

COMPARISON OF ONLINE GLASSES RETAILERS

By

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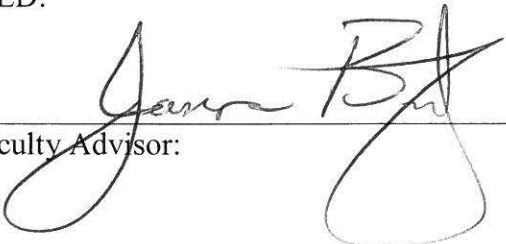
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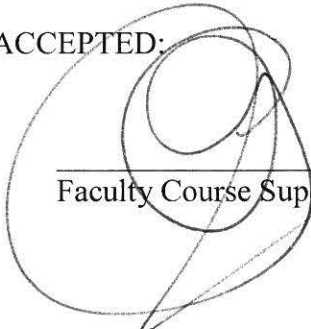
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TESTING AIDS EDUCATIONAL METHODS FOR INMATES

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ABSTRACT

Background: Patients today have many options to purchase eyewear. Online purchasing of eyewear has gained a reputation of offering convenience, fast delivery, and low prices, yet has been plagued by poor quality and inaccurate optics.

Methods: This project will assess prescription eyewear ordered through online retailers on three criteria; cost, quality and ease of ordering. We will order a total of twenty pairs of single vision eyewear; two pairs from ten different online vendors. We will evaluate the cost of the eyewear based upon the advertised base price versus the actual price as ordered. The quality of the product will be measured by adherence to national standards, overall accuracy of the options ordered, bench alignment of the eyewear once received, speed of delivery, quality of frames and care items for the eyewear (i.e. case, cleaner, microfiber cloth, etc.). The ease of order will be measured by investigating the number of options offered, the method of obtaining critical lens measurements and the ability to bill vision insurance.

Results: Overall, glasses ordered from online retailers were mostly within American National Standard Institute (ANSI) tolerances and would be useable by the general public.

Conclusion: Online eyewear retailers offer many of the same features of traditional private offices and can carry a larger and more affordable array of frames.

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CHAPTER 1

INTRODUCTION TO ONLINE GLASSES RETAILERS

The Internet has revolutionized commerce. From Amazon to Zappos, pretty much anything can be bought online; including items once thought to be too custom such as eyeglasses, can be sold on a mass-market scale¹. There is a plethora of online glasses retailers boasting competitive prices and vast selections. Many online glasses retailers offer the same lens materials and coatings, but can offer more frames than would be practical for a brick and mortar optical to carry². Convenience is also a factor. Consumers are able to shop across competitors with the click of a button. Not only can consumers compare offerings from competitors, but they can also filter search results by color, shape, brand, and many other parameters; making finding the perfect pair of glasses incredibly easy. Additionally, shoppers are able to take as much time as they like picking out their frames instead of having the sales associate follow them around the frame showroom. For those who like to see what frames look best on them, many online retailers offer virtual try-on³. Simply upload a picture of yourself and the software gives you a preview of what the frames will look like. Some online retailers go as far as to send five frames for you to try on in the comfort of your own home. Price conscious shoppers have long turned to the Internet to find the best deals. There are several online glasses retailers who cater to the thrifty shopper. Introductory offers, free shipping and returns, and money back guarantees abound online⁴.

With all the advantages online glasses retailers have it would seem that private practices should be prepared for the worst. This article aims to evaluate the experience of purchasing glasses online and determine if brick and mortars are a thing of the past.

CHAPTER 2

METHODS OF ORDER AND MEASUREMENT

To begin evaluating the experience of purchasing glasses online we first had to determine which retailers to purchase from. A list of ten of the most popular online glasses retailers was compiled from an online search using several different search engines. Three different individuals compiled a list of top ten vendors from their own searches. From there, a final list of ten online retailers was selected from the most common search results. Two complete pairs of glasses were purchased from each site for a total of twenty pairs of glasses. Orders were placed in two rounds. The first round of purchasing was done on the same day and as close to the same time as possible. The second round of ordering took place approximately two weeks later and in the same manner as the first round. The glasses were outfitted in all the premium options such as high index material, anti-reflective coatings and photochromic lenses, if available. Once the eyewear was received it was measured against several parameters to determine overall quality. To reduce errors in measurement three different individuals verified the glasses.

CHAPTER 3

RESULTS OF ONLINE GLASSES RETAILERS

Of the many criteria the selected retailers were judged on, price might be the most important to the consumer. Each pair of glasses was ordered with photochromic and anti-reflective lenses if the option was available. Figure 1 shows the advertised price (if there was one featured) and the actual cost of the first and second pair, respectively.

