



**KENNESAW STATE
UNIVERSITY**

COLES COLLEGE OF BUSINESS
*Bagwell Center for the Study of Markets
and Economic Opportunity*

COMMENTARY

America's Oasis Desert

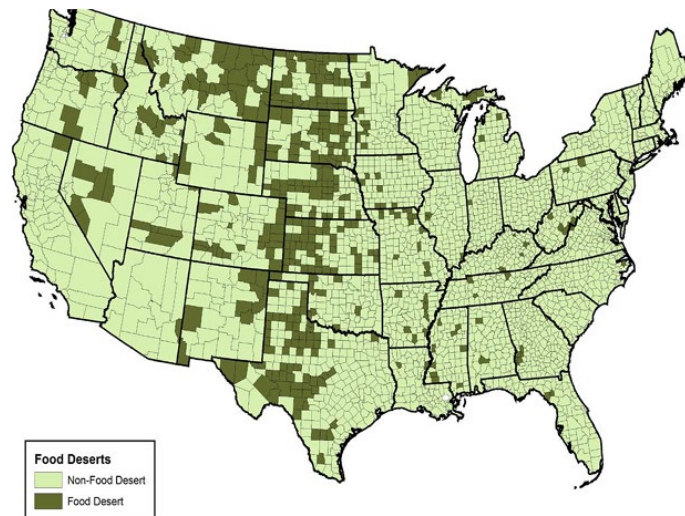
By Timothy Mathews



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A growing criticism of some market outcomes is the emergence of “deserts,” which refer to the absence of a good or service being sold within reasonable proximity to households in a particular area. The most often mentioned desert of this type is probably a “food desert.” To identify such deserts, start by determining if there are any supermarkets nearby which sell fresh produce and other healthy and nutritious food. At the county level, a jurisdiction is identified as a “food desert county” if all residents in the county live more than 10 miles from such a grocery store. Figure 1 identifies “food desert counties” in the U.S. as of 2000.¹ Roughly 18.8 million people in the U.S. (about 6.1% of the population) live in a food desert.²

Figure 1 – Food Desert Counties in U.S., 2000



Some view the presence of such food deserts as an inequitable market failure requiring government intervention to correct. Indeed, Mayoral candidate Zohran Mamdani has argued that since certain neighborhoods in New York City are food deserts, the government should open state-run grocery stores to alleviate the problem.³

Various healthcare deserts are often highlighted. For examples, in the United States, roughly 30 million people live in trauma care deserts (i.e., more than a 60-minute drive from a hospital with trauma care services), roughly 5.6 million women live in counties deemed to be maternity care deserts, and roughly 15.8 million people live in pharmacy deserts.⁴ Figure 2 identifies “pharmacy desert counties” (in orange) in the U.S. as of 2025.⁵

This concept of deserts can be applied to any good or service. Figure 3 below provides a county level illustration of whether there are more Starbucks (green) or Dunkin’ (orange) stores in

¹ This map is from Morton, L.W. and Blanchard, T.C. (2007) “[Starved for Access: Life in Rural America’s Food Deserts](#),” *Rural Realities*, Vol. 1, No. 4.

² See: https://en.wikipedia.org/wiki/Food_desert and <https://www.ers.usda.gov/data-products/food-access-research-atlas/documentation>.

³ See “[Welcome to Trader Zoh’s](#),” *The Economist*, July 5 2025, page 20.

⁴ See: https://en.wikipedia.org/wiki/Medical_deserts_in_the_United_States, https://en.wikipedia.org/wiki/Maternity_care_deserts_in_the_United_States, and <https://pmc.ncbi.nlm.nih.gov/articles/PMC11034534/>.

⁵ See: <https://www.goodrx.com/healthcare-access/research/many-americans-lack-convenient-access-to-pharmacies>.

each county in the country.⁶ Thus, the Starbucks/Dunkin' deserts are those areas in gray, which have neither franchise.

