

September 8, 2020

Commonwealth of Pennsylvania
Office of Attorney General
Bureau of Consumer Protection
15th Floor, Strawberry Square
Harrisburg, PA 17120

To the Bureau of Consumer Protection:

We write to request that your office conduct an investigation into ExamSoft, Inc. (“ExamSoft”) for possible violations of Pennsylvania’s Unfair Trade Practices and Consumer Protection Law, 73 P.S. § 201-1 et seq. (“Consumer Protection Law”). Specifically, we believe ExamSoft’s assertions with respect to its data security policies may constitute “unfair or deceptive acts or practices” as defined in 73 P.S. § 201-2(4) and, if necessary, seek injunctive relief pursuant to 73 P.S. § 201-4 or assurances of voluntary compliance pursuant to 73 P.S. § 701-5.¹

We are recent law graduates who are registered to take the Pennsylvania bar examination on October 5th, 6th, and 7th, and are concerned about the security of our personal information while using ExamSoft’s software. Some of us have already suffered attempts to access our personal information that appear to coincide with downloading ExamSoft in preparation for the October exam.

ExamSoft is a test application company based in Dallas, Texas.² It is one of only three vendors available for administration of state bar examinations developed by the National Conference of Bar Examiners; the others are Extegrity and ILG Technologies. Extegrity withdrew from any further test administrations this year citing insurmountable logistical problems; state authorities abandoned ILG Technologies in favor of ExamSoft after data breaches and other technical failures forced Florida to cancel its bar examination less than seventy-two hours before its scheduled start.³

As a consequence of the difficulties faced by Extegrity and ILG Technologies, ExamSoft became the sole administrator for 22 jurisdictions next month, including Pennsylvania, which is

¹ Your office has used the Consumer Protection Law to protect consumers from data breaches in recent years. See, e.g., Commonwealth of Pennsylvania v. Neiman Marcus Grp., LLC, Case ID 190100160 (Ct. Com. Pl. Phila. Cty., Jan. 8, 2019); Commonwealth of Pennsylvania v. Target Corp., No. 215 MD 2017 (Pa. Commw. Ct. May 23, 2017).
² About, ExamSoft, <https://examsoft.com/about-examsoft> (last visited Sept. 5, 2020).

³ Stephanie Coueignoux, *Watchdog: Florida Bar Severs Ties with Software Firm for Exam*, Bay News 9 (Aug. 22, 2020, 2:28 AM), <https://www.baynews9.com/fl/tampa/news/2020/08/22/watchdog--florida-bar-severs-ties-with-software-firm-for-exam/>; Daniel Figueroa IV, *As States Ditch ILG, Florida Moves Forward with Company for Virtual Bar Exam*, 88.5 WMNF (Aug. 14, 2020), <https://www.wmnf.org/as-states-ditch-ilg-florida-moves-forward-with-company-for-virtual-bar-exam/>; Stephanie Francis Ward, *Software Provider Pulls Out of Remotely Proctored Bar Exams Because of Technology Concerns*, ABA Journal (Aug. 28, 2020, 2:41 PM), <https://www.abajournal.com/web/article/due-to-technology-concerns-software-provider-pulls-out-of-remotely-proctored-bar-exams>.

scheduled to administer its bar exam across October 5th, 6th, and 7th.⁴ The October administration of the bar exam will be the largest administration this year; approximately 1,200 bar applicants in Pennsylvania will join over 30,000 test-takers in other jurisdictions—including California, Illinois, and New York—on the ExamSoft platform, the vast majority of whom will be using their personal computers and home internet connections.⁵

This year’s online bar examinations have already proven to be a tempting target for cybercrime. ExamSoft already suffered a “distributed denial of service” (“DDoS”) attack during the July administration of Michigan’s online bar exam.⁶ Bar applicants in Florida using the ILG Technologies platform reported widespread data breaches, causing the state’s board of law examiners to abandon its August exam administration three days before it was scheduled to occur.⁷ Based on the experiences of both Michigan and Florida, an attempted attack during the October exam—the largest test administration this year—appears likely. It is unclear what, if any, additional measures ExamSoft is taking to prevent a catastrophic data breach.

Apparent Data Breaches Impacting Pennsylvania Bar Applicants

Pennsylvania bar applicants began to express concerns about the security of their personal data, including bank account login information, almost immediately after ExamSoft software became available for download on September 1, 2020. Many users of the Google Chrome web browser shared screenshots of alerts from Chrome’s password checkup feature.⁸ ExamSoft disputed that any data had been compromised, saying in a statement that “[a]ny appearance of this message popping up around the time an applicant is downloading the Examplify software is completely coincidental.”⁹ In essence, ExamSoft argues that the Google Chrome password checkup is revealing prior compromises of users’ passwords instead of

⁴ *July 2020 Bar Exam Status by Jurisdiction*, National Conference of Bar Examiners, <https://www.ncbex.org/ncbe-covid-19-updates/july-2020-bar-exam-jurisdiction-information/status-table/> (last updated Sept. 1, 2020, 1:49 PM).

