Commercializing the 24-hours War: Ford Motor Company versus The World

Alexander Summers
Southern Illinois University Carbondale

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On June 19, 1966, three Ford GT40 Mk IIs thundered across the finish line at Le Mans, defeating rival team Scuderia Ferrari. Over twenty-four hours, three Ford racecars changed the status of Ford Motor Company (Ford) both internationally and in the United States. At Le Mans, Victory linked the United States to racing culture both domestically and abroad and catapulted Ford’s brand as a symbol of America’s car consumer culture. The twenty-four hours of Le Mans proved which manufacturer was safest and most reliable; the winning company, Ford, saw a noticeable rise in sales following this victory.

Ford’s entrance to Le Mans constituted a fundamental change in how motorsport was practiced in the U.S. and worldwide. This article will analyze the company’s role in consumer culture before the 1966 Le Mans and after, to show that investment in racing resulted in Ford re-gaining lost market share in the United States. It will also argue that the company advanced consumer safety and technology in consumer cars because of its endurance racing financing.

This article will utilize annual company reports of Ford Motor Company and General Motors to show how dramatic changes in domestic market share have resulted from both legal and illegal racing ventures. By using primary and secondary sources, this article will articulate how Ford’s entrance into endurance racing promoted the development of a purpose-built racecar for the road, rather than improvement of an existing road car for track use. Finally, with the use of collected interviews, non-fiction literature, and academic publications, this article will show how Ford advanced consumer car safety and technology based on racetrack experience.

**Historiography**

The historiography of racing in the United States began in the years after WWII. Largely, scholars have ignored car racing as a field of study except for European road racing. In his article “On the Road to Nowhere? California’s Car Culture,” R.C. Lutz asserted that a massive influx of young people (“baby boomers”) desiring freedom provided by the automobile drove the
American auto industry through the 1950s. However, this study focused more on the economic impact of car culture and ignored the corporate and social influences of racing.

Enthusiast-writers have narrated the history of the emergent racing culture in the United States post-WWII by and large. Although Ford Motor Company was active in sports car racing since the 1970s, scholars paid little attention to this era of its history aside from Levine’s *Ford: The Dust and the Glory*, which chronicled Ford’s history sportscar racing. The author argued that Ford Motor Company’s birth and subsequent development paralleled motorsport’s overall progress in the United States but did not compare Ford to General Motors (G.M.) or other manufacturers. Outside of mass-market publications, almost no studies or articles focus on Ford’s triumphant return to the industry in the 1960s.

When Ford announced it would go back to Le Mans in 2016, this prompted the publishing of Preston Lerner’s *Ford GT* as well as Matthew DeBord’s *Return to Glory* and David Phillips’ *A Big Ask* – works intended for mass consumption, written by automotive journalists. In *A Big Ask*, Phillips narrated Ford Motor Company’s return to Le Mans in 2016 and explicitly focused on engine technology advancement. In his book *Ford GT*, Preston Lerner chronicled the evolution of the Ford GT racecar in a non-academic work that began with Ferrari’s refusal to sell in early 1960 and ended with Ford Motor Company’s victory at Le Mans in 1969. Finally, A.J. Baime’s *Go Like Hell* linked the legend of Le Mans with a personal history of both Enzo Ferrari and Henry Ford II. *Go Like Hell* presents the most valuable depiction of the 1966 Le Mans, but little academic work exists to chronicle the event.

The majority of works on Ford Motor Company’s victory at Le Mans targeted mass audiences and tried to craft a narrative that explained Ford’s victory as a ‘blip’ on an otherwise non-racing timeline. This article will

3 David Phillips, *A Big Ask: The Story of Ford’s Triumphant Return to Le Mans* (Pennsauken, NJ: BookBaby, 2016). Phillips’ work narrates Ford Motor Company’s partnership with Chip Ganassi Racing and Multimatic Engineering to produce a brand-new Ford GTE racecar. The GTE class is specifically designed for manufacturers to test their production engines and chassis in a regulated race environment. For example, Le Mans 2016 was the first use of Ford’s twin-turbocharged 3.5L V6 engine and carbon fiber monocoque.
articulate that Ford had a direct and parallel link to consumer culture and the American automotive industry’s development that followed its, at times, unsanctioned corporate racing division. Ford’s commitment to racing and beating out its corporate and racetrack rivals reveals an otherwise unstudied part of American automotive history.

**Ford Motor Company, 1903 to WWII**

In the early 1960s, two titans of the automobile industry traveled to hallowed yet neutral ground, a small hamlet in the northwest of France called Le Mans. Le Mans was an eight-mile racetrack-turned-battleground on which the world’s most fascinating capitalists, Enzo Ferrari and Henry Ford II, waged war against each other for twenty-four hours, on June 15 and 16. Since 1923, Le Mans hosted the most dangerous race when one in four drivers had a severe accident or died. Aside from accidents or death, car-related fires were widespread. According to Le Mans-winning driver Brian Redman, half of Le Mans drivers did not wear seatbelts for fear of fire. The race pushed both man and machine to their limits, and then even further. Formula One champions, who were considered the best and fastest drivers globally, raced alongside sportscar heroes who did not possess the skill or ability to move from everyday production car-based racing to Formula One. Movie stars like Steve McQueen regularly risked their lives for a chance at international fame and glory behind the wheel of a racecar. Le Mans quickly drew two hundred and fifty thousand spectators by 1960, and that figure jumped by almost 50 percent at the end of Ford’s tenure at Le Mans. However, the event garnered even more in manufacturer dollars. By 1960, however, Ford Motor Company achieved just one racing victory.

According to a Ford family legend, Henry Ford raced Alexander Winton in late 1901 to legitimize his Quadracycle and attract much-needed investors to revitalize the Henry Ford Company. Concluding the race, the Ford Motor Company opened its doors to the public and produced a handful of cars each day. Between June 16, 1903 (the date of Ford Motor Company’s incorporation) and July 1905, Ford Motor Company reported profits close to 300 percent, or three hundred thousand dollars (over seven million dollars in today’s

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money).\textsuperscript{10} In 1906, Ford was the top-selling brand in the United States.\textsuperscript{11} Two years later, Henry Ford launched the Ford Model T, a front-engine, rear-drive automobile, large enough for a four-person family that utilized a twenty-horsepower inline-four engine. It was the first mass-produced car marketed toward the middle class equipped completely with interchangeable parts.\textsuperscript{12} Ford produced the Model T for fifteen years. During this period, the company developed critical technological coupled with economic means, such as the moving assembly line, the “five dollars day,” one of the first examples of a minimum wage, and opened the largest assembly plant in the world in 1927.\textsuperscript{13}

However, during Ford Motor Company’s time of excess, Henry Ford’s son and second-in-command, Edsel, desired to change its organizational culture and structure. When Edsel gained control of Ford in 1919, he envisioned a new breed of college-educated executives running the company. Simultaneously, he sought to revamp the company’s decrepit styling by offering more powerful engines and convenience features like a standardized set of driver’s controls or customizing the vehicle’s cosmetic looks. He also sought to introduce features like hydraulic brakes, electric starters, and die-stamped parts to enable faster, more efficient Ford cars production.\textsuperscript{14} During Edsel’s presidency, in 1925, Henry Ford established Ford Germany with a sales office in Berlin and an assembly plant in Westhafen, adding to the assembly plants in Manchester, England, and Cork, Ireland, the first Ford assembly plants outside North America.\textsuperscript{15}