Figure 2 – Pharmacy Desert Counties in U.S., 2025

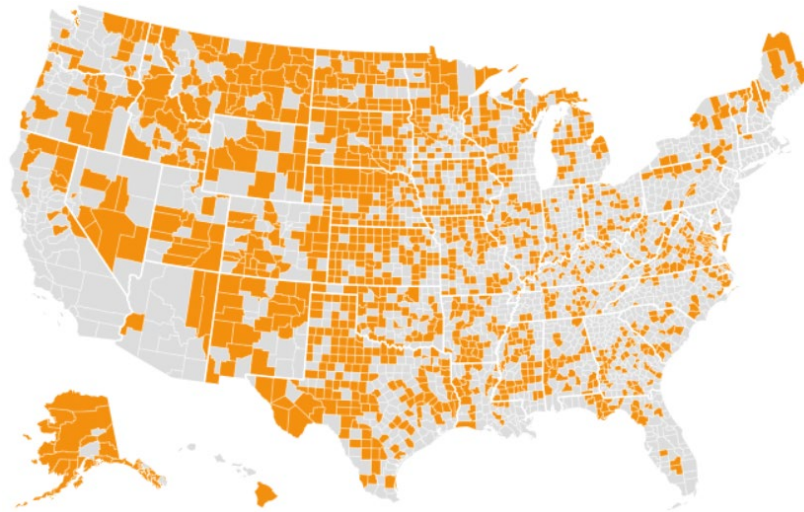
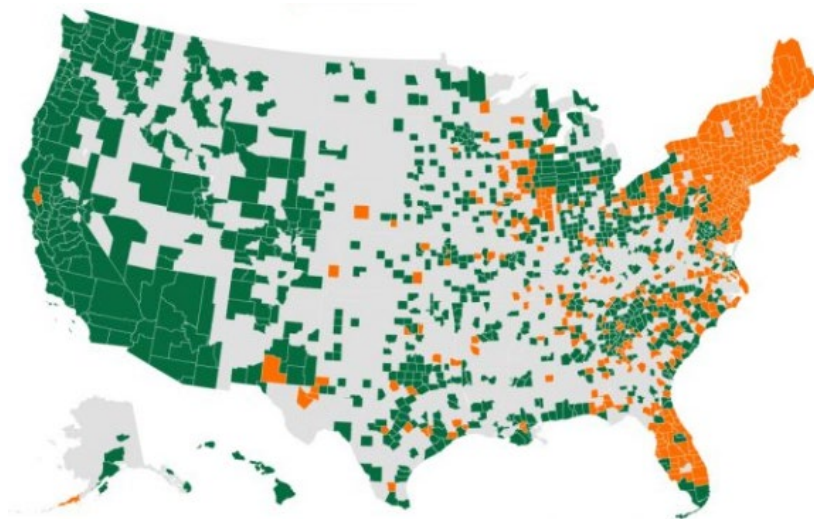


Figure 3 – Starbucks/Dunkin' Desert Counties in U.S., 2025



Transaction Costs

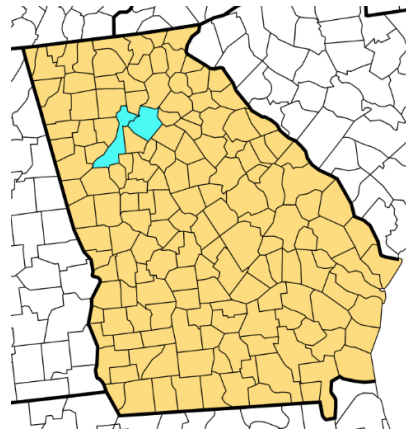
At the core of the definition of such deserts is the notion of transaction costs. As the name suggests, a transaction cost is simply a cost that someone must incur to engage in a transaction. It is separate from the price of the good/service and is often not a monetary cost (which makes it easy to miss for people not used to thinking about costs and benefits as economists suggest). For example, suppose that I want to get a motorcar, maybe a Jaguar. If I must spend six hours at the

⁶ See: <https://www.scrapehero.com/starbucks-vs-dunkin-store-report/>.

dealership negotiating the price and setting up the financing for the purchase of the new Jaguar, the cost associated with using this time to make this purchase is a transaction cost.

Similarly, all the resources I use to travel to and from the Jaguar dealership to make the purchase (e.g., time, gas money, tolls) all contribute to my transaction costs. And as someone who lives in Woodstock, Georgia, I find myself in a Jaguar desert – there is not a Jaguar dealership in my county! In fact, there are only four Jaguar dealerships in all of Georgia: one in Gwinnett County and three in Fulton County. Figure 4 illustrates this, with the two counties that have Jaguar dealerships shaded in blue and the rest of Georgia (i.e., the vast Jaguar desert) shaded in beige.

