

# Tapping Out

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What you need  
to know about  
the Coronavirus



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## A Note from Management

We understand that many of you are worrying about what happens if you get sick, a family member gets sick, or you are struggling with childcare due to COVID-19. The Families First Coronavirus Response Act was signed into law Wednesday evening. This act will provide relief to people not working related to COVID-19. As we know more about this new benefit, we will summarize it and get you informed. We wanted to get this information to you now so that you might take some comfort as we all navigate the outbreak.

Best,  
*Robert S. Harrison*

# Management Corner

As we consider our current situation regarding Covid-19, it is important to remember that we are all in this together. We must use as much caution as we can along with common sense. We all know this will pass and we will be able to resume our lives. Now is the time to take stock in our family and our friends and exercise patience.

God Bless,  
**Geoffrey H. Curtis**

## Shout Outs!

### SECOND QUARTER BIRTHDAYS

Moises Martinez	4/1	Patrick Cunningham	4/23	Benjaman Barnett	5/23	Bradley Lamb	6/12
Staci Key	4/2	David Wittenmyer	4/23	Kerry Randles	5/24	Brian McGlade	6/14
Brennen Simonton	4/4	Raleigh Wall	4/24	Matthew Coats	5/24	Joseph Pycke	6/15
Carlos CiFuentes	4/4	Chelsea Hoskins	4/24	Jeremy Stonebraker	5/27	Geoffrey Curtis	6/19
Evan Mickle	4/6	Frank Vickery	4/26	Steven Beedle	5/27	Shawn Martin	6/19
Juan Romero	4/6	Spencer Baldock	4/27	Todd Hay	5/28	Wesley Lawson	6/21
Daniel Acord	4/7	Valerie Gray	4/29	Ronald Beedle	5/29	William Cunningham	6/21
Tristan Alenduff	4/8	William Talbott	4/30	Jackie Anderson	5/29	Russell Stonebraker	6/22
Ashley Davis	4/8	Adam Bunch	5/2	Zachari Muse	5/29	Robert Wilson	6/23
David Beedle	4/8	Joshua Norwell	5/2	Angel Ramirez	5/30	Abinidi Kuhlman	6/23
Emerson Doughty	4/9	Charles Trafford	5/2	Paul Kelsey	5/30	Kendra Lausterer	6/23
Vickie Sandlin	4/9	Christopher Steidel	5/2	Steven Lanham	6/2	Donald Hawn	6/24
Jason Walker	4/9	Antonio Sandoval	5/3	Robert Stone	6/2	Eric Risner	6/25
Stephan Gosswiller	4/12	Zachary Benefiel	5/5	Anthony Gregory	6/2	Ernest Wall	6/25
Mark Mitton	4/13	Eric Dismore	5/7	Clifford Wilderman	6/3	Susan Britt	6/25
Gabriel Nesius	4/13	Rodney Shaw	5/13	Holly Kerst	6/6	Lori Price	6/27
Caleb Moore	4/14	Timothy Hays	5/15	Karmon Waite	6/7	Robert Stonebraker	6/27
Perry Turner Sr	4/15	Randy Marks	5/16	William DeMumbrum	6/10	Rod Garlin	6/27
William Fricke	4/16	Brent Wallace	5/17	Bradley Loy	6/10	Robert Hann	6/29
Patricia Abernathy	4/18	Zachary Karpowich	5/19	James Halsema	6/10	Kathryn Hays	6/29
Aaron Cooper	4/19	Jimmie Bryant	5/21	George Clarkston	6/11	Caleb Small	6/29
Anthony VanEtta	4/19	Christopher Faulkner	5/23	Paul Combs	6/12	Jeff Pycke	6/30
Sandra Baldock	4/19	Richard McArtor	5/23	Ann Harrison	6/12	Onasis Gaud-Chaparro	6/30
Joseph Beedle	4/20	Randy Ransom	5/23	Johnathan Henry	6/12		

### NEW HIRES



**Aaron M Madison** is Harrison Steel's new Process Engineer. Aaron graduated from Purdue University 2018 and was born in the West Lafayette area. He coaches Benton Central wrestling. Other hobbies of his are Jiu jitsu, kick boxing, hunting, fishing, and fitness. He made a trip to Toronto, Canada and visited Poland last fall. CAD inspired him to pursue engineering and his love for mechanics. Welcome to the cleaning room!

