One of the questions I get asked most is, “Which lens should I buy next?” Of course, I have to ask a question of my own before I can answer that question, and that is, “How stable is your marriage?” I ask that because if you have a really stable marriage—one that’s based on trust, caring, compassion, and a healthy fear of handguns—it’s entirely possible that it can endure having one of you become a serious photographer. Otherwise, I refuse to answer the lens question, because having a serious photographer in the family is going to seriously test the strength of your marriage. For example, there will come a day when you’ll be faced with the decision of whether to get that new super-sharp, fast f/2.8 lens or to stay married. That’s because, in most marriages, one spouse controls the funds, and it should never be the spouse that’s into photography, because there will come a day, mark my words, where you’ll be holding your mortgage payment book in one hand and the B&H Photo catalog in the other, and you’re going to be faced with a moral dilemma that will test the very mettle of your commitment to your spouse, family, and friends. You’ll start to ask yourself crazy questions like, “How would we do living on the streets?” and “Would our friends sneak us food?” and “I wonder if they’ll throw in a free polarizing lens?” These are not the kinds of questions you want to be asking yourself at this stage of your life (by the way, the more expensive the lens, the more free stuff you should try to get thrown in). Anyway, if one day you’re faced with one of these really tough decisions, I’ll give you the same advice I gave my own daughter, “Honey, you can always find another husband, but a great sale on some really fast glass only comes along once in a lifetime.” (I didn’t say those exact words, but it was definitely implied.)
When to Use a Wide-Angle Lens

A regular wide-angle lens (as opposed to a “super wide”) is around 24mm to 35mm, and it’s just about a must if you’re shooting landscapes, because the wide aspect takes in more of the scene (think of how much more wide-screen video takes in—it’s kind of like that). Wide angle is also very popular for shooting environmental portraits (the type of images you see in magazines when they’re doing a feature on a celebrity, politician, or a business exec, where the portrait takes in a lot of their surroundings). For example, if you’re shooting a fireman in the fire station, with wide angle, you include a little, or a lot, of a fire truck in the shot, as well. They’re also great anytime you want to create a view of something—just get in real close and things get interesting. You can buy wide-angle zooms (which are what I prefer) that zoom from wide-angle to normal (like a 24–70mm), or even a super-wide zoom that goes from 12–24mm. I GRAB THIS LENS FIRST WHEN...I’m going to shoot landscapes using a non-full-frame camera body.

Scott’s Gear Finder

- Wide-Angle AF Nikkor 24mm f/2.8D Autofocus Lens (around $360)
- Canon Wide-Angle EF 24mm f/2.8 Autofocus Lens (around $310)
- Sigma 28mm f/1.8 Lens (around $380) [for Nikon, Canon, and others]
The Truth About Lenses

When to Use a Fisheye Lens

These are well named, because they give you an incredibly wide, almost circular view (and the lens itself bulges out like a fish's eye, but honestly I don’t know if the lens was named for how the lens looks, or for how the photo it takes looks). This is definitely a special-effects lens that you want to use occasionally, because the fisheye look can get old fast if you use it too much. However, in the right circumstance, it looks really fascinating (try holding it up high over your head when you’re in a crowd, or at dinner in a restaurant, and shooting straight down). One thing about fisheye lenses is that they do distort the horizon line quite a bit. For the minimum amount of distortion, try to keep the lens level in front of you, but if you want more creative looks, then all bets are off—just have fun with it. I GRAB THIS LENS FIRST WHEN…I’m going to be in a crowd, when I’m shooting up high in a sports stadium and want to take the whole thing in, or when I’m shooting skyscrapers and want to get them all.

Scott’s Gear Finder

- Nikkor AF 10.5mm f/2.8 Fisheye Lens (around $700)
- Canon EF 15mm f/2.8 Fisheye Lens (around $660)
- Sigma 10mm f/2.8 Fisheye Lens (around $700) [for Nikon, Canon, and others]
When you want to get up close and in tight, this is the ticket. Now, you could just get a telephoto lens (one where the length is fixed, like a 200mm telephoto), and not a telephoto zoom (where you can zoom in from one length, like 80mm, all the way through to a really close view, like 300mm), but then if you hold the camera up and you’re either too close, or too far away, your only option is to physically move up close, or back up. With a telephoto zoom, you can simply zoom in tighter, or zoom out if you’re too close, which makes all the difference in how you’ll compose your shots. I use telephoto zooms for everything from portraits to sporting events to architectural shots (I prefer to zoom in and focus on an interesting aspect or individual part of the building, rather than trying to show the whole thing at once). I GRAB THIS LENS FIRST WHEN...I’m shooting portraits or sports.

