OHIO BOARD OF ENGINEERS AND SURVEYORS

General information (ENG)

Duties

The State Board of Registration for Professional Engineers and Surveyors is the state agency that licenses and regulates individuals and firms practicing the professions of engineering and surveying in the state of Ohio. The Board's 27,000+ registrants and 3,200+ firms are the professionals that design and ensure the safety of Ohio's roads, bridges, highways, dams and nuclear power plants, design our homes, skyscrapers, schools, churches and commercial buildings, establish our property boundaries and GIS data, design and maintain our electrical grids, inspect our waterways and ensures the safety of our drinking water. The work performed by professional engineers and surveyors is vital to protecting the public by keeping the public safe and ensuring our health. Engineers and surveyors create solutions to problems affecting the world across many industries and their high standards for ethics and quality assurance protect the health, safety and welfare of the public. The nature of the work performed by professional engineers and professional surveyors and the direct impact that work has on public safety makes the work of this Board vitally important to ensuring the safety and well-being of the citizens of Ohio.

The Board's regulatory responsibilities include investigating complaints and violations of the Board's Practice Act by licensees and non-licensees and acting against individuals and firms that violate the Registration Act.

Mission

The Board's mission is to protect the health, safety, and welfare of the citizens of Ohio by providing effective licensure and regulation of professional engineers, professional surveyors, and firms offering engineering and surveying services in Ohio. This is accomplished by ensuring that only qualified individuals and firms are licensed to practice engineering and surveying in Ohio and ensuring that Ohio's laws and rules governing the practice of engineering and surveying are followed. The Board is able to ensure that only qualified individuals are licensed to practice engineering and surveying by requiring minimum educational standards, passing two national licensure exams, completing supervised engineering and surveying experience prior to licensure that demonstrates that the individual is qualified to be in responsible charge of engineering and surveying projects and also requiring continuing education requirements after licensure.

Membership (Current members, chairperson and other officers, and selection process.)

The Board is comprised of five members - two professional engineer members, two professional engineer and professional surveyor members (known as dual registrants) and one professional surveyor member. Individuals seeking appointment to the Board apply with the Governor's Office of Boards and Commissions. Board members are appointed by the Governor and serve five-year terms. In accordance with R.C. 4733.04 each member of the Board shall be a U.S. citizen and resident of Ohio, shall have been engaged in the practice of engineering or surveying for at least twelve years, and shall have been in responsible charge of important engineering or surveying work for at least five years.

Current Board members: Walid Gemayel, P.E. - Chair Worthington Term: September 2019 to September 2024 Megan D. O'Callaghan, P.E., Esq. - Vice-Chair Dublin Term: November 2019 to September 2026 Dean C. Ringle, P.E., P.S. - Secretary Dublin Term: September 2020 to September 2025 Christian E. Bauserman, P.E., P.S. - Member Delaware Term: September 2022 to September 2027 David L. Cox, P.S. – Member Middletown Term: September 2018 to September 2023

Budget (Current budget, description of budgeting process, sources of funding, and expected increases or decreases in budget or funding in future years.)

The Board is self-supported from fees derived from applications and renewals. The Board receives no money from the General Revenue Fund [GRF]. The Board's \$40 biennial renewal fee is the second lowest renewal fee in the U.S. and the Board's other fees are also among the lowest in the U.S. The Board has essentially operated at a flat or reduced funding level since FY 2006. The Board has not raised its renewal fees since 2004. For the FY 2022/2023 biennium budget the Board's appropriation was \$1,319,259 for both years. The Board collected \$608,395 in revenue in FY 2021 and \$1,819,121 in FY 2022. The Board's biennial renewal cycle results in fluctuations in revenue and expenditures on a year-to-year basis with a higher level of revenue received and expenditures incurred during the even-numbered fiscal years when the Board renews close to 30,000 licensees.

For the upcoming FY 2024/2025 biennium budget the Board expects to request increases to its appropriation due to increased costs in wages and benefits pursuant to the most recent union contract and to cover increases in costs from the Ohio Department of Administrative Services for services such as IT support, rent, and maintenance of the licensing database utilized by all state regulatory boards. Since 2006 the Board has been able to maintain its budget level by reducing costs and sharing services with other state agencies to reduce expenses.

Workload (Assess current, past, and anticipated workload. Has the workload increased or decreased significantly in the preceding six years?)

The Board's workload consists of reviewing applications from individuals and firms applying to provide engineering and surveying services in Ohio. The Board is also charged with investigating violations of the registration act. The Board also engages with licensees, colleges and universities and the public to provide presentations and programs to provide information about licensure requirements and the registration act. The Board's workload has remained consistent during the preceding six years and expects the workload to increase slightly due to recent changes to facilitate professional engineering and surveying licensure. The changes are discussed later in this report.

Due to the nature of engineering and surveying work, and the impact that it has on the health, safety and welfare of the citizens of Ohio, reviewing applications for professional engineer and professional surveyor licensure to make sure that applicants have completed the requisite education, exams and experience, is quite complicated and time consuming and requires a thorough evaluation to ensure that the applicant may be placed in responsible charge of engineering or surveying work and can perform the work safely. The closest example to the Board's licensure process and evaluation of applications would be the Medical Board's evaluation of individuals applying to practice medicine.

Current workload FY 2022 [July 1, 2021 – June 30, 2022]:

EI/SI applications reviewed - 645

PE/PS applications reviewed - 451

Workload (Assess current, past, and anticipated workload. Has the workload increased or decreased significantly in the preceding six years?)

PE/PS renewals processed in 2022 – 27,294

OH PS exams administered - 54

Professional engineer/professional surveyor comity/reciprocity applications reviewed - 950

COA applications reviewed - 251 [new applications]

COA renewals processed in 2022 - 3,238

Complaints investigated - 148

The Board's staff also conducts presentations and workshops annually for the public, colleges and universities and technical and professional associations representing engineering/surveying profession covering the Board's laws, rules and requirements for professional engineer and professional surveyor licenses.

Board staff also spends a considerable amount of time answering emails, telephone calls and correspondence providing general information and guidance and also answering questions related to the practice act [R.C. 4733], licensing requirements and alleged violations of the laws and rules from the public, applicants, licensees, colleges and universities, other state licensing boards and other government entities.

Staffing (How many staff are currently employed by the Board? What are their roles? Are staffing levels proportionate to the Board's current and anticipated workload?)

The Board has an administrative staff of seven full-time employees, with two current vacancies, that handle the daily operations of the board. The Board also employs technical consultants that assist the Board in evaluating applications for registration, developing the Ohio professional surveying examination and provide technical assistance in investigations. The Board has one of the lowest staff to licensee ratios of any of Ohio's licensure boards.

