coverage, which is facilitated by the reinsurance offered by the Fund, not only protects consumers in the event of mine subsidence damage, but also stabilizes home values and communities in areas at risk of mine subsidence. The Fund’s emphasis on public education and research in the area of mine subsidence is without equal. I am honored to work with the highly skilled and committed Board of Directors, management, and staff of the Fund, and hope to serve them well for years to come.
Richard A. Sedlak, IMSIF Director

After being in the insurance business for nearly 40 years, I witnessed the destruction that mine subsidence did to structures when we did not have the Fund to respond. As an agent of the time, we applauded the creation of the Fund and I am proud to be a part of it now to help assure that the Fund will be financially sound for the people of Illinois for decades to come.

Richard Shockley, Former IMSIF Director, Former Director, Illinois Department of Mines and Minerals, Land Reclamation Division

Current regulations can address today’s problems. The problems of past generations may never be fully resolved, but the Mine Subsidence Insurance program was a major step in protecting individual property owners from a potential problem.

Zack Stamp, Former IMSIF Director, Former Director, Illinois Department of Insurance

When I moved to the west side of Springfield in 1985, people told me don’t worry about mine subsidence – you are too far west. The first month I was Director of the Department of Insurance in the fall of 1989, I was watching the news with my wife when they reported a major event in Meadowbrook, just west of us. The next day I had mine subsidence added on to my policy. We were hit in two separate events. Eventually every home on Boulder Point was impacted. Mine subsidence insurance made a big difference in a lot of peoples’ lives. This I know firsthand.
Celeste Stiehl, Former IMSIF Director, Legislative Sponsor of Mine Subsidence Bill

I was the chief legislative sponsor of the Illinois Mine Subsidence Insurance Fund. It took two legislative sessions to pass the bill establishing the Fund. The first legislative session was devoted to explaining mine subsidence to various legislators and how it would affect their district. The second legislative session was devoted to ensuring Legislators that there would be no cost to the State or local Governments and that a homeowner would not have to subscribe. It was not mandatory. Finally, in spite of strong opposition the legislation creating the Fund passed in 1978. At that time it was felt that the Fund would be out of business within 6 months. Because of the knowledge, concern and determination of the Manager of the Fund, Edmund Murphy, and the dedication of the Board of Directors, the Fund has grown and achieved the success it celebrates today. The availability of Mine Subsidence insurance has enhanced or stabilized property values in many downstate communities and has given peace of mind to many property owners in knowing their major investment in a lifetime can be protected. It has helped so many people.

Heidi M. Weber, IMSIF President and CEO

It is an honor and a privilege to be a part of this unique and groundbreaking organization. The Fund, in its most basic form, is a solution to a problem. As an independent, taxpaying reinsurer, the Fund is a private solution to a public problem. The Fund is a role model and case study for what can happen when diverse stakeholders (both public and private) partner together to tackle a problem and commit to seeking a creative, self-sustaining solution. I am resolved to lead this organization at this time with passion and integrity and to remain focused on our mission of assuring that financial resources are available to owners of property damaged by mine subsidence both now and far into the future.