Although Ford Motor Company had practically monopolized the American market by 1929, Chevrolet was rapidly gaining market share,

\begin{thebibliography}{99}
\bibitem{11} David L. Lewis, \textit{100 Years of Ford} (Morton Grove, IL: Publications International Ltd, 2005), 18-19.
\bibitem{13} Baime, \textit{Go Like Hell}, 6. Assembly line: Although Ransom Olds is credited with the development of the assembly line, Ford’s engineers are almost entirely responsible for improvements in the assembly line’s efficiency. “Five dollars Day”: Ford paid his workers about $2.25 per day, and the rest as a ‘bonus’ for proper behavior, enforced by the Socialization Organization of Ford, to entice them to stay on-the-job. Ford hired about fifty-two thousand men to fill fourteen thousand labor slots before the implementation of the “five dollar day” because worker turnover was so high.
\bibitem{15} M. Smith, “Ford of Britain: Yesterday Today…” \textit{Autocar}, April 18, 1968, 52-54.
\end{thebibliography}
growing 15 percent during the Great Depression.\textsuperscript{16} Henry Ford refused to innovate, neither stylistically nor mechanically, famously stating, “... the customer can have any color he wants, as long as it’s black,” and the Model T was so over-produced it cost less-per-pound than butter or bread.\textsuperscript{17} Meanwhile, Chevrolet introduced the famous “Stovebolt” and “Standard Six” engines in 1929 and 1933, respectively, to gain a marketing edge over Ford, which utilized a flat-four configuration in all models.\textsuperscript{18} Although Ford introduced a new model, the Model A, which implemented Edsel’s groundbreaking ideas like hydraulic brakes, a standard three-pedal layout, and more streamlining in the body, buyers looked to G.M. or the import market for luxury models or better styling. During the Great Depression, Ford’s market share fell nearly 20 percent, while the parent company of Chevrolet, GM, market share rose from 35.8 percent to 42.1 percent.\textsuperscript{19} The likely cause for this discrepancy was both available customization and more options for Chevrolet buyers, whereas Ford offered the Model A as-is from the factory.

Aside from lack of innovation, by the 1940s, Ford Motor Company lacked the necessary corporate organization to conduct its accounting duties efficiently. Edsel Ford’s son Henry Ford II remembered that “In one department they figured their costs by weighing the pile of invoices on a scale... Can you believe that?”\textsuperscript{20} In contrast, during its seizure of the American market, G.M. organized its corporate structure around a central model, where executives made decisions for the company in a “top-down” scenario, unlike Ford Motor Company, where Henry Ford personally made all business, manufacturing and executive decisions. Because of this lack of organization, accountability, or innovation, Ford Motor Company was losing nine million dollars per-month by 1945.\textsuperscript{21} In a market it had created and monopolized, Ford was floundering. On the eve of WWII, it held just 22 percent of the American market.\textsuperscript{22}

\textsuperscript{17} Harper Leech, “Pound of Auto Cheaper Than Butter Pound,” Chicago Daily Tribune, July 5, 1926, accessed May 6, 2019, https://search.proquest.com/docview/180744855/5B695F9315C7445CPQ/3?accountid=13864. Between 1908 and 1927, the Model T in all its varieties totaled over fifteen million units built and sold. Henry and Edsel Ford drove off the assembly line the very last Model T, VIN 15000000, which remains in possession of the Ford Motor Company at the Henry Ford Museum.
\textsuperscript{20} Baime, Go Like Hell, 8.
\textsuperscript{22} Baime, Go Like Hell, 7.
During WWII, Ford halted all civilian vehicle production, choosing instead to produce tanks, bombers, jeeps, and other war effort products.\textsuperscript{23} The company’s contribution was so vast that President Roosevelt considered nationalizing it.\textsuperscript{24} However, in 1943, Edsel Ford died, and Henry Ford re-assumed the company’s control at seventy-eight.\textsuperscript{25} There was a genuine possibility that the company would collapse with Henry Ford’s death as he had held \textit{de facto} control while Edsel was president, so, on behalf of the company, Henry Ford II was pulled from the Navy in July 1943 and assumed the presidency of the company in 1945 while Ford senior remained chairman.\textsuperscript{26}

Because of his father’s untimely death, Henry Ford II had not been properly ‘groomed’ for the presidency and spent two years ‘training’ for the position. He took over a Ford Motor Company with no accounting system, no organization, and a worldwide network of factories that needed retooling from bomber to car production.

When Henry Ford II took over, he chose a rallying cry “Beat Chevrolet” as motivation to rebuild the vast Ford empire. To accomplish this lofty goal, Ford II took a page from his father Edsel’s book and hired ten college-educated, WWII Army-Air Force veterans called the “Whiz Kids” in 1946.\textsuperscript{27} The Whiz Kids were a group of Air Force officers who ran “Statistical Control,” a logistics and planning agency responsible for coordinating assets, personnel,

\begin{itemize}
\item \textsuperscript{26} Steven Loomis, “U.S. Navy, Ford, Henry II, LT,” TogetherWeServed, accessed May 6, 2019, https://navy.togetherweserved.com/usn/servlet/tws.webapp.WebApp?cmd=ShadowBoxProfile&type=Person&ID=524220. Henry Ford II was a junior grade Command Lieutenant in the Navy and only 26 years old when he became president of Ford Motor Company. He spent two years ‘training’ for the presidency since he had no real executive experience. His mother, Eleanor Ford, threatened the elder Henry Ford, stating she would sell her company stock (which would have made the Ford family minority owners of their own company) unless Ford II was made president.
\end{itemize}
and information necessary to wage WWII.\textsuperscript{28} The Whiz Kids joined Ford Motor Company during an awkward transition, as the previous administration despised organization charts and the company only posted a profit when its primary competitor was a horse, not another automobile manufacturer like G.M. At Ford, the Whiz Kids created a lasting business and financial dynasty that influenced every major corporation in the years after their tenure at Ford Motor Company. Utilizing prototype technology like the computer, the group created projection charts and production schedules and centrally organized its global network of plants and dealerships by 1947.\textsuperscript{29} Reflecting an enduring commitment to lead from the front, the ‘new’ Ford Motor Company emerged confident and ready to ‘beat Chevrolet.’

**Ford vs. Chevrolet: Battle for Young Buyers**

The first weapon in Detroit’s ‘horsepower wars,’ as the press coined it, was a realization of Henry Ford II’s moniker to beat Chevrolet, in that Ford Motor Company trounced Chevrolet to produce the first post-war car in the United States. Revealed personally by Henry Ford II, the 1949 Ford “Shoebox” had improved streamlined styling, a modern “ladder-style” chassis that allowed a lower floor, a wide wheel-base for comfort enough interior room for a man with his hat on to drive.\textsuperscript{30} The ‘49 Ford cost about one hundred million dollars in research and development, and the press hailed it as Henry Ford II’s “instrument of conquest.”\textsuperscript{31} The 1949 Ford Shoebox likely saved the Ford Corporation from extinction. The new Model represented a growing sentiment in American interests: high-horsepower, living-rooms-on-wheels. Countering Ford Motor Company’s ’49 Shoebox, Chevrolet produced its own Bel Air, a top-of-the-line model in 1950. The two manufacturers fought each other every week for sales, with Chevrolet producing some 1.1 million more cars than Ford through the decade; Ford led in sales only with the 1957 and 1959 model years.\textsuperscript{32} In 1953, Chevrolet captured the market after launching the Corvette, America’s first sportscar influenced by European styling; the


\textsuperscript{29} Byrne, \textit{The Whiz Kids}, 106.