#### Other new additions to the cleaning room:

**Welders:** Andrew Carver, Shawn Watkins, Alfredo Torres, Homer Garcia, and Willian Rivera

**Flame-washer:** Lucio Marroquin

**Grinders:** Jose Loera Hernandez and Zac Benefiel

**Fork truck operator:** Robert Wilson

#### New additions to the Quality team:

Jon Anderson has joined the Gamma Ray team. Once certified, He will be our Soundness Technician on 3rd shift.

#### New additions to the Machine Shop:

Caleb Moore, Johnathon Synesael, Brian McVay, Caleb Cushman, BrianAcord, Greg Bender, and Ben Weiss

### PROMOTIONS

**Tony Vanetta** has been promoted to Pattern Shop Supervisor

### RETIREES

**Randy Dotson Retired**

## Cleaning Room

The Cleaning Room has been making a great start for the year. Improvements were made on line 3 with new racks for chains and work benches. Matt Peirce and Aaron have been organizing a tracking system for chains being used on the floor to ensure each shack has a set number of chains that are updated and safe for use. We recently purchased a rivet buster to tackle burned-on sand issues and we have seen significant progress. Training videos have been in process to help with our new employees in maneuvering heavy castings safely on the job and job specific videos for welders, flame-washers, and burners.

We are hoping visual training will help with reducing incidents and improve production quality for incoming employees. Staying up to date with technology, we are giving new tech savvy products a trial. Thanks to Rogelio Sanchez for helping us test out the exoskeleton suit! This product was designed to help support the weight of heavy tools, lesson fatigue, and promote a better work performance.

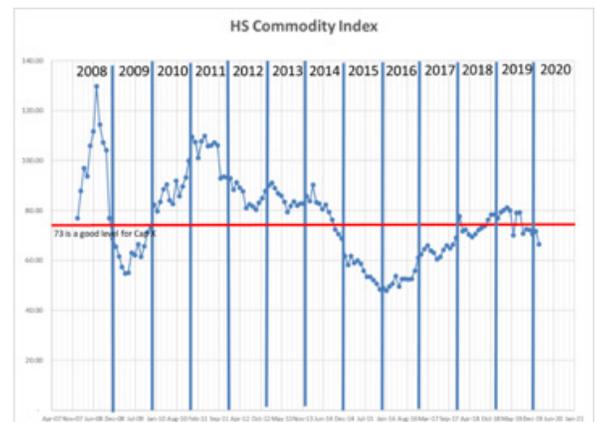
Sincerely,  
**Chelsea Hoskins**



## Commodity Watch

HS commodity index pricing trends are downward. Commodity prices began to slide mid- 2019 due to global economic and political uncertainty. This downward price trend is now magnified by Covid 19 and oil price uncertainty. Commodity pricing will negatively pressure our sales. However, Harrison Steel's production target is 55 tons per day for 2020. It is possible that we will change the 55 TPD target in the coming months; but, right now we are continuing on our path and will re-evaluate periodically.

Best,  
**Robert S. Harrison**



## History and the Market

*The Harrison Steel Castings Company was founded in 1906 as The National Car Coupler Company. The company has navigated two World Wars, The Great Depression, Spanish Flu, September 11th, and more recently a lengthy Mining and Construction downturn. Covid 19 and stock market madness are just the latest excitement.*

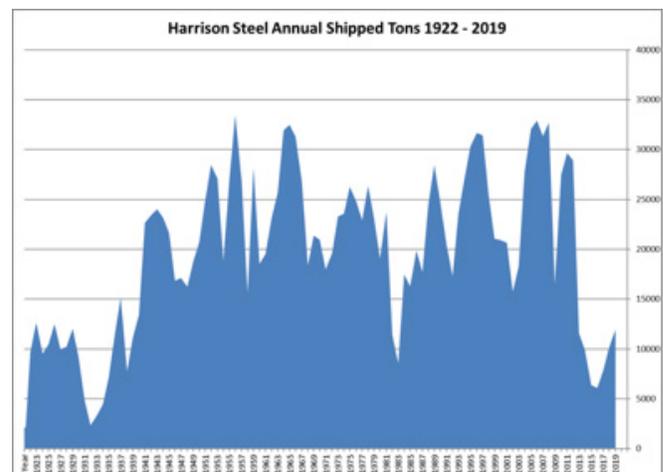
*I would like to thank our current employees, past employees, and ownership for making Harrison Steel a strong company with a reputation for high quality, great delivery, fair pricing, and amazing flexibility. The chart below illustrates the company's resilience throughout the years. We are a nimble group.*

We will work to address the current market madness and health scare together. HS will make some missteps in the process by either being over reactive or not reactive enough. We need everyone to be flexible and communicate issues during this period.

