

Clear vision: Eye surgery clinics will exhibit growth due to high efficacy rates of LASIK surgery

IBISWorld Industry Report OD4159 Eye Surgery Clinics in the US

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About this Industry

Industry Definition This industry includes clinics that primarily provide vision correction surgery, also known as refractive and laser eye surgery, using laser equipment.

Main Activities

The primary activities of this industry are

Providing refractive eye surgery for patients with myopia
 Using refractive eye surgery for patients with astigmatism
 Administering refractive eye surgery for patients with hyperopia

The major products and services in this industry are

LASIK surgery for patients with astigmatism
 LASIK surgery for patients with hyperopia
 LASIK surgery for patients with myopia
 Other surgery types

Similar Industries

33911a Medical Instrument & Supply Manufacturing in the US

This industry develops and produces nonelectronic surgical, dental and veterinary instruments and apparatuses.

44613 Eye Glasses & Contact Lens Stores in the US

This industry includes establishments that sell eyeglasses, contact lenses, sunglasses, safety eyewear and optical accessories.

62132 Optometrists in the US

This industry includes practitioners that examine, diagnose, treat and manage diseases, injuries and disorders of the eye and associated structures.

62149 Emergency & Other Outpatient Care Centers in the US

This industry includes establishments with medical staff primarily engaged in providing emergency, general or specialized outpatient care not included in other industries.

Additional Resources

For additional information on this industry

www.ascrs.org
 American Society of Cataract and Refractive Surgery
www.medicaldevices.org
 Medical Device Manufacturers Association
www.fda.gov
 US Food and Drug Administration

Industry at a Glance

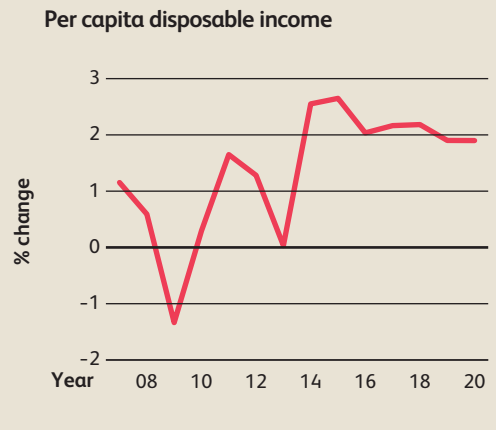
Eye Surgery Clinics in 2014

Key Statistics Snapshot

Revenue	Annual Growth 09-14	Annual Growth 14-19
\$1.9bn	3.5%	2.7%
Profit	Wages	Businesses
\$210.9m	\$624.3m	884

Market Share
 TLC Laser Eye Centers
5.9%
 LCA-Vision Inc.
5.0%

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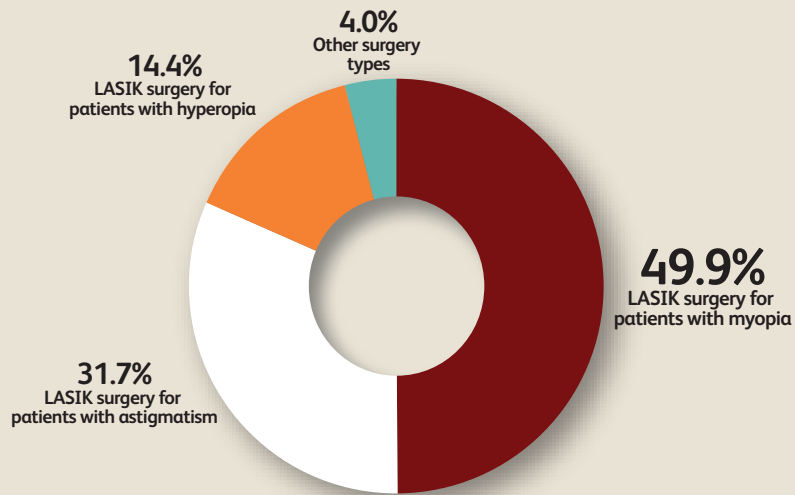


SOURCE: WWW.IBISWORLD.COM

Key External Drivers
 Per capita disposable income
 Demand from eye glasses and contact lens stores
 OD – Technological change
 Number of people with private health insurance
 Number of adults aged 65 and older

p. 4

Products and services segmentation (2014)



SOURCE: WWW.IBISWORLD.COM

Industry Structure

Life Cycle Stage	Growth	Regulation Level	Heavy
Revenue Volatility	Medium	Technology Change	High
Capital Intensity	Medium	Barriers to Entry	High
Industry Assistance	Low	Industry Globalization	Low
Concentration Level	Low	Competition Level	High

FOR ADDITIONAL STATISTICS AND TIME SERIES SEE THE APPENDIX ON PAGE 29

Industry Performance

Executive Summary | Key External Drivers | Current Performance
Industry Outlook | Life Cycle Stage

Executive Summary

Over the past five years, the Eye Surgery Clinics industry has benefited from the estimated 151 million individuals that have required some form of vision correction, according to the American Academy of Ophthalmology (AAO). According to a Consumer Reports National Research Center survey of individuals that have received laser vision correction surgery, a large share of consumers have reported that an integral factor in receiving the elective medical procedure was to eliminate the use of glasses and contact lenses. Due to the

technologies and employing highly skilled ophthalmologists. In 2013 (latest data available), the average price for laser vision correction was \$2,073 per eye, according to All About Vision, representing a slight increase from 2009. This trend can be attributed to more patients receiving high-cost, customized LASIK options, such as waterfront-guided LASIK, which creates a 3D image of the patient's eye to amend eye ailments related to higher-order aberrations, such as contrast sensitivity, night vision and glare. Over the five years to 2014, industry revenue is anticipated to grow at an annualized rate of 3.5% to \$1.9 billion, including 2.7% growth in 2014, driven by growing consumer demand for vision correction surgery in line with the high success rates of industry services. Profit has slightly contracted from 11.5% of industry revenue in 2009 to 11.0% in 2014 due to many eye surgery clinics slashing their LASIK pricing in response to strong price-based competition.

In the five years to 2019, industry revenue is forecast to grow at an annualized rate of 2.7% to \$2.2 billion. Over the next five years, the advent of new technologies, particularly to address lower-order and high-order aberrations, including nearsightedness, farsightedness, astigmatism and eye irregularities unrelated to refractive errors, will bolster industry revenue.

New technologies will aid demand and help laser surgeries gain wider public acceptance

elective nature of corrective eye surgery, most costs are not covered by insurance companies, which has constrained consumer demand for industry services. Nevertheless, many health insurance providers have been able to negotiate discounts with LASIK providers (surgery that corrects vision for patients that are nearsighted, farsighted or have astigmatism), which has enabled some eye surgery clinics to appeal to budget-conscious consumers over the period.

Additionally, some eye surgery clinics have been able to develop a niche market among patients by using innovative

Key External Drivers

Per capita disposable income

Similar to other vision care services, eye surgery is a very costly procedure and primarily an out-of-pocket expense. Since many eye surgery procedures are considered elective, health insurance providers typically do not cover industry services. As a result, when consumers have high discretionary income, they are more able to purchase corrective eye surgeries. Per capita disposable income

is expected to increase in 2014, which represents a potential opportunity for the industry.

Demand from eye glasses and contact lens stores

As demand for industry substitutes, such as eyeglasses and contact lenses, increases, demand for corrective eye surgery shrinks. Furthermore, some age-related eye ailments, such as presbyopia, cannot be

Industry Performance

Key External Drivers continued

treated with laser refractive surgery, thus causing these individuals to require eyeglasses regardless of whether they received LASIK. In 2014, the Eye Glasses and Contact Lens Stores industry (IBISWorld report 44613) is expected to exhibit growth, thus posing as a potential threat to the industry.

Technological change

Technological advancements, such as new surgical techniques and laser equipment that yield higher efficacy and shorter patient recovery periods, are stimulating consumer demand for corrective eye surgery. For example, according to the American Society of Cataract and Refractive Surgery, most LASIK surgeries have about a 90.0 % to 98.0% success rate in achieving 20/20 vision for patients. The level of technological change is expected to increase in 2014.

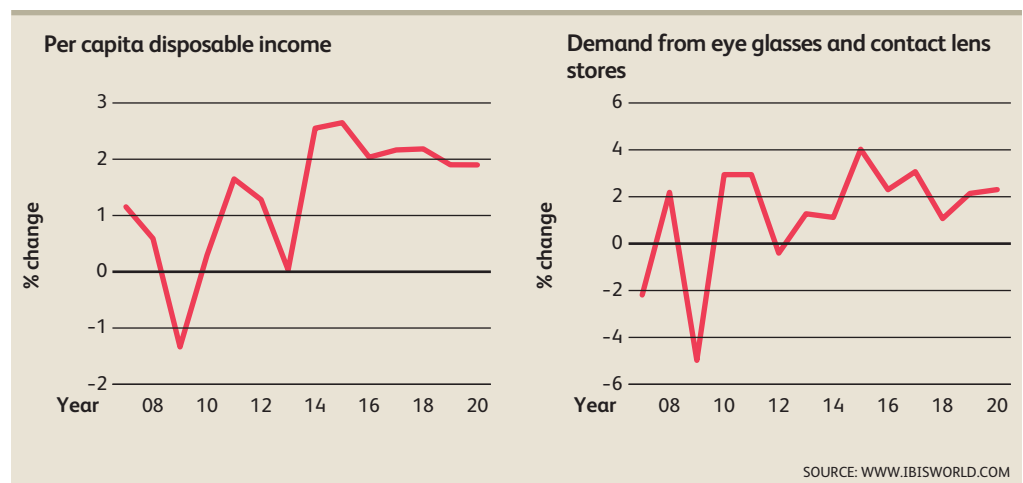
Number of people with private health insurance

Private health insurance coverage (specifically, coverage from stand-

alone vision plans) reduces individuals' out-of-pocket costs and increases demand for corrective surgeries. Additionally, some large companies provide their employees with subsidized health insurance plans that cover at least part of surgery costs. As a result, an increase in the number of people with private insurance may make industry services more accessible and affordable to consumers. The number of people with private health insurance is expected to increase in 2014.