	Advertised Price	Actual Cost of Pair 1	Actual Cost of Pair 2
Warby Parker	\$95.00	\$245.00	\$245.00
Zenni	\$6.95	\$114.85	\$104.85
Coastal	N/A	\$330.00	\$305.00
Eye Buy Direct	\$6.00	\$184.00	\$128.35
Frames Direct	N/A	\$217.50	\$236.88
Glasses.com	\$160.00	\$246.40	\$216.50
Ottica.com	N/A	\$144.00	\$172.00
Glassesusa.com	\$26.00	\$164.50	\$202.10
Goggles4you.com	\$6.95	\$58.95	\$43.68
39dollarglasses	\$39.00	\$153.85	\$123.85

Figure 1. Advertised Price and Actual Cost of Ordered Glasses

It is worth noting that all of the glasses cost more than the advertised base price, if there was one. Based on our small sample size, it's safe to say you can expect to pay considerably more than the advertised price for a complete pair of single vision glasses with premium lenses. Overall, Goggles4you.com was the most affordable with both pair coming in at less than \$60, followed closely by Zenni.com where both pairs

cost a little over \$100 each. At the other end of the spectrum, Coastal.com was the most expensive, costing a little over \$300. Warby Parker, Frames Direct, and Glasses.com were all similarly priced at just under \$250 for each pair of glasses ordered. Figure 2 compares the cost of a complete pair of glasses with premium lenses across the ten selected retailers.

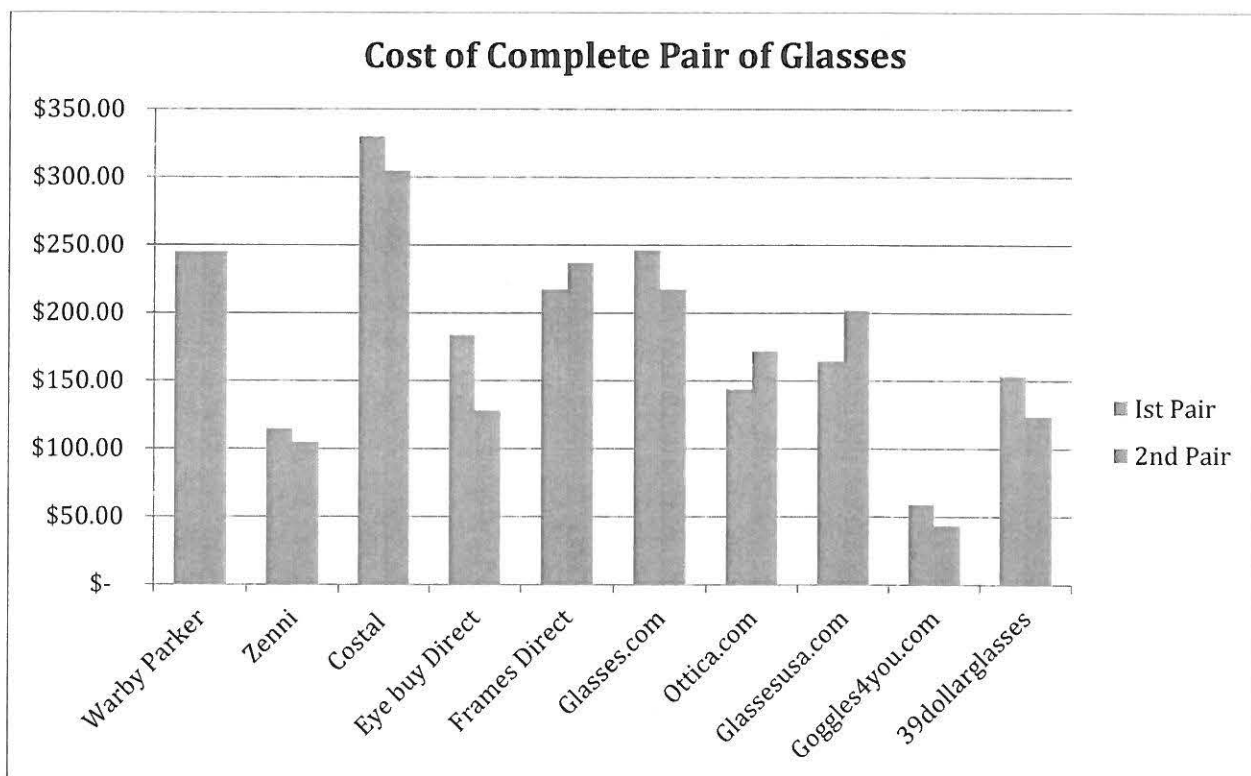


Figure 2. Cost of Complete Pair of Glasses by Retailer

The cost of the glasses used in this study ranged from a little over \$300 to less than \$50. The average cost of a complete pair of glasses was \$181.91 (see Figure 3).