Lastly, if you are planning to retire in the near future, I strongly encourage you be patient in your planning. The stock market has fallen significantly. It will eventually stabilize and begin to recover.

In the meantime, we need you!

Best,  
**Robert S. Harrison**



## Maintenance and Engineering

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There is a lot of excitement in the Engineering/Maintenance Department over a number of new projects that will be completed in the first half of this year.

Both the North Shakeout and 271 Molding will get some much-needed upgrades in May. 271 Molding will be outfitted with new controls, sand-heaters, and oxide-feeder system (among other improvements). The old mezzanine platform above the Palmer mixer will be demolished and a new, easier access will be installed in its place.

The North Shakeout will be upgraded with a larger dust collector fan along with changes to the main shaker ducting system and the hood itself. The end-goal is a cleaner working zone around this shaker and improved product flow.

There are too many other projects to mention here, but keep an eye out also for a new Toyota 15,000lb fork truck (to match the two existing in Plant 2) in May and a new air dryer in the Powerhouse. Many workstations and booths throughout the plant will also be a little brighter after a

large lighting upgrade project is completed around mid-year.

Lastly, we are pleased to welcome Will Mandeville to our office. Will is a high-school senior at Attica who plans to study engineering at Purdue University in the fall. He is working part-time during the school day on projects for us and earning school credit at the same time. Will is eager to help us out and we are thrilled to have him.

Sincerely,  
*Derek Hughes*

## Machine Shop

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Welcome to our 2020 spring edition of the Tapping Out. All of us guys and gals in the machine shop are looking very forward to a long, warm spring. We have many morel mushroom hunters, along with some very good fishing enthusiasts in the shop. There is nothing better than a mess of mushrooms with some scrambled eggs.

We would like to extend a hearty welcome to some of our new employees. In the North machine shop, we have Caleb Moore who has been helping Rex Stone to keep the plant running as smoothly as possible. We also have Johnathon Synesael as a part time helper. He comes to us daily from the halls of Attica High School. Brian

McVay has transferred to us out of the Layout department. In our South end machining area, we have Caleb Cushman, who is running our engine lathes. In the New Machine Shop, we have Brian Acord and Greg Bender doing a great job. We would also like to welcome Ben Weiss out of plant maintenance into our machine maintenance department. Everyone is doing a great job.

Business is looking good for us in the machine shop. We have a lot of new product flowing through our shops. It is a challenge to get things done by our set timelines, but we continue to move product around so that the deadlines are

being met. We are also moving some of our machinery around. Taking out some that are of no use and moving another so that we do not have to put up another crane. Many of our moves are being made because of our Continuous Improvement cards, that the employees are filling out. We get very many, good ideas, from those cards.

As the summer months come on, make sure that, you are looking out for the youngsters out running around. They always have the right away! Have a good spring and a great summer.

Sincerely,  
Matt Coats

## Pattern Shop

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The Pattern Shop has stayed busy this past year as we introduced 12 new patterns and reactivated equipment from prior years. There are also a few new faces around the Pattern Shop. Erin Boles, Amir Baghani, and Hao "Richie" Fu started in Methods Engineering, and James Russell started in Foundry Engineering. Steve Lanham, Hunter Horvath, and Coy Howard joined the Pattern Shop team and have been training to become pattern makers. We look forward to seeing them grow and develop new skills as they learn the ins and outs of making patterns.

Erin graduated from Trine University in Mechanical Engineering and started at HS in May 2019. She has been able to quote and rig four new castings: one casting for Schutte & Koerting, one for Brake Supply, a test plate for Caterpillar, and the tank mount gusset plate for Liebherr.

Amir predicted and measured residual stress in steel casting process as his Master thesis project, then came to USA and worked on his Doctorate at the University of Iowa where he spent his time researching the simulation and prediction of macro-segregation in steel castings. Amir has divided his time between quoting new castings for Sulzer, American Metal Bearing, and The Crosby Group, and doing a deep dive into data collection on the Cat 3262 Case casting. The data he has collected on coating/wash application, and vibration and compaction of the sand during molding will help isolate the different variables that cause Burn-On Sand and metal penetration during pouring.