Number of adults aged 65 and older

According to Prevent Blindness America, the four leading eye diseases that affect Americans are age-related. For example, many elderly individuals may receive laser eye surgery for monovision, when one eye is corrected for near vision and the other eye is corrected for distance vision. Additionally, individuals aged 65 and older may require cataract surgery, which stimulates industry revenue. The number of adults aged 65 and older is expected to increase in 2014.

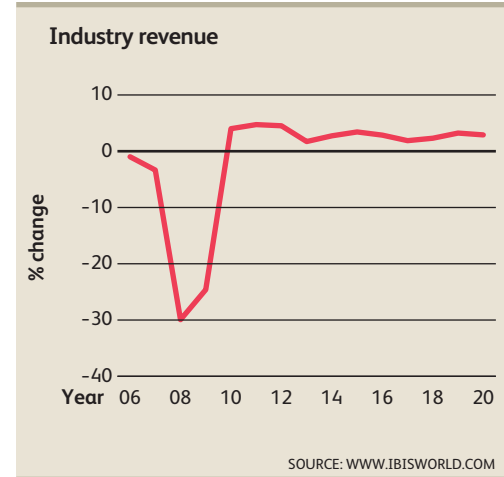


Industry Performance

Current Performance

Over the past five years, the Eye Surgery Clinics industry has exhibited growth due to the advent of new technologies that have yielded better patient outcomes for corrective eye surgery. For example, when laser in situ keratomileusis, or LASIK (which is a popular surgery to correct nearsightedness, farsightedness and astigmatism), was first approved by the Food and Drug Administration (FDA) in the 1990s, 65.0% of patients had 20/20 vision post-surgery, compared with 90.0% to 98.0% in 2014. Due to higher rates of efficacy, many patients have demanded corrective eye surgery, such as LASIK. While some consumers have curbed demand for corrective eye surgery because this procedure is considered elective by health insurance providers, causing many patients to grapple with out-of-pocket costs, this trend was mitigated somewhat by insurance providers negotiating discounts with eye surgery clinics.

As a result, industry revenue is expected to grow at an annualized rate of 3.5% to \$1.9 billion over the five



years to 2014, including revenue growth of 2.7% in 2014 due to favorable surgical outcomes for procedures encouraging more patients to receive vision correction surgery. Profit is expected to contract from 11.5% of industry revenue in 2009 to 11.0% in 2014 due to strong price-based competition, which has caused many eye surgery clinics to cut their LASIK pricing.

Eyeing demand for corrective surgery

Vision correction surgery, also known as refractive and laser eye surgery, is any surgical procedure used to correct vision problems. According to data from the American Academy of Ophthalmology (AAO), an estimated 96.0% of refractive procedures are LASIK. Since LASIK's FDA approval in 1995, about 19.0 million vision correction procedures have been performed through 2012 (latest data available), according to Market Scope. As LASIK has become an integral procedure for individuals to address nearsightedness, farsightedness and astigmatism, industry revenue has increased.

Furthermore, demand for corrective eye surgery is susceptible to changes in consumer demographics. According to

the AAO, the average age for a patient that receives refractive surgery to amend myopia is 40 years old, compared with 55 years old for hyperopia. However, the burgeoning elderly population has had mixed effects on the industry. For example, many active baby boomers have received LASIK to lower their reliance on eyeglasses and contact lenses. Nevertheless, some age-related eye ailments, such as presbyopia, cannot be corrected with LASIK. As a result, this trend has slightly constrained demand for industry services, which is in line with many elderly individuals' decision to purchase reading glasses or bifocals rather than refractive surgery, to address presbyopia. Other demographics have also affected demand for industry

Industry Performance

Eyeing demand for corrective surgery continued

services. For example, LASIK may not be recommended for individuals with diabetes, rheumatoid arthritis, lupus, glaucoma, cataracts and other ailments. The burgeoning population's high

incidence of chronic illness, such as the rising prevalence of Diabetes, has adversely affected the industry by constraining the number of individuals that are able to receive refractive surgery.

Corrective eye surgery considered an elective surgery

In 2013 (latest data available), the average price for laser vision correction was \$2,073 per eye, according to data from All About Vision. However, some procedures, such as wavefront LASIK, exhibited higher prices, with an average of \$2,177 per eye. Due to most corrective eye surgeries being considered an elective surgery by health insurance providers, patients typically pay for industry procedures out-of-pocket. As a result of this trend, consumers may limit demand for corrective eye surgery when they have low discretionary income. A 2013 study by All About Vision found that about half of surgeons offered a single price model for their laser-based procedures, whereas the other half varied their pricing to reflect technology and the patient's amount of vision correction required. While varying prices to reflect technology and the amount of vision correction required has provided

Demand is sensitive to changes in per capita disposable income

low-cost industry services to some patients, many budget-conscious consumers with low disposable income purchased substitute products, such as eyeglasses and contact lenses.

Additionally, consumers' health insurance coverage has been an integral component in determining demand for industry services. While healthcare plans typically do not cover the cost of refractive surgery, many insurance plans that include vision coverage also provide discounts for LASIK surgery. This trend, coupled with some patients receiving a tax deduction for refractive surgery, has supported demand for industry services over the period.

Regulations adds to operational costs

Eye surgery clinics are subject to stringent government regulations relating to LASIK equipment and procedures, as well as inspections of research and laboratory procedures, marketing, storage and disposable practices. Furthermore, most industry operators are required to pay royalty fees to laser equipment manufacturers, which must recoup the costs associated with the development of the machine, including high regulation costs. Additionally, many clinics are opting for expensive malpractice insurance to mitigate the risk of potential litigation costs. Over the past

five years, this had added to operational costs for the industry and has cut into industry profitability.

Over the five years to 2014, the number of industry enterprises is expected to increase at an annualized rate of 1.5% to 884. Over the past five years, the industry has been characterized by more physician-owned eye surgery clinics, rather than commercial LASIK centers with hired ophthalmologists. Due to this trend, many eye surgery clinics have cut their administrative costs. Additionally, the number of employees is anticipated to

Industry Performance

Regulations adds to operational costs continued

rise at an annualized rate of 1.9% to 9,301 over the five-year period due to many eye surgery clinics expanding their

number of ophthalmologists and optometrists to enhance their refractive surgery patient volumes.

Industry Outlook

Over the next five years, the Eye Surgery Clinics industry will benefit from many individuals switching away from industry substitutes, such as contact lenses and eyeglasses, and toward corrective eye surgery. According to data from Prevent Blindness America and the National Eye Institute, an estimated 150 million Americans wear corrective eyewear, which may provide a strong customer base of potential refractive surgery candidates.

In the five years to 2019, industry revenue is forecast to grow at an annualized rate of 2.7% to \$2.2 billion, which can be partly attributed to more consumers viewing refractive surgery as a safe and reliable procedure to address their refractive errors, including myopia, astigmatism and hyperopia. Profit is expected to stabilize at 11.0% of

More consumers will view refractive surgery as a safe and reliable procedure

revenue due to the advent of new high-cost, customized laser in situ keratomileusis (LASIK), which is a common surgery to address correct vision ailments including nearsightedness, farsightedness and astigmatism, thus increasingly minimizing higher-order aberrations. While this trend will bolster industry profitability, the advent of new technologies will likely add to costs for eye surgery clinics to purchase laser equipment, thus constraining industry profitability over the next five years.

Elderly population stimulates demand

Over the next five years, eye surgery clinics will benefit from the burgeoning elderly population. For example, while age-related diseases that affect vision include glaucoma, macular degeneration and cataracts, the industry will still exhibit growth, as cataract removal becomes an increasingly common surgical procedure. Furthermore, many eye surgery clinics will use lasers in conjunction with cataract surgery over the next five years. According to a 2013 (latest data available) Laser Cataract Study by SM2 Strategic, lasers are expected to account for a mere 2.3% of all cataract procedures performed in the United States.

However, according to the Ophthalmology Times, laser-assisted

cataract surgeries are expected to surpass 3.0% of total cataract surgeries over the period, providing a boon to the industry. This trend can be attributed to many eye surgery clinics that use lasers having the patient volumes required to have a positive return on their investment related to laser equipment purchases. Moreover, by age 80, more than half of Americans have cataracts, according to the Prevent Blindness America and the National Eye Institute, which will stimulate demand for cataract surgery. Additionally, Medicaid and Medicare cover a share of the costs related to cataract surgery, thereby lowering some individuals' out-of-pocket healthcare costs for industry services. Technology related to Inter

Industry Performance

Elderly population stimulates demand continued

Ocular Lenses (IOLs), which replaces the eye's natural lens that are removed during cataract surgery, will

increasingly be used to correct presbyopia and cataracts, thus bolstering industry revenue.

Technological innovation

The advent of new technologies will enable eye surgery clinics to mark up prices for corrective eye surgery. For example, in 2014, the Food and Drug Administration approved a topography-guided custom ablation treatment (T-CAT) that uses an excimer laser. This technology will enable more eye surgery clinics to optimize patients' surgical outcomes, particularly to enhance their night vision. Furthermore, topography-guided LASIK has application for patients that have irregular corneas but have still met the topographic eligibility requirements for LASIK, which will likely expand the patient demographic that eye surgery clinics can treat. As a result of more individuals being eligible for industry services, industry revenue will grow over the period.

In the five years to 2019, the number of industry enterprises is expected to grow at an annualized rate of 0.8% to 922 companies. Over the period, more eye surgery clinics will enter the market, particularly to cater to areas with a large share of the elderly population. To attract the elderly population and provide cataract surgery services, many

New technologies will yield better outcomes and minimize the degree of vision errors

eye surgery clinics will purchase innovative laser technologies that bolster patient outcomes post-surgery. In the same period, the number of employees is expected to rise at an average annual rate of 2.3% to 10,437. As the burgeoning elderly population has more eye-related ailments, including cataracts and macular degeneration, demand for ophthalmologists will intensify. Additionally, as more diabetic elderly individuals have other eye ailments, such as diabetic retinopathy, many eye surgery clinics will vie for access to skilled ophthalmologists to provide industry services. Due to this trend, industry wages will rise at an estimated annualized rate of 2.8% to \$718.2 million, as many eye surgery clinics implement higher wages to attract and retain their ophthalmologists.