Current staff:

Executive Director – Oversees day-to-day activities of the Board. Supervises program managers, directs organization strategy and performance improvement; develops policies and procedures; engages with and represents the Board to colleges and universities, legislature, the public, licensees and organizations representing engineers and surveyors, engineering and surveying students; responsible for Board budget; directs investigations and enforcement program; development and administration of Ohio state-specific surveying exam; manages consultants and the review of applications.

Staffing (How many staff are currently employed by the Board? What are their roles? Are staffing levels proportionate to the Board's current and anticipated workload?)

Program Administrator 3 – Manages the following activities: budgeting, payroll, eLicense/database; website; supervises office staff; performance reviews; bill payment; policy development; customer service.

Program Administrator 2 – Manages the Board's continuing professional development program [CPD] and licensing of engineering and surveying firms. Also responsible for publishing the Board's publications and newsletters.

Program Administrator 2 – Manages the investigation of complaints alleging violations of the Board's Practice Act – Ohio Revised Code 4733. Maintains inventory. Assists Executive Director in providing presentations and outreach as part of the Board's proactive enforcement program.

License Certification Examiner 2 – Processes engineering and surveying exam applications from applicants applying to take the Principles and Practice of Engineering [PE] and Principles and Practice of Surveying [PS] exams. Also processes engineering and surveying comity/reciprocity licensure applications. Assists in administering Ohio's state-specific surveying examination.

License Certification Examiner 1 – Processes engineering and surveying exam applicants from applicants applying to take the Fundamentals of Engineering [FE] and Fundamentals of Surveying [FS] exams, which are the first stage exams on the path to professional license. Processes degree evaluations from applicants applying for licensure that have engineering or surveying degrees from outside of the U.S. Processes exam and licensure verifications for NCEES and for applicants applying for exams or registration in other U.S. states and territories.

Administrative Profession 1 – Answers telephone calls and voicemail messages. Front-line provider of customer service for the Board. Maintains licensure files and prepares correspondence as needed. Opens and distributes mail.

The Board has three committees: 1) an expert panel consisting of paid consultants that evaluate examination applications, and offer professional opinions at the request of the Board; 2) the Credentials Review Committee, consisting of Board members and staff, which verifies and approves examination and certificate of authorization applications; and 3) the Ohio Professional Surveyors Exam Committee, consisting of volunteers and paid consultants that write and grade the Ohio-specific principles and practice of surveying examination that all applicants for licensure as a professional surveyor must pass.

The current composition of the Board, committees and dedicated office staff provide a high level of expertise, manpower, and balance for carrying out the duties of the Board and ensuring the health, safety and welfare of the citizens of Ohio.

Administrative hearings and public complaints (Describe the Board's processes for administering discipline and addressing complaints. Assess the efficiency of the processes.)

In 2006 the Board implemented a proactive enforcement program. The proactive enforcement program shifted the Board's focus from a reactionary response investigating complaints and taking disciplinary action after receiving a complaint or notice of a violation of the registration act to providing outreach and presentations for students, registrants and the public to make them aware of Ohio's practice act for professional engineers and surveyors and the requirements for professional engineer registration. This initiative coincided with the implementation of the Board's continuing education requirement adopted in 2005. The Board works closely with the colleges and universities, technical and professional associations, government agencies and other interested parties to provide presentations, information and resources to promote licensure, increase public awareness of the registration act and limit violations of the practice act. The goal of the proactive enforcement program is to educate and inform and make licensees and the public aware of the laws and rules governing the practice of engineering and surveying in Ohio and prevent avoidable violations of the Registration Act.

The Board's process for administering discipline follows Ohio Revised Code 119. All individuals and firms charged with violations of the practice act are issued a notice of charges and provided an opportunity for hearing in accordance with R.C. 119.

The typical complaint process after the Board receives a complaint or information indicating a violation of the practice act is as follows:

- 1. A complaint is received and evaluated by Board staff to see if the complaint or alleged violation falls within the Board's jurisdiction.
- 2. Board staff collects preliminary information and submits the complaint and report to the Board to determine if there is reasonable cause to proceed with an investigation.
- 3. If the complaint involves a minor or unintentional violation, the Board will attempt to resolve the matter through a warning letter or provide education and direction.
- 4. If the complaint involves a serious violation of the practice act or requires immediate action, the Board reviews the information and opens an investigation.
- 5. Once the investigation is completed the report is presented to the Board to determine if charges should be filed. If charges are warranted the respondent is notified of the charges and issues a notice of opportunity for hearing in accordance with R.C. 119. Violations are often settled through consent agreements.
- 6. Violations that cannot be resolved through education or settlement agreement go to hearing before an independent hearing examiner and follow the process as provided in R.C. 119.

Administrative hearings and public complaints (Describe the Board's processes for administering discipline and addressing complaints. Assess the efficiency of the processes.)

- 7. After the hearing, the hearing examiner issues a report and recommendation to the Board. The Board may accept, reject or modify the hearing examiners report and recommendation.
- 8. A final order is issued to the respondent. The respondent has 30 days to appeal the Board's final order to the Common Pleas Court in accordance with R.C. 119. The respondent may also appeal the common pleas court decision to the Court of Appeals and the Ohio Supreme Court pursuant to R.C. 119.

The administrative hearing process adopted by the legislature in R.C. 119 in Ohio is very fair and efficient. The 119 process provides the subject of a complaint the opportunity to address complaints and provide a response. It is the Board's practice to thoroughly investigate complaints and only charge individuals and firms when there is a clear violation of the practice act that cannot be resolved amicably through education and direction.

Professional engineer

Survey responses (ENG)

Description

Individuals that desire to practice engineering for the public, and identify themselves as professional engineers, as defined in Ohio Revised Code Chapter 4733 must obtain a professional engineer license in Ohio.

Professional engineers in Ohio are required to complete the following requirements pursuant to R.C. 4733.11:

- 1. Complete a 4-year ABET [Accreditation Board for Engineering and Technology] accredited engineering curriculum or a 4-year engineering curriculum from outside of the U.S. that has been evaluated to meet the NCEES Engineering Education Standard, which signals that the education is substantially equivalent to programs accredited by ABET and the U.S. Department of Education.
- 2. Take and pass the NCEES FE examination. The FE examination is the first stage licensing examination required by all U.S. states and territories. The FE exam is a national exam administered by the National Council of Examiners for Engineering and Surveying (NCEES). It is given in a computer-based testing format at Pearson Vue Select testing centers throughout Ohio and is available year-round. The FE exam is the first step in the process to become a professional engineer. It is designed for recent graduates and students who are close to graduating from an accredited engineering curriculum. The FE exam covers engineering topics taught in the undergraduate engineering curriculum.