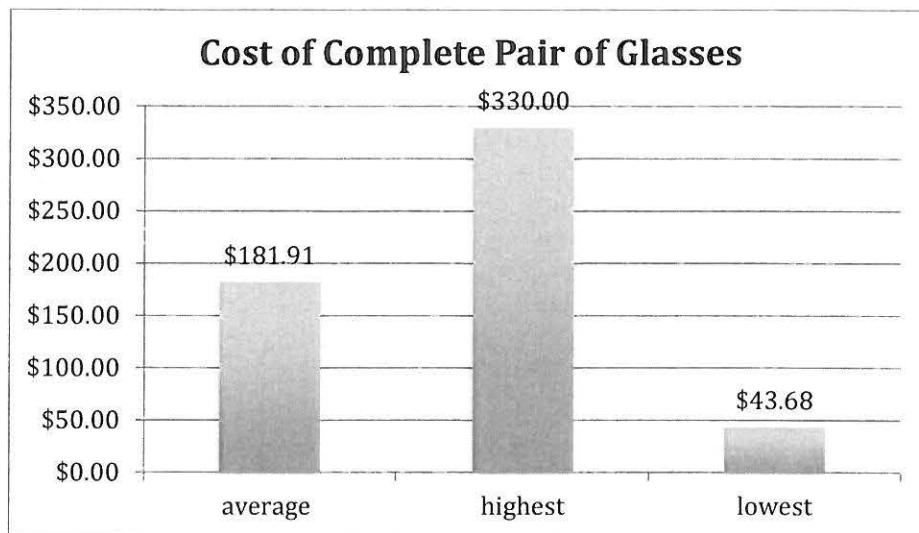


Figure 3. Price Range for a Complete Pair of Glasses

Figure 4 shows the delivery time of the first and second pair of glasses in business days. The average time from order to delivery was twelve business days.



Figure 4. Delivery Speed for First and Second Pairs Across Retailers

The packaging ranged from cardboard packed with packing peanuts to bubble mailers. All orders were shipped with a case and a cleaning cloth with the exception of the orders from Eye Buy Direct which came with a box. None of the retailers included cleaning solution except for Ottica, which supplied two single use alcohol-cleaning pads. Both Eye Buy Direct and 39dollarglasses.com included a screwdriver kit with both flat and phillips heads for repairs.

Once all the orders had been received, several parameters were measured including accuracy of prescription, center thickness, edge thickness, edge polish, presence of a safety bevel, and standard alignment. Figure 5 shows the accuracy of the ordered prescription based on ANSI standards for sphere power, cylinder power, and cylinder axis.