\textsuperscript{30} Baime, \textit{Go Like Hell}, 9.

\textsuperscript{31} “Young Henry’s $72,000,000 Gamble,” \textit{Newsweek}, June 14, 1948, 70.

base model was a two-door coupe with an inline-six engine with an optional convertible top, which helped Chevrolet gain 6 percent market share by 1955.\textsuperscript{33}

In Europe, where Chevrolet had its sights on a 1960 entry into Le Mans, Ford hoped to gain a corporate foothold; the single-deadliest automotive accident occurred at Le Mans. Pierre Levegh, driving a Mercedes 300 SLR, crashed into the grandstands near pit lane, killing eighty-three spectators and the driver.\textsuperscript{34} Mercedes-Benz feared a public relations disaster and retired from the 1955 Le Mans and racing until 1989.\textsuperscript{35} Although the race did not stop, the accident led to an immediate ban on all motorsport events in France, Germany, and other European nations. In the United States, a recommendation by the Automobile Manufacturers Association, an unofficial body headed by The Big Three Detroit manufacturers – Ford, GM, and Chrysler – stipulated that the industry would not be racing. To reduce the public’s appetite for speed, the companies agreed not to advertise “the specific engine size, torque, horsepower, or ability to accelerate or perform, in any contest that suggests speed.”\textsuperscript{36} Ford Motor Company pulled entirely out of racing, as did the rest of Detroit.

Secretly, however, Chevrolet and Pontiac financed racing programs in National Association for Stock Car Auto Racing (NASCAR). Chevrolet developed, tested and sold road cars converted for racetrack use violating the agreement under the guise of a marine engine program.\textsuperscript{37} Noticeably,

\textsuperscript{33} “Detroit 3 (Domestic Brands) - U.S. Market Share History,” June 1, 2009, accessed May 6, 2019, https://www.autonews.com/article/20090601/OEM/306019739/detroit-3-domestic-brands-u-s-market-share-history. Corvette: The Corvette was named after the smallest class of vessel considered a warship and was produced as a direct result of returning GIs desiring British sportscars and having no American model to choose from. Performance cars were an exclusively European ideal, whereas American cars were focused on size for the family and comfort. The first-generation Corvette, utilizing the ‘Blue Flame’ inline-six, was regarded as underpowered and handled poorly. Only three hundred were sold in the first model-year. Chevrolet also introduced a brand-new lightweight material called fiberglass to keep the Corvette’s weight low while retaining structural rigidity. By 1955, Chevrolet introduced a 4.3L V8 and doubled its sales, while racing on American circuits popularized by returning GIs and sportscar aficionados.

\textsuperscript{34} Brian Laban, \textit{Le Mans 24 Hours} (London: Virgin Books, 2001), 116.


\textsuperscript{37} Baime, \textit{Go Like Hell}, 13.
whenever a Chevrolet won a weekend’s NASCAR race, there was a substantial rise in sales. Remarking in the February 27, 1961 edition of The Detroit News, Pontiac Dealer Bill Packer commented that, “Back in 1957 when Bunkie Knudsen took over the division, a Pontiac was a good car all right, but it had a reputation for being an old woman’s auto. Great for grandmas. Then we started dominating stock car racing. We went way up in sales in just a couple of years.”

Ford Motor Company needed to recapture young buyers who desired speed. The company scrapped the safety agreement and dove in with both feet into NASCAR. In 1963, the first event Ford Motor Company entered was the Daytona Five Hundred, the pinnacle of American stock car racing. Importantly, Ford Motor Company had equipped its fleet of stripped-out family sedans with the most powerful Ford engine ever, the 427-cubic-inch V8. Seventy-one thousand race fans turned out to watch five fast Ford cruise to victory, placing first through fifth. Within days, Ford Motor Company took out advertisements in twenty-eight hundred newspapers to promote durability, performance, and speed. Conveniently, the Ford Galaxie buyers, which constituted the stock car’s base, could option the 427 V8 for an additional cost.

Ford Motor Company realized that winning NASCAR was a way to attract young buyers, and Ford racing drivers transformed the nation’s race tracks into action-packed advertisements for the company. Of fifty-one NASCAR races, Fords won twenty-four times, Plymouth nineteen, and Chevrolet recorded a measly eight wins in the 1963 season. As a result of these wins, Ford gained a full percent in market share while G.M., the largest corporation on Earth that enjoyed its peak market-share in 1962, lost 1.5 percent of the domestic market a year later. Year-to-year, the Ford Galaxie sold two thousand more units in 1964 than in 1963, and full-page advertisements celebrated the Galaxie’s “total performance” in magazines across the country.

38 Doc Greene, “Daytona 500 Results,” The Detroit News, February 27, 1961: 2, 3B.
40 Baime, Go Like Hell, 32.
42 Ibid.
Ford-Ferrari Becomes Ford vs. Ferrari

Henry Ford II had beat Chevrolet, and Ford Motor Company sales soared into 1964, producing seventy thousand more cars for the model-year, a 32 percent jump. However, he wanted to expand the company to Europe, as he envisioned Europe as the next battleground for supremacy for his corporation. Although Henry Ford built three factories in Britain, Ireland, and Germany before WWII, Ford of Germany was third in sales behind Opel (G.M.’s European division) and Volkswagen. Ford Motor Company did not own Ford of Britain until a 1960 buyout, and Ford of Ireland produced less than four hundred cars a day – a far cry from over six thousand cars per week assembled by Genk Body & Assembly, another Ford subsidiary in Europe. Imagining the world’s first global car brand, Henry Ford II needed to prove that even if Ford cars were the best in the United States, they needed to be the best cars in the world to capture the European market. Doc Greene’s earlier column, before the interview with Bill Packer, noted:

In European racing, victory can be translated immediately into sales. Buyers over there operate on the rather simple theory that if, for example, in the 24-hours endurance race at Le Mans, five Ferraris finish ahead of the rest of the pack under such grueling circumstances – it’s the best car and you ought to buy it.

Although Ford Motor Company had succeeded in the United States, its hardest test would be the European market, which valued a racing pedigree above all else.

In February 1963, a letter arrived at Ford’s German division announcing a “small, but nevertheless internationally known Italian automobile factory” for sale. A brief investigation revealed this was no other than Ferrari, the world’s premier sports car company. The easiest way for Ford to gain a foothold in the European market was to buy Europe’s premier manufacturer. However, this proved very difficult.