Description

- 3. Take and pass the NCEES PE examination. The PE exam is a national exam administered by the National Council of Examiners for Engineering and Surveying (NCEES). With the exception of the 16-hour Structural PE exam, all NCEES PE exams are offered in the computer-based format. The PE exam tests for a minimum level of competency in a particular engineering discipline. It is designed for engineers who have gained a minimum of four years' post-college work experience in their chosen engineering discipline. The PE exam is offered in the following disciplines:
 - Agricultural and Biological Engineering
 - Architectural Engineering
 - Chemical
 - <u>Civil</u>
 - Control Systems
 - Electrical and Computer
 - Environmental
 - Fire Protection
 - Industrial and Systems
 - <u>Mechanical</u>
 - Metallurgical and Materials
 - Mining and Mineral Processing
 - Naval Architecture and Marine Engineering
 - <u>Nuclear</u>
 - Petroleum
 - <u>Structural</u>
- 4. Complete four years of progressive engineering experience pursuant to R.C. 4733.11 of a high quality and nature that demonstrates that the applicant can be placed in responsible charge of engineering work.

Description

The Board works with all other engineering boards in the United States and its territories through our membership with the National Council of Examiners for Engineering and Surveying [NCEES] to develop national engineering and surveying licensure exams and develop national model laws and rules establishing the minimum qualifications and requirements for engineering and surveying licensure. The member boards of NCEES have worked together for over 80 years developing national standards and requirements to ensure that engineers and surveyors are practicing the professionals of engineering and surveying competently and safely and in a manner that protects the public.

Type (License, specialty license for medical reimbursement, government certification, registration, bonding or insurance, inspection, or process regulation. See R.C. 4798.01 for relevant definitions.)

Professional Engineers in Ohio, like in all U.S. states and territories, are required to obtain a license to practice engineering.

If the regulation is a registration, certification, or license requirement, please complete the following:					
Number issued annually	The number of professional engineers licensed in Ohio the preceding six years:				
	2017 – 25,517				
	2018 – 26,086				
	2019 – 26,917				
	2020 – 24,949				
	2021 – 26,622				
	2022 – 27,293				
	The number of engineering and surveying firms licensed in Ohio the preceding six years:				
	The number of engineering and surveying firms licensed in Ohio the preceding six years:				

If the regulation is a registration, certification	on, or license requirement, please complete the following:
	2017 – 2,574
	2018 – 2,719
	2019 – 3162
	2020 – 3,323
	2021 – 3,324
	2022 – 3,238 [Note: This number is expected to increase as more firms complete renewals of their COA in the next several months. COA renewals were due July 1, 2022.]
Number renewed annually	Renewed in 2022:
	Professional Engineer [PE] – 27,293 in 2022
	Engineering and Surveying Firms – 3,238 in 2022
Have there been significant increases or decreases in active registrations, certifications or licenses in the preceding six years?	There have not been significant changes to the number of professional engineers seeking registration and renewing in the preceding six years.
Education or training requirements	Professional engineers are required to complete a curriculum of four years or more in engineering pursuant to R.C. 4733.11.
Experience requirements	Professional engineers are required to complete four years of engineering experience of a nature and quality that demonstrates that the applicant can be placed in responsible charge of engineering work and perform that work safely.

Examination requirements (Who administers the exam? How is the exam and administrator selected? What fees are charged? Does the Board receive any proceeds of those fees? If so, how are the	Professional engineers are required to take and pass two national examinations. The first stage exam is typically taken in the final year of enrollment in an engineering curriculum, or shortly after graduation is the NCEES Fundamentals of Engineering [FE] examination. The FE exam tests the knowledge of the examinee from engineering courses taken during completion of the engineering degree program.			
proceeds used?)	The second stage exam is the Principles and Practice of Engineering [PE] examination. This exam is a practice-based exam that tests to ensure that applicants possess the requisite knowledge and skill to perform engineering in a manner that protects the public.			
	The National Council of Examiners for Engineering and Surveying [NCEES] is the only organization that develops and administers engineering and surveying licensure exams in the United States. NCEES is an organization made up of all engineering and surveying boards in the United States and its territories. The member boards of NCEES develop and administer the engineering and surveying licensure exams in a computer-based format taken at Pearson-Vue Select testing centers throughout the world. The member boards of NCEES have been working together for 100 years developing national model law, standard licensure requirements and developing the engineering and surveying licensure exams.			
	The Ohio PE exam application fee is currently \$75.00. Ohio receives this fee to cover the expension associated with reviewing and processing the application. The fee is used to operate the Board.			
	The exam administration fees currently charged by NCEES:			
	Fundamentals of Engineering [FE] examination – \$175.00			
	Principles and Practice of Engineering [PE] examination - \$375.00			
	Note: The NCEES costs include the expense associated with developing the exams and developing questions, maintaining the test question item bank, grading the exam, distributing exam grades and use of testing space in Pearson Vue test centers. The Board does not receive these NCEES fees.			

If the regulation is a registration, certification, or license requirement, please complete the following:

If the regulation is a registration, certification	on, or license requirement, please complete the following:
Continuing education requirements (Including a description of the curriculum and the process of setting it.)	Ohio requires professional engineers to complete 30 hours of continuing education during the biennial renewal period. The Board's continuing education requirement is found in R.C. 4733.151. Engineers are required to complete courses or activities dealing with technical, ethical or managerial topics relevant to the practice of engineering. Two of the 30 hours each biennial renewal period must cover the Board's rules or professional ethics. The Board's continuing education requirement is based on the national model law.
Initial fee	\$50.00
Duration	Two years.
Renewal fee (If different from initial fee, please explain why.)	\$40.00 The Board is required by law to establish application and renewal fees at an amount adequate to cover the expense of processing applications and cover the expense of renewals. Due to the large number of registrants and applicants, along with the Board's efficient staff and efficient use of resources, the Board has not had to increase the renewal fee since 2004. The renewal fee is the second lowest fee of engineering and surveying boards in the U.S.
Does the Board recognize uniform licensure requirements or allow for reciprocity?	Ohio's requirements for registration as a professional engineer align with the requirements adopted in the national model law by the member boards of NCEES [National Council of Examiners for Engineering and Surveying], a national organization that consists of all engineering and surveying boards in the U.S., including its territories. With few exceptions nationally, all states and territories follow the NCEES Model Law for professional engineer registration. Obtaining a reciprocal license to practice engineering in Ohio is easy. Applicants that are designated as Model Law Engineers [MLE] can receive an Ohio PE registration in a matter of days.