Jump Start Your Creativity By Using Just One Lens

The next time you’re in a creative rut, try going out shooting and use just one lens the entire day (or if all you have is a zoom lens, try picking one end of the zoom [wide] or the other [telephoto] and shoot at that one focal length the whole day). Not having the lens you need for a particular shot forces you to get creative.
If you want to shoot indoors without using flash (like in a church, museum, theater, or anywhere flash and/or tripods aren’t allowed), then you need a really fast lens (which just means a lens whose f-stop goes to a very low number, like f/1.8 or, better yet, f/1.4. The lower the number, the lower light you’ll be able to shoot in without using a tripod). Here’s why this is so crucial: when you shoot in a dark place, the only way your camera can make a photograph is to slow down your shutter speed, so more light makes its way into your camera. That’s not a problem if your camera is mounted on a tripod, because it’s perfectly still, however, if you’re hand-holding your camera (which is going to be the case in almost every church, museum, etc.), and your shutter speed falls below 1/60 of a second, you’re going to have photos that look okay on the back of your camera, but when you open them later on your computer, or have them printed, they will be incredibly blurry and basically unusable. So, by setting your camera to f/1.8 or f/1.4, you’ll be able to hand-hold in lots of places and have sharp, clear images where normally they’d be blurry as heck. In this case, less (a lower number) is more. I GRAB THIS LENS FIRST WHEN…I’m shooting a wedding.

If You’re Really Serious About Getting Sharper Images, Try This Trick!

You can use the same technique sharpshooters (with rifles) use to minimize any movement while firing—they hold their breath. That’s right. When hand-holding, some pro photographers only shoot after they exhale (or they take a deep breath and hold it, then shoot). This minimizes body movement, which minimizes camera shake.
Although you see this lens used in creative ways for everything from portraits to travel photography, this is really a lens born for landscape photography. In fact, it’s so wide it may be the ultimate lens for landscape photography (if you’re a DVD or Blu-ray movie buff, think of a super-wide-angle lens like anamorphic wide screen). These lenses go as low as 12mm, and my favorite is my 14–24mm f/2.8 lens. If you find a lens below 12mm (like an 11mm, or 10.5mm), it usually means that it’s a fisheye lens (see page 59), so I would stay away from that for most serious landscape work. Now, if you have a dSLR with a full-frame sensor, and you use a wide-angle zoom that’s made for full-frame sensors (like a Nikkor 14–24mm f/2.8), it will capture a much wider image than it would if you used that same lens on any regular dSLR that isn’t full frame (see page 72 for more on full-frame vs. regular), or if you used a regular lens on a non-full-frame camera. (This is where full-frame cameras really shine—when you want to go wide. In fact, when it comes to lenses, wide-angle is probably where you see the biggest improvement, because you get a really, really wide view with full-frame cameras.) I GRAB THIS LENS FIRST WHEN...I’m shooting landscapes.
We call this “the long glass” (because the lens barrel itself is often very long), and it’s designed to get you in really tight on whatever you’re shooting. Typical focal lengths for these lenses would be from around 300mm up to around 600mm (or higher). They are mostly used for sports photography, aerial photography, and for shooting wildlife and birds. You can buy fixed focal lengths (like a Canon 400mm f/5.6), but they also make super-telephoto zoom lenses, as well (I use a Nikkor 200–400mm f/4 zoom myself). If you want a lens that will shoot in lower light (like an f/4 or an f/2.8), it can get really pricey (for example, the Canon 500mm f/4 lens runs around $5,800)—they’re so expensive because the very low f-stop lets you shoot in lower light, like a night game, and still freeze motion. However, if you generally shoot sports in the middle of the day, in nice bright sunlight, then you can get away with buying a less expensive super-telephoto lens (like the Canon zoom telephoto EF 100–400mm f/4.5–5.6 for around $1,460). Also, if you buy a long lens, you’re usually going to need a monopod to support it (your monopod screws into a hole on a bracket on the lens, and your camera is supported by being attached to the lens. It works much better than it sounds). I GRAB THIS LENS FIRST WHEN...I’m shooting sports.
I talked briefly about teleconverters back in volume 1, because they're such a handy and relatively inexpensive way to get you in tighter to the action. What these do is zoom your whole lens in a little closer, usually either 1.4x closer, 1.7x closer, or even 2x closer (though I only recommend the 1.4x teleconverter, because the quality doesn't change noticeably like it does with a 1.7x or 2x extender). As long as you buy a quality teleconverter (both Nikon and Canon make very good ones), there's only one potential downside, and that is you lose around one stop of light for a 1.4x (more for higher ones). So, if the lowest number your lens would go was f/2.8, when you add a teleconverter, now the lowest number is f/4. I say potential downside, because if you shoot in broad daylight, losing a stop of light isn't a big problem for you. But, if you shoot under stadium lighting at night, then it's a problem, because you can't afford to lose that stop of light—it might mean the difference between sharp shots and blurry movement. I GRAB A TELECONVERTER FIRST WHEN...I'm shooting sports or wildlife in bright daylight.
Lenses with VR or IS Built In