Figure 4 – Jaguar Desert Counties in Georgia, 2025



Am I, as someone who lives in a Jaguar desert, being unfairly wronged by this outcome? Do I have a right to demand that Jaguar open a dealership closer to my house so that I can more conveniently buy a car from them if I decide to do so? Should I be able to demand that the government force Jaguar to open a dealership (or perhaps have the government open and operate a state-owned Jaguar dealership) nearby to remedy this perceived inequity?

America's Oasis Desert

Before turning to a general discussion from an economic perspective, let's identify one more important desert which presently exists in the United States: our Oasis desert. The rock band Oasis was formed in Manchester, England in 1991. Brothers Noel and Liam Gallagher were members from the start, up through the band's breakup in 2009. Oasis was arguably one of the biggest musical acts of the 1990s.

All seven of their studio albums reached #1 on the U.K. charts. Their second album, *(What's the Story) Morning Glory*, has spent a total of 709 weeks on the U.K. charts (the second longest time for any non-compilation album by any artist); in total, they have three albums that have spent over 600 weeks each on the U.K. charts (no other recording artist has even two such albums). The Oasis song "Wonderwall" was the first song recorded in the 1990s to reach over 1 billion streams on Spotify. They currently have 30.7 million monthly listeners on Spotify, more than many other well known 1990s artists such as Foo Fighters (20.0 million), Pearl Jam (15.8 million), The Smashing Pumpkins (13.0 million), and Blur (10.8 million).

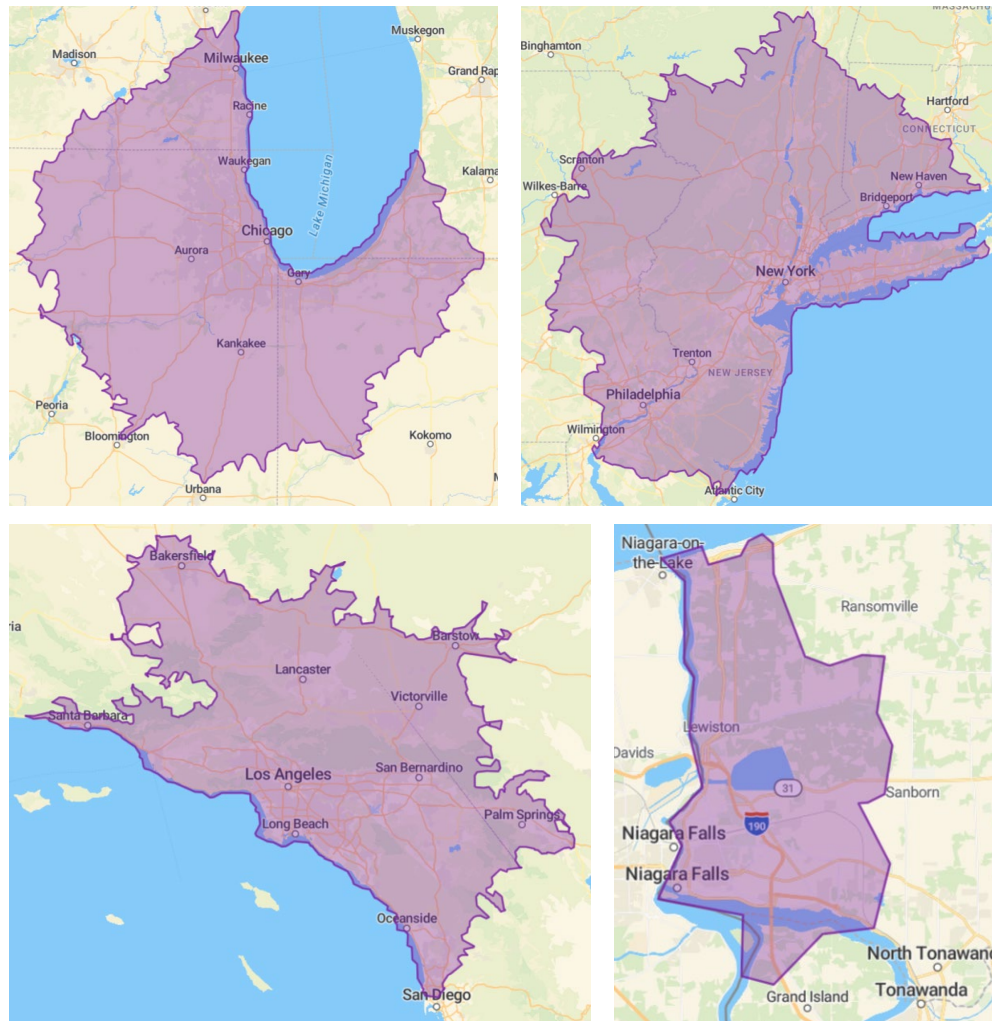
After years of hope and speculation by fans that the feuding brothers would reconcile, a reunion tour was announced on August 27, 2024. Tickets sold out quickly. For the initial 17 tour