If the regulation is a registration, certification	on, or license requirement, please complete the following:
Are there any similar national registrations, certifications, or licenses? Could they be used as a substitute for the state regulation?	There is none. The impact of the work performed by professional engineers on the public health and safety is of such a nature that it is vitally important to public safety that Ohio, and all other U.S. engineering and surveying boards, have minimum qualifications to ensure minimal competency to practice the profession of engineering safely and ethically. This is accomplished by adopting the NCEES Model Law, which has developed the requirements for registration for professional engineer registration in the United States for over 100 years.
Are there any circumstances in which an individual may practice elements of the occupation without being regulated by the Board?	There are segments of engineering that are exempt from registration. These exemptions are found in R.C. 4733.18. The exemptions include engineering performed for the design and fabrication of manufactured products and military officers working for the federal government.
Is the Board permitted to exercise discretion in determining whether to register, certify, or license an individual?	The requirements for registration as a professional engineer in Ohio were established by the Ohio legislature and are codified in R.C. Chapter 4733. The Board is required by law to follow the requirements for registration in R.C. 4733. The Board has little discretion in determining qualifications for licensure since the requirements are codified in R.C. 4733.
Other information (Significant attributes or prerequisites to licensure not addressed in this chart.)	MODIFICATION TO ENGINEERING LICENSURE REQUIREMENTS During FY 2022 the Board developed a plan to modify the requirements for professional engineer registration to closely align with the national model law. This change will become effective October 1, 2022. The change will remove the requirement for applicants taking the Principles and Practice of Engineering [PE] examination to complete four years of qualifying engineering experience before obtaining approval to take the PE exam. Applicants will now be able to take the PE exam after graduating from an accredited engineering curriculum and obtaining a passing score on the Fundamentals of Engineering [FE] examination. While applicants will still be required to complete four years of engineering experience before obtaining their professional engineer registration, allowing applicants to take the PE early will encourage more engineering graduates to pursue professional engineer licensure and ensure that Ohio has enough qualified engineers to perform competent engineering work for the public. This change will also reduce paperwork and applications required to become licensed. The applications and fees will be consolidated into one application and fee.

Oversight and disciplinary authority of the Board respecting individuals engaged in the occupation.

Pursuant to R.C. 4733.20 the Board is charged with investigating violations of the registration act for professional engineering and surveying in Ohio – Ohio Revised Code Chapter 4733. When a violation occurs that requires formal action, the Board may charge an individual or firm with a violation of Ohio law and issue an adjudication order in accordance with Chapter 119 of the Ohio Revised Code.

How much revenue is derived from fees charged by the Board to individuals engaged in the occupation (such as license and renewal fees)? How is that revenue used?

In 2022 the board collected \$1,751,251 from application and renewal fees. These fees are solely used to cover expenses for the operation of the Board.

Describe any federal regulations that apply to the occupation. Does federal law require the state to regulate the occupation?

The federal government does not regulate or license professional engineers. The federal government recognizes professional engineer registration at the state level and requires engineers performing work on federal projects to comply with state law.

What is the harm that the regulation seeks to prevent? (See, R.C. 4798.02(B).)

Death and/or serious injury to the public should an engineering failure occur. Regulation is also in place to prevent financial loses to the public, businesses and government agency due to incompetent or negligent practice of engineering.

Is the regulation effective at preventing the harm described above? Are there other, less restrictive ways to prevent the harm?

The regulation of engineering in Ohio has been very effective. Several years ago, the Board developed a proactive enforcement program to shift the enforcement process from simply a reactionary response of investigating complaints and then acting after a complaint or notice of violation was received, to a proactive approach to reach out to students, applicants and the public to make them aware of Ohio's registration requirements and information and resources so that violations of the registration act can be avoided.

Ohio also works very closely with agencies that review, approve and issue permits for engineering projects in Ohio. These agencies include Industrial Compliance, Ohio Department of Transpiration, Ohio Department of Natural Resources, Ohio Environmental Protection Agency, the County Engineers Association of Ohio and local government agencies that review and approve engineering work. The process in Ohio, beginning with professional licensure with the Board through the plan review process administered by Ohio's building departments and other regulatory authorities has been very effective and serves the public well.

The regulation is also effective because professional engineers are required by Ohio law to adhere to a Code of Ethics in the performance of their duties. Pursuant to Ohio law, professional engineers must follow certain ethical standards and are required to perform their duties in a manner that protects the public. Failure to adhere to the Code of Ethics is a violation of Ohio law and may result in disciplinary actions.

Are there any changes the Board would like to see implemented?

Not at this time.

Surrounding state comparison (LSC)

	Professional Engineer					
	Ohio	Indiana	Kentucky	Michigan	Pennsylvania	West Virginia
Type of regulation	Professional engineer license (R.C. 4733.02).	Professional engineer license (Ind. Code 25-31- 1-27).	Professional engineer license (Ky. Rev. Stat. 322.020(1)).	Professional engineer License (Mich. Comp. Laws 339.2014).	Professional engineer license (63 Pa. Stat. 150).	Professional engineer license (W. Va. Code 30- 13-2).
Education or training	Track A: Graduation from an accredited engineering curriculum of four years or more (accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and	Track A: Graduation from an approved engineering curriculum. Track B: At least eight years of engineering education and experience that demonstrates sufficient	Graduation from an AEC/ABET accredited engineering program of four years or more or any engineering program deemed equivalent by the Kentucky Board of Licensure for Professional Engineers and	A bachelor's degree in engineering from an AEC/ABET or Canadian Engineering Accreditation Board accredited institution or an equivalent education as determined by the Board of	Either of the following: 1. Graduation from an AEC/ABET accredited or equivalent engineering curriculum; 2. Eight or more years of progressive experience	Graduation from a four-year AEC/ABET accredited curriculum or an equivalent approved by the Board of Registration for Professional Engineers (W. Va. Code 30-13- 13(a)(5)).

	Professional Engineer					
	Ohio	Indiana	Kentucky	Michigan	Pennsylvania	West Virginia
	Technology (AEC/ABET).Track B: Graduation from a nonaccredited engineering curriculum of four years or more that is approved by the Board of Registration for Professional Engineers and Surveyors or an AEC/ABET accredited engineering technology curriculum of four years or more.(R.C. 4733.01 and 4733.11(A); O.A.C. 4733-9-01.)	knowledge and skill. (Ind. Code 25-31- 1-12(a); 864 Ind. Admin. Code 1.1- 2.1-3.)	Land Surveyors (Ky. Rev. Stat. 322.040(1)(a)).	Professional Engineers (<i>Mich.</i> <i>Comp. Laws</i> <i>339.2004(2)(b);</i> <i>Mich. Admin.</i> <i>Code R.</i> <i>339.16021).</i>	work and knowledge, skill, and education approximat- ing that curriculum. (63 Pa. Stat. 151.2; 49 Pa. Code 37.31).	
Experience	An applicant may, but is not required to, obtain certification as an engineer intern,	An applicant may, but is not required to, obtain certification as an engineering	Four or more years of progressive experience in engineering or teaching of a	Eight or more years of professional experience acceptable to the Board, though	Certification as an engineer-in- training, which is granted upon completion of the education	An applicant may, but is not required to, obtain certification as an engineer-in-