Lens manufacturers know that people have a hard time hand-holding their cameras in low-light situations, so they started adding features that automatically help keep the lenses from moving, so you get sharper shots in low light. Nikon calls their brand of this “anti-movement” technology VR, for Vibration Reduction, and Canon calls theirs IS, for Image Stabilization. They’re both well-named, because that’s what they do—they hold your lens steady for you, so you get sharper shots, but it really only makes a difference when you are shooting at a slow shutter speed (you’ll get no improvement when you’re shooting in broad daylight, because your shutter speed will be so fast [which freezes any motion], that there’s no reason for VR or IS to kick in). What VR and IS do is let you hand-hold in lower light situations, so if you wind up shooting a lot in churches, museums, theaters, and other low-light locations, you should probably keep an eye out for VR or IS lenses (they usually cost a little more). Also, you won’t often find this feature in already very fast lenses, like an f/1.8 or f/1.4.

One more thing: if you’re shooting on a tripod, you should turn VR or IS off (there’s a switch on the lens) to reduce any shake caused by the VR or IS searching for movement.

Using Active VR for Nikon Users

If you’re a Nikon shooter, your VR lens may have a setting called Active, and that only needs to be turned on when what you’re standing on is moving (if you’re shooting from a boat, or a moving car, or a suspension bridge, etc.).
There are literally hundreds of different filters you can slap on the end of your lens to either fix a problem (like to help you capture something your camera can’t expose properly for) or create a look, but I only own three filters, and one of them I don’t really use as a filter (more on that in a moment). They are:

1. A Neutral Density Gradient Filter. This is mainly for people shooting landscapes, and it fixes a problem that happens when you expose for your foreground in a landscape shot and the sky gets totally washed out. You put this in front of your lens, and it darkens just the sky, so the sky looks right and the ground in front of you looks right (see Chapter 5 for more on this filter).

2. A Circular Polarizer (shown above). Another landscape filter, and one no landscape photographer should be without. While it’s designed to greatly reduce reflections in things like lakes and streams, which it does brilliantly, most folks use it to darken the sky. It’s like putting a pair of sunglasses over your lens. The world looks less annoyingly bright.

3. A UV Filter. Technically, this filters out unwanted UV rays from your lens, but what we all use it for is to protect our lens from getting scratches on it. Putting this filter on puts a thin piece of glass between your lens and anything that would scratch, or worse yet, break it. They’re very cheap, so if one breaks or gets scratches, you just replace it. Life goes on. Get a scratch on one of your lenses, and they’ll hear you weeping six blocks away. I buy a UV filter for every lens I own.
Besides making your lens look longer and “more professional,” a lens hood serves two very important roles (one advertised, one not as much). The first is that the lens hood helps keep lens flare from the sun, or from a flash, from getting to your lens and washing out your photos. Most good quality lenses these days come with a lens hood that is specifically engineered to work with that particular lens. The other, less publicized, use is to protect your lens from getting scratched or broken while it’s slung over your shoulder as you walk around. I can’t tell you how many times I’ve banged my lens against a chair, the end of a table, even a wall when coming around a corner, but all I ever hear is the sound of plastic, and it bouncing right off. If I didn’t have a lens hood, I’m certain I would have had a number of scratched or broken lenses, but so far—not a one. I keep my lens hood on all the time. Besides, they look cool (don’t tell anyone I said that). By the way, you can turn your lens hood around, facing back toward you, when storing it in your camera bag, or when it’s not in use. I GRAB A LENS HOOD...anytime one comes with my lens, and I keep it on always.
Chapter 3