⁵ Ward, *supra* note 3 (“Hulett H. ‘Bucky’ Askew, who chairs the organization’s board of trustees, on Aug. 14 told the council of the ABA’s Section of Legal Education and Admissions to the Bar that 30,000 people are expected to take the October online test.”); *see also PA Bar Exam Statistics for the Past Ten Years*, Pennsylvania Board of Law Examiners, https://www.pabarexam.org/bar_exam_information/bestats.htm (last visited Sept. 5, 2020).

⁶ ExamSoft (@ExamSoft), Twitter (Aug. 5, 2020, 9:26 AM), <https://twitter.com/ExamSoft/status/1291002698792341504>; Kim Kozlowski, *Michigan Bar Exam Crashes Online; Company Points to Cyberattack*, The Detroit News (July 28, 2020, 6:32 PM), <https://www.detroitnews.com/story/news/local/michigan/2020/07/28/michigan-bar-exam-crashes-online-company-cites-cyberattack/5527628002/>. DDoS attacks are commonly used by hackers to aid in data breaches. *See, e.g.*, Fahmida Y. Rashid, *Sony Data Breach was Camouflaged by Anonymous DDoS Attack*, eWeek (May 5, 2011), <https://www.eweek.com/security/sony-data-breach-was-camouflaged-by-anonymous-ddos-attack>.

⁷ Luke Barr, *Law School Graduates in Florida Say Bar Test Software Compromised Computers*, ABC News (Aug. 28, 2020, 11:51 AM), <https://abcnews.go.com/US/law-school-graduates-florida-bar-test-software-compromised/story?id=7259544>; Haley Lerner, *Online Florida Bar Exam Canceled Days Before Scheduled Test Date. What Happens Next?* Miami Herald (Aug. 17, 2020, 8:14 AM), <https://www.miamiherald.com/news/local/article245011010.html>.

⁸ Bar Exam Tracker (@BarExamTracker), Twitter (Sept. 2, 2020, 4:00 PM), <https://twitter.com/BarExamTracker/status/1301248551348043776>.

⁹ Joe Patrice, *ExamSoft Responds to Multiple Reports That Software Compromises Security*, Above The Law (Sept. 3, 2020, 12:19 PM), <https://abovethelaw.com/2020/09/examsoft-responds-to-multiple-reports-that-software-compromises-security/>.

compromises resulting from the use of ExamSoft products. On its website, the Pennsylvania Board of Law Examiners (“PABLE”) reiterates ExamSoft’s assurances.¹⁰

Pennsylvania bar applicants experienced the following breaches of their data after downloading ExamSoft’s software:

- “The morning after I downloaded the software, I got a notification from my bank telling me that someone had tried to access my online account, but had entered the wrong password. I changed my password the week before, and had the old one saved to my account but not the new one. Whoever tried to had [sic] access to which bank I used, as well as my bank username. I then tried a password check via Google Chrome and found that 22 of my passwords for various sites had been compromised.”
- “There were \$400 of fraudulent attempted charges to my bank account on 9/2/2020-9/3/2020, the two days following the release of the ExamSoft registration.”
- “I got a few notifications the following day of people trying to log into various accounts. I checked my compromised passwords and realized 12 had been compromised. I called the [PABLE] IT director and was told this was a coincidence. I changed all my passwords.”
- “On September 3, I received an email from my credit card company saying that there was suspicious activity on my account and to call them because my card was locked. I called them and they said that one [sic] September 1 and 2 someone called them from multiple phone numbers telling them they were me and they lost the card and needed a new one. They didn’t know the answer to my security question so the credit card company denied them access. They said the calls happened on September 1 and 2, so clearly related to the exam software.”
- “I had password breaches for many sites including sites us frequently [sic] and contain my financial information.”
- “My PayPal password which was saved in my browser was compromised. After hearing yesterday, Tuesday 9/2, that others had passwords accessed I ran a password check which said that due to a data breach that specific password was compromised. I immediately

¹⁰ *October 2020 Pennsylvania Bar Exam Frequently Asked Questions*, Pennsylvania Board of Law Examiners, https://www.pabarexam.org/bar_exam_information/CBTRemoteExamFAQ.htm#breachq (last updated Sept. 3, 2020) (“Applicants who utilize Google Chrome’s recently updated password manager may find that Chrome runs an automated review of their stored passwords. This feature warns the user if any of their stored usernames and passwords are newly found among a collected list of over 10 billion known compromised credentials. This scan is not related to the Examplify software, though the storage of any new set of credentials, including those used to access the ExamSoft website, may inspire a new automated scan depending on your device, operating system, and Chrome/Google settings. Applicants should feel free to follow the browser-issued instructions regarding safe password management. ExamSoft has posted some information about this here, including a link to an article further explaining Google Chrome’s notifications.”)

logged in and changed the password since it is linked to my bank account and credit cards.”