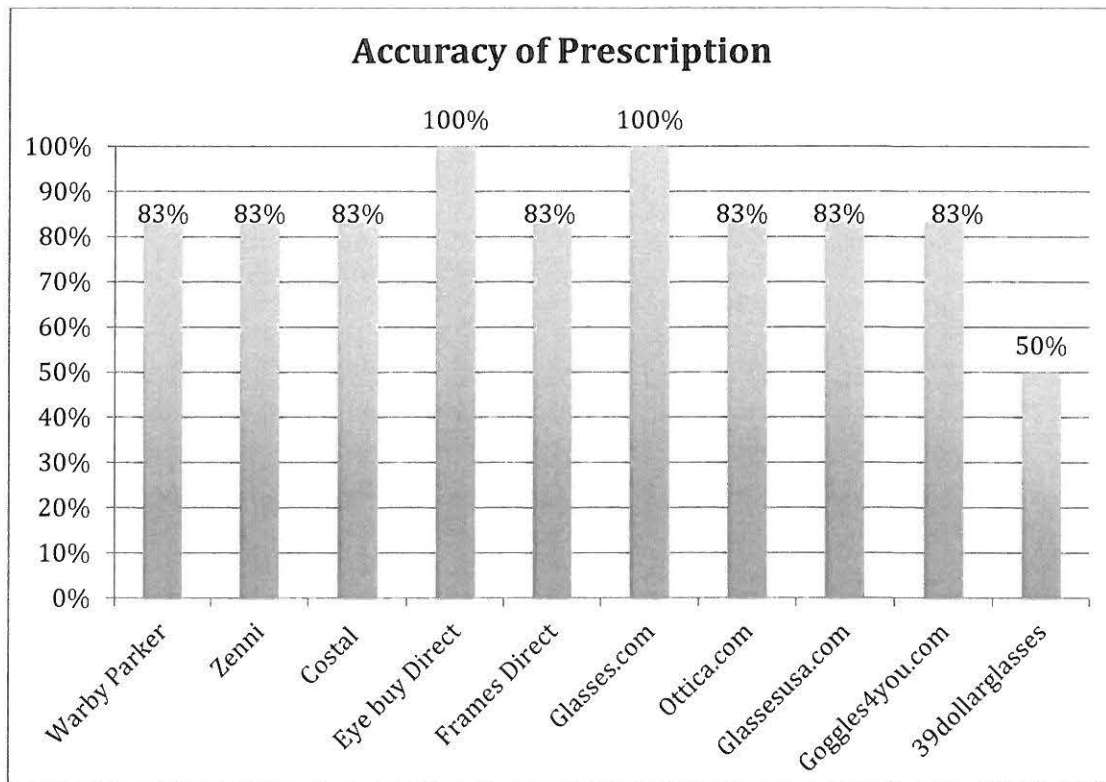


Figure 5. Accuracy of Prescription by Retailer

Both Eye Buy Direct and Glasses.com arrived within ANSI standards for sphere power, cylinder power and axis. Of the glasses that did not meet ANSI standards, cylinder power was the most common parameter that was out of tolerance. It is worth noting however, that cylinder power was never more than $\pm 0.25D$ out of tolerance. Another common parameter that fell out of tolerance was center thickness. Five of the twenty glasses ordered had center thicknesses below the ANSI standard. From a cosmetic perspective, edge polishing was also only present on five of the twenty glasses ordered and only one was made without a safety bevel. Additionally, seven of the twenty arrived out of standard alignment, mostly due to lack of 4-point touch.

Most of the retailers had several lens materials to choose from, most commonly CR-39, polycarbonate, and some form of high index material. Figure 6 shows the number of material choices by retailer.

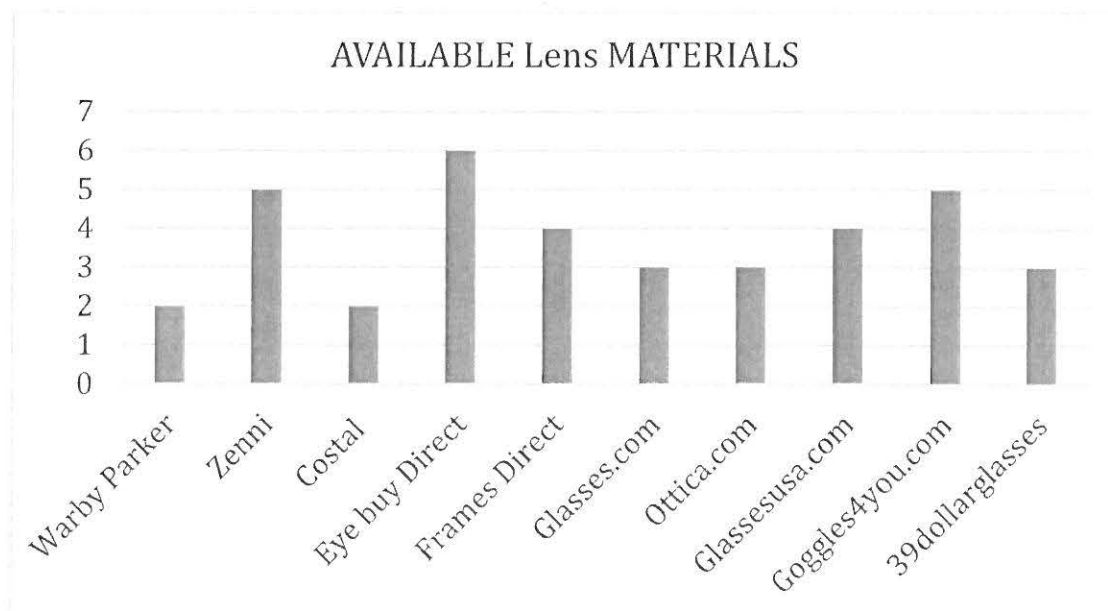


Figure 6. Number of Available Lens Materials

Eye Buy Direct had six lens materials to choose from including several high index options. None of the retailers selected offered aspheric lenses, but all had options for photochromic lenses and anti-reflective coatings. Tinting was available from several retailers for an additional fee. Tinting options between the retailers ranged from several colors in either solid or gradient options to only three choices. Six of the ten retailers could accommodate prism for an additional fee ranging from \$5 per lens to \$30 per order.