		Professional Enginee	er		
Ohio	Indiana	Kentucky	Michigan	Pennsylvania	West Virginia
 which is granted upon completion of the education requirement (see "Education or training") and passage of the Fundamentals of Engineering Exam (see "Exam"). Track A: Four years of practical experience acceptable to the Board. Track B: Eight years of practical experience acceptable to the Board. In either case, experience must be separate from and not overlapping with degree work, though some can be completed 	intern, which is granted upon completion of the education requirement (see "Education or training") and passage of the Fundamentals of Engineering Exam (see "Exam") (Ind. Code 25-31-1-2). Track A: Two to six years of engineering work subsequent to graduation, depending on the type of degree. Track B: As described above in "Education or training." (Ind. Code 25-31- 1-12; 864 Ind. Admin. Code 1.1- 2.1-3 and 1.1-2.1- 5.)	grade and character that indicates to the Board that the applicant is competent to practice engineering. Experience must generally be obtained after graduation. (Ky. Rev. Stat. 322.040(1)(a); 201 Ky. Admin. Regs. 18:072.)	education may count for up to five (<i>Mich. Comp.</i> <i>Laws</i> 339.2004(2)(a); <i>Mich. Admin.</i> <i>Code R.</i> 339.16022).	requirement (see "Education or training") and passage of the Fundamentals of Engineering Exam (see "Exam"). Either of the following: 1. Four or more years of experience in engineering, after issuance of the engineer-in- training certificate and under the supervision of a licensed or similarly qualified engineer; or 2. Four or more years of teaching experience in an approved	training, which is granted upon completion of th education requirement (see "Education or training") and passage of the Fundamentals of Engineering Exar (see "Exam"). Four or more years of experience in engineering. (W. Va. Code 30- 13-13(b) and (c)(2).)

	Professional Engineer					
	Ohio	Indiana	Kentucky	Michigan	Pennsylvania	West Virginia
	before graduation. (R.C. 4733.11(A); O.A.C. 4733-9-02 and 4733-9-04.)				curriculum, after issuance of the engineer-in- training certificate and under the supervision of a licensed or similarly qualified engineer. (63 Pa. Stat. 151.2; 49 Pa. Code 37.31.)	
Exam	Yes. The applicant must pass: (1) the Fundamentals of Engineering and (2) the Principles and Practice of Engineering exams administered by the National Council of Examiners for Engineering and Surveying (NCEES)	Yes. The applicant must pass: (1) the Fundamentals of Engineering and (2) the Principles and Practice of Engineering exams administered by NCEES, and (3) a professional conduct and registration requirements	Yes. The applicant must pass: (1) the Fundamentals of Engineering and (2) the Principles and Practice of Engineering exams administered by NCEES. The Board of Engineers & Land Surveyors may allow senior undergraduates	Yes. The applicant must pass: (1) either the Principles and Practice of Engineering or the Structural Engineering exams administered by NCEES and (2) the Fundamentals of Engineering exam administered by	Yes. The applicant must pass: (1) the Fundamentals of Engineering and (2) the Principles and Practice of Engineering exams administered by NCEES (163 Pa. Stat. 49; Pa. Code 37.31).	Yes. The applicant must pass: (1) the Fundamentals of Engineering and (2) the Principles and Practice of Engineering exams administered by NCEES (W. Va. Code 30-13- 13(b)(1) and (c)(3)).

			Professional Enginee	r		
	Ohio	Indiana	Kentucky	Michigan	Pennsylvania	West Virginia
	(R.C. 4733.11 and 4733.13; O.A.C. 4733-9-04).	exam (Ind. Code 25-31-1-14; 864 Ind. Admin. Code 1.1-4.1-3).	to take the former, in which case a passing score results in designation as an engineer-in- training. (Ky. Rev. Stat. 322.040(1)(a).)	NCEES unless the applicant has obtained a doctorate in engineering from an accredited institution (<i>Mich.</i> <i>Comp. Laws</i> 339.2004(2)(c); <i>Mich. Admin.</i> <i>Code R.</i> 339.16026).		
Continuing education	30 hours every two years (R.C. 4733.151).	30 hours every two years (864 Ind. Admin. Code 1.1-15-3).	30 hours every two years (201 Ky. Admin. Regs. 18:196).	30 hours every two years (Mich. Comp. Laws 339.2009; Mich. Admin. Code R. 339.16040).	24 hours every two years (63 Pa. Stat. 151.5).	30 hours every two years (W. Va. Code R. 7-1-10).
Initial licensure fee	\$75 application fee; \$50 registration fee (R.C. 4733.12; LSC, <u>Redbook for</u> <u>State Board of</u> <u>Registration for</u> <u>Professional</u> <u>Engineers and</u> <u>Surveyors (PDF)</u>).	\$300 application fee; \$50 or \$100 registration fee depending on when in a license period the license is issued (864 Ind. Admin. Code 1.1- 12-1).	\$0 (Ky. Rev. Stat. 322.100; 201 Ky. Admin. Regs. 18:040).	\$135 (Michigan Bureau of Professional Licensing, <u>Professional</u> <u>Engineer Licensing</u> <u>Guide (PDF)</u>).	\$50 (49 Pa. Code 37.17).	\$80 application fee; \$25 certificate fee (W. Va. Code R. 7-1- 13).

	Professional Engineer					
	Ohio	Indiana	Kentucky	Michigan	Pennsylvania	West Virginia
License duration	Two years (R.C. 4733.15).	Two years (Ind. Code 25-31-1-17).	Two years <i>(Ky.</i> <i>Rev. Stat.</i> 322.160).	Two years (Mich. Admin. Code R. 339.1003).	Two years (63 Pa. Stat. 151; 49 Pa. Code 37.19).	Two years (W. Va. Code R. 7-1-9).
Renewal fee	\$40 (R.C. 4733.12: LSC, <u>Redbook for</u> <u>State Board of</u> <u>Registration for</u> <u>Professional</u> <u>Engineers and</u> <u>Surveyors (PDF)</u>).	\$100 (864 Ind. Admin. Code 1.1- 12-1).	\$150 (Ky. Rev. Stat. 322.100; 201 Ky. Admin. Regs. 18:040).	\$100 (Michigan Bureau of Professional Licensing, <u>Professional</u> <u>Engineer Licensing</u> <u>Guide (PDF)</u>).	\$100 (49 Pa. Code 37.17).	\$70 (W. Va. Code R. 7-1-13).

Professional surveyor

Survey responses (ENG)

Descri	iption						
	Individuals that desire to practice surveying in Ohio, and identify themselves as professional surveyors, as defined in Ohio Revised Code Chapter 4733 must obtain a professional surveyor license in Ohio.						
Pr	ofessional Surveyors in Ohio are required to complete the following requirements pursuant to R.C. 4733.11:						
1.	Complete a 4-year ABET [Accreditation Board for Engineering and Technology] accredited surveying curriculum, a 4-year Board- approved surveying curriculum or a 4-year surveying curriculum from outside of the U.S. that has been evaluated to meet the NCEES Surveying Education Standard, which signals that the education is substantially equivalent to programs accredited by ABET and the U.S. Department of Education.						
2.	Take and pass the NCEES FS examination. The FS examination is the first stage licensing examination required by all U.S. states and territories. The FS exam is a national exam administered by the National Council of Examiners for Engineering and Surveying (NCEES). It is given in a computer-based testing format at Pearson Vue Select testing centers throughout Ohio and the United States and is						

Description

available year-round. The FS exam is designed to test examinees on surveying topics taught during the undergraduate surveying curriculum.