dates in the U.K. and Ireland, an estimated 14 million fans tried to get the 1.4 million available tickets, with many getting frustrated by the use of “dynamic pricing.”⁷

Unfortunately for many U.S. fans, the band will only be performing in three cities in the entire country: Chicago, IL (Soldier Field), East Rutherford, NJ (MetLife Stadium), and Pasadena, CA (Rose Bowl Stadium).⁸ As a result, most Americans find themselves in an Oasis desert.

The shaded regions in the four maps in Figure 5 identify areas in the U.S. where residents are within a two-hour drive to a stadium where Oasis will perform (i.e., within a two-hour drive of Soldier Field, MetLife Stadium, Rose Bowl Stadium, or Rogers Stadium in Toronto).⁹

Figure 5 – Portions of U.S. within a Two Hour Drive of an Oasis Concert



⁷ See: “[Dynamic pricing, ten-hour queues and joy for 1.4 million: What happened on Oasis ticket sales day](#),” by Thomas George, *Manchester Evening News*, 31 August 2024 -and- See “[Please, brother, take a chance](#),” *The Economist*, July 5 2025, page 72.

⁸ In North America, they will also have two concerts in Toronto, Canada (Rogers Stadium) and two concerts in Mexico City, Mexico (Estadio GNP Seguros).

⁹ These maps were created using the free version of the on-line app Smappen, available at www.smappen.com.

Everyone in the U.S. who resides outside of one of these four shaded regions finds themselves living in an Oasis desert – America’s vast Oasis desert consists of the entire area of the country that is outside of the purple shaded areas in the map in Figure 6.

Figure 6 – Oasis Desert in U.S.



In spite of the small geographic area shaded in purple in the map in Figure 6, a decent amount of the population of the U.S. is within a two-hour drive of a concert (after all, the tour organizers chose to have shows in the three largest metro areas in the country). But collectively, only 63.7 million people out of a population of 334.9 million reside in an oasis as opposed to the desert.¹⁰ Thus, 271.2 million Americans – roughly 81.0% of the population – reside in the Oasis desert. This number is vastly greater than: the 5.6 million women in maternity care deserts; the 15.8 million people in pharmacy deserts; the 18.8 million people in food deserts; and the 30.0 million people in trauma care deserts.

The Economics of Deserts

Are such deserts a market failure? If so, should government be actively intervening to remedy the problem? What does mainstream economics have to say about the issue?

Market failure refers to a situation in which Total Social Surplus is NOT maximized at the free market outcome. Total Social Surplus simply refers to the sum of all gains and losses over everyone in society (all buyers, all sellers, and anyone else impacted by market transactions). An outcome is efficient if Total Social Surplus is maximized. Striving for policies which are efficient – and thereby avoid a market failure – is a reasonable and widely accepted primary goal.

To see why maximizing Total Social Surplus is ideal, consider a very simple example. Suppose there is a society with only three people (*A*, *B*, and *C*) and two possible outcomes (*X* and *Y*). Table 1 specifies the surplus (measured in dollars) for each person at each of these two outcomes. The outcome which maximizes Total Social Surplus is clearly Outcome *X*.

¹⁰ The 63.7 million figure was calculated by Smappen. Their data is based upon 2023 population estimates. Therefore, for consistency, we will focus on a total population of 334.9 (the 2023 estimate for the entire U.S.).