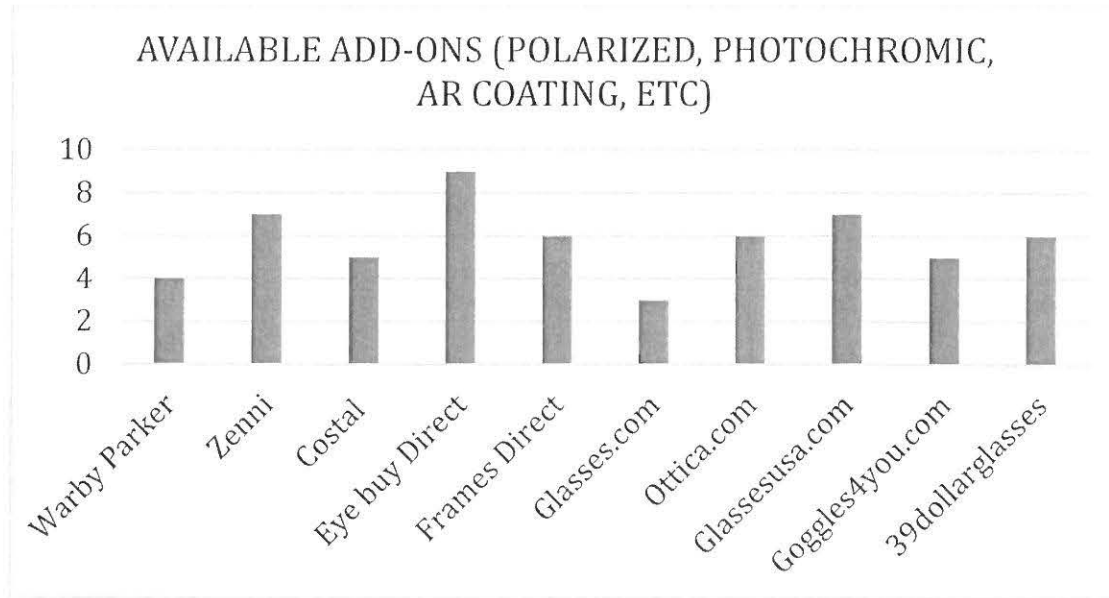


Figure 7. Number of Available Lens Add-ons

In terms of number of frames to choose from Frames Direct had the most options for both men and women, by far. Zenni and Glassesusa.com were a distant second and third, respectively. The vast majority of men's metal frames were standard metal. The second most common metal frame material for men was titanium. A few men's metal frames were available in stainless steel, and even fewer were available in memory metal.