- 3. Take and pass the NCEES PS examination. The PS exam is a national exam administered by the National Council of Examiners for Engineering and Surveying (NCEES). The NCEES PS exam is offered in the computer-based format. The PS exam tests for a minimum level of competency in surveying arts and science. It is designed for surveys who have gained a minimum of four years' post-college work experience in surveying.
- 4. Complete four years of progressive surveying experience pursuant to R.C. 4733.11 of a high quality and nature that demonstrates that the applicant can be placed in responsible charge of surveying work.

The Board works with all other engineering boards in the United States and its territories through our membership with the National Council of Examiners for Engineering and Surveying [NCEES] to develop national engineering and surveying licensure exams and develop national model laws and rules establishing the minimum qualifications and requirements for engineering and surveying licensure. The member boards of NCEES have worked together for over 80 years developing national standards and requirements to ensure that engineers and surveyors are practicing the professionals of engineering and surveying competently and safely and in a manner that protects the public.

Type (License, specialty license for medical reimbursement	, government certification, registration,	bonding or insurance, inspection, or process
regulation. See R.C. 4798.01 for relevant definitions.)		

Professional Surveyors in Ohio, like in all U.S. states and territories, are required to obtain a license to practice surveying.

If the regulation is a registration, certification, or license requirement, please complete the following:

Number issued annually	The number of professional surveyors licensed in Ohio the preceding six years:
	2017 – 1,925
	2018 – 1,822

If the regulation is a registration, certification, or license requirement, please complete the following:					
	2019 – 1,794				
	2020 – 1,666				
	2021 – 1,712				
	2022 – 1,633				
Number renewed annually	Renewed in 2022: 1,633				
Have there been significant increases or decreases in active registrations, certifications or licenses in the preceding six years?	In the preceding six years professional surveyor registration has varied from a high of 1,925 in 2017 to a low of 1,633 in 2022 – a decrease in 292 registrations. This decrease was not unexpected and is consistent with national trends due to retirements of professional surveyors that have reached retirement age and the decrease in the number of applicants taking the national surveying exams. With the recent changes to the professional surveyor requirements effective January 2021 the Board has seen a significant increase in the number of applicants applying for professional surveyor registration.				
Education or training requirements	Professional surveyors are required to complete a curriculum of four years or more in surveying pursuant to R.C. 4733.11.				
Experience requirements	Professional surveyors are required to complete four years of surveying experience of a nature and quality that demonstrates that the applicant can be placed in responsible charge of surveying work and can perform that work safely.				
Examination requirements (Who administers the exam? How is the exam and administrator selected? What fees are charged? Does the Board receive any proceeds of those fees? If so, how are the proceeds used?)	Professional surveyors are required to take and pass two national examinations. The first stage exam is typically taken in the final year of enrollment in an engineering curriculum, or shortly after graduation, is the NCEES Fundamentals of Surveying [FS] examination. The FS exam tests the knowledge of the examinee from surveying courses taken during completion of the surveying degree program. The second stage exam is the Principles and Practice of Surveying [PS] examination. This exam is a practice-based exam that tests to ensure that applicants possess the requisite knowledge and skill to perform surveying in a manner that protects the public.				

If the regulation is a registration, certificati	If the regulation is a registration, certification, or license requirement, please complete the following:					
	The National Council of Examiners for Engineering and Surveying [NCEES] is the only organization that develops and administers engineering and surveying licensure exams in the United States. NCEES is an organization made up of all engineering and surveying boards in the United States and its territories. The member boards of NCEES develop and administer the engineering and surveying licensure exams in a computer-based format taken at Pearson-Vue Select testing centers throughout the world. The member boards of NCEES have been working together for 100 years developing national model law, standard licensure requirements and developing the engineering and surveying licensure exams.					
	The Ohio PS exam application fee is currently \$75.00. The Board receives these fees and the fees are used to operate the Board.					
	The exam administration fees currently charged by NCEES:					
	Fundamentals of Surveying [FS] examination – \$175.00					
	Principles and Practice of Surveying [PS] examination - \$300.00					
	Note: The NCEES costs include the expense associated with developing the exams and maintaining the test question item bank, grading the exam and use of testing space in Pearson Vue test centers. The Board does not receive any of the fees charged by NCEES.					
	After receiving passing scores on the national exams, applicants for professional surveyor registration are required to take and pass a two-hour state specific surveying exam that covers the laws and rules related to surveying in the state of Ohio. This exam does not duplicate content from the two national exams. This exam is developed and administered by the Ohio Board through a committee made up of subject matter experts and a psychometrician. The cost of taking this exam is included in the cost of the Board's \$75.00 application fee.					
Continuing education requirements (Including a description of the curriculum and the process of setting it.)	Ohio requires professional surveyors to complete 30 hours of continuing education during the biennial renewal period. The Board's continuing education requirement is found in R.C. 4733.151. Surveyors are required to complete courses or activities dealing with technical, ethical or managerial topics relevant to the practice of surveying. Two of the 30 hours each biennial renewal period must cover the Board's rules or professional ethics. The Board's continuing education requirement is based on the national model law.					

If the regulation is a registration, certification, or license requirement, please complete the following:						
Initial fee	\$50.00					
Duration	Two years.					
Renewal fee (<i>If different from initial fee, please explain why.</i>)	\$40.00 The Board is required by law to establish application and renewal fees at an amount adequate to cover the expense of processing applications and cover the expense of renewals. Due to the large number of registrants and applicants, along with the Board's efficient staff and use of resources, the Board has not increased the renewal fee since 2004. The renewal fee is the second lowest fee of engineering and surveying boards in the U.S.					
Does the Board recognize uniform licensure requirements or allow for reciprocity?	Ohio's requirements for registration as a professional surveyor align with the requirements adopted in the national model law by the member boards of NCEES [National Council of Examiners for Engineering and Surveying], a national organization that consists of all engineering and surveying boards in the U.S., including its territories. With few exceptions nationally, all states and territories follow the NCEES Model Law for professional surveyor registration. Applicants that are designated as Model Law Surveyors [MLS] can quickly receive approval to take the state specific surveying exam to obtain a reciprocal license.					
Are there any similar national registrations, certifications, or licenses? Could they be used as a substitute for the state regulation?	There is none. The impact of the work performed by professional surveyors on the public health and safety is of such a nature that it is vitally important to public safety that Ohio, and all other U.S. engineering and surveying boards, have minimum qualifications to ensure minimal competency to practice the profession of surveying safely and ethically. This is accomplished by adopting the NCEES Model Law, which has developed the requirements for registration for professional surveyor registration in the United States for over 100 years.					
Are there any circumstances in which an individual may practice elements of the occupation without being regulated by the Board?	There are no exemptions in Ohio law to practice surveying.					