The Digital Photography Book

When to Use a Macro Lens

This is the lens you pull out when you want to shoot something really, really close up. Ever see those photos of bees really close up, or flowers, or ladybugs? That’s macro. Dedicated macro lenses just do that one thing, but they do it really, really well. There are a few things you need to know about macro lenses:

(1) They have an amazingly shallow depth of field. So shallow that you can be shooting a flower, and the petal in the front will be sharp and in focus, and a petal on the other side of the flower will be so out of focus you can barely make out what it is. That shallow depth of field is one of the things that I love about macro lenses, but it’s also a challenge when you’re trying to get more things in focus (try shooting at f/22 to get as much in focus as possible. Also, try keeping your lens horizontal and not angling the lens up or down when you shoot for a little more depth).

(2) Any little movement or vibration will mean an out-of-focus photo, so I definitely recommend shooting on a tripod if at all possible. Using a cable release of some sort, so you don’t actually have to touch the camera (possible vibration maker), will also help (see volume 1 for more on cable releases).
This is a specialty lens if there ever was one! This is used primarily for shooting architecture, because you can shift part of the lens itself to keep your buildings from looking distorted as they climb upward. Serious architectural photographers swear by these, and many won’t shoot architecture without them. Of course, like any specialty lens—they’re not cheap.

If You Buy a Filter, Make Sure It’s the Right Size for Your Lens

The filter you buy has to fit your particular size lens (some lenses are larger around in diameter than others, so you have to make sure the filter you order is the same size diameter [measured in millimeters] as your lens). For example, my 18–200mm lens takes a 72mm filter, but my 70–200mm lens takes a 77mm filter. Want a great way to quickly find out the right size? Go to B&H Photo’s website (www.bhphotovideo.com), find your lens, and you’ll see a bunch of filter accessories listed below it. They will display the size used for that lens. Also, if you bought one filter and want to use it on a slightly different sized lens, you can sometimes buy a step-up or step-down ring adapter that will let you do that, and it will still work just fine.
How to Clean a Lens

If you get some dust, a smudge, dirt, etc., on your lens, something really bad is going to happen—that dust, or smudge, etc., is going to appear on every single photo you take with that lens. All of them. Every one! That’s why it’s important to clean your lenses before you go shooting for the day, and anytime you see a little “junk” on your lens. Most of the time, you can use a simple lens cleaning cloth, but before you do that, it’s best to first start by blowing any junk off the face of your lens (you can do that by just blowing with your mouth, but ideally you’d use a little hand-squeeze blower bulb), and then once any visible specks and dirt are blown away, you can clean the lens with the lens cloth by gently rubbing in a circular motion. You can get a lens cleaning kit for around $15, which includes a blower, a cleaning cloth, and particularly helpful is one that includes a LensPen, which has a little fine brush on one end, and a special cleaning tip on the other end. It works wonders.

Long Lenses Usually Come with Lens Collars

When you buy a long lens, they usually come with a special bracket on the bottom that lets you attach a monopod, but there’s something else you’ll love about these brackets that’s not apparent at first: unscrew one little knob and you can instantly rotate your camera to a vertical shooting position, while the lens stays put. This lets you switch from shooting wide to shooting tall in all of two seconds.
Most lenses let you turn off the autofocus feature and manually focus your lens, but a lot of today’s lenses actually let you do both: start by letting autofocus set your initial focus, but then override it and tweak your focus using the manual focus ring (usually found at the far end of the lens). There are photographers who do this every time (start with autofocus and then tweak it), but most (like myself) just rely on today’s excellent autofocus capabilities to do the work for them. If you want to tweak the focus yourself using the manual focus ring, just let autofocus do its thing first, and lock onto your subject before you start tweaking the manual focus ring.