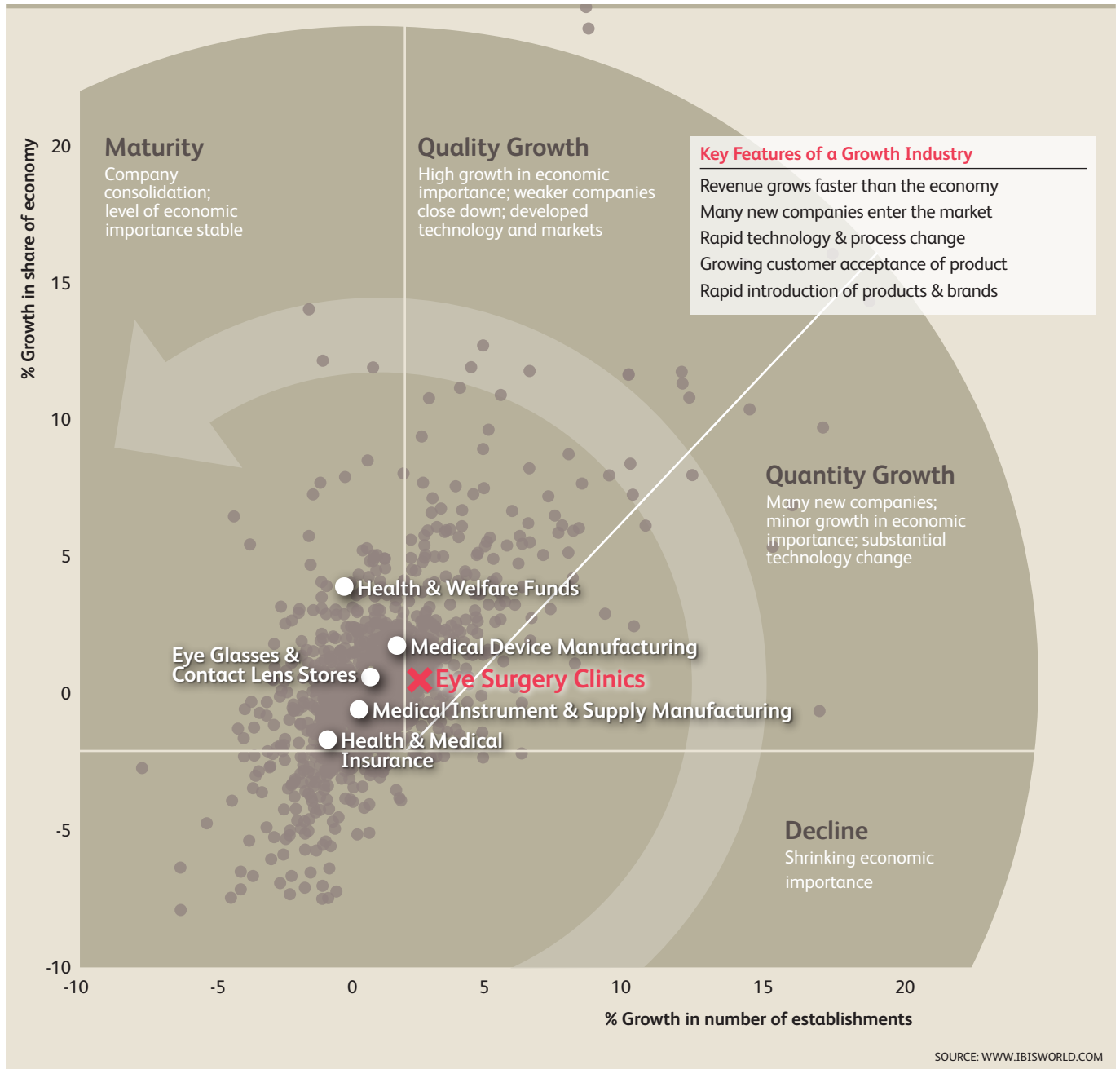
Industry Performance

Life Cycle Stage

The value that the industry adds to the overall economy is expected to pick up its pace in line with US GDP

Technological advancements spur demand for eye surgery procedures

The industry will experience an influx of new operators



Industry Performance

Industry Life Cycle

This industry is **Growing**

The Eye Surgery Clinics industry is currently in the growing stage of its life cycle. Over the 10 years to 2019, industry value added (IVA), which measures the industry's contribution to the overall economy, is expected to increase at an annualized rate of 3.2%. Comparatively, US GDP is anticipated to rise at an average annual rate of 2.5%. Over the ten-year period, the advent of new technologies has bolstered patient outcomes post-surgery, which has caused many individuals to opt for LASIK rather than use eyeglasses or contact lenses. Furthermore, the burgeoning elderly population, which will require LASIK to address eye

ailments, including nearsightedness and farsightedness, will spur demand for industry services.

Additionally, higher-order aberrations, such as contrast sensitivity, night vision and glare are increasingly being addressed by the industry, as well as refractive errors. LASIK is still considered an elective procedure, which has caused many health insurance providers to not cover the cost of industry services; however, many third-party payers have still negotiated discount LASIK services for individuals within their healthcare plan. As a result, budget-conscious consumers were able to access corrective eye surgery over the period.

Products & Markets

Supply Chain | Products & Services | Demand Determinants
Major Markets | International Trade | Business Locations

Supply Chain

KEY BUYING INDUSTRIES

- 52411b Health & Medical Insurance in the US**
A considerable percentage of payments to optometrists are made by health insurance providers.
- 52512 Health & Welfare Funds in the US**
Government health funds positively affect demand for some vision correction surgery services, since they subsidize the cost of receiving treatment.
- 99 Consumers in the US**
Eye surgery clinics treat individuals, although sometimes other payers can limit individuals' choice of treatment option.

KEY SELLING INDUSTRIES

- 33451b Medical Device Manufacturing in the US**
This industry includes the manufacture of laser equipment. Products manufactured by this industry include laser equipment used by eye surgery clinics.
- 33911a Medical Instrument & Supply Manufacturing in the US**
Eye surgery clinics use medical instruments and supplies developed by this industry.
- 62132 Optometrists in the US**
Optometrists refer patients to eye surgery clinics.

Products & Services

According to data from TLC Laser Eye Centers, LASIK is the most frequently performed elective eye surgery in North America. In the United States, about 43 million individuals are candidates for refractive surgery to address myopia, compared with 15 million individuals that are candidates for hyperopic-related refractive surgery, according to the American Academy of Ophthalmology (AAO).

Laser vision correction

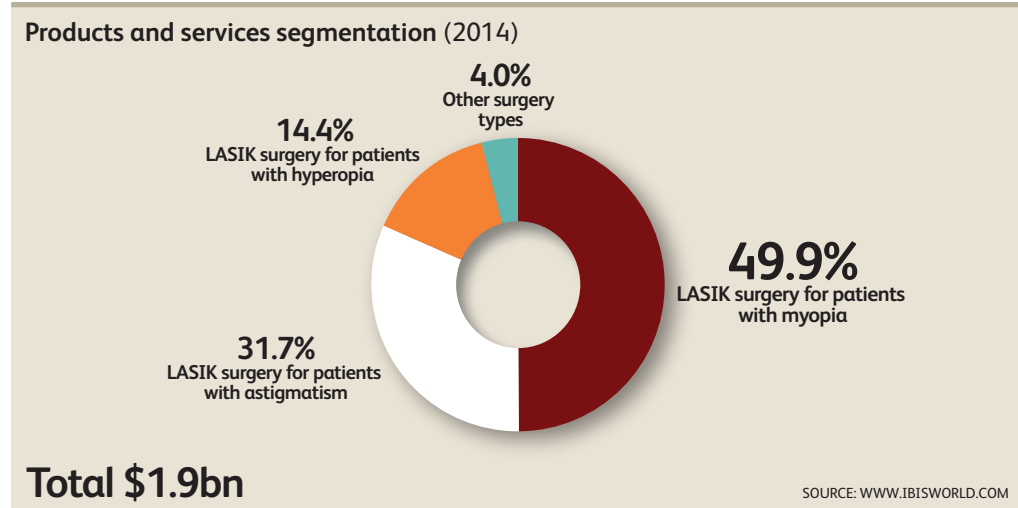
Laser-assisted in-situ keratomileusis (LASIK) accounts for 96.0% of refractive procedures performed in the United States, according to the AAO. LASIK is most commonly used to address myopia, which accounts for an estimated 49.9% of total industry revenue, followed by astigmatism (31.7%) and hyperopia (14.4%). LASIK is a refractive surgical procedure that permanently changes the shape of the cornea with an excimer laser (ultraviolet gas lasers) and a femtosecond laser (neodymium glass lasers).

According to Market Scope, an eye surgery market research company, about 17.5 million LASIK procedures have been performed since the procedure was first approved in 1995.

There are risks associated with LASIK procedures, which include corneal bulging, scarring, under or over correction, sensitivity to certain lights and vision loss. However, these side effects occur in a small percentage of patients. As a result of the high success rate associated with LASIK procedures, this segment has increased its contribution to industry revenue over the past five years. However, as the cost for LASIK procedures increases over the next five years, many consumers may opt for alternative procedures. Other types of laser vision correction include wavefront-guided LASIK, Epi-Lasik, laser epithelial keratomileusis (LASEK) and photorefractive keratectomy; however, these laser vision correction procedures account for a small share of industry revenue. Nevertheless, over the next five

Products & Markets

Products & Services continued



years, custom LASIK, particularly waterfront-guided LASIK, will become increasingly popular, in line with this technology having the potential to treat higher-order aberrations. For example, waterfront-guided LASIK can address eye-related ailments that include contrast sensitivity, night vision, glare, shadows and halos.