If the regulation is a registration, certification	on, or license requirement, please complete the following:
Is the Board permitted to exercise discretion in determining whether to register, certify, or license an individual?	The requirements for registration as a professional surveyor in Ohio were established by the Ohio legislature and are codified in R.C. Chapter 4733. The Board is required by law to follow the requirements for registration in R.C. 4733. The Board has little discretion in determining qualifications for licensure since the requirements are codified in R.C. 4733.
Other information (Significant attributes or prerequisites to licensure not addressed in this chart.)	In 2019 the Board created a task force to study the surveying profession in Ohio and the national trend in the decreasing number of four-year surveying degree programs and a decrease in the number of applicants applying to take the national surveying exams. In January 2021 the Board adopted the task force's recommendations and modified the requirements for registration as a professional surveyor. While Ohio has been a leader in surveying education and registration and has eight approved surveying programs, including an ABET accredited program at the University of Akron, the Board realized an opportunity to expand the requirements for registration and make surveyor registration available to more potential applicants. The changes to the requirements did not water-down the registration requirements, but instead broadened opportunities for individuals desiring to enter the surveying profession, particularly non-traditional students, and individuals working in surveying as technicians and field crew, while still ensuring that the public is protected.
	The changes adopted from the Surveying Task Force's recommendations include:
	• Expanding the educational requirement to allow graduates of any accredited bachelor's degree program with 30 hours of surveying courses to become eligible for PS registration.
	 Permitted the use of part-time employment to count towards the experience requirement.
	• Allowed applicants applying for registration as both a professional engineer and professional surveyor to use overlapping engineering/surveying experience therefore reducing the experience requirement for these applicants from 8 years to 6 years. It is expected that this change will increase the number of potential candidates for the elected county engineer office, which requires registration as both a professional engineer and professional surveyor due to the nature and duties of that position.

If the regulation is a registration	n, certification, or lice	nse requirement, nlea	ase complete the following:
In the regulation is a registratio	in, certification, or nee	inse requirement, piec	ise complete the following.

Based on these changes the Board has already seen an increase in the number of applicants applying to take the surveying examinations in Ohio.

Oversight and disciplinary authority of the Board respecting individuals engaged in the occupation.

Pursuant to R.C. 4733.20 the Board is charged with investigating violations of the registration act for professional engineering and surveying in Ohio – Ohio Revised Code Chapter 4733. When a violation occurs that requires formal action, the Board may charge an individual or firm with a violation of Ohio law and issue an adjudication order in accordance with Chapter 119 of the Ohio Revised Code.

How much revenue is derived from fees charged by the Board to individuals engaged in the occupation (such as license and renewal fees)? How is that revenue used?

In 2022 the board collected \$1,751,251 from application and renewal fees. These fees are solely used to cover expenses for the operation of the Board.

Describe any federal regulations that apply to the occupation. Does federal law require the state to regulate the occupation?

The federal government does not regulate or license professional surveyors. The federal government recognizes professional surveyor registration at the state level and requires engineers performing work on federal projects to comply with state law.

What is the harm that the regulation seeks to prevent? (See, R.C. 4798.02(B).)

Death and/or serious injury to the public should a failure occur due to substandard engineering work. Since professional surveyors provide engineers with information needed for the design of engineering projects it is vitally important that professional surveyors are qualified to provide surveying services to the public. In addition, an improper survey could cost the public thousands of dollars to resolve or litigate problems that can occur when property boundaries are improperly located and recorded.

Is the regulation effective at preventing the harm described above? Are there other, less restrictive ways to prevent the harm?

The regulation of surveying in Ohio has been very effective. Several years ago, the Board developed a proactive enforcement program to shift the enforcement process from simply a reactionary response of investigating complaints and then acting after a complaint or notice of violation was received, to a proactive approach to reach out to students, applicants and the public to make them aware of Ohio's registration requirements and information and resources so that violations of the registration act can be avoided.

Ohio also works very closely with agencies that review and approve surveying work in Ohio. These agencies include Industrial Compliance, Ohio Department of Transpiration, Ohio Department of Natural Resources, Ohio Environmental Protection Agency, the County Engineers Association of Ohio and local government agencies that review and approve engineering and surveying work. The process in Ohio, beginning with professional licensure with the Board through the plan review process by Ohio's building departments and other regulatory authorities has been very effective and serves the public well.

The regulation is also effective because professional surveyors are required by Ohio law to adhere to a Code of Ethics in the performance of their duties. Pursuant to Ohio law, professional surveyors must follow certain ethical standards and are required to perform their duties in a manner that protects the public. Failure to adhere to the Code of Ethics is a violation of Ohio law and may result in disciplinary actions.

Are there any changes the Board would like to see implemented?

Not at this time.

Surrounding state comparison (LSC)

Professional Surveyor (Professional Surveyor and Surveyor Intern/Surveyor-in-Training)								
	Ohio	Indiana	Kentucky	Michigan	Pennsylvania	West Virginia		
Type of regulation	Professional surveyor license (R.C. 4733.02).	Professional surveyor license (Ind. Code 25- 21.5-4-1).	Professional surveyor license (Ky. Rev. Stat. 322.020(2)).	Professional surveyor license (Mich. Comp. Laws 339.2004(3)).	Professional land surveyor license (63 Pa. Stat. 150).	Professional surveyor license (W. Va. Code 30- 13A-1).		
Education or training	Either of the following: 1. Graduation from an approved curriculum in surveying of four years or more; or 2. Graduation from an approved	Track A: Graduation from an approved surveying curriculum. Track B: At least eight years of surveying education and experience that demonstrates sufficient	Track A: Graduation from an approved program in surveying of four years or more. Track B: Graduation from either (1) a civil, mining, or agricultural engineering	Completion of a degree in professional surveying or a related degree that included professional surveying courses (Mich. Comp. Laws 339.2004(3)(b); Mich. Admin.	Any of the following: 1. Graduation from an approved curriculum in civil engineering of four years or more, with at least ten hours of	Track A: A bachelor's degree in surveying. Track B: A bachelor's degree with at least 30 hours of surveying coursework or an associate's degree in surveying or a related field.		