**When to Use the Manual Focus Ring**

Over the years, I’ve run into so many photographers who have spent a ton on really fast lenses (like f/2.8 and f/4 lenses—usually the faster the lens, the more they cost), yet they either primarily, or only, shoot in the studio. This is just pretty much tossing money down the drain, because they probably rarely, if ever, shoot at f/2.8 or f/4 because they’re not shooting in low-light situations (after all, they’re in a studio—if they want things to be brighter, they just increase the power of their strobes). I guess the moral of this story is: if you don’t shoot in low-light situations, you don’t need expensive, really fast glass. Save your money for other studio gear and accessories (see, you thought I was just going to say, “Save your money,” but I had already allocated your savings to other fun stuff, like studio strobes).
You’ve probably heard by now that most digital cameras (and dSLRs) have a zoom factor. What that means is that the number of millimeters you read listed on the lens used with a digital camera is different than what you used to get with a traditional 35mm film camera. For example, if you put an 85mm traditional lens on a digital camera, it’s not really 85mm. On a Nikon, the lens is zoomed in by a factor of 1.5, so your 85mm lens is really giving you the results of a 127mm lens. On Canon cameras, it’s zoomed in by 1.6, so an 85mm lens is really more like a 135mm lens. This drives photographers who have moved from film cameras to digital cameras a little nuts, because to them, an 85mm should be an 85mm, but that’s just the way it’s always been. However, now the big buzz is around full-frame cameras, and what that means is that with full-frame cameras, an 85mm is an 85mm once again. There is no zoom factor, no multiplication—the lens is finally really what it says it is. Ahhhh, but there’s a gotcha! (Isn’t there always?) If you put a lens that was made for a standard digital camera (and most digital lenses are just that) on a full-frame camera, it zooms it (basically, it crops your photo down to the zoomed dimensions). What that means to you and me is if you buy a full-frame digital camera, you won’t get the advantage of a full-frame camera (at least when it comes to lenses), unless you buy lenses that are specially made for full-frame cameras. Now, that being said, some of the higher end, more expensive lenses do work fine with full-frame cameras and they don’t crop down the image. So, how do you know which ones do and which ones don’t? I put together a partial list for Nikon and Canon users at www.kelbytraining.com/books/digphotogv3.
Have you ever taken a shot, and then when you look at the shot on your computer, you notice that the corners of your image seem darker than the rest of the photo? It’s a fairly common thing, especially with some wide-angle lenses and some of the less expensive lenses. This is called “edge vignetting,” and it is a problem caused by the lens itself that winds up on your photos. Luckily, you can remove edge vignetting (also known as lens vignetting) in most image editing programs, like Photoshop, Photoshop Lightroom, Photoshop Elements, etc. For example, in Photoshop’s or Elements’ Camera Raw window, you can click on the Lens Corrections tab and you’ll see a section for removing lens vignetting. Drag the Amount slider to the right to lighten up the corners. The Midpoint slider below it determines how far into the photo the lightening extends, so if it’s just right up in the corners, you can drag the slider quite a bit to the left. If the darkening extends pretty far out into your photo, then you’d drag to the right. In just a few seconds, your vignetting problem is gone! If you use Lightroom, you have the exact same controls, which work exactly the same way, in the Develop module. Just scroll down to the Vignettes panel. If all this sounds a bit confusing, don’t worry—I made a quick little video just for you to show you what edge vignetting is and how to remove it. You can find it at www.kelbytraining.com/books/digphotogv3.
Why Some Lenses Have Two f-Stops (Like f/3.5–5.6)

When you see a zoom lens that has two different f-stops, what that means is that at the shorter range (let’s say it’s an 18–200mm lens, so we’d be talking about when you’re at 18mm), the f-stop can go as low as f/3.5, but when you zoom it out to 200mm, the fastest it can go is f/5.6. When you’re in between the two, the f-stop will gradually increase (so at 100mm, you might be at f/4). What this tells you is two things: (1) If you shoot at the wide-angle end (18mm), you’ll be able to shoot in much lower light than you can zoomed in at 200mm (the lower the f-stop of the lens, the darker light you can hand-hold your camera in and still get sharp photos). This also means (2) that this is a less-expensive lens. Really “good glass” (as it’s called) has a constant aperture (the same f-stop all the way through the zoom range), so the lens would be at, say f/2.8, whether you’re out at wide angle or zoomed in tight (for example, Nikon’s 70–200 f/2.8 VR lens can shoot at f/2.8 whether you’re zoomed out at 70mm or zoomed in tight at 200mm).