Adding a backstory, suppose *A* is a producer/seller of widgets and *B* and *C* are potential customers. Outcome *X* results when *A* chooses to not have a store near *C* (i.e., *C* lives in a widget desert), whereas Outcome *Y* results when *A* has a store near both customers. If *A* is free to choose the number of stores to maximize his own profit/surplus, he will choose Outcome *X*. In this example, this choice makes Total Social Surplus as large as possible, but it leaves Person *C* in a widget desert with \$0 surplus, which might seem unfair.

Table 1 – Example to Illustrate Total Social Surplus Maximization

	Person <i>A</i>	Person <i>B</i>	Person <i>C</i>	Total Social Surplus
Outcome <i>X</i>	\$50	\$25	\$0	\$75
Outcome <i>Y</i>	\$30	\$25	\$15	\$70

However, society would be worse off if the government (i.e., an entity with “legal authority” to mandate outcomes) forced Outcome *Y* on people. An implication of Total Social Surplus being smaller at Outcome *Y* is that even if those that prefer *Y* to *X* could impose it as the outcome, they would be willing to negotiate away from it in a voluntary way. To see this, suppose that the government establishes Outcome *Y* as the default, but will allow society to get to a different outcome only if all people agree to the alternative. Person *C* would clearly object to a change from *Y* to *X*. But, since the gain to *A* from this change is bigger than the loss to *C*, a mutually beneficial transaction can be proposed. If *A* were to pay *C* any amount of money above \$15 but below \$20, both *A* and *C* are made better off by the switch from *Y* to *X* (along with the negotiated transfer payment). For example, suppose *A* pays *C* \$17 to allow the switch from *Y* to *X*. At Outcome *X* with this side payment: *A* gets surplus of $\$50 - \$17 = \$33$ (which is better than his surplus of \$30 from remaining at Outcome *Y*) and *B* gets surplus of \$17 (which is better than his surplus of \$15 from remaining at Outcome *Y*).

The main point of this example is to illustrate that the primary objective should be to achieve an efficient outcome. If instead we ever end up at an outcome at which Total Social Surplus is not maximized, then it is possible to change the outcome and make side payments between different people in society in a way that makes everyone better off.

This example also illustrates that the socially best outcome might entail some people living in deserts for the provision of some goods or services. That is, the complete elimination of such deserts is not necessarily the ideal outcome for society. But if we stop and think about it, this is obvious and intuitive. Eliminating deserts – which can only be done by having more sellers at more geographic locations – is costly. Moreover, the geographic distance to define such deserts is completely arbitrary. Suppose we designate someone as living in a kiwifruit desert if they do not have a seller of kiwifruit within 100 feet of the front door of their house. The only way to have zero people living in a kiwifruit desert would be to have a kiwifruit stand at the end of everyone’s driveway. Clearly the costs to society of getting this outcome far exceed the benefits. Thus, the socially best outcome is to have some people living in kiwifruit deserts.

As with any economic decision, the best choice results from a careful comparison of additional benefits to additional costs. In terms of the present discussion, the goal should NOT be to maximize access to all goods for all consumers. Rather, the goal should be to thoughtfully balance benefits against costs from making different goods/services available (or not).

Under certain conditions, free markets ensure that Total Social Surplus is maximized. This was most famously described by Adam Smith when he developed his notion of “The Invisible Hand.” But, this result only strictly applies in perfectly competitive markets. If we do not have

perfect competition, then the free market does not guarantee efficiency – that is, market failure can arise.

The Importance of Market Structure

Most readers have probably heard the term perfect competition – and its polar opposite of monopoly – even if they cannot provide technical definitions. Perfect competition describes a competitive environment in which: there are many buyers and many sellers, all units of the good are identical (i.e., no product differentiation), and there is free entry and exit by sellers over time. In contrast, a market is a monopoly if there is a single seller of a unique good for which buyers have no close substitutes and there are significant barriers to entry which prevent rival sellers from competing against the monopolist in the future. Between these extremes are the intermediate market structures of monopolistic competition (which is closer to perfect competition than to monopoly) and oligopoly (which is closer to monopoly than to perfect competition). As a rule of thumb, Total Social Surplus at the free-market outcome will be larger when the market structure is closer to perfect competition and smaller when the market structure is closer to monopoly.