	Professiona	Ohio Indiana Kentucky Michigan - Pennsylvania							
	Ohiocurriculum in civil engineering of four years or more, with at least 16 hours of surveying coursework.(R.C. 4733.11(B).)	Indiana knowledge and skill. (Ind. Code 25- 21.5-5-2; 865 Ind. Admin. Code 1-2- 1.)	Kentucky program of four years or more, with at least 12 hours of surveying coursework or (2) any other four- year program, with at least 24 hours of surveying coursework. (Ky. Rev. Stat. 322.045(1).)	Michigan Code R. 339.17201).	Pennsylvaniasurveying coursework;2. Six or more years of experience and education deemed equivalent to graduation from a curriculum in land surveying or civil engineering; or3. An associate's degree in an approved surveying technology curriculum.(63 Pa. Stat. 151.3).	West Virginia (W. Va. Code 30 13A-8(a).)			
Experience	An applicant may, but is not required to obtain certification as a surveyor intern,	An applicant may, but is not required to, obtain certification as a	An applicant may, but is not required to, receive certification as a	At least eight years of professional experience in professional	Certification as a surveyor-in- training, which is granted upon completion of the	Certification as a surveyor intern, which is granted upon completion of the educatior			

Ohio	Indiana	Kentucky	Michigan	Pennsylvania	West Virginia
which is granted upon completion of the education requirement (see "Education or training") and passage of the Fundamentals of Surveying Exam (see "Exam"). At least four years of surveying work, not overlapping in time with school work, at least two years of which must be completed after graduation, and at least two years of which were under the direct supervision of a licensed surveyor (<i>R.C. 4733.11(B)</i> ; <i>O.A.C. 4733-9-04</i>).	surveyor intern, which is granted upon completion of the education requirement (see "Education or training") and passage of the Fundamentals of Surveying Exam (see "Exam") (Ind. Code 25-21.5-1- 9.7). Track A: At least four years of surveying work subsequent to graduation. Fewer years are required if the applicant has an advanced degree from an approved program. Track B: As described above in "Education or training."	surveyor intern, which is granted upon completion of the education requirement (see "Education or training") and passage of the Fundamentals of Surveying Exam (see "Exam") (201 Ky. Admin. Regs. 18:030). Track A: At least three years of surveying work under the direct supervision of a licensed surveyor, at least two years of which are subsequent to graduation. Track B: At least four years of surveying work under the direct supervision of a licensed surveyor,	surveying, which may include up to five years of education (<i>Mich.</i> <i>Comp. Laws</i> 339.2004(3)(a)).	education requirement (see "Education or training") and passage of the Fundamentals of Surveying Exam (see "Exam"). Either of the following: 1. Four or more years of experience in surveying, after issuance of the surveyor-in- training certificate and under the supervision of a licensed or similarly qualified surveyor; or 2. Four or more years of teaching experience in	requirement (see "Education or training") and passage of the Fundamentals of Surveying Exam (see "Exam") (W Va. Code R. 23-1 5). Track A: At least two years of experience in surveying. Track B: At least four years of experience in surveying, at least four years of experience in surveying, at least two years of which were under the direct supervision of a licensed surveyo (W. Va. Code 30- 13A-8(a).)

	Ohio	Indiana	Kentucky	Michigan	Pennsylvania	West Virginia
		(Ind. Code 25- 21.5-5-2; 865 Ind. Admin. Code 1-2- 1.)	of which are subsequent to graduation. (Ky. Rev. Stat. 322.045(1).)		an approved curriculum, after the issuance of the surveyor- in-training certificate and under the supervision of a licensed or similarly qualified surveyor. (63 Pa. Stat. 151.3.)	
Exam	Yes. The applicant must pass: (1) the Fundamentals of Surveying and (2) the Principles and Practice of Surveying exams administered by NCEES, and (3) the Ohio Professional Surveying Exam. (R.C. 4733.11(F)	Yes. The applicant must pass: (1) the Fundamentals of Surveying and (2) the Principles and Practice of Surveying exams administered by NCEES. (Ind. Code 25-21.5-6-1.)	Yes. The applicant must pass: (1) the Fundamentals of Surveying and (2) the Principles and Practice of Surveying exams administered by NCEES. (Ky. Rev. Stat. 322.045(1).)	Yes. The applicant must pass: (1) the Fundamentals of Surveying and (2) the Principles and Practice of Surveying exams administered by NCEES, and (3) the Michigan Professional Surveying Exam. (Mich. Comp. Laws	Yes. The applicant must pass: (1) the Fundamentals of Surveying and (2) the Principles and Practice of Surveying exams administered by NCEES. (63 Pa. Stat. 151.3; 49 Pa. Code 37.16.)	Yes. The applicant must pass: (1) the Fundamentals of Surveying and (2) the Principles and Practice of Surveying exams administered by NCEES, and (3) the West Virginia Professional Surveying Exam.

Professional Surveyor (Professional Surveyor and Surveyor Intern/Surveyor-in-Training)							
	Ohio	Indiana	Kentucky	Michigan	Pennsylvania	West Virginia	
	and 4377.13; O.A.C. 4733-9-04.)			339.2004(3)(c); Mich. Admin. Code R. 339.17203.)		(W. Va. Code 30- 13A-8.)	
Continuing education	30 hours every two years (<i>R.C.</i> 4733.151).	24 hours every two years (865 Ind. Admin. Code 1-15-2 and 1-15- 6).	Eight hours per year (201 Ky. Admin. Regs. 18:192).	30 hours every two years (Mich. Admin. Code R. 339.17505).	24 hours every two years (63 Pa. Stat. 151.5).	Eight hours per year (W. Va. Code R. 23-2-3).	
Initial licensure fee	\$75 application fee; \$50 registration fee (R.C. 4733.12; LSC, <u>Redbook for</u> <u>State Board of</u> <u>Registration for</u> <u>Professional</u> <u>Engineers and</u> <u>Surveyors (PDF)</u>).	\$300 application fee; \$50 or \$100 registration fee depending on when in a license period the license is issued (865 Ind. Admin. Code 1-11- 1).	\$0 (201 Ky. Admin. Regs. 18:040).	\$135 (Michigan Bureau of Professional Licensing, <u>Surveyor Licensing</u> <u>Guide (PDF)</u>).	\$50 (49 Pa. Code 37.17).	\$200 (W. Va. Code R. 23-4-4).	
License duration	Two years (R.C. 4733.15).	Two years (Ind. Code 25-21.5-8- 1.)	Two years (Ky. Rev. Stat. 322.160).	Two years (Mich. Admin. Code R. 339.17505).	Two years (63 Pa. Stat. 151.5).	One or two years (W. Va. Code 30- 13A-14).	

Professional Surveyor (Professional Surveyor and Surveyor Intern/Surveyor-in-Training)						
	Ohio	Indiana	Kentucky	Michigan	Pennsylvania	West Virginia
Renewal fee	\$40 (R.C. 4733.12; LSC, <u>Redbook for</u> <u>State Board of</u> <u>Registration for</u> <u>Professional</u> <u>Engineers and</u> <u>Surveyors (PDF)</u>).	\$100 plus \$2 for each hour of continuing education required (865 Ind. Admin. Code 1-11- 1).	\$150 (201 Ky. Admin. Regs. 18:040).	\$100 (Michigan Bureau of Professional Licensing, <u>Surveyor Licensing</u> <u>Guide (PDF)</u>).	\$100 (49 Pa. Code 37.17).	\$100 (W. Va. Code R. 23-4-4).