Richie came to the US from Beijing in 2013 and studied at the University of Illinois before joining Harrison Steel after receiving his BS/MS in Mechanical Engineering, with

an emphasis on rail steel research. He has begun quoting new parts for GE, Caterpillar, and AMB. The next casting we make will be a power system bearing for American Metal Bearing that he quoted and rigged. Richie has also spent time with James on Foundry Engineering samples and will be able to put what he has learned into action for this new product launch.

James J. Russell II started at Harrison Steel in June as a Foundry Engineer after receiving his degree in Mechanical Engineering Technology from Purdue. He is working on developing and improving foundry processes and updating the Part Specific Instructions, as well as tracking and analyzing internal scrap with the intention of finding a root cause and modifying the process to be more consistent and produce a better casting.

Besides making new patterns and maintaining/supporting the current production, we seek ways to improve productivity and efficiency based on

constructive feedback from other departments. If you have suggestions/ideas please direct them to your supervisors to pass on to Foundry Engineering. Hope you

all have a great year and stay safe.

Sincerely,  
*Paul Kelsey*

## Furnace and Met Lab

The sparks are still flying and we're 'steel' melting at a molten pace. (The puns stop here.) Furnaces have been in good shape and the people working them are getting into better shape. We've had some opportunities for improvement as you might have already noticed some new and improved labels in the alloy area, melting program improvements, and a number of inter-departmental communication improvements. All dedicated to making melting great again.

In February we had the opportunity to assist the Champagne Illinois Police Department with firearm disposal (image right). They brought in around 250 hand guns and

50 long guns from their evidence locker and we melted them. Altogether the guns weighed 500 lbs and with one magnet load they were gone.

**Fun furnace facts YTD:** 251 heats melted with 0% scrap/ingot heats. 9,836,000 lbs or 4,900 tons of steel melted and poured.

In the lab YTD we've pulled 148 tensile bars, checked 251 final chemistries, broken 177 "charpy" bars, and qualified 70 semi-trailer loads of purchased scrap.

Since the last tapping out we've welcomed back Andy Moody to the team as our Assistant Melt Operations Manager, added Manuel Cavazoz as a Heat Crane Operator,

and George Clarkston as a Furnace Helper.

Wishing everyone a healthy and prosperous rest of 2020!

Sincerely,  
*Shawn Martin*



Champagne Illinois Police Department Firearm Disposal

## Quality Corner

First of all, thank to Lori Coats for writing the Quality article for the last publication of Tapping out. For those of you who may not be aware of it, Lori is a veteran.

Customer Quality requirements continue to get more stringent almost every day. With that comes higher demand for quality product from Harrison Steel. This can lead to frustration at times, but it is what our customers are demanding, so it's what we are obligated to ship to them. This in turn requires all of us to re-deploy the "Do it right the first time" in everything we do.

Probably the biggest initiative we are undertaking is training. The Foundry, Melting Department and Cleaning Room have undertaken enormous projects to re-vamp our training methodologies and methods. Some of you, I'm sure, have already seen a migration to brief videos in our training programs versus simple paper Work Instructions. As a leadership team, we believe that once completed, this will be a much better approach towards "Getting it right the first time", especially for our newer team members. There is also a "refresh" of Safety being incorporated in as well. Keep Going !!!

On the New Product Introduction (NPI) side, we remain blessed with many new and exciting products to develop for new and

existing customers. Tigercat has awarded us with the opportunity to make the Upper Pivot for a vehicle they make for the forestry industry, called a Feller Buncher. If the opportunity presents itself, it is really an amazing machine and it is worth your taking the time to look it up online. A couple of employees have seen these units be used locally along the highways, clearing trees. Weir Gas and Oil has awarded us a casting which part of their new state-of-the-art fracking pump. We are slowly ramping up to production levels now. We are also very close to molding/pouring the first samples for a new customer named American Metal Bearing. Our castings will be used in the turbines used to power ships and Navy submarines. We are also in the launch phase of four new part numbers for Liebherr Mining. These castings have been designed to improve their truck frame life span. Caterpillar has also been keeping us busy with four different versions of "Dead Chickens" (one size has been nicknamed "Cornish Hens") (image right) as well as the left and right hand frame casting which might be the biggest castings we have ever made. We have been working on these two castings for quite a while now, and are getting closer to being production ready.