Other procedures

In addition to LASIK, there are a number of subtypes of various vision

correction procedures. Some examples of additional eye corrective procedures include photorefractive keratectomy (PRK), radial keratotomy (RK) phakic-intraocular lens (P-IOL), refractive lensectomy, presbyopic refractive lens exchange or clear lens extraction, among others. The other procedures category accounts for an estimated 4.0% of industry revenue, which can be attributed to many of these procedures having lower patient efficacy, compared with LASIK.

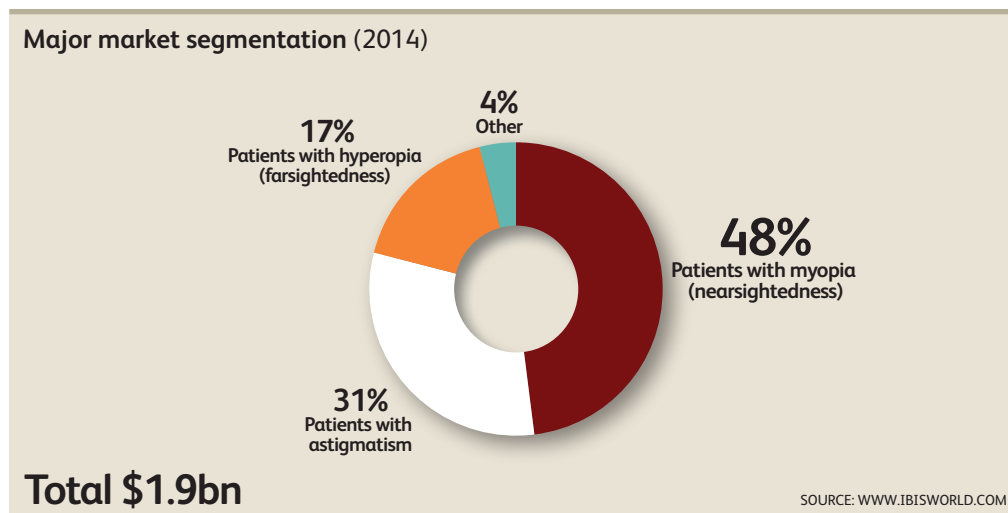
Demand Determinants

Demand for eye surgery is driven by numerous factors, including consumers' discretionary income, the prevalence of eye-related ailments, the price of substitute products, such as contact lenses and glasses, as well as the efficacy of eye surgery outcomes. Furthermore, the price of eye corrective surgery determines consumer demand for industry products. According to data from All About Vision, the average price for laser vision correction in 2013 (latest data available) was \$2,073 per eye, slightly up from \$1,941 in 2012. While high prices for eye corrective surgery can constrain consumer demand for industry

services, the industry has benefited from high rates of efficacy, which has supported demand over the past five years. Nevertheless, high prices for industry services can incite more consumers to purchase substitute products, such as contact lenses and eyeglasses. Additionally, demand for services suffers due to growing risk awareness associated with industry procedures, which may alter consumers' perception of eye surgery. As a result, eye surgery service providers constantly invest in research and development to innovate technologies that will further reduce risk levels.

Products & Markets

Major Markets



Patients with myopia (nearsightedness)

According to Census data, about 24.0% of the US population has myopia, which includes an estimated 43 million candidates that are eligible for refractive surgery. Patients have myopia when their cornea is too curved, which causes observed light to be focused in front of the individual's retina. As a result, objects appear blurred. Patients who have myopia account for the largest market segment for the industry (48.0%). The average age for a refractive surgery candidate with myopia is 40 years old, according to data from the American Academy of Ophthalmology (AAO). Over the past five years, the number of individuals that have myopia has increased in line with population growth.

Patients with astigmatism

Patients with astigmatism make up about 31.0% of industry revenue. This is one of the most common causes of vision loss. This condition exists if the cornea is not circular but is instead more oval-shaped and is sometimes present along with myopia and hyperopia. Astigmatism

causes a distortion of the light as it passes through the cornea. Because this condition can exist with other conditions, procedures are commonly conducted in conjunction with other corrective surgeries. This segment is expected to increase over the next five years, in line with astigmatism being commonly linked to patients' hereditary genetics.

Patients with hyperopia (farsightedness) and other eye ailments

Patients with hyperopia make up about 17.0% of the Eye Surgery Clinics industry revenue. This condition exists when a shallow curve in the cornea causes the light to be focused beyond the retina, making it difficult to focus on objects close to the eye. During the five years to 2014, patients within this segment have consistently accounted for the third largest share of industry revenue. Other markets include procedures related to glaucoma, cataracts and presbyopia. Over the next five years, this market segment is expected to comprise a larger share of industry revenue as newer technologies and surgical techniques are developed.

Products & Markets

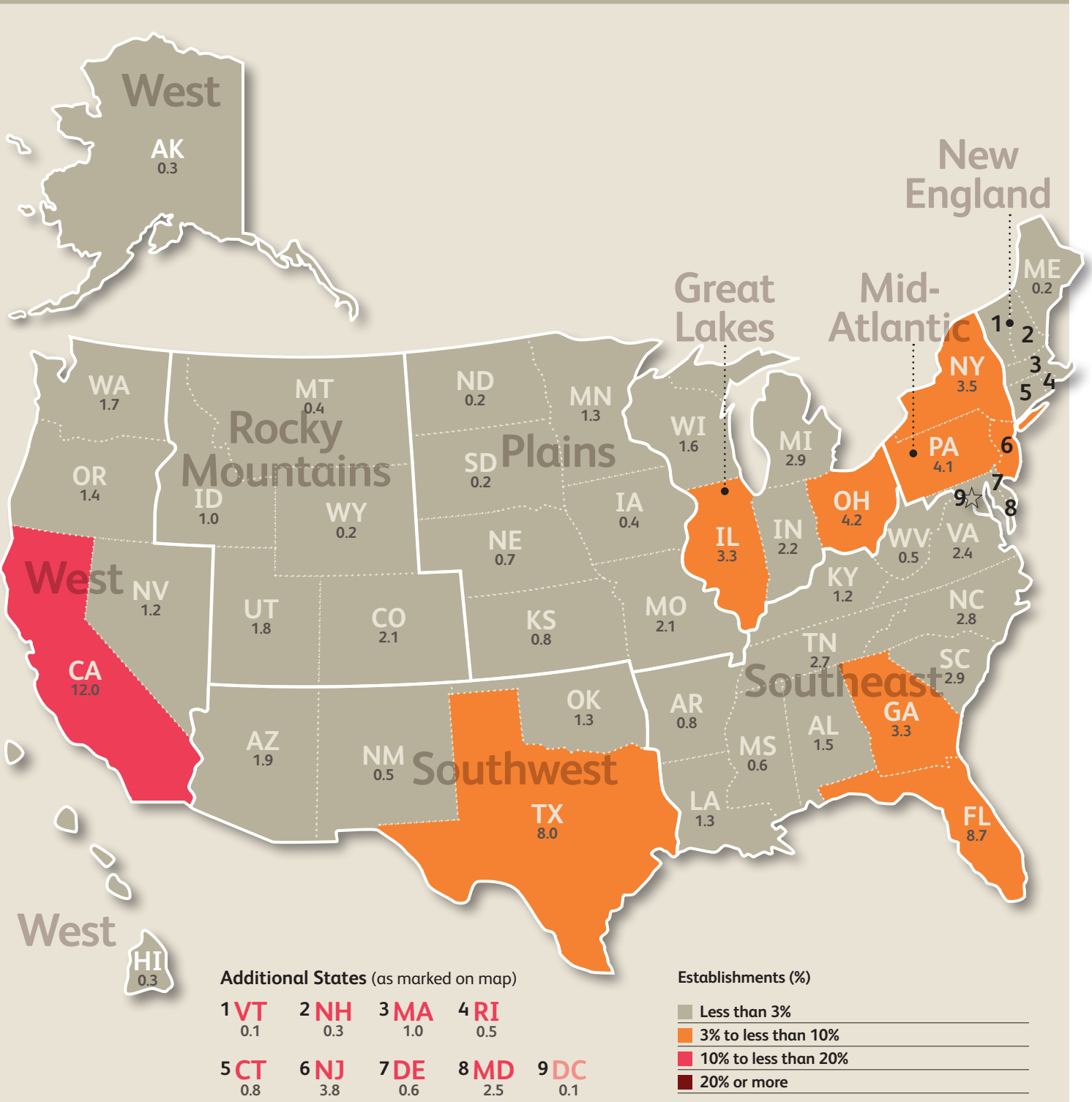
International Trade

The export of eye surgery services occurs when foreign patients receive treatment in the United States. The United States is home to some internationally reputed eye surgery

practitioners, which can entice patients from overseas. IBISWorld expects the industry's international trade activity remained low in the five years to 2014.

Products & Markets

Business Locations 2014

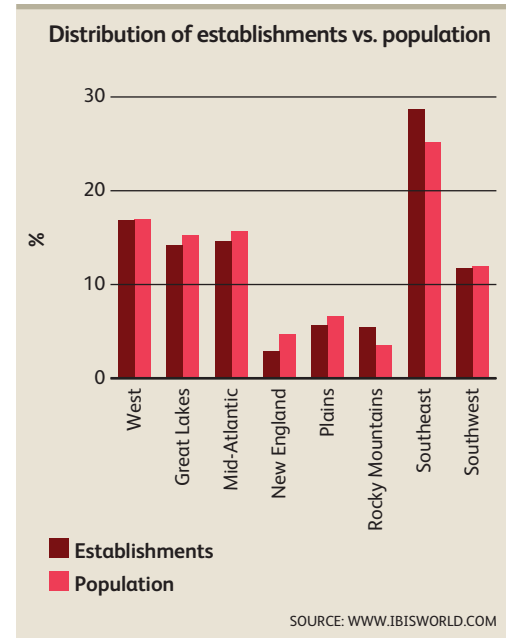


Products & Markets

Business Locations

Eye surgery centers are located in most states, reflecting the industry's fragmented nature. The geographic spread of the industry also indicates the high demand for corrective eye surgery services on a national scale, a factor that serves to encourage the establishment of a number of centers close to heavily populated regions. The regions accounting for the largest share of industry activity include the Southeast, West, Mid-Atlantic and Great Lakes. The largest states in terms of industry establishments and employment are California, Texas and Florida.