In a free market, the reason that a consumer would find themselves in a desert is simply that a profit-maximizing seller has not chosen to enter the geographic location in which they reside. If this outcome results from choices by producers (and potential producers) in a perfectly competitive market, then it very likely corresponds to the efficient geographic coverage by sellers. If instead this outcome arises in a market in which sellers have some market power, then it could be a deliberate under provision of the good in a way which maximizes the profit of the seller at the expense of efficiency. For a simple example, go back to the values in Table 1, but change the surplus of Person *A* at Outcome *Y* to \$40 instead of \$30 (with all other surplus for *A*, *B*, and *C* unchanged). The Total Social Surplus of Outcome *Y* is now \$80. But, if Person *A* is a profit maximizing seller, he will choose Outcome *X* – i.e., in this case the profit maximizing monopolist creates a desert in a way that is not ideal for society as a whole.

So, the simple observation that a deserts exists is not necessarily a sign of market failure. At the efficient outcome in any market, it may very well be that some (perhaps many) consumers live in a desert. Further, the forces of free markets and competition (e.g., free entry of additional sellers in the future) will help to eliminate any inefficient deserts which presently exist.

In the U.S. (and even more so in the U.K. and many other countries) healthcare is not provided in a free, competitive market. Rather, these markets are highly regulated with stifling restrictions on service providers. In the U.S., Certificate of Need Laws (which require existing service providers to essentially sign-off on competitors entering the market) likely contribute to the persistence of many types of healthcare deserts. By imposing such regulations, the government has likely made what would otherwise be a fairly competitive market into one near the boundary between monopolistic competition and oligopoly. Consequently, government regulations likely make such healthcare deserts more common.

The markets for grocery stores and brewed coffee are not perfectly competitive, but rather are quintessential examples of monopolistic competition. There are relatively few entry barriers for new firms and the main differentiating characteristic between sellers is retail location. Thus, while there possibly could be some inefficiencies related to service deserts due to lack of entry by firms, the inefficiencies would not be as large as in an oligopoly or monopoly market.

In contrast, in the entertainment world, top-tier actors and musicians are essentially oligopolists. They face some competition by virtue of there being other artists that are somewhat substitutable (in the eyes of fans), but they have a great deal of market power by providing a truly

unique experience (especially in the eyes of their most dedicated fans). There are some singers that I think would be a substitute for Taylor Swift, but any 13-year old girl would be adamant that they are not the same. Similarly, for 50-year old men, seeing Blur or Pulp or even Pearl Jam in concert would be similar to seeing Oasis – but it is clearly not the same thing. In fact, as evidenced by the tremendous demand for Oasis tickets over the past year compared to ticket sales for Liam Gallagher’s solo concerts and concerts for Noel Gallagher’s High Flying Birds since 2009, Oasis fans do not even view Liam Gallagher and Noel Gallagher separately as a good substitute for the two of them together as Oasis.¹¹ Therefore, all else equal, any inefficiencies which result from deserts created by market structure are potentially greater for music concerts than for grocery stores, medical care, pharmaceuticals, or coffee.

Furthermore, even an oligopolist has a strong profit motive to provide their good/service near where their customers live. This illustrates the tremendous power of markets (even imperfectly competitive ones) to provide for the common good of both producers and consumers and should somewhat mitigate concerns about inefficiencies resulting from deserts. For example, compared to the U.S., the Oasis deserts in the United Kingdom are much less significant. As can be seen from the map in Figure 7, the bulk of the area (and population) of Great Britain is within a 2-hour drive of the Oasis concerts in London, Manchester, Cardiff, and Edinburgh.

Figure 7 – Oasis Deserts in U.K.



Additionally, some residents of the U.K. in Northern Ireland are within a 2-hour drive of Oasis concerts in Dublin (similar to the U.S. residents near Niagara Falls, NY in relation to Toronto). In the U.K., 52.9 million residents – out of a total population of 69.2 million – are within

¹¹ These were the two most successful projects that the Gallagher brothers participated in since the breakup of Oasis in 2009. When touring, each one regularly had other members of Oasis on stage as part of the band, plus each one often included Oasis songs in their setlist. In fact, over all concerts: 7 of the top 10 most commonly performed songs by Liam Galalgher were Oasis covers, and 3 of the 5 most commonly performed songs by NGHFBs were Oasis covers – see <https://www.setlist.fm/stats/liam-gallagher-bd6bd72.html> and <https://www.setlist.fm/stats/noel-gallaghers-high-flying-birds-13d241d5.html>.

a 2-hour drive of at least one Oasis concert location (roughly 374,000 residents are within a 2-hour drive of two concert locations). Thus, only 16.3 million people – roughly 23.6% of the population of the U.K. – live in an Oasis desert (much less than the 81.0% of Americans).