From a technological perspective, we continue to enhance our knowledge of laser

scanning castings instead of the traditional method of laying out one dimension at a time and recording the results on paper. Very recently, we had a demonstration of a unit which incorporates multiple lasers into one head, significantly reducing the time it takes to process a casting accurately. We are planning to learn more about this technology very soon.

On the personal side of things, we welcome Jon Anderson to the Quality team!!! Brian Stultz also became the proud father of a new daughter. We wish Brian and his family nothing but the best.

Sincerely,  
*Bill Fricke*



"Cornish Hens"

# Foundry

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How does one put 39 years of experience into a few paragraphs to express one's thoughts about a career at Harrison Steel?

My career started in the early summer of 1972 where I was allowed to work 32 hours a week picking chills in the chill room for Gene Garret and Rex Kirkman. I was able to save enough money that summer to pay for my first semester of tuition and books while studying accounting. My next summer was spent in the core room where I made shell cores for Lawrence Pearson and Warren Smokey Alberts. As luck would have it, I was able to work 3 nights per week during the fall semester 2nd shift making cores for Ed Blankenship. My third summer here I was introduced to the jolt machines. I became part of an 11-man crew on #13 jolter on the South end for Dave Lockwood, Bill Kirkman, and George Vredenburg (yes, my father). Let me tell you that working for your dad is not always the best, but we managed. It was that fall when ISU informed me my education in beer, pizza, and the dating scene was not doing my GPA any favors. After another year on #13 jolt machine, I transitioned to the cleaning room and quality control under Harold McBride "Mac". It was there I learned the most about how molding and sand can affect the quality of castings downstream. Little did I know that I would spend most of my adult life chasing sand around. The sciences are the one thing I avoided like the plague in my education. I ultimately wound up learning how to gamma ray castings with Dick Estes, Carl Weigle and Bobby Hughes. That was a journey in life as well, since my mentors were more than willing to expound on some of their younger years in life. In the fall of 78, I decided to leave for what I thought were greener pastures to central foundry in Danville. Here I was fortunate enough to learn about melting iron, controlling chemistries with additions to ladles and some basic knowledge of how a cupola operates. As fate held for me during that time in history with the gas shortage and so forth, one could not hold a job if they were on the bottom end of the totem pole, so I found myself in the unemployment line.

That was working pretty good for me at that point in time since Illinois unemployment was pretty generous. I was doing a lot of what young non-committed people do until I met the love of my life and wanted to get married. I was committed to getting

married and starting life with a partner and figured I needed a job. I came back to #13 jolt machine for the 3rd and last time. In about six months after hiring in, I was told to report to Mac in the cleaning room. I reported to Mac the following Monday where I spent another 3 years gamma raying and indexing castings before Jim "Hawkeye" Allen approached me about a training program at HS. He told me that I would start in the sand mill for Doug Lambert. Evidently, I never learned enough because I have never left the sand mill.

After 39 years, it is time for me to relinquish the reigns to the sand department to the next generation. I have seen a lot of foundry practices come and go, as well as working with many wonderful mentors and human beings. When I started on the training program, Jim Jones and Carri Swift taught me how to test sand. Jim's first words of encouragement were to just understand how to perform the tests and not to worry about what the results meant. In that period of time the data generated would make sense to me, and he was right. Within a couple of weeks, the data did make sense and the learning curve had started. We were a green sand foundry where we made approximately 80 mills of facing sand each day, along with another couple hundred mills of heap sand or backing sand. Just remember that all of this sand was produced on the south end of the foundry and it was transported all over the foundry by a series of belts and elevators that were either under the floor or were suspended next to the ceilings of the various departments.

We have made the transition from having our own sand pit and crusher to wet scrubbing our sand internally where today's AML mixer sits. We made the change from wet reclamation where we removed all the clay to a dry reclamation system which totally changed how we made facing and backing sands at HS. It became more of a clay driven process where we had to monitor MB Clay or active clay left on the grain of sand. With the wet reclamation system, the grain was clay free and we knew the starting point to prepare the various sand formulations in order to make a quality mold and casting. With the advent of dry reclamation, we had a learning curve of controlling the clay levels on the grain and how to adjust formulas on the fly to

keep our desired properties where we felt we made the best mold.