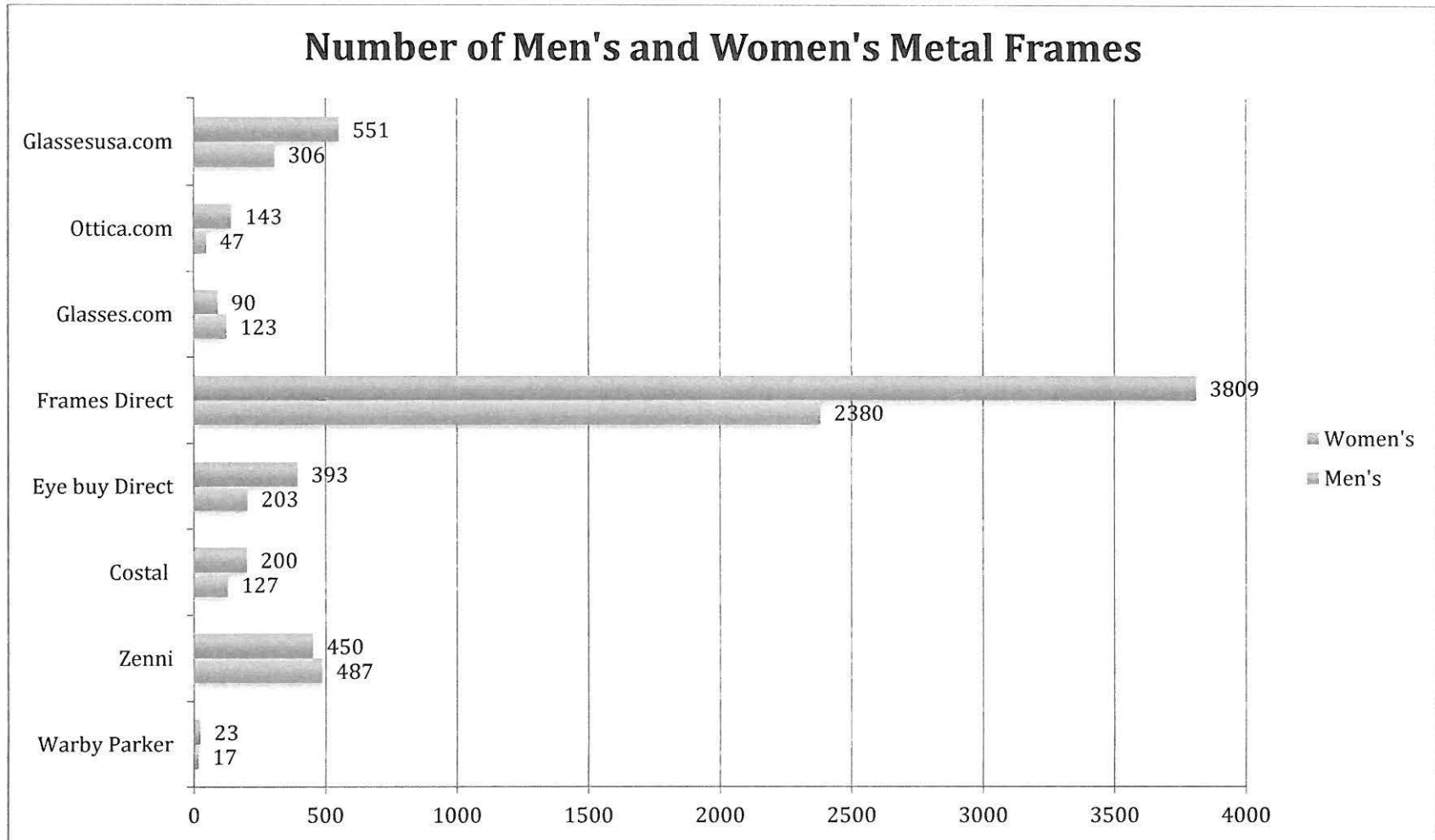


Figure 8. Number of Men and Women's Metal Frames by Retailer

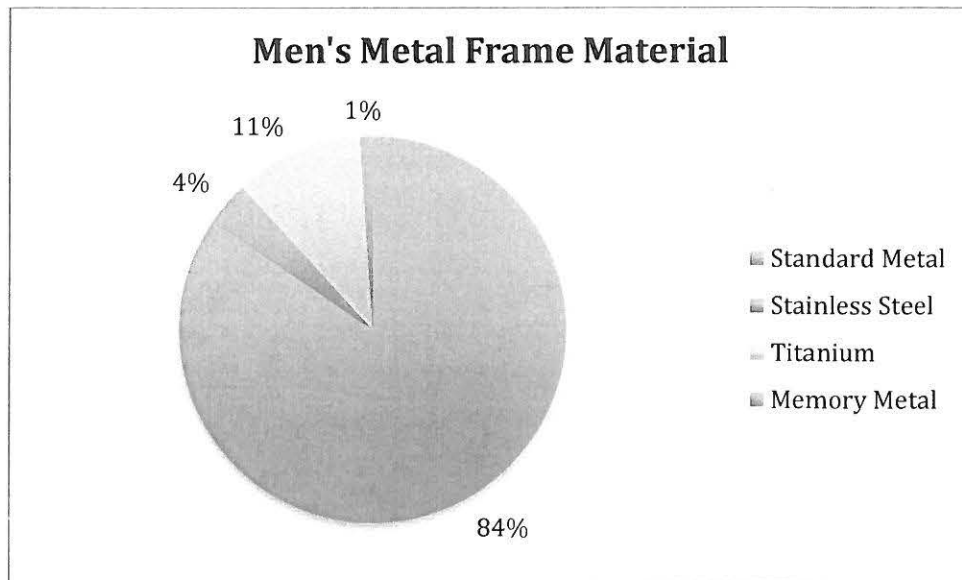


Figure 9. Percentage of Men's Metal Frames by Material

Women's standard metal and stainless steel frames were available in nearly equal percentages. There were no women's frames available in memory metal and only a small selection made from titanium.