- “I downloaded Examplify on 9/1/2020, and then the next morning I heard that some other PA applicants (as well as applicants in other jurisdictions) who downloaded Examplify had their passwords compromised. In the early afternoon on 9/2/2020, I went into Google Chrome and used Google's security settings to conduct a password check. It revealed that 12 of my passwords, including passwords for my Discover credit card, PayPal, PECO, and other online accounts. I did not conduct a password check prior to downloading Examplify. I did not receive any alert from Google about my passwords being compromised before I conducted the password check. I only received Google alerts once I signed into each online account in order to change the compromised passwords.”

ExamSoft’s explanation cannot account for these contemporaneous attempts to access its users’ financial products and information.

We request that the Bureau of Consumer Protection investigate why bar applicants who downloaded ExamSoft experienced data breaches and whether ExamSoft’s data security measures are adequate to protect its users’ data.

Dissemination of Applicants’ Social Security Numbers

Apart from cyberattacks, other concerns about ExamSoft’s handling of personally identifying information are worrisome. On September 1, 2020 ExamSoft emailed Pennsylvania bar applicants individualized access codes, which were generated by combining the letters “pa” with the last four digits of each user’s Social Security Number. PABLE subsequently reported that ExamSoft was unaware that these individualized four-digit combinations were derived from users’ Social Security Numbers.¹¹ Nonetheless, such an oversight undermines test-takers’ belief that ExamSoft is taking reasonable precautions to safeguard their data.

Concerns About Video and Audio Monitoring Software

ExamSoft’s online proctoring program raises separate information security concerns. Pennsylvania bar applicants will be required to use ExamMonitor,¹² a joint product of ExamSoft and software company ProctorU, which ExamSoft describes as an “AI-driven remote proctoring solution that continuously observes exam takers with video and audio monitoring throughout the entire exam.”¹³ ExamSoft completed beta-testing of ExamMonitor in March of this year with

¹¹ Bar Exam Tracker (@BarExamTracker), Twitter (Sept. 1, 2020, 6:14 PM), <https://twitter.com/BarExamTracker/status/1300920074426032131> (“I reported earlier that ExamSoft emailed passwords that were the last four digits of test-takers Social Security number. PABOLE IT Director confirmed ES did NOT know these were SS numbers. #PAbarexam”).

¹² *Testing Conditions for Remote Bar Exam – October 5-7, 2020*, Pennsylvania Board of Law Examiners, https://www.pabarexam.org/pdf/203_205/1020%20Exam%20Testing%20Conditions.pdf (last visited Sept. 5, 2020).

¹³ *Strengthen Exam Integrity with Digital Monitoring*, ExamSoft, <https://examsoft.com/solutions/exam-monitor> (last visited Sept. 5, 2020).

only eight users.¹⁴ Last month, ProctorU confirmed that it had suffered a data breach compromising more than 444,000 records.¹⁵ Although ProctorU said in a statement that the breach impacted only records of students from 2014, computer help website BleepingComputer reported that it found records from students who signed up for ProctorU between 2012 and 2017.¹⁶

ExamSoft's Privacy Policy

On its website, ExamSoft disseminates the following policies and statements to users of its products:

- “ExamSoft takes reasonable precautions to protect your personal data from loss, misuse and unauthorized access, disclosure, alteration, and destruction. No method of transmission over the Internet, or method of electronic storage is 100% secure, however. Therefore, ExamSoft cannot guarantee its absolute security.”¹⁷
- “Certain products in our solution require that, prior to an assessment, each exam taker’s device must be secured. Therefore, in order to secure the exam taker’s device, ExamSoft must access and, in some instances, modify device system files. By using our products, you understand and consent to this action.”
- “When ExamSoft has no ongoing legitimate business need to process personal data, we will either delete or anonymize/de-identify it or, if this is not possible (for example, because the data has been stored in backup archives), then ExamSoft will securely store the personal data and isolate it from any further processing until deletion is possible.”¹⁸

ExamSoft further indicates that it collects the following data on test-takers using its software: “name, student or registrant identification number, phone number, email address, answers, and other assessment content.”¹⁹ As part of its contractual obligations with various institutional clients such as state law examination boards, it also “typically” collects information such as “makes and models of computers used by exam takers, device identification numbers, types and versions of software used by exam takers, and security and software performance related information, such as keystroke data.”²⁰

¹⁴ Riley Farrell, *ExamSoft, a Provider of Anti-Cheating Tech, Experiences Growth in an Age of Online Education*, Dallas Innovates (June 18, 2020), <https://dallasinnovates.com/examsoft-a-provider-of-anti-cheating-tech-experiences-major-growth-in-an-age-of-online-education/>.