I would like to say thank you for allowing me to share some memories and thoughts of my career at HS where I truly feel as if I have become part of a family. If you are fortunate enough to spend your career here, I trust you will become frustrated at least once. You will question the whys of life, but also relish in the fact that it is a small community and you become part of the Harrison Steel family. You are treated that way, and like in any family there will be hiccups and issues, but strong perseverance will typically resolve those issues in life. To the next generation, I am confident that there will be hiccups, headaches and learning curves associated with the next challenge presented to you. But I am also confident that team work, sacrifice and dedication will pull you all together for the common challenge.

I could go on and on about things I have seen and done over the years, but I will leave you with this from one of my mentors. Welcome to the foundry kid, the first time you breathe in dust, smoke or fumes you will either hate it or love it. If you hate it find something else to do with your life, if you love it, welcome to one of the oldest professions in the world, and expect long working days with lots of challenges each and every day, and rejoice in the fact that you are now a part of the biggest recyclers in the world. Most of our steel we melt is recycled and 90% of the sand we use every day is recycled. Some real irony in this is that the original chill room storage bins is where my office is presently located, so I have come a complete circle.

Thank you for letting me play in the sand many years and hope I have done you all proud.

God Bless,  
*George E. Vredenburg*



# Payroll and Benefits

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## Feeling Sick and concerned about COVID 19? Get Free Screening without leaving your house!

*If you are covered under our Anthem health benefit,*

- Call WeCare at Harrison Steel at 765-762-6789 and ask to be screened
- Call Anthem's 24/7 NurseLine at 800-337-4770; no charge
- Download, register and use Anthem's "LiveHealth Online" Mobile app, NO CHARGE for COVID-19 related call (QR code below)
- Visit <http://livehealthonline.com/> (free use) Must have camera and microphone

*If you are NOT covered under our Anthem health benefit,*

- Download, register and use IU Health's "Virtual Visits" Mobile app, NO CHARGE for "Coronavirus Screen" (QR code below)

### KEEP SAFE

- Wash your hands
- Practice "Social Distancing" (6' apart)

- Don't share food
- Groups of 10 or less
- Keep it clean! (disinfectant wipes, hand sanitizers, bleach water, etc)

*Harrison Steel is doing its part to keep you safe!*

- No visitors on premises
- Beefed up "Return to Work" process
- Quarantine for returning out of state travel and symptomatic employees
- No company travel or conferences
- Extra Extra cleaning by each department
- Pause in Attendance Bonus Program and Relaxed Attendance Points Policy
- Less incentive for sick employees to "soldier through"

Sincerely,  
**Ed Bowen**

### IU HEALTH VIRTUAL VISITS



Apple Store



Google Play

### LIVEHEALTH ONLINE



Apple Store



Google Play



## “Don’t Fear the Bear”

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After an 11 year streak, we've reached a bear market due to effects of the outbreak. It's leaving many wondering about the road ahead and what it means for their retirement plans. But the experts remind us: bear markets have occurred at least 12 times since the Great Depression and are generally followed by strong rebounds. Take a deep breath and remember that retirement plans are longterm investments. We're sharing 4 tips from fiduciary advisors on what you can (and should) do now.

1. Don't panic. Wash your hands.
2. Look at your portfolio and asset allocation. You should have a well-diversified portfolio that is rebalanced through up-and-down markets. This should

also be tailored to your appetite for risk and personal financial goals and time horizon. If you don't know what any of this means, speak to a professional! Keeping an appropriate asset allocation based on your particular circumstances is an important factor to keep in mind with your retirement plan.

3. Don't make extreme investment decisions driven by emotion or fear. Emotions can lead to some pretty costly investment decisions. Good days tend to follow bad days in the market. According to J.P. Morgan, over the last 20 years, six of the best 10 days occurred within two weeks of the 10 worst days<sup>7</sup>. Check out what would've happened to a \$10,000 investment if it missed out on the best

market-performing days.

4. Stick to your plan and keep investing consistently through good times and bad. Investing the same amount on a regular basis is also called dollar-cost averaging. The term dollar-cost averaging refers to the average cost of the shares you purchase in relation to the average share price you paid. Because fluctuating markets allow you to buy more shares when prices are down and fewer when they're up, your average share cost could be lower than your average share price paid. This takes decision-making and the need to “time the market” out of the equation.

Source: Pro Course Fiduciary Advisors.



**HARRISON STEEL**  
CASTINGS COMPANY