For the first half of the 1960s, Scuderia Ferrari dominated Le Mans. Enzo Ferrari, the team’s namesake, had built his company for nearly two decades and established his name and marque brand as the premier sports car manufacturer and racing team in Italy. By the 1960s, legitimizied by numerous victories at Le Mans and in the Mille Miglia and Targa Florio, grueling

49 Ibid.
50 Levine, Ford, the Dust and the Glory, 499.
endurance races stretched across Italy, *Scuderia Ferrari* was the pinnacle of motorsport in all of Europe. Ferrari was the single most-successful racing marque of all time.\(^{52}\) However, its success did not come without a cost. Six *Ferrari piloti* (lit. ‘pilots’) died behind Ferrari cars’ wheels between 1953 and 1967.\(^{53}\) Enzo Ferrari himself faced a four-year manslaughter trial for the 1957 deaths of Alfonso de Portago, a piloti, his co-driver, and nine spectators of the Mille Miglia; the courts found him innocent.\(^{54}\) *Scuderia Ferrari* won the Formula One World Championship four times and nine piloti fatally died in one stretch.\(^{55}\) Ferrari’s three syllables were synonymous with success, excellence, and danger.

Whenever Ferrari’s offer came before Henry Ford II, he leaped at the chance and sent Ford Product Manager Don Frey to meet with Ferrari.\(^{56}\) Starting in February 1963, when the offer was made, Ford sent four different delegations to Maranello, Italy, to meet with Ferrari and organize the buyout of Italy’s sacred standard-bearer. On May 21, 1963, Mr. Ferrari met with Don Frey and Ford’s legal team to finalize a ten million dollar buyout and create two entities: a Ford-Ferrari division to manufacture customer cars and a Ferrari-Ford division, whose number one priority was Ford participation in Le Mans.\(^{57}\) According to Don Frey, Mr. Ferrari had great personal respect for Henry Ford and envisioned a happy alliance between Ford’s reputable mass-market abilities combined with his handcrafted approach. Ferrari also showed a keen interest in developing purpose-built engines for the Indianapolis Five Hundred, whereas the Ford delegation showed a lack of interest in Formula One, Ferrari’s bread, and butter.\(^{58}\) Further, for Ford-Ferrari to consolidate, Mr. Ferrari wanted Ford to sever its relationship with Carroll Shelby and Shelby American. Nixing a race-born and proven relationship was not appealing to


\(^{56}\) Donald N. Frey, “Frey and Ferrari Spent Hours,” interview by A.J. Baime in *Go Like Hell*, 66.

\(^{57}\) Baime, *Go Like Hell*, 67.

the Ford delegation. The Ford delegation asked if they would bring Ford cars to Le Mans, which Mr. Ferrari met with a great pause. For ten days, the teams negotiated, even going so far as to design and sketch out potential emblems for the new Ford-Ferrari cars. The deal seemed essentially satisfactory to both sides.

However, everything changed after Mr. Ferrari wrote, “No, that’s no good!” in the margins of the Italian-version Ford-Ferrari contract. His exclamation was in response to a clause that stipulated Scuderia Ferrari must request Detroit’s permission for more funds, a counterpoint to his request for complete and total autonomy in the construction and management of racing cars. What followed, according to Mr. Ferrari’s personal secretary Franco Gozzi was “a tirade that [he] had never seen or heard before in [his] entire life and have not done so since,” as Mr. Ferrari hurled insult after insult at the Ford delegation using words, Gozzi noted, as those “you would not find in any dictionary.” After the incident that successfully closed negotiations with Ford Motor Company, Mr. Ferrari turned to Gozzi and said, “Let’s go and eat.” With hindsight, this was a mistake for Ferrari, as Ford Motor Company’s entrance to Le Mans effectively broke Scuderia Ferrari’s winning streak. Further, Mr. Ferrari’s rejection of the Ford deal inevitably created their strongest competition to-date. With six consecutive Le Mans wins, 1959-1965, Ferrari and Ford’s falling-out kept Ferrari from winning Le Mans ever again. It took ten years after the failed deal for Ferrari to win another Formula One championship, with Ford-owned or partnered teams placing second through thirteenth. Ferrari could not hide from Ford, even in Formula One.

Don Frey and the rest of Ford Motor Company’s fourteen-member delegation left with an autographed copy of Mr. Ferrari’s memoir as a parting gift and reported immediately to Henry Ford II in Detroit. When Ford II met with Frey to discuss the company’s next move, Ford II stated plainly, “All right, we’ll beat his ass. We’re going to race him.” Frey, concerned that the company may not survive, asked Ford II, one of the wealthiest men on the planet, “How

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59 At the time of the Ford-Ferrari deal, Shelby American ran a fleet of AC Cobra chassis with Ford V8 engines in American Sports Car circuits. However, personally, Shelby and Enzo Ferrari had an adversarial relationship based on Shelby’s tenure as an endurance racing driver, notwithstanding that Shelby’s Cobras could beat Mr. Ferrari’s cars on the racetrack. Perhaps Mr. Ferrari feared internal competition in the future Ford-Ferrari deal, a practice he was all too familiar with at Scuderia Ferrari.

60 Ibid.


62 Ibid, 79.

63 Ibid.


65 Donald N. Frey, “We’ll beat his ass,” interview by A.J. Baime in Go Like Hell, 68.
much money do you want to spend?” He replied succinctly, “I didn’t say anything about money.” Feeling personally slighted and using corporate dollars for personal rivalries, Henry Ford II and Ford Motor Company were coming to Europe to beat Enzo Ferrari and his Scuderia, even if it cost Henry Ford II his wealth and namesake. Europe valued pedigree above all-else, and with the new Corvette dominating the United States and eyeing a Le Mans entry, Henry Ford II needed to effectively act if he wanted to keep Chevrolet in second place. Ford Motor Company lost its ‘easy route’ into Europe with the walkout of Enzo Ferrari and began to develop a racing program to rival their failed-business partner.

Ford GT40

Ford Motor Company faced several challenges on its planned path to success in European racing. The first problem facing Ford Motor Company’s lofty goal of beating Ferrari was a lack of a platform it could develop into a racecar, as Le Mans regulations dictated each entry must center on a production vehicle. Second, all Ford Motor Company’s racing experiences were oval-based: NASCAR racing, by tradition, was done on a closed-loop oval raceway. In Europe, town-to-town road racing was the norm, as tracks adhered to the Earth’s contours. Further, European circuits demanded lightweight, durability, strength, and agility, all in one road-legal vehicle. Ford’s lineup featured none of those variables.

The Twenty-Four Hours of Le Mans, named for the town closest to the newly-designated course, revealed every facet of a car’s weakness, and racing at night forced manufacturers to improve flimsy, unreliable electronics. The winning car was not based on which one could travel fastest, but which one could travel furthest. Thus, the winning car needed to be the most fuel-efficient, durable, and overall the finest engineered vehicle.

The first dynasty of Le Mans was W.O. Bentley (1924, 1927-1930), with cars painted British Racing Green following AIACR (The Association Internationale des Automobile Clubs Reconnus, ‘International Association of Recognized Automobile Clubs’) rules. Bentley’s dynasty headed other companies such as Alfa Romeo, Bugatti, then Ferrari consistently. After WWII,
Ferrari emerged as the greatest of all Le Mans constructors. By 1963, the time of Ford and Ferrari’s Maranello meeting, Mr. Ferrari had won Le Mans four times in a row and had developed the third iteration of his prototipo Ferrari, (lit: ‘prototype Ferrari’) the Ferrari P3.69 Don Frey reckoned to beat the Ferrari cars; the Ford car’s top speed had to be more than two hundred miles-per-hour. “The objective,” he recounted, “[was] to have a car running in one year.”70 In other words, by the 1964 Le Mans.