But this difference between the U.S. and U.K. should not be surprising. Afterall, the band has always been more popular in their home country. As already noted, all seven of their studio albums reached #1 on the U.K. charts – but none reached this position in the U.S. charts. Similarly, they had eight #1 songs in the U.K., but no #1 songs on the U.S. singles chart. To maximize their profit from their tour, they deliberately chose to have greater geographic coverage for their concerts in the country where they are more popular. While this creates a much larger Oasis desert in the U.S. than in the U.K., this is a good outcome for society, since it leads to greater Total Social Surplus than if the deserts in the two countries were equal impactful on each population.

Remedies for Those Stranded in a Desert

An obvious point to recognize is that if the lack of access to a good/service is so detrimental to the person's wellbeing, there are multiple actions which they can take to alleviate the impact.

First, consumers can seek out substitute goods nearby. Yes, I live in a Jaguar dealership desert, but there is a Ford dealership and a Honda dealership each about five miles away from my house. Even if I really wanted a Jaguar, to a degree a Ford or a Honda is a close substitute.

Second, consumers can travel outside the desert to get the good. If I really want a Jaguar and do not think a Ford or a Honda is a good substitute, I could drive 45 minutes to the closest Jaguar dealership. This would be a viable option precisely for consumers who have a strong preference for the good in question over any potential substitutes or for consumers who have relatively low transactions costs associated with travel. This is actually what I am going to do to escape the Oasis desert – I am planning on travelling to Mexico City to see them perform in September (and I know of others in the U.S. Oasis desert who have made plans to see them in East Rutherford, Chicago, Los Angeles, or London).

Third, if consumers in a desert instead have very high transaction costs associated with travel, they could choose to move and no longer live in a desert. While this suggestion might seem glib or flippant, I offer it as a genuine solution to the problem in many instances. The maps in Figures 1, 2, 3, and 6 reveal that many of these deserts overlap. For example, large swaths of Kansas, Nebraska, and Montana are in food, pharmacy, Starbucks/Dunkin', and Oasis deserts. In contrast, major cities have grocery stores, healthcare providers, pharmacies, coffee shops, Jaguar dealerships, and major concert venues nearby. In a free society, people can move and self-select where to live. Those who want the convenience of having things close by can live in the city, while those who don't mind travelling long distances can live in rural areas. And in fact, this is an efficient sorting of people based upon individual preferences.

These three recognitions all undermine any concerns about the negative impacts of such deserts. But, another possible objection is that some of these deserts are clearly much more important than others. Afterall, many would claim that food and healthcare are essential while having access to specialty coffee, a Jaguar, or an Oasis concert is trivial. Here again, I disagree. Such a claim displays tremendous hubris, since it presumes knowledge of what must be best for other people. To borrow a phrase from the economist Friedrich Hayek, part of the "curious task of economics" is to gain insight on how people can best make decisions to increase their wellbeing. Value of a consumption good/service is subjective and can only truly be known by the consumer.

All the things discussed above are generally "goods" in that people would like to have access to them. But in a world of scarcity, consumers face tradeoffs and cannot have everything

they desire. At times, the most important things to some people might be fresh produce or a prescription drug or a medical procedure. But at other times that very same person might want a new car or a cup of coffee or concert tickets – after all, each of these brings pleasure. It is quite pompous to elevate the items on the former list while relegating those on the latter (simply because they seem – in your opinion – to be less important). In fact, given my life experiences to date, faced with a choice between Oasis concert tickets or a colonoscopy in 2025, I'll take the concert tickets. (Although, who knows, when I'm in Mexico City, maybe I'll splurge for an out of network colonoscopy – a certain Bagwell Center colleague has tried to convince me of the benefits of paying out of pocket for healthcare south of the border).