When You Need to Focus Really Fast, Turn the Focus Limit Switch On

Each time you use autofocus, your lens searches everything it sees, from a few inches in front of you to miles in the distance, and then it locks on what it thinks you’re aiming at. This takes just a second or two, but if what you’re shooting is really far away (you’re shooting sports or a bird up in a tree), you can switch your lens from Full focus to Limit, which tells it not to even try to focus on anything closer than around eight feet away. That way it focuses even faster, so you don’t miss the shot.
The Truth About Lenses

Tips on Changing Lenses

If you have more than one lens, you’ll probably be changing lenses in the field quite a bit, and if so, there are just a couple of things you should know. The first is that you generally don’t have to turn the camera off to change lenses. Although you’ll read some purists online who claim having the sensor still charged will attract dust and blah, blah, blah, I don’t know any pros who actually turn their camera off to change lenses. However, when you do change your lens, to keep dust from actually falling into your camera itself, don’t leave the open body of the camera facing straight up. That’s just askin’ for it. You’re better off tilting the body down toward the ground. Also, if you’re in a dusty or windy environment (let’s say you’re shooting in Arizona’s Antelope Canyon slots, where dust is constantly trickling down from the above), don’t change lenses at all—wait until you’re in a clear area first, and then do it. And, ideally, you don’t want to leave your camera body uncovered for long (again, to keep out dust), so don’t take five minutes changing lenses—take one off, and pop on the other. You don’t have to rush (you don’t want to risk dropping anything), but don’t dilly-dally either. (There’s a term you don’t hear every day.)

What to Do If Your Autofocus Suddenly Stops Working

First, check to see that you didn’t turn off the autofocus on your lens, but if it’s on, try this: just remove the lens, and then put it right back on again (called “reseating the lens”). This little trick has worked for me time and time again.
The most popular Nikon and Canon lenses are their 18–200mm zooms, because they do it all. They go all the way from a nice wide angle to a tight telephoto and you never have to change lenses at all. Best of all, they’re compact, pretty lightweight, and relatively inexpensive compared to some of the more expensive zooms with a smaller range. These are ideal lenses for travel photography (where you don’t want to lug a camera bag around with you all day), or for photo walks, for city shooting, and even for landscapes you’ll be shooting on a tripod. I have one of these 18–200mm lenses and, honestly, I love mine dearly. Now, you will see some photographers in forums online saying that these lenses are basically beneath them, because they’re not as sharp as they could be, or they’re not as rugged as the more expensive lenses, etc. Don’t let that throw you. I don’t know a single photographer that actually has one of these that doesn’t love it, mostly because when it’s on your camera, you’re never going to say, “Oh, I missed that shot because I didn’t have the right lens,” because it does it all in one lens. As for quality, I have a 30x40" print of a photo I took with that lens while on vacation, framed, and hanging in my home. Everybody loves it, and it looks perfectly sharp and crisp all the way through. I GRAB THIS LENS FIRST WHEN...I’m going on vacation.
When to Use a Lensbaby Lens