No invented vehicle, ever, arose to travel on public roads in-excess of two hundred miles-per-hour apart from land-speed record cars in history. Although these speeds were higher than the take-off speed of most conventional light aircraft, according to Roy Lunn, Chief Engineer of Ford Advanced Vehicles, the main problem for such a car was keeping it planted on the ground.71 Added to Ford Motor Company’s technical woes, the company did not possess the technology to build a car capable of defeating the mighty Corvette, let alone a Ferrari.

Carroll Shelby, who had a personal business history with Henry Ford II, took the challenge of constructing the racecar for Ford.72 He had built ‘powered-by-Ford’ Cobras in his Venice Beach garage since 1962 and had personally won Le Mans in 1959 driving for Aston Martin.73 After the race, Shelby claimed that Mr. Ferrari approached and offered him a place on Scuderia Ferrari. Shelby stared Mr. Ferrari down and declined, later

69 Spurring, 2. Ferrari P3: The ‘P’ designation were a series of prototype sportscars developed by Ferrari. Beginning life as a Ferrari 330, Four 330 LMB (Le Mans Berlinetta) were built in 1963 specifically for racing at Le Mans. The following year, Ferrari modified the 330 P’s bodywork and inserted a larger-displacement engine- from 3.3L to a full 4.0L V12, this became known as the P2. The next iteration, the P3, had a totally redesigned chassis that was thirty kg lighter than the P2, and featured a more powerful and lighter-weight V12 engine. The P3 was lower, lighter and more powerful than the GT40s and all prototipo Ferrari before it. Of the eighty-four Le Mans since 1923, Ferrari have entered seventy-nine and won nine times. Beginning with the very first Le Mans post-WWII, Ferrari won in 1949, 1954, 1958, 1960, 1961, 1962, 1963, 1964 and 1965. However, the 1965 effort was not on behalf of Scuderia Ferrari, but Luigi Chinetti’s North American Racing Team (N.A.R.T). Since 1965, Ferrari has totaled zero wins at Le Mans and largely canceled its prototipo division.

70 Don Frey to A.J. Baime, in Go Like Hell, 74.
citing “internal politics” of the Ferrari team.\textsuperscript{74} He was precisely the talent, and expertise Ford needed, and Shelby held a deep-seated, personal grudge against Mr. Ferrari. He once noted that “That son of a bitch killed my friend Musso, and he killed others too,” referencing the 1957-58 Ferrari team, where six of seven Ferrari piloti tragically died.\textsuperscript{75} Shelby retired from racing in 1960 with a Twenty-Four Hours of Le Mans win under his belt. Then, he opened the Shelby School of High Performance in 1961, where he assembled the Shelby AC Cobra, an A.C. chassis with a Ford ‘Zephyr’ V8, a product of his imagination and design.\textsuperscript{76} The school was Shelby’s first venture into a partnership with Ford.

Shelby raced his Cobras starting in October 1962 at Riverside Raceway.\textsuperscript{77} Although the Cobra did not finish in its first professional entry, the car rocketed past Chevy’s Corvettes and twelve short months later captured the U.S. Road Racing Championship with six wins of eight races.\textsuperscript{78} Ford Motor Company took notice of Shelby’s venture and loaned him $25,000 to build a racing version of the Cobra, the Cobra 427, in association with Ford Motor Company.\textsuperscript{79} Although the powered-by-Ford Cobras efficiently handled Chevrolet’s Corvettes, based on two years of GT-racing experience, Shelby knew he needed to refine the Cobras to be competitive with Ferrari’s G.T. cars. Therefore, he modified the roadster-style bodywork into an enclosed cockpit that produced less drag and could sustain higher speeds and accelerate quicker. At a 1963 press conference, Shelby announced, “Next year, Ferrari’s ass is mine.”\textsuperscript{80}

Ford Motor Company began developing its Le Mans prototype in Europe to gain access to the finest state-of-the-art components. Whatever Ford Motor Company’s vast resources could not buy, they imported from Detroit’s best engineering minds and shipped to Slough, England, the home of Ford Advanced Vehicles. Ford partnered with British firm Lola for three chassis of

\textsuperscript{74} Common practice for Scuderia Ferrari was to pit their own drivers against each other in inter-team rivalries. For example, John Surtees, the 1964 Formula One world champion for Ferrari was removed from Ferrari’s 1965 Le Mans driver line up and replaced by Ludovico Scarfiotti, the grandson of FIAT’s first president, the company which now owned Ferrari. Further, Scuderia Ferrari team manager Eugenio Dragoni believed Italian cars should be raced by Italian drivers and suspected Surtees of passing information to British manufacturer, Lola. He brought his concerns to Mr. Ferrari who ordered Dragoni to make Surtees’ life “as hard as possible” to provoke a rupture between Surtees and the Scuderia, enabling Surtees’ firing.


\textsuperscript{76} Carrol Shelby, The Carroll Shelby Story (Los Angeles: Graymalkin Media, LLC, 1965), 15.


\textsuperscript{78} Ibid.

\textsuperscript{79} Ibid.

\textsuperscript{80} Baime, Go Like Hell, 77.
the Lola Mk 6 G.T., a car that had all the underpinnings Ford looked for and had utilized a 289-cubic-inch Ford V8.\(^{81}\) However, in its only Le Mans entry in 1963, the car was hamstrung by its low-revving engine and low-gearing; unfortunately, it did not finish the race.\(^{82}\) The Ford test mules incorporated a Lola chassis, Italian gearboxes, English brakes, and an American V8 engine. Finally, Ford baptized these cars as Ford GT40s (G.T. stood for Grand Tourer, forty represented the cars’ total height in inches). The first completed GT40 rolled out on April 1st, 1964, eleven months after its conception, and twenty-one days before Le Mans testing.\(^{83}\) Henry Ford II personally unveiled the car to the automotive world on the New York Auto Show opening day. Owing to its globally sourced components, Lee Iacocca touted it as “the world car,” it was the embodiment of a Detroit company and the start of global racetrack dominance.\(^{84}\)

By the 1964 Le Mans test weekend, the racetrack developed and purpose-built GT40 had roughly four hours total running time with no high-speed experience.\(^{85}\) During testing, observers noted that the car spun the rear wheels at one hundred and seventy miles-per-hour down the 3.5 mile-long Mulsanne Straight. Any loss of grip or steering at those speeds meant an unavoidable crash for any driver – this exactly happened. As a result, Ford scrapped both GT40s during the Le Mans test weekend, as The New York Times reported, “These Fords were new, unbelievably sleek and expensive [… ] People who know money think Ford can build a winner. People who know car racing are not so sure.”\(^{86}\) The Twenty-Four Hours of Le Mans was two months away, and Ford Motor Company had no cars.