The industry has a low degree of geographic concentration, with the Southeast and West regions accounting for about 45.5% of all establishments in 2014. These regions are headquartered to the largest operators in the industry. Key individual states include California (12.0% of all



establishments), Texas (8.0%) and Florida (8.7%).

Competitive Landscape

Market Share Concentration | Key Success Factors | Cost Structure Benchmarks
Basis of Competition | Barriers to Entry | Industry Globalization

Market Share Concentration

Level
Concentration in
this industry is **Low**

The Eye Surgery Clinics industry is characterized by a low level of market share concentration. In 2014, the four largest eye surgery clinics are expected to account for less than 22.0% of total industry revenue. During the five years to 2014, market share concentration has steadily increased, which can be partly attributed to strong price-based competition.

While some eye surgery clinics, which typically have established ophthalmologists and doctors, can

command between \$1,800 and \$2,700 per eye, the inundation of companies that offer low-cost LASIK services has intensified industry competition. For example, over the past five years, many eye surgery clinics have offered LASIK for less than \$1,000 per eye. As a result of this trend, many large industry operators have offered competitive pricing for industry services, which has caused many local industry operators to exit the industry altogether.

Key Success Factors

IBISWorld identifies 250 Key Success Factors for a business. The most important for this industry are:

Use of specialist equipment or facilities

It is imperative that surgeons have access to updated laser surgical equipment in order to perform necessary eye tests and procedures on clients.

Maintenance of excellent customer relations

Good patient relations are essential to obtain a loyal customer base and referral business.

Ability to educate the wider community

Education on the safeness of routine eye exams and procedures can help boost demand for eye surgery clinics.

Having a good reputation

Customers' purchase criteria often include reliability and performance. Reliability of procedure performances are particularly important given that it pertain to a person's health.

Cost Structure Benchmarks

Profit

In 2014, industry profit, measured as earnings before interest and taxes, is expected to make up 11.0% of industry revenue. Over the past five years, industry profitability has steadily declined, which can be attributed to low consumer demand for corrective eye surgery, particularly LASIK. While demand for laser vision correction procedures plummeted in 2009, with fewer than 800,000 LASIK procedures being performed according to data from Market Scope, the industry has benefited from revitalization in demand for industry services. However, strong price-based competition has intensified over the period, as many eye surgery

clinics have slashed their pricing to attract a customer base. As a result of this trend, many industry operators have operated at a loss over period, such as LCA-Vision.

Nevertheless, over the next five year, industry profitability will benefit from the revitalization in consumers' discretionary income enabling more individuals to purchase high-margin services. For example, LASIK surgeries with new technologies, which may bolster the patient's outcome post-surgery, will become more common. In particular, LASIK with wavefront technology, which has a custom eye scanner that creates a virtual map of the individual's cornea, will become increasingly popular.

Competitive Landscape

Cost Structure Benchmarks continued

Nevertheless, profitability will stagnate, in line with many eye surgery clinics incurring high purchase costs for innovative laser technologies.

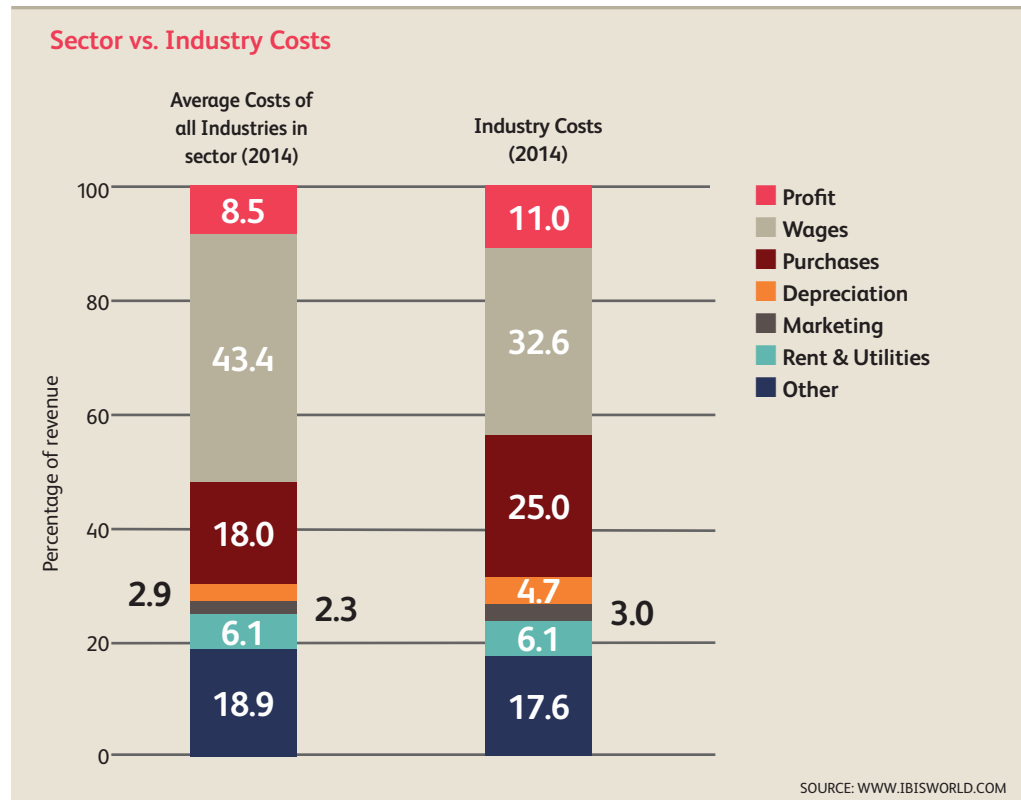
Wages

Wages comprise about 32.6% of industry revenue in 2014. Industry employees typically include ophthalmologists, who are licensed to practice medicine and surgery, as well as optometrists. For example, optometrists may conduct sight testing for patients prior to receiving corrective eye vision surgery. Furthermore, eye surgery clinics employ administrative staff and assistants, who may perform vision tests and other tasks related to eye care. Over the past five years, wages have declined as a share of industry revenue, which can be attributed to many ophthalmologists delegating more industry tasks to optometrists, who command lower wages. Additionally, to

cut costs and provide competitive LASIK services, many ophthalmologists have moved away from individual practices to group practices, which has streamlined the number of employees required to provide eye care. Other methods to lower wage-related costs include hiring ophthalmology residents, not optometrists, who can perform eye examinations and other eye care services.

Purchases

In 2014, purchase costs are expected to account for 25.0% of industry revenue. This segment includes purchase or lease and maintenance of the laser, microkeratome and other devices used in the procedure. According to data from All About Vision, refractive lasers cost between \$300,000 to \$500,000, which does not include costs related to using and maintaining the device. Other purchases also include purchases of



Competitive Landscape

Cost Structure Benchmarks continued

gowns, masks, gloves and other items to keep the operation clean, as well as microkeratome blades, surgical solutions and medications used during the surgery. Over the past five years, purchases have increased due to rising costs of medical equipment and supplies, as well as a high rate of technological change which has rendered some lasers as obsolete.

Other

Other operating expenses include rent and utilities, depreciation and

marketing. Due to an ongoing risk of litigation, companies often pay for malpractice insurance or incur costs directly to lawsuits. Clinics also have to pay royalty fees to medical device manufacturers that must recoup the cost to develop the machine. The average royalty fee for the excimer laser can range between \$100 and \$150 per procedure, while the average royalty fee for a custom procedure laser ranges between \$145 and \$250.

Basis of Competition

Level & Trend

Competition in this industry is **High** and the trend is **Steady**

Internal competition

Competition in the Eye Surgery Clinics industry is primarily based on innovation, quality, patient word-of-mouth and performance. Technology also provides a competitive advantage for players within the Eye Surgery Clinics industry. For example, clinics that implement the latest technologies can bolster their customer base and markup procedure prices. Likewise, clinics with strong name recognition can also obtain a strong customer base, compared with lesser-known clinics.

Over the past five years, competition within the industry has been limited by the government's regulatory requirements. The Food and Drug Administration, which regulates medical devices, has implemented stringent legislation regarding the production and specification of medical equipment (see the Regulation & Policy section). Due to this trend, the industry has been characterized by significant barriers to

entry, which has constrained competition from potential industry entrants over the period.

The type of vision correction procedure offered by eye surgery clinics also plays a key role in the patient's speed of recovery. As the advent of innovative technology occurs in the coming years, the average patient recovery time will be shorter. New surgical devices will also play a role in reducing the time and cost of procedures. To be competitive, eye clinic surgeons need to have a high success rate and continue to use superior technology, which will increase their overall reliability and clinical outcomes.

External competition

The industry contends with external competition from nonsurgical treatments to correct refractive vision disorders. For example, some consumers may opt to purchase eyeglasses and contact lenses to address their vision ailments, rather than receive LASIK.

Competitive Landscape

Barriers to Entry

Level & Trend
Barriers to Entry in this industry are **High** and **Increasing**

The Eye Surgery Clinics industry has high barriers to entry. Typically, regulation as well as high industry competition and technology change deters potential industry entrants from entering the market. Additionally, eye surgery clinics require lasers, which can range from \$300,000 to \$500,000. Due to high purchase costs, many potential industry entrants may not enter the industry, due to not having the capital outlay required to enter the market.

Government policy is another barrier for new entrants. Essentially, eye surgery procedures and devices are subject to the federal Food, Drug and Cosmetic Act and the Safe Medical Devices Act of 1990, which are contained in the final procedural regulations in Title 21 Code of Federal Regulations Part 800-1200 (21 CFR Parts 800-1299). These controls are the baseline requirements that apply to all medical products, including the product’s marketing, proper labeling and monitoring of performance. New entrants must adhere to these regulations.