¹⁵ Nicholas Fearn, *More Than 400,000 Hit by Data Breach at Online Exam Site -- What To Do*, <https://www.tomsguide.com/news/proctoru-data-breach> (last visited Sept. 5, 2020) (Reporting ProctorU data breach publicly confirmed on July 27, 2020).

¹⁶ *Id.*

¹⁷ *Privacy Policy*, ExamSoft (May 15, 2020), <https://examsoft.com/privacy-policy>.

¹⁸ *Id.*

¹⁹ *Id.*

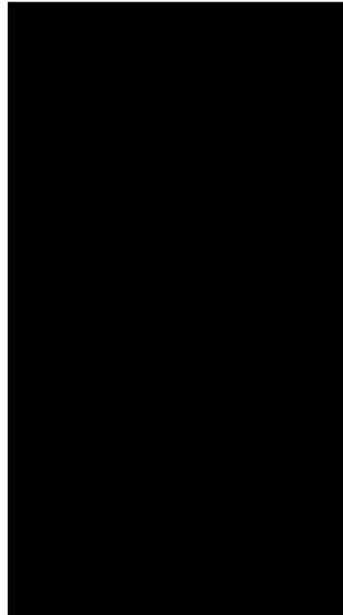
²⁰ *Id.*

According to the Association for Software Testing,²¹ a “cursory examination of the ExamSoft website finds very intrusive ‘features’ that grant device access a hacker would dream of. [...] Software with this level of control over an examinee’s computer represents a significant security risk to examinees.”²²

We request that the Bureau of Consumer Protection investigate whether ExamSoft made material misrepresentations in its customer-facing privacy policy concerning its safeguarding of users’ personal information by failing to be in full compliance with its stated policies while Pennsylvania bar applicants use its platform. Users’ data appear to have been stolen; data may continue to be stolen during the month of September as bar applicants download ExamSoft products, and applicants’ data may be at great risk during the actual exam in a few short weeks. Despite these security concerns, bar applicants in Pennsylvania and across the country must consent to use of this software if we want to take the bar exam during our last opportunity to do so this year. Your office has been a leader in protecting the public against data breaches and we hope that you will choose to be a leader once again.

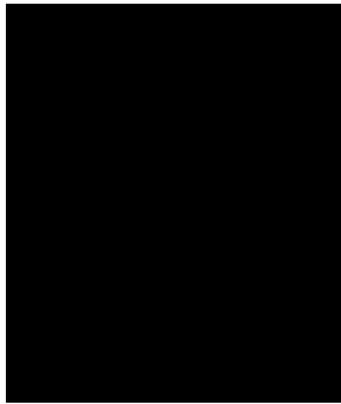
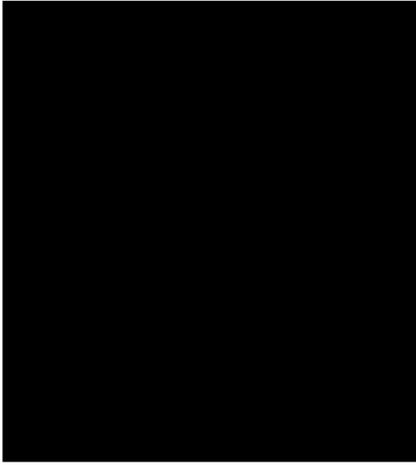
Thank you for your assistance.

Sincerely,*



²¹ The Association for Software Testing (“AST”) is a nonprofit “dedicated to advancing the understanding of the science and practice of software testing.” *About*, Association for Software Testing, <https://associationforsoftwaretesting.org/about-the-ast-a-professional-body-for-testers/> (last visited Sept. 5, 2020). AST has paid close attention to the developing controversies surrounding online bar exams.

²² Press Release, Association for Software Testing, *AST Comments on Online Exams* (Sept. 1, 2020), http://associationforsoftwaretesting.org/wp-content/uploads/2020/09/AST_Press_Release_on_Online_Exams.pdf. See also Karen Sloan, *Are Online Bar Exams Feasible and Fair? Software Testing Group Isn’t So Sure*, Law.com (Sept. 2, 2020, 4:17 PM), <https://www.law.com/2020/09/02/are-online-bar-exams-feasible-and-fair-software-testing-group-isnt-so-sure/>.



*Please note that in order to respect privacy concerns of some of the signatories, we have withheld their names upon request from the public sign-on letter.