Meanwhile, in the United States, Ford Motor Company continued to harness its entrance into European road-racing to capture the young market again. At the 1964 New York World’s Fair, Henry Ford II, and Lee Iacocca revealed a gamechanger – the Ford Mustang. The Mustang was the perfect mix of American firepower and European styling, all in one relatively low-cost automobile. TIME Magazine described the 1964 Mustang thusly, “With its long hood and short rear deck, its Ferrari flare, and openmouthed air scoop, the

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84 Baime, Go Like Hell, 92.
Mustang resembles the European racing cars that American sportscar buffs [found] so appealing.” Ford Motor Company spent over ten million dollars on advertising and media spots to embed the Mustang into the American psyche and went so far as buying the nine p.m. slot on ABC, CBS, and NBC to reveal the Mustang on television to twenty-nine million Americans. The day after its release, twenty-six hundred newspapers ran announcement promotions for the Mustang while a ‘herd’ of Mustangs drove seven hundred and fifty miles from New York to Detroit with one hundred and fifty automotive journalists in hot pursuit, eager to grab the ‘first look’ at Mustang. The Mustang was so appealing that, with an original bill for one hundred thousand units, Ford Motor Company sold four times that number of Mustangs during its first year. The one-millionth Mustang exchanged owners within two years of the car’s launch. Ford created a brand-new sales category, the pony car, and the Mustang sat alone for an entire year in the pony car segments until the Chevrolet Camaro, released in 1966, debuted as a direct competitor. It was an all-out media blitz, and Ford was positioned, again, for greatness.

Le Mans, 1964

“However one looks at it, Ford of Dearborn has set the cat among the pigeons. We are on the threshold of possibly the most exciting racing era in history.” So ran a Sports Illustrated headline in May 1964. Unbeknownst to the public, the GT40 racecar was unproven and unreliable. Ford entered three cars in the 1964 Le Mans, and just five hours in, two had retired. While driving the remaining GT40, Phil Hill managed to set the lap record just minutes before his car retired. All three Ford prototype cars sat in pit lane as the race ticked over to the halfway mark. It was not a total loss, as Carroll Shelby’s Cobras were a full five miles-per-hour faster than the competing Ferrari GTOs; Shelby’s Cobras finished fourth overall and top of the G.T. class. Ford of Britain reported forty-one hundred sales in 1964, and a year later, sales spiked

89 Ibid.
93 Gregor Grant, “Ford’s up, Jaguar’s on deck, Mercedes aims to play,” Sports Illustrated, May 11, 1964, 68.
94 Spurring, Le Mans 1960-69, 2.
almost 20 percent to 4,810 Ford cars sold.\textsuperscript{95} Amidst Ford Motor Company’s later domination of Le Mans, sales doubled in 1966 to over eight thousand units. In the U.S., where European racing was unpopular, Ford’s market share grew by a measly tenth of a percent.\textsuperscript{96}

In the aftermath, a meeting occurred in Detroit to discuss the Ford plan going forward. The Ford Special Vehicles Committee reasoned the Advanced Vehicles team in England would profit from the tested and proven 427-cubic-inch NASCAR engine. Finally, the Committee sent a GT40 to California, into Carroll Shelby’s hands.

Shelby American immediately worked to improve the undrivable car. Before the cars could enter Shelby’s shop, four hundred and fifty-horsepower engines replaced the stock 289 V8. Then, Ford’s aerospace company, Aeronutronic, reequipped some elements of the car. Aeronutronic filled the car’s cockpit with the most sophisticated aeronautical equipment to gather data on air pressure and temperature in the car’s ductwork.\textsuperscript{97} This process was plausibly the first time computer equipment assisted in the development of a racecar. Phil Remington, the chief engineer of Shelby American, completely redesigned the car’s ducting and lubrication systems using computer data.\textsuperscript{98}

The 1965 Daytona Continental Two Thousand K.M. race marked the first time Shelby American represented Ford Motor Company. In just two months, the collaboration had developed and put into cars competition a fleet of cars placing first through fifth consecutively.\textsuperscript{99} For the first time in more than forty years, an American car had won an internationally-sanctioned race. A new challenge for Ford emerged as Shelby America decided to use their car fielding under its racing team. Effectively, Ford had no claim to the Daytona Continental results because of FIA regulations, even though the winners drove GT40s and Ford test drivers Ken Miles, Bob Bondurant, and Jo Schlesser claimed first through third.\textsuperscript{100}

\begin{itemize}
\item \textsuperscript{96} Ibid.
\item \textsuperscript{97} Tony Hogg, “A Look at the Daytona Winner Ford GT-40,” \textit{Road & Track}, May 1965.
\item \textsuperscript{98} Baime, \textit{Go Like Hell}, 38.
\item \textsuperscript{99} Ibid, 143. Daytona Continental Two Thousand: The Daytona Continental began in 1959 as a six-hour, 1000KM race and has historically been a leg of the Triple Crown. By 1962, the time was halved to three hours and the FIA added the track to its World Sportscar Championship, along with the \textit{Mille Miglia}, \textit{Targa Florio}, Twenty-Four Hours of Le Mans, Twelve Hours of Sebring and the Nürburgring One Thousand KM. In 1964, the year of Shelby’s win, the Continental was doubled to Two Thousand KM and was roughly half the expected distance of the Twenty-Four Hours of Le Mans and equivalent to the Twelve Hours of Sebring. Two years later, the Continental was extended to a full Twenty-Four hour race.
GT40 Mk II

While Shelby and Ford Advanced Vehicles toiled at improving the GT40, in the United States, Chief Engineer for GT40 Roy Lunn and project manager Don Frey took the suggestion of the Ford Special Vehicles Committee to heart and had, in secret, developed a GT40 with the seven-liter, 427-cubic-inch Ford NASCAR power plant. At the Dearborn, Michigan race shop KAR-KRAFT—not a division, subsidiary, or property of Ford Motor Company Roy Lunn and his team developed the seven-liter GT40s, unbeknownst to Don Frey, Carroll Shelby or Henry Ford II. Designated “Mk IIs,” they were the second ‘evolution’ of the GT40 car. Unlike Ferrari at the time, which had improved its ‘250 Le Mans’ road car for each consecutive Le Mans as a prototipo Ferrari, Ford’s car was a purpose-built, state-of-the-art racecar for the road.

In its first test, the GT40 Mk II hit a top speed of two hundred and ten miles-per-hour, ten miles-per-hour over the speed Don Frey understood as necessary to beat the Ferraris. Roy Lunn asked Shelby test driver Ken Miles for his thoughts, to which he responded, “That’s the car I want to drive at Le Mans this year.” For the 1965 Le Mans, Ford Motor Company was riding a wave of hitherto unknown success. In 1965, Ford Motor Company reported all-time-record sales, all-time-record-profit, and all-time-record employment. Under the leadership of Henry Ford II, Ford Motor Company had conquered NASCAR. On May 30, 1965, won the Indianapolis Five Hundred, billed as the greatest spectacle in racing and part of the prestigious “Triple Crown of Motorsport,” an unofficial achievement regarded as winning the three most

101 Baime, Go Like Hell, 150. Secrecy: Roy Lunn set up a four thousand square foot shop inside of Kar Kraft, a race shop with one client- Ford Motor Company. Lunn did not use official means to acquire the shop or the tools and components inside. Reportedly, he ‘sweet-talked’ all the machines and prototyping tables from Ford’s manufacturing division. According to A.J. Baime, this was how the entire Kar Kraft shop came together. Further, any official requests Lunn made for machines and tools would have taken years in Ford’s bureaucracy until they were approved. The entire Kar Kraft team was composed of Roy Lunn, two unnamed design technicians, two draftsmen, also unnamed and a secretary.


103 Baime, Go Like Hell, 152.

104 Levine, Ford, the Dust and the Glory, 529.

crucial motor races in one’s career. Just Le Mans remained on Ford II’s radar, and Carroll Shelby solely held that responsibility.