Barriers to Entry checklist	Level
Competition	High
Concentration	Low
Life Cycle Stage	Growth
Capital Intensity	Medium
Technology Change	High
Regulation & Policy	Heavy
Industry Assistance	Low

SOURCE: WWW.IBISWORLD.COM

The cost of insurance against product liability claims may also deter entry to the industry. Claim compensation can be devastatingly high in the healthcare field, and these costs are trending upwards. Additionally, access to a highly skilled labor force is essential and constitutes another barrier to entry. According to the American Academy of Ophthalmology’s Government Affairs Division, there may be a potential shortage of ophthalmologists due to a rise in the number of individuals that require age-related eye care.

Industry Globalization

Level & Trend
Globalization in this industry is **Low** and the trend is **Steady**

This industry has a low level of globalization. US-owned organizations dominate the US

market for eye surgery services. Additionally, few industry operators have international operations.

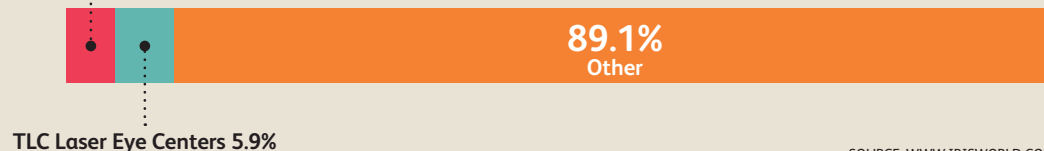
Major Companies

TLC Laser Eye Centers | LCA-Vision Inc. | Other Companies

Major players

(Market share)

LCA-Vision Inc. 5.0%



TLC Laser Eye Centers 5.9%

SOURCE: WWW.IBISWORLD.COM

Player Performance

TLC Laser Eye Centers

Market share: 5.9%

Founded in 1993, TLC Vision Corp. (TLC) offers laser-assisted in-situ keratomileusis (LASIK), an outpatient elective procedure for patients with myopia, hyperopia, astigmatism and presbyopia. The company performs multiple procedures, including custom and bladeless LASIK techniques. The company performs laser epithelial keratomileusis, photorefractive keratectomy, monovision and conductive keratoplasty (a technology designed to lessen dependence on reading glasses). The company also provides implantable contact lenses. TLC has its headquarters in Chesterfield, MO, and employs about 790 people throughout North America.

According to 2010 data (latest data available), the company operates 71 centers that provide corrective laser surgery. Additionally, the company provides franchise opportunities to

independent optometrists that want to operate under the Vision Source brand. In December 2009, the company and two of TLC's subsidiaries filed for Chapter 11 bankruptcy to restructure the company's debt. Nevertheless, in February 2010, the company was purchased by Charlesbank Capital Partners and HIG Capital for \$134.4 million, including \$25.0 million related to debtor-in-possession financing. As a result, the company became privately held in 2010.

The company provides an array of services within multiple business segments, including corrective laser surgery, doctor services and its eye care segment. Additionally, the company furnishes doctors and medical facilities with mobile or fixed site access to refractive and cataract surgery equipment, supplies, technicians and diagnostic products. However, industry-

TLC Vision Corporation (eye surgery clinic revenue) – financial performance

Year	Revenue		Operating Income	
	(\$ million)	(% change)	(\$ million)	(% change)
2009*	107.3	-29.1	2.2	-74.1
2010**	100.7	-6.2	1.8	-18.2
2011**	105.3	4.6	1.9	5.6
2012**	107.5	2.1	2.1	10.5
2013**	109.2	1.6	2.2	4.8
2014**	112.4	2.9	2.4	9.1

*From the company's 10K before it became privately held, **Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD

Major Companies

Player Performance continued

relevant revenue is derived from corrective laser surgery and other eye surgery-related care.

Financial performance

The company became privately held in 2010. As a result, industry-relevant revenue is estimated from 2010 to 2014. Over the five years to 2014, industry revenue is anticipated to grow at an annualized rate of 0.9% to \$112.4 million. Although the company

performed poorly in 2009 and 2010, this trend can be attributed to the company filing for bankruptcy and then contending with operational costs related to the company being purchased by Charlesbank Capital Partners and HIG Capital. Nevertheless, the company is expected to exhibit growth from 2011 to 2014, in line with operational synergies related to restructuring operations and cutting underperforming business segments.

Player Performance

LCA-Vision Inc.
Market share: 5.0 %

Founded in 1996, Cincinnati-based LCA-Vision Inc. (LASIKplus) is one of the largest providers of vision correction surgery services. It provides laser vision correction and support services using advanced laser technologies to help correct nearsightedness, farsightedness and astigmatism. Most LASIKplus patients receive the laser-assisted in-situ keratomileusis procedure. The company has performed over 1.3 million laser vision correction procedures in North America since 1995. In 2013 (latest data available), the company operated 61 Lasik Plus fixed-site laser vision correction centers in total, which includes 52 full-service fixed-site laser vision correction centers and nine pre

and postoperative vision centers. The company also has five vision centers that are both owned and operated by ophthalmologists that license the company's trademarks. In 2011, the company expanded its product portfolio to include refractive lens and cataract services. In February 2014, PhotoMedex purchased the company for \$106.0 million, making LASIKplus a wholly owned subsidiary to PhotoMedex.

Through its expansionary ventures, LASIKplus has extended its full range of services to include, premium intraocular lens, standard cataract and implantable Collamer lens services; these services are offered under the company's Visium Eye Institute brand. In 2012, the company has expanded these services to ten total

LCA-Vision Inc. (eye surgery clinic revenue) – financial performance

Year	Revenue		Operating Income	
	(\$ million)	(% change)	(\$ million)	(% change)
2009	129.2	-37.0	-36.1	N/C
2010	99.8	-22.8	-22.0	-39.1
2011	103.0	3.2	-6.5	-70.5
2012	101.5	-1.5	-9.3	-43.1
2013	92.2	-9.2	-2.4	-74.2
2014*	95.9	4.0	-2.0	-16.7

*Estimates

SOURCE: ANNUAL REPORT AND IBISWORLD

Major Companies

Player Performance continued

markets using the existing infrastructure in its laser vision correction centers.

Financial performance

Over the five years to 2014, industry-relevant revenue is expected to decline at an annualized rate of 5.8% to \$95.9 million. In 2013, procedure volumes declined an estimated 9.0%, which can be attributed to the weak economy, restructuring expenses and expenditures

related to the company expanding its refractive lens and cataract services. Furthermore, low discretionary income forced many individuals to curb their healthcare costs, including laser vision correction procedures. For example, laser vision correction procedures are typically not reimbursed by third-party payers, such as government healthcare programs, which has caused many individuals to limit this discretionary expenditure over the period.

Other Companies

The Eye Surgery Clinics industry is characterized predominately by privately owned operators. Demand varies for industry services on a state-by-state basis due to variations in the cost of eye surgery procedures. Additionally, the industry has a low level of concentration because most clinics typically focus on appealing to consumers within a particular geographical location.

The LASIK Vision Institute

Estimated market share: 4.1 %

The LASIK Vision Institute (LVI) provides laser vision correction services.

The company operates over 30 eye surgery centers located in 29 states across the United States. LVI's independent laser eye surgery specialists have provided over a million procedures. Over the past five years the company has benefited greatly from owning its own laser surgical equipment, which allows LVI to offer surgery prices significantly below competing providers. The company also offers a financial program, which has helped to increase its volume of patients. In 2014, IBISWorld expects the company to generate \$78.3 million from industry-related services.

Operating Conditions

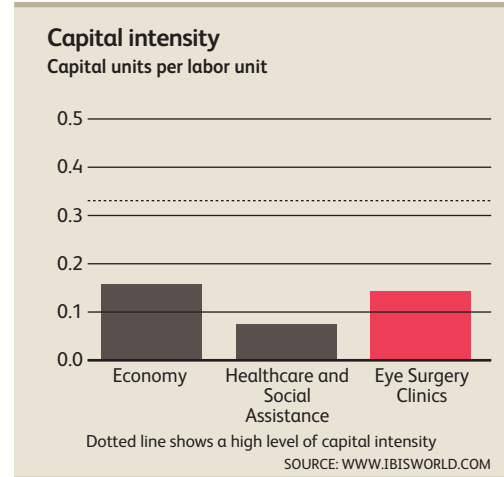
Capital Intensity | Technology & Systems | Revenue Volatility
 Regulation & Policy | Industry Assistance