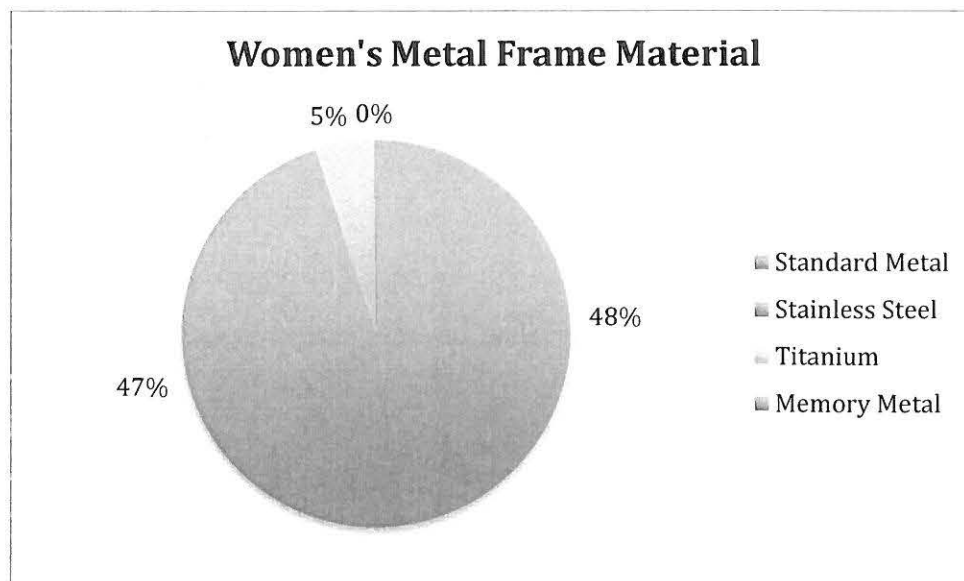


Figure 10. Percentage of Women's Metal Frames by Material

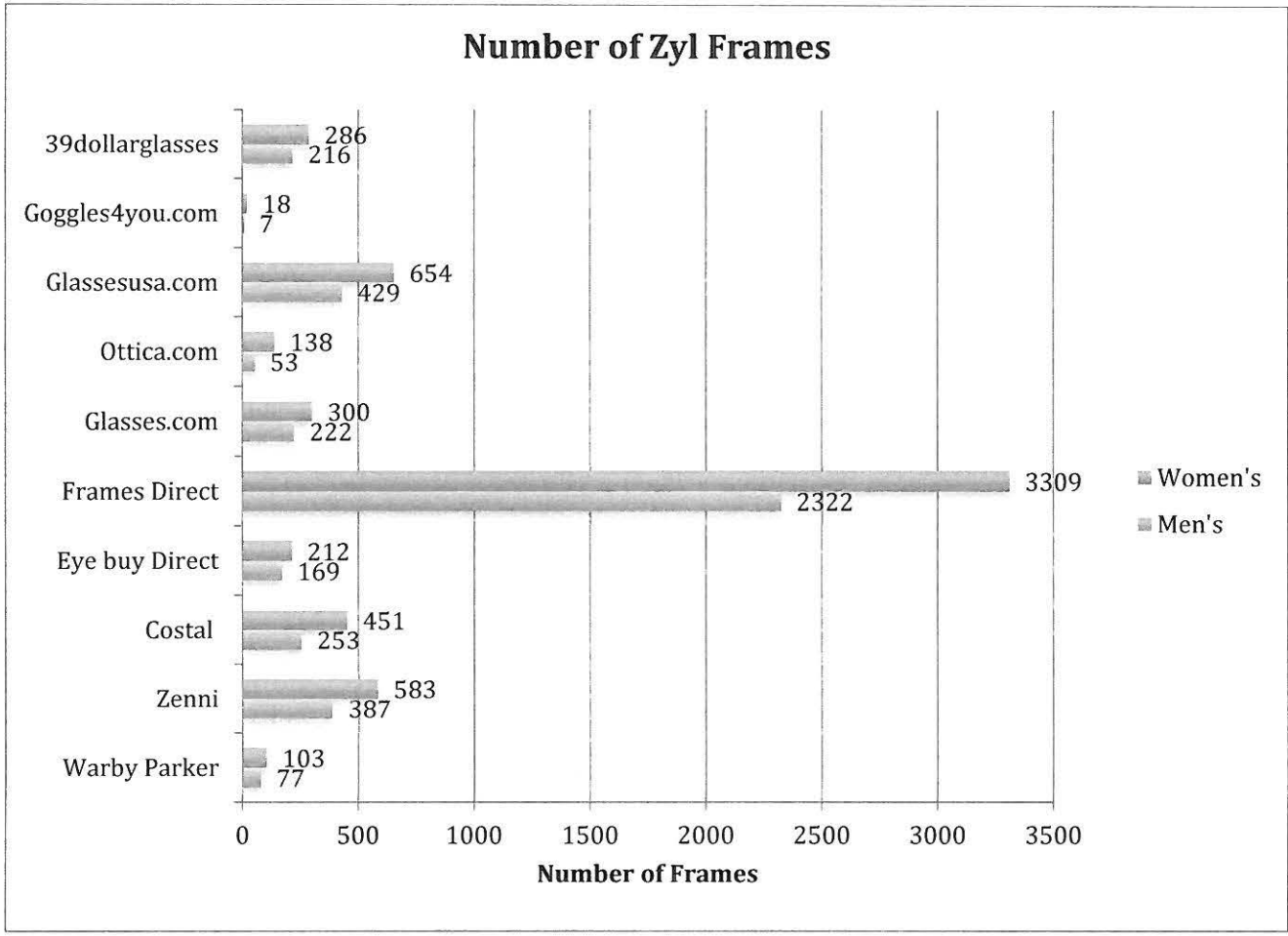


Figure 11. Number of Zyl Frames by Retailer

Customer service features common among the selected retailers included live help line and money-back guarantees. Of the ten retailers selected, eight had 30-day return policies where an order could be returned for a full refund, no questions asked. Eye Buy Direct and Glassesusa.com both had 14-day return policies. Frames Direct and 39dollarglasses.com were the only two retailers to not feature a live chat line for customer assistance. Warby Parker was the only retailer to feature a “Home Try-On” program where they will ship you up to five frames to try on in the comfort of your own home. Other retailers have the ability to upload a picture of your face to get an idea of what the frame will look like.

CHAPTER 4

DISCUSSION OF THE IMPACT OF ONLINE GLASSES RETAILERS ON PRIVATE OFFICES

To point to the shortcomings of the ordered eyewear as a sign that private offices have nothing to fear from online glasses retailers would be disingenuous. For the most part, the average person would have no problem wearing the glasses we received. No parameter was so far off that it would have a detrimental effect on the wearer's vision. However, in order for brick and mortar opticals to compete with online retailers they have to differentiate themselves based on service and quality². The private practitioner should avoid wasting energy capturing the business of the price conscious patient. The loyalty of the price conscious shopper is to the best deal, not necessarily to the practitioner. Competing with online retailers will be a difficult proposition for most private offices. High levels of service will be the distinguishing factors. Patients will always require emergency repairs and adjustments; something that online retailers will never be able to accommodate⁵.