**Le Mans, 1965**

By the start of the 1965 Le Mans, Henry Ford II had spent six million dollars in one year ($39.5 million today) to win one race. Upon the start of the race, team Ford held first and second. However, in the third hour, the first GT40 failed when its driver missed a gear change and destroyed the transmission. By nightfall, a second car retired with blown head gaskets. One-by-one Ford cars retired until only Phil Hill remained in an Mk II GT40. He achieved the fastest-recorded speed at Le Mans, 218 miles-per-hour down the Mulsanne Straight, and the fastest lap in Le Mans history. Like clockwork, however, Hill’s car retired with a broken gearbox. Ferrari won Le Mans a record fifth time in a row, taking the top three places. A *Sports Illustrated* headline called it “Murder, Italian Style,” reinforcing long-standing stereotypes associating Italians with the Mafia, while also excusing Ford’s dismal failure in its first Le Mans outing. Thanks to massive sales of the Mustang insulated Ford Motor Company against its 1965 Le Mans failure. Ford produced over half a million additional cars in the 1965 model-year – at least four hundred thousand Mustangs. Ford of Britain’s sales after the 1965 Le Mans went up by 50 percent, likely as a result of Ford now competing internationally and showing their racing prowess.

**Le Mans, 1966**

In a 1965 letter to Henry Ford II, Rob Walker, heir to the Johnnie Walker whisky company and owner of a racing team, which fielded one of Shelby’s GT40s, succinctly addressed the growing sentiment toward Ford Motor Company. He wrote, “I was very disappointed that Ford Motor Company should make themselves a laughing stock in European motor racing circles, which they undoubtedly did.” In response, Ford II called a meeting with

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106 Baime, *Go Like Hell*, 153. Triple Crown, The Indianapolis Five Hundred, The Monaco Grand Prix and the Twenty-Four Hours of Le Mans are considered the most prestigious races in motorsport. Only one man, Graham Hill, has won “the Triple Crown,” however, nineteen others have completed at least two ‘legs’ of the Triple Crown.


108 Baime, *Go Like Hell*, 165.

109 Ibid, 166.


Shelby, Frey, and Leo Beebe, Ford’s first public relations executive, wherein each man had a nametag with one sentence next to their name “Ford wins Le Mans in 1966.”

Frey, concerned with the company’s safety, asked Henry Ford II what their fiscal responsibilities should be, to which Henry II replied succinctly, “You’d like jobs next year, wouldn’t you?”

To ensure his message was crystal-clear, Henry Ford II sent a card to the top executives of each department of the company in the summer of 1965. Each card included two items: a Le Mans decal and a message from Henry II himself: “You’d better win.”

There could be no ‘Ford of Europe,’ as no European customers would change from German or English brands to buy a Ford without a Le Mans win, and Henry Ford II understood this. Now, driven by a grudge against Mr. Ferrari, the only man who had told him ‘no,’ and incensed at losing in his racing program’s first year, Henry Ford II ordered his team back to work.

Immediately after, Ford and Shelby American were back testing the GT40 Mk II at Daytona. Then, having adjusted the suspension to withstand a multitude of bumps in the road’s surface while retaining its structural rigidity, the car was flown to Detroit and sculpted in Ford’s wind tunnel. Mere millimeters of bodywork shaved off the GT40s allowed air to flow unspoiled over the car – in the 1960s, downforce and aerodynamics were not fully understood, so large there were no wings or spoilers employed on the GT40s. From Daytona testing in August 1966 until brakes testing in January 1967, each reworked piece of the GT40 Mk II maximized efficiency, speed, and durability. One common point of failure, however, centered on the braking system. At the end of the Mulsanne Straight, the Mk II’s brake fluid instantly boiled under pressure, eventually shattering the cast-iron rotors.

Despite braking problems, the Mk II entered the 1966 Daytona Continental and won pole position (fastest qualifying lap) and finished one-two-three in “one of the most perfect drives in history.”

For the first time in history, an American car won a Twenty-Four-hour, FIA [Federation Internationale de l’Automobile] – sanctioned race. Later in 1966, Ford entered the Twelve-Hours of Sebring

and won first and second place. The stage was ready for a showdown with Scuderia Ferrari at Le Mans.

Unfortunately, Ford Motor Company’s stunning success in the 1966 season came at a deadly cost. During the Twelve Hours of Sebring, Ford’s driver Bob McLean died at the wheel of a GT40. Then, at Le Mans testing just days later, Walt Hansgen, another team Ford driver, died from injuries sustained when he crashed his GT40. Adding fuel to the fire was Ralph Nader’s Unsafe at Any Speed, a dogmatic tome of extremism that accused Detroit of “peddling the drug of speed and style.” First and foremost, Nader wrote that book primarily to critique the Chevrolet Corvair, specifically its swing-axle suspension, which tended to ‘tuck’ the rear wheels under a hump in the road, resulting in vehicle turnovers. The setup employed by Chevrolet’s Corvair required unequal tire pressures front-to-rear – 15psi front and 26psi rear – and Nader argued this differential caused dangerous oversteer. No one challenged Nader’s assertion that these vehicles were ‘unsafe at any speed’ until 1972 when a study by Texas A&M found that the Corvair possessed “no greater potential for loss of control than its contemporary competitors in extreme situations.” The results of Nader’s book, in the interim, devastated the auto industry: U.S. vehicle sales dropped 33 percent from 1966 to 1967, with Chevrolet’s sales sagged to their lowest since 1961. G.M., not satisfied with being dragged through the press, tried to sabotage Nader by questioning his politics, sexuality, and religious views. While surveilling Nader in public, G.M. illegally wire-tapped his telephone and hired a plethora of women to entice
Nader into illicit relationships. For Ford Motor Company’s entire tenure, racing legally or illegally, no one had died behind the wheel. Now, Ford was amidst its deadliest yet most successful racing season. In a twist of irony, Ford resembled the very team they wanted to defeat, sending multiple drivers on-track for them to return on stretchers or in coffins. In his autobiography, Carroll Shelby devoted a section to the death of test driver Ken Miles but said little about other deaths behind the wheel of the GT40.

Nader’s book ignited a controversy in both the United States and the broader motorsport world. The United States Senate held official hearings over the safety issue in Detroit. As a result, Congress drafted the car industry’s first federal regulation, the National Traffic and Motor Vehicle Safety Act of 1966. Ford had researched and developed several critical safety components through the years, although this did not prevent its racing drivers’ deaths. Beginning in 1955, Ford began crash-testing its vehicles and offering seat belts as options. In 1956, it offered the Lifeguard package, which boasted safety glass in the rearview mirror, a deep-set steering wheel, and optional seat belts and padded dashboard. Ford updated the Lifeguard package for the 1957 model-year with a new frame, rear child locks, and a hinged hood. Added to its safety record was the Le Mans effort, totally concerned with making the car as aerodynamic and fuel-efficient as possible, introducing lighter yet stronger body paneling and reducing the size of fuel containers, thereby reducing the risk of explosion or fire. A later 2002 study revealed what Ford theorized, in the 1960s, that fuel consumption of crash-involved vehicles was higher than that of vehicles not involved in crashes. Ford’s Le Mans effort represented the most sophisticated study of an automobile ever. The GT40 began life as a racecar, not a production car like many other constructors’ entrants. Ford de-tuned its GT40 racecars for road-use to meet homologation rules, whereas other teams beefed-up road cars for racing at Le Mans.