Capital Intensity

Level
 The level of capital intensity is **Medium**

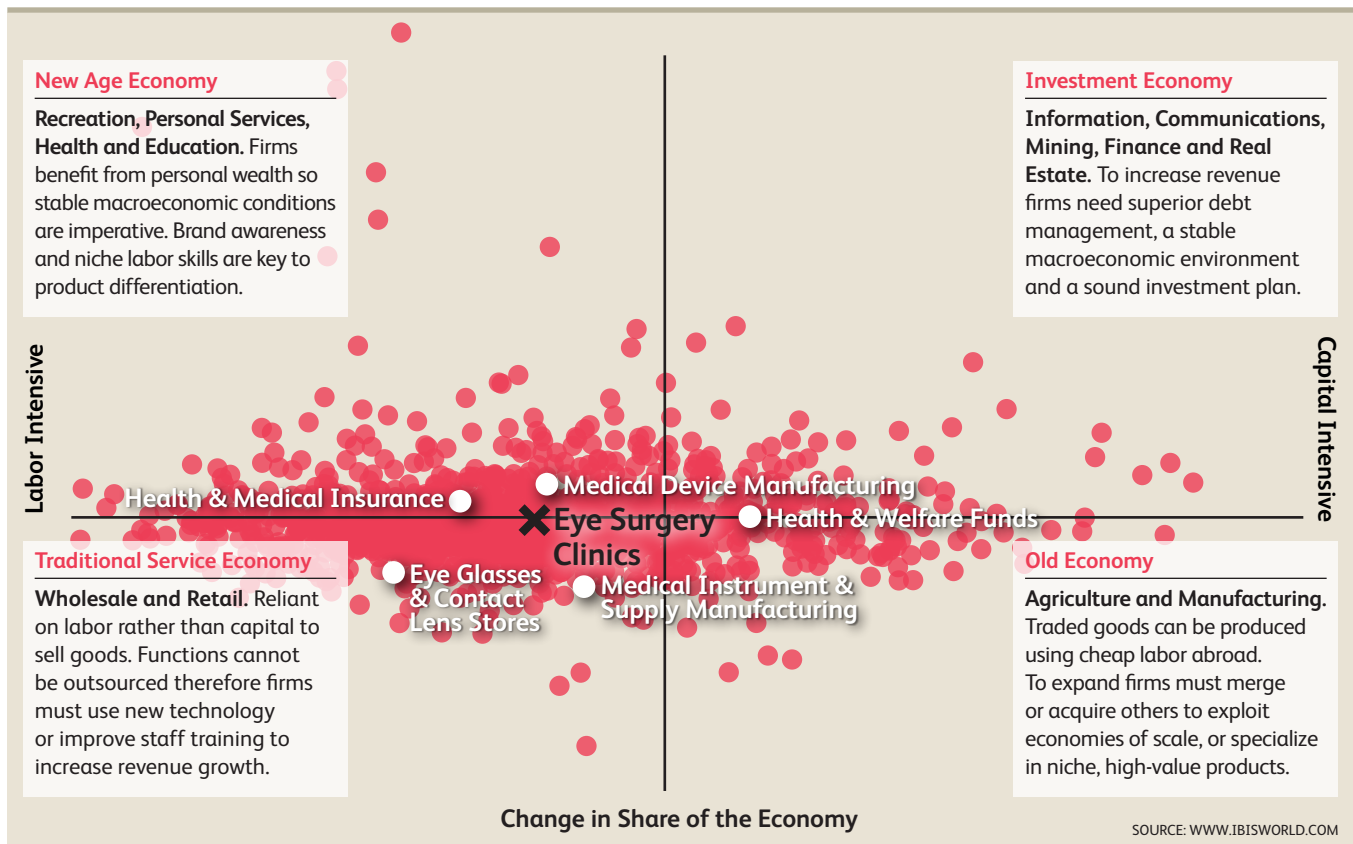
The Eye Surgery Clinics industry has a medium level of capital intensity. In 2014, for every dollar spent on labor, the industry incurs an estimated \$0.14 in capital expenditures. The cost of labor in this industry is high because much of the labor force is well-trained and skilled (e.g. ophthalmologists and optometrists). Over the next five years, wages are expected to slightly increase as a share of total industry revenue, which can be partly attributed to the potential shortage of ophthalmologists. For example, as the burgeoning elderly population has age-related eye ailments, demand for ophthalmologists will rise, thus enabling ophthalmologists to command higher wages.

Comparatively, the advent of new technologies will likely add to capital



costs for laser equipment over the next five years. In particular, new technologies will likely lower patients'

Tools of the Trade: Growth Strategies for Success



New Age Economy
 Recreation, Personal Services, Health and Education. Firms benefit from personal wealth so stable macroeconomic conditions are imperative. Brand awareness and niche labor skills are key to product differentiation.

Investment Economy
 Information, Communications, Mining, Finance and Real Estate. To increase revenue firms need superior debt management, a stable macroeconomic environment and a sound investment plan.

Traditional Service Economy
 Wholesale and Retail. Reliant on labor rather than capital to sell goods. Functions cannot be outsourced therefore firms must use new technology or improve staff training to increase revenue growth.

Old Economy
 Agriculture and Manufacturing. Traded goods can be produced using cheap labor abroad. To expand firms must merge or acquire others to exploit economies of scale, or specialize in niche, high-value products.

Labor Intensive

Capital Intensive

Health & Medical Insurance | Eye Glasses & Contact Lens Stores | Medical Device Manufacturing | Eye Surgery Clinics | Medical Instrument & Supply Manufacturing | Health & Welfare Funds

Change in Share of the Economy

SOURCE: WWW.IBISWORLD.COM

Operating Conditions

Capital Intensity continued

recovery period and bolster post-operative outcomes. Still, there will always be a need for trained and

specialized staff to operate equipment, care for patients, conduct procedures and comply with regulations.

Technology & Systems

Level
The level of Technology Change is **High**

The Eye Surgery Clinics industry has a moderate level of technological change. There has been significant technological progress in laser surgery products and treatment methods used by vision correction service providers. Managing procedure safeness in the operating room has long been a critical part of any surgical procedure. Over the past five years, researchers have reported promising results with the introduction of new LASIK technologies. Since technologies are prone to significant changes, more clinics have adopted the approach of shortening lease terms.

The increased demand for vision correction surgery by the aging population and their need for advanced safe surgical technologies have inspired manufacturers to innovate. Effectively, new products

such as wavefront LASIK equipment have been increasingly used as they are safer than traditional products. The wavefront LASIK development is also said to reduce side effects associated with vision correction procedures.

Wavefront equipment

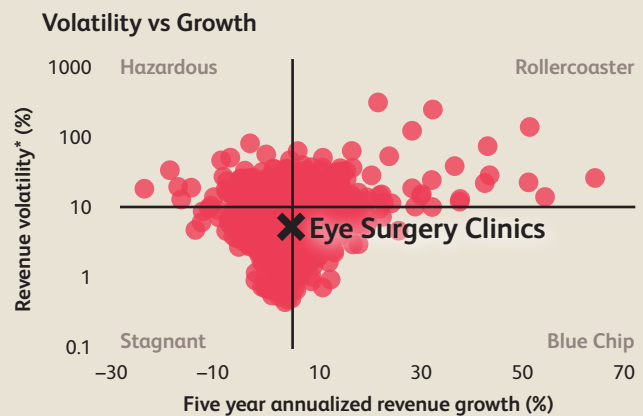
This product is based on NASA research and measures the unique ability of each patient's eye to absorb and reflect light. The wavefront equipment is capable of making 200 unique measurements that create what might be called a three-dimensional topographic map of the patients' cornea, compared with only three measurements made using traditional LASIK equipment. Costs associated with this technology includes leasing fees, insurance fees and royalty fees paid to the manufacturer.

Revenue Volatility

Level
The level of Volatility is **Medium**

A higher level of revenue volatility implies greater industry risk. Volatility can negatively affect long-term strategic decisions, such as the time frame for capital investment.

When a firm makes poor investment decisions it may face underutilized capacity if demand suddenly falls, or capacity constraints if it rises quickly.



* Axis is in logarithmic scale

SOURCE: WWW.IBISWORLD.COM

Operating Conditions

Revenue Volatility continued

The Eye Surgery Clinics industry exhibits a medium level of revenue volatility. Over the past five years, industry revenue has fluctuated, particularly in line with the number of laser vision correction procedures performed each year. Unlike other surgical procedures, which typically have strong need-based demand, corrective surgery is typically perceived

by consumers as an elective procedure, due to many patients purchasing industry services in response to not wanting to wear corrective eyeglasses or contact lenses. As a result, demand for corrective eye surgery is largely susceptible to changes in consumers' discretionary income, which has added to the industry's revenue volatility over the period.

Regulation & Policy

Level & Trend
The level of Regulation is **Heavy** and the trend is **Steady**

The Diagnostic and Surgical Devices Branch of the US Food and Drug Administration (FDA) regulates devices used in laser vision surgery. Within this segment, the Center for Devices and Radiological Health regulates the manufacturing, packaging, labeling and importing of medical equipment as well as radiation-emitting electronic products such as lasers, x-ray systems and ultrasound equipment.

Clinical trials

Initially, the FDA required LASIK equipment and procedures to undergo several phases of medical trials to ensure procedures did not harm patients and worked as intended. As a result, in April 2008, the FDA convened a public advisory panel of outside experts to listen to patient experiences with LASIK and consider how to improve information for patients and physicians about LASIK.

In addition, the FDA has started the LASIK Quality of Life Collaboration Project, a government partnership among the FDA, the Department of Defense, and the National Eye Institute. This project examines patient-reported outcomes (PROs) following LASIK. According to

the FDA, a PRO is any report coming directly from the patient about a health condition and its treatment. This three-phased project is part of FDA's ongoing effort to better monitor and improve the safety and effectiveness of lasers used in LASIK surgery.

Manufacturing

Manufacturers of the surgical equipment must comply with the Medical Device Amendments of 1976 to the federal Food, Drug and Cosmetic Act and the Safe Medical Devices Act of 1990. These amendments regulate the design, manufacture and marketing of industry products. If needed, government regulatory actions can stop production or recall products, revoke the authority necessary for product production and impose other civil or criminal sanctions. Furthermore, regulations can increase purchase costs for eye surgery clinics in the industry.

Clinics also face other government regulation, including detailed inspection of research and laboratory procedures. This includes investigations of marketing, sampling, distribution, recordkeeping, storage and disposal practices.

Operating Conditions

Industry Assistance

Level & Trend
The level of Industry Assistance is **Low** and the trend is **Increasing**

The industry has a low level of assistance. Many people receive government-funded healthcare like Medicare and Medicaid, which reduces the out-of-pocket expense and allows people to visit a physician and use industry products. The number of physician visits is expected to rebound, particularly in 2014, when health insurance exchanges and insurance premium subsidization will be established for individuals with income under the poverty line. These initiatives are part of the Patient Protection and Affordable Care Act (PPACA) of 2010 and

are expected to increase the number of people with healthcare coverage.

The industry also receives assistance through industry associations like the American Society of Cataract and Refractive Surgery and Medical Device Manufacturers Association. These associations are national trade associations that provide educational and advocacy assistance to companies in the industry. They also promote public health and improve patient care through the advocacy of innovative, research-driven medical device technology.