However, some patient's will inevitably prefer to shop for their eyewear online for the convenience and the affordability. With that in mind, the authors of this paper have assembled the top three online glasses retailers based on price, number of frames available, accuracy of prescription, and shipping speed.

	<p style="text-align: center;">Frames Direct</p> <p>Pro: Largest Frame Selection</p> <p>Con: Moderately Expensive</p>
	<p style="text-align: center;">Glasses USA</p> <p>Pro: Lots of Lens Customization</p> <p>Con: Slow Shipping</p>
	<p style="text-align: center;">Zenni</p> <p>Pro: Relatively inexpensive</p> <p>Con: Slow Shipping</p>

Figure 12. Top Picks for Online Glasses Retailers

Overall, Frames Direct was determined to be the best online glasses retailer primarily because of the enormous frame selection. Their inventory dwarfs that of other retailer's in this study. Frames Direct was in the middle of the pack in terms of lens material options and premium add-ons. A moderately high price tag is the only factor that may sway a patient to use on of the other top two retailers. Aside from Frames Direct, Glassesusa.com boasts the second largest frame selection along with a good variety of lens materials and premium add-ons. The middle of the road price-point and slow shipping speed of Glassesusa.com should be weighed against its positives. Finally, Zenni was one of the cheapest options, while also offering a decent number of frames and lens customization options. As with Glassesusa.com, shipping speed is a detriment to Zenni. All of the top retailers had a prescription accuracy of 83%. As

mentioned earlier, the most common parameter out of ANSI tolerance was cylinder power, and none of the glasses from the top three retailers would have been unusable.

Ultimately, private offices will have to decide whether they will allow their business to stagnate or take the lessons learned from their modern counterparts to propel their business and succeed in the future.

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