Before I tell you about this lens, I have to warn you: people get hooked on Lensbaby lenses, and I can’t tell you how many times a photographer friend I’ve known has bought a Lensbaby and then won’t take it off their camera. They shoot everything, from the birth of their child to a space shuttle launch, with it, because these lenses (which you focus and aim with your thumbs and forefingers) are just plain addictive. So, you know that going in. Lensbaby lenses give you one small area of your photo that is sharp and in focus, and then all the other areas around that sharp area quickly go way out of focus and blurry, which results in a look that can have a lot of energy, movement and excitement to it. Of course, the look is only part of it, because what really gets people hooked on it is that whole “move it yourself” thing. It just feels like you’re really “making a picture,” rather than just taking a picture. I GRAB THIS LENS FIRST WHEN...I’m in the mood to shoot something really creative.
There are certain lenses that have been referred to as portrait lenses, and I always get asked, "What's a good portrait lens?" That's a good question, and one that doesn't (like many things with lenses) have a single definitive answer. I would say that generally a portrait lens would be a fixed-length lens (so it doesn't zoom) that is between 85mm and 105mm. But, here's the problem (and where a lot of the mental fuzziness comes in): Back on page 72, I talked about the zoom factor and full-frame cameras. So, an 85mm fixed-length lens on a regular non-full-frame digital camera is actually more like a 120mm lens, right? See what I mean? That being said, you may remember that back in volume 2 I talked about how much better portraits look when shot with a longer lens because of the compression longer lenses give, which looks more flattering to the face (I showed a side-by-side comparison in the book). That's why you'll see so many fashion and portrait photographers shooting with 70–200mm lenses, and they're frequently out at the 200mm range for head or head-and-shoulders shots (especially if the model has dandruff. Sorry—I couldn't resist). I have shot with 85mm lenses on full-frame cameras, but I didn't like the look as well as I do an 85mm on a regular digital camera, so for my style, I like the 120mm range better. If you use a telephoto zoom, you can try both and see what you like. My point is you don't have to buy a portrait lens (whatever that means to you) to take pro portraits. Today's zooms do a beautiful job, and as long as you're over 100mm, I think you'll be pleased with the results.
You have to realize one thing about lenses—people get really “techie” about lenses, and they are a source of constant debate in online forums, where people get really condescending about which lenses they will or won’t use. One current debate is prime lenses vs. zoom lenses. There are people who swear that fixed-length lenses (lenses that don’t zoom—they are one particular length, and that’s it—and are more commonly called a “prime lens”) are visibly sharper than zoom lenses. I truly believe that at one point in time, this was absolutely the case. Zoom lenses were lesser quality, and primes were sharper (and generally they did, and still do, let you focus up closer). But I personally don’t think that’s the case with today’s higher-quality zoom lenses (not just any zoom, but a high-quality zoom, like one that’s f/2.8 all the way through). I think there are but a handful of photographers who, with the naked eye, can tell whether you took a particular shot with a zoom lens or a prime lens. I think it’s more of a perceived difference, not an actual difference, but again, this is what creates these drawn out debates. This is going to send people who want to believe there’s a big difference into a rage, but I’ve talked directly with manufacturers who make both the prime and zoom lenses themselves, and they’ve told me, point blank, that with today’s higher-quality zoom lenses, there is no visible sharpness difference between zooms and primes. That being said, I do own two prime lenses. They are both very sharp. So are my good zooms. Either way, this isn’t something to get hung up on. It’s just a lens. Not a religion.
I mentioned this in volume 1, in the chapter on getting really sharp photos, but I couldn’t do a chapter on lenses and not include this really important technique. In short, each lens has a sweet spot—a particular aperture where the lens takes the sharpest image it can take. Where is that sweet spot? Usually, it’s two stops above the lowest number your lens can go. So, for example, if you have an f/2.8 lens, then its sweet spot would be two stops above that, at f/5.6. Will your photo look sharper at f/5.6 than it will wide open at f/2.8? Yup.

When talking about lenses, if you hear the term “wide open,” that means that you’re shooting at the smallest number on your lens, like f/2.8 or f/4. Of course, you could just say, “I was shooting at f/4,” but it doesn’t sound nearly as cool as saying, “I was shooting wide open at f/4.” Hey, you’re snickering now, but wait until you’re at one of those at-home lens parties, and you casually drop a “wide open” in there. You’ll see the hostess drop her lens hood.
It’s bound to happen. You’re going to have a friend who’s a serious photographer, and you’ll hear that he’s using a fisheye lens to shoot executive portraits or a 400mm super-telephoto lens to shoot baby photos. Then you’re going to say, “But Scott said fisheyes aren’t for portraits, and you should use a portrait lens for babies!” Here’s the thing: if you buy any one of those lenses, you’re going to try it out on other stuff. In fact, you should—it’s your lens and you should try it on as many things as you’d like. That’s half the fun of it. You may find yourself enjoying taking fisheye shots in a courtroom, and tilt-shift lens shots of your kid’s high school graduation. In fact, your tilt-shift lens may become your go-to lens for shooting graduations, and there’s nothing wrong with that. What I hoped to do in this chapter is send you in the right direction and give you a starting point for what type of lens is commonly used for what, but because it’s a lens, it will take a photo of anything you aim it at when you press the shutter button. So, don’t feel bad (or feel it’s wrong) if you use a lens that’s commonly used for one thing on something completely opposite. There’s a name for doing stuff like that: creativity. Have fun with it, and don’t get put aside by all the lens bullies. It’s your lens. Fire away!