Key Statistics

Industry Data

	Revenue (\$m)	Industry Value Added (\$m)	Establishments	Enterprises	Employment	Exports	Imports	Wages (\$m)	Domestic Demand	Per capita disposable income (\$)
2005	3,188.2	1,295.9	1,174	955	9,669	--	--	696.9	N/A	34,428
2006	3,156.8	1,316.3	1,210	953	9,940	--	--	736.9	N/A	35,461
2007	3,051.2	1,234.5	1,204	961	9,523	--	--	689.1	N/A	35,870
2008	2,137.7	951.8	1,090	888	8,894	--	--	574.7	N/A	36,082
2009	1,611.7	781.3	1,003	821	8,467	--	--	497.4	N/A	35,600
2010	1,676.3	808.0	1,024	824	8,493	--	--	519.8	N/A	35,705
2011	1,755.6	846.7	1,043	833	8,603	--	--	552.6	N/A	36,294
2012	1,835.0	883.2	1,067	851	8,844	--	--	583.0	N/A	36,759
2013	1,866.6	905.2	1,095	866	9,074	--	--	604.4	N/A	36,771
2014	1,917.7	925.4	1,121	884	9,301	--	--	624.3	N/A	37,709
2015	1,983.4	963.4	1,149	891	9,543	--	--	648.0	N/A	38,708
2016	2,040.1	996.0	1,157	902	9,762	--	--	667.5	N/A	39,496
2017	2,078.4	1,016.2	1,162	909	9,957	--	--	679.5	N/A	40,351
2018	2,126.4	1,038.0	1,180	912	10,196	--	--	697.8	N/A	41,232
2019	2,195.0	1,069.4	1,198	922	10,437	--	--	718.2	N/A	42,016

Annual Change

	Revenue (%)	Industry Value Added (%)	Establishments (%)	Enterprises (%)	Employment (%)	Exports (%)	Imports (%)	Wages (%)	Domestic Demand (%)	Per capita disposable income (%)
2006	-1.0	1.6	3.1	-0.2	2.8	N/A	N/A	5.7	N/A	3.0
2007	-3.3	-6.2	-0.5	0.8	-4.2	N/A	N/A	-6.5	N/A	1.2
2008	-29.9	-22.9	-9.5	-7.6	-6.6	N/A	N/A	-16.6	N/A	0.6
2009	-24.6	-17.9	-8.0	-7.5	-4.8	N/A	N/A	-13.5	N/A	-1.3
2010	4.0	3.4	2.1	0.4	0.3	N/A	N/A	4.5	N/A	0.3
2011	4.7	4.8	1.9	1.1	1.3	N/A	N/A	6.3	N/A	1.6
2012	4.5	4.3	2.3	2.2	2.8	N/A	N/A	5.5	N/A	1.3
2013	1.7	2.5	2.6	1.8	2.6	N/A	N/A	3.7	N/A	0.0
2014	2.7	2.2	2.4	2.1	2.5	N/A	N/A	3.3	N/A	2.6
2015	3.4	4.1	2.5	0.8	2.6	N/A	N/A	3.8	N/A	2.6
2016	2.9	3.4	0.7	1.2	2.3	N/A	N/A	3.0	N/A	2.0
2017	1.9	2.0	0.4	0.8	2.0	N/A	N/A	1.8	N/A	2.2
2018	2.3	2.1	1.5	0.3	2.4	N/A	N/A	2.7	N/A	2.2
2019	3.2	3.0	1.5	1.1	2.4	N/A	N/A	2.9	N/A	1.9

Key Ratios

	IVA/Revenue (%)	Imports/Demand (%)	Exports/Revenue (%)	Revenue per Employee (\$'000)	Wages/Revenue (%)	Employees per Est.	Average Wage (\$)	Share of the Economy (%)
2005	40.65	N/A	N/A	329.73	21.86	8.24	72,075.71	0.01
2006	41.70	N/A	N/A	317.59	23.34	8.21	74,134.81	0.01
2007	40.46	N/A	N/A	320.40	22.58	7.91	72,361.65	0.01
2008	44.52	N/A	N/A	240.35	26.88	8.16	64,616.60	0.01
2009	48.48	N/A	N/A	190.35	30.86	8.44	58,745.72	0.01
2010	48.20	N/A	N/A	197.37	31.01	8.29	61,203.34	0.01
2011	48.23	N/A	N/A	204.07	31.48	8.25	64,233.41	0.01
2012	48.13	N/A	N/A	207.49	31.77	8.29	65,920.40	0.01
2013	48.49	N/A	N/A	205.71	32.38	8.29	66,607.89	0.01
2014	48.26	N/A	N/A	206.18	32.55	8.30	67,121.81	0.01
2015	48.57	N/A	N/A	207.84	32.67	8.31	67,903.18	0.01
2016	48.82	N/A	N/A	208.98	32.72	8.44	68,377.38	0.01
2017	48.89	N/A	N/A	208.74	32.69	8.57	68,243.45	0.01
2018	48.81	N/A	N/A	208.55	32.82	8.64	68,438.60	0.01
2019	48.72	N/A	N/A	210.31	32.72	8.71	68,812.88	0.01

Figures are inflation-adjusted 2014 dollars.

SOURCE: WWW.IBISWORLD.COM

Jargon & Glossary

Industry Jargon

LASER-ASSISTED IN-SITU KERATOMILEUSIS (LASIK) Refractive surgical procedure that permanently changes the shape of the cornea with an excimer laser (ultraviolet gas lasers) and a femtosecond laser (neodymium glass lasers).

REFRACTIVE ERROR An error in the focusing of light by the eye and a frequent reason for reduced visual acuity.

VISION CORRECTION SURGERY Also known as refractive and laser eye surgery, is any surgical procedure used to correct vision problems.

IBISWorld Glossary

BARRIERS TO ENTRY High barriers to entry mean that new companies struggle to enter an industry, while low barriers mean it is easy for new companies to enter an industry.

CAPITAL INTENSITY Compares the amount of money spent on capital (plant, machinery and equipment) with that spent on labor. IBISWorld uses the ratio of depreciation to wages as a proxy for capital intensity. High capital intensity is more than \$0.333 of capital to \$1 of labor; medium is \$0.125 to \$0.333 of capital to \$1 of labor; low is less than \$0.125 of capital for every \$1 of labor.

CONSTANT PRICES The dollar figures in the Key Statistics table, including forecasts, are adjusted for inflation using the current year (i.e. year published) as the base year. This removes the impact of changes in the purchasing power of the dollar, leaving only the "real" growth or decline in industry metrics. The inflation adjustments in IBISWorld's reports are made using the US Bureau of Economic Analysis' implicit GDP price deflator.

DOMESTIC DEMAND Spending on industry goods and services within the United States, regardless of their country of origin. It is derived by adding imports to industry revenue, and then subtracting exports.

EMPLOYMENT The number of permanent, part-time, temporary and seasonal employees, working proprietors, partners, managers and executives within the industry.

ENTERPRISE A division that is separately managed and keeps management accounts. Each enterprise consists of one or more establishments that are under common ownership or control.

ESTABLISHMENT The smallest type of accounting unit within an enterprise, an establishment is a single physical location where business is conducted or where services or industrial operations are performed. Multiple establishments under common control make up an enterprise.

EXPORTS Total value of industry goods and services sold by US companies to customers abroad.

IMPORTS Total value of industry goods and services brought in from foreign countries to be sold in the United States.

INDUSTRY CONCENTRATION An indicator of the dominance of the top four players in an industry. Concentration is considered high if the top players account for more than 70% of industry revenue. Medium is 40% to 70% of industry revenue. Low is less than 40%.

INDUSTRY REVENUE The total sales of industry goods and services (exclusive of excise and sales tax); subsidies on production; all other operating income from outside the firm (such as commission income, repair and service income, and rent, leasing and hiring income); and capital work done by rental or lease. Receipts from interest royalties, dividends and the sale of fixed tangible assets are excluded.

INDUSTRY VALUE ADDED (IVA) The market value of goods and services produced by the industry minus the cost of goods and services used in production. IVA is also described as the industry's contribution to GDP, or profit plus wages and depreciation.

INTERNATIONAL TRADE The level of international trade is determined by ratios of exports to revenue and imports to domestic demand. For exports/revenue: low is less than 5%, medium is 5% to 20%, and high is more than 20%. Imports/domestic demand: low is less than 5%, medium is 5% to 35%, and high is more than 35%.

LIFE CYCLE All industries go through periods of growth, maturity and decline. IBISWorld determines an industry's life cycle by considering its growth rate (measured by IVA) compared with GDP; the growth rate of the number of establishments; the amount of change the industry's products are undergoing; the rate of technological change; and the level of customer acceptance of industry products and services.

NONEMPLOYING ESTABLISHMENT Businesses with no paid employment or payroll, also known as nonemployers. These are mostly set up by self-employed individuals.

PROFIT IBISWorld uses earnings before interest and tax (EBIT) as an indicator of a company's profitability. It is calculated as revenue minus expenses, excluding interest and tax.

Jargon & Glossary

IBISWorld Glossary continued

VOLATILITY The level of volatility is determined by averaging the absolute change in revenue in each of the past five years. Volatility levels: very high is more than $\pm 20\%$; high volatility is $\pm 10\%$ to $\pm 20\%$; moderate volatility is $\pm 3\%$ to $\pm 10\%$; and low volatility is less than $\pm 3\%$.

WAGES The gross total wages and salaries of all employees in the industry. The cost of benefits is also included in this figure.

At IBISWorld we know that industry intelligence is more than assembling facts

It is combining data with analysis to answer the questions that successful businesses ask

Identify high growth, emerging & shrinking markets

Arm yourself with the latest industry intelligence

Assess competitive threats from existing & new entrants

Benchmark your performance against the competition

Make speedy market-ready, profit-maximizing decisions



Who is IBISWorld?

We are strategists, analysts, researchers, and marketers. We provide answers to information-hungry, time-poor businesses. Our goal is to provide real world answers that matter to your business in our 700 US industry reports. When tough strategic, budget, sales and marketing decisions need to be made, our suite of Industry and Risk intelligence products give you deeply-researched answers quickly.

IBISWorld Membership

IBISWorld offers tailored membership packages to meet your needs.

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