Ford headquarters housed Ford Motor Company’s Reliability Laboratory, where teams of engineers worked round-the-clock to improve the GT40 Mk II to perfection. In test room 17D of Ford’s Engineering and Research complex, a 427-cubic-inch Ford engine was attached to a multi-million-dollar testbed, which in turn connected to a top-of-the-line computer. Utilizing measurements from Daytona’s testing in 1965, the computer accurately simulated Ford drivers’ shifting patterns and throttle position. The test rig was so elaborate it could simulate the effects of cornering and wind resistance on engine performance, even as it stood still. Changing gear some nine thousand times and simulating pit stops every two hours, the 427 engines were able to run the entirety of Le Mans twice by the end of testing.

By the time Henry Ford II arrived at Le Mans in June 1966, the overall investment in winning Le Mans had totaled three hundred and sixty million dollars from 1963-1966. However, Henry Ford II was looking to invest another one hundred million dollars in overseas operations, with a new French factory in mind, replacing the factory Henry Ford built near Paris, the same factory sold to French automaker Simca in 1954. Ford of Europe grew 5-7 percent annually through the 1960s, while Ford grew at half that rate in the United States. In three years of racing, Ford Motor Company had no wins excepting the 1966 season. However, thanks to the company’s massive investment, there was never a better-prepared car for the 1966 Le Mans than the GT40 Mk II. Importantly, to satiate Congress and the safety-conscious public, Ford drivers were ordered to buckle their seat belts before pulling off the starting line.

“We are witnessing the most tremendous 24-hour racing ever put on here at Le Mans, as it has been a battle from the start among four or five cars at the most tremendous pace of all time.” Ford drivers broke the Le Mans lap record no less than five times in one race. By midnight, the Ferraris had crashed out, and Ford cars were first, second, and third in a historic photo
finish. At the end of the race, five Ford cars finished in the top five slots. Ford Motor Company had beat Ferrari handily and secured its first overall Constructor’s championship at Le Mans. Added to victory over Ferrari, Ford celebrated another victory over Chevrolet: Ford Motor Company trailed Chevy in sales since 1961, but after the 1966 season eclipsed their cross-town rivals. From Ford’s first entry to Le Mans in 1964 to their first win in 1966, Ford sales in the United States rose by half a million units, a 72 percent leap.¹⁴⁰ Ford of Britain enjoyed monumental gains; from 1966 to 1967, sales rose over 100 percent, from eighty-one hundred units to 16,600.¹⁴¹ In 1968, driven by back-to-back wins, Ford of Britain increased sales again by almost 50 percent, rounding out the decade selling over twenty thousand cars – a massive leap from just forty-one hundred in 1964.¹⁴²

Conclusion

To this day, Ford remains the only American team to win at Le Mans, from 1966-1969 and on the fiftieth anniversary of winning its first Le Mans in 2016. Similarly, Ferrari has not won at Le Mans since. Spurred on by success developing race cars and top-of-the-line technology, Henry Ford II announced an additional ten million dollars for Ford Motor Company’s racing budget in 1967. The monies resulted in the GT40 Mk IV “J” Car production, built to comply with new Appendix J regulations introduced by the FIA. The J Car was technology taken to the extreme, as it utilized a novel design of honeycomb aluminum panels bonded together to form a lightweight tub. Like the rest of the GT40’s development, the J Car represented a brand-new approach to racing, emphasizing aerodynamics and improved safety features. Through the entrance of Ford into both NASCAR and endurance racing, motorsport thrived. The vast resources of the company catapulted technological and safety measures in racing and consumer cars. Innovations like independent suspension, aerodynamics, four-wheel brakes, wind tunnel testing, and computerized simulation were considered witchcraft during Ford’s Le Mans tenure. However, today they are commonplace across motorsport.

Not just cars benefitted from Ford’s success. The company became the standard-bearer for the United States, with each entrance into domestic or international racing, as it posted record-setting profits and sales. Thanks to the fact that the GT40 was a Ford Performance parts-bin, Ford Motor Company could also market its racecar as a ‘do-it-yourself’ project; anyone with a spare twenty thousand dollars (one hundred and fifty-four thousand dollars in 2020) could order the GT40 racecar from their local Ford dealer. Like the Mustang

¹⁴⁰ Auto Editors of Consumer Guide, Cars of the Sizzling ’60s, 262.
¹⁴¹ McElroy, Automotive Trade Statistics, 23.
¹⁴² Ibid.
in 1964, Ford looked for buyers who wanted European styling with American firepower.

Ford’s racing effort reflected an enduring change in motorsport today. Porsche, the new most-successful manufacturer, spends one billion dollars annually developing its Le Mans Prototype. Likewise, The Automobile Club de l’Ouest (Automobile Club of the West [ACO]) opened three new categories for manufacturers, LMP1, LMP2, and LMP3, organized around total revenue spent in research and development. The new Le Mans prototypes are effectively laboratories on wheels, a far cry from a computer-simulated racetrack. When Ford cars crossed the line on June 19, 1966, Le Mans was transformed overnight from a weekend of potential glory to the single most magnificent marketing tool of all time, cementing Henry Ford II and his company’s legacy in racing.

Many remember the 1960s as a golden decade for both motorsport and culture in general, and Ford’s first Le Mans win inexorably linked the United States to the wider world of motorsport. The ‘one-two-three’ 1966 Le Mans photo finish ran on the front pages of European newspapers and helped Ford sell more cars to the European market. Driven by personal grudge and a vow to get even with Enzo Ferrari, Henry Ford II’s warpath enveloped A-list names in motorsport like Bruce McLaren, Carroll Shelby, Dan Gurney and A.J. Foyt-legends of motorsport who joined a larger team effort to beat the best in the business. Ford harnessed its massive public image to create a double narrative: one that relied on mass-market manufacturing to appeal to the public and another that showed Ford’s “total performance” on racetracks in the United States and Europe. Added to that was the understood brutality of racing, one of the most dangerous pastimes available to the public that routinely claimed lives. However, Ford’s cars held together on-track, displaying reliability and durability above a performance moniker. After calling it quits in 1969 with four consecutive Le Mans wins, Ford effectively disappeared from European motorsport thanks to the oil embargo of the early 1970s, unless they had suitable partners like Brabham-Ford or McLaren-Ford in Formula One.
When Ford went back to Le Mans on the fiftieth anniversary of its 1966 win, the world went “less than nuts,” according to automotive journalist Sam Smith of *Road and Track*.\(^{143}\) The rivalry of Enzo Ferrari and Henry Ford II was gone, as were the hand-sculpted racecars that put Ford Motor Company on the Le Mans podium four times in a row. Racing lost much of its danger and supposed risk, as did the automobile. Ford sales went down between their 2016 Le Mans win and 2017 in the United States. In Europe, Ford registered neither more nor fewer sales from 2016 to 2017. The days of motorsport affecting wider consumer culture may be long gone, as corporations like Ford try to retain what market-share they do have while battling emissions standards, electrification of the automobile, and fewer automobile customers thanks to the proliferation of public transport and ridesharing. Although Ford Motor Company held both the U.S and European auto industries in its hands in the late ‘60s, the industry has moved beyond ‘race on Sunday, sell on Monday’ to globalized brands selling tools for travel or trade to an, at times, uninterested public.

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