EVERGREEN ECONOMICS

Economic Impact Analysis of Proposed Regulations for the Protecting Our Kids from Social Media Addiction Act (SB 976)

Produced for the California Department of Justice - Office of the Attorney General

Submitted by Evergreen Economics

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Executive Summary

Companies that operate online addictive feeds employ algorithms designed to increase user engagement. Recent studies link an increased risk of mental health challenges, including depression, anxiety, and body image concerns, with average child and adolescent engagement with such feeds.[1] The U.S. Surgeon General warns that excessive social media use can trigger pathways comparable to addiction and lead to poor sleep, depressive symptoms, low self-esteem, online harassment, and other challenges.[2]

California's Protecting Our Kids from Social Media Addiction Act (Senate Bill 976, or SB 976) addresses this urgent public health concern by requiring operators of addictive feeds to determine user age and requiring parental consent before minors can access algorithm-driven content. The law also restricts engagement with the platforms, including notifications during nighttime hours and school hours.

This report presents results from an economic impact analysis conducted by Evergreen Economics for the California Department of Justice - Office of the Attorney General in relation to proposed regulations for SB 976. The assessment evaluates costs and benefits anticipated for impacted populations from the proposed regulations relative to a no regulatory action baseline. Impacted populations in California are primarily operators of feeds identified as addictive under SB 976 and users of those platforms who are minors. A comparison between the proposed regulations and alternative regulatory pathways is also presented. The alternatives considered include rules associated with two other similar laws, the Utah Minor Protection in Social Media Act and the New York Stop Addictive Feeds Exploitation (SAFE) for Kids Act.

California law requires an assessment be conducted if a proposed regulation is determined to be a major regulation – one with anticipated economic impacts that exceed $50 million. Evergreen conducted an initial threshold evaluation of impacts associated with potential regulations to implement SB 976 for a 12-month period after full implementation (starting January 1, 2027). The evaluation estimated the sum of anticipated costs and benefits. Threshold evaluation findings demonstrated that costs and benefits associated with potential regulations for SB 976 had potential to exceed $50 million and, thus, an assessment was conducted. Public feedback was solicited as part of preliminary rulemaking activities for SB 976 regulations and no substantial comments were received related to economic impacts. It is important to note that the initial

[1] US Surgeon General's Advisory. Social Media and Youth Mental Health. 2023.
[2] Ibid.

evaluation was based on hypothetical regulations. Once the proposed regulations were released, a more refined estimate of costs and benefits was conducted. That analysis is detailed in this report.

SB 976 Statute and Regulations

SB 976 prevents companies that operate addictive feeds from allowing minors to access those feeds without parental consent. The law also restricts notifications to minors during school and nighttime hours without parental consent. Together, the addictive feeds and notifications are termed "covered features" in this report. The California Attorney General must adopt regulations by January 1, 2027 for SB 976. Proposed regulations establish the following.

- **Age assurance standards**. The regulations identify commercially reasonable and technically feasible methods to determine user age.
- **Parental consent mechanisms**. The regulations identify verifiable methods for obtaining parental consent to access addictive feeds and notifications.
- **A compliance framework**. The regulations guide communication, protocols, and data management in relation to SB 976 age assurance and parental consent requirements.

The proposed regulations serve to clarify and provide additional guidance for operators that helps them comply with SB 976 requirements related to age assurance and parental consent.

Regulatory Baseline

The current regulatory environment in California includes laws and policies that affect SB 976 enforcement and resulting impacts of the proposed SB 976 regulations. Relevant statutes and policies for this study include the California Consumer Privacy Act (CCPA), Digital Age Assurance Act, company policies and practices, and the California Phone-Free School Act. Economic impacts measured for this study derive from the incremental difference between what these laws, including the SB 976 statute, already require of operators and additional requirements within the proposed regulations.

Incremental Impacts

Costs associated with SB 976 are not part of a regulatory impact assessment, though they are important to analyze as part of the baseline from which costs associated with the proposed regulations are considered. Instances in which the proposed regulations might have had an incremental impact beyond SB 976 were identified and assessed. Impacts identified include age assurance methods, parental consent, and establishment of a compliance framework for the regulations.

Age Assurance

SB 976 requires operators to determine whether a user is a minor. Regulations for SB 976 establish a technical signal as an acceptable age assurance method. Effective January 1, 2027, the California

Digital Age Assurance Act (AB 1043) mandates that operating systems and covered application stores provide an interface at account setup for an account holder of a device (parent or legal guardian) to declare birth date and/or age of a user (minor). Based on that information, the operating system or app store generates a secure digital signal[3] that communicates the age bracket of the user to app developers whenever their app is downloaded and launched. Nearly all covered operators have a mobile app and will therefore receive the signal. The only exception is for platforms that provide addictive feeds on a website only, with no associated application.

SB 976 regulations recognize the digital signal as actual knowledge of a minor's age status unless the covered operator has information that contradicts the signal. The regulations also provide guidance on other acceptable methods of age assurance. Total first-year costs of implementing the age assurance component of SB 976 regulations include 1) costs to operators who only operate a web-based platform and therefore do not receive a digital signal and 2) costs to operators who have existing information or receive a new report or information on a user's age that conflicts with the digital signal and therefore must use another method of age assurance. The total annual cost for both scenarios for all operators combined follows.

- Operators of addictive feeds who only operate a website (do not receive a digital signal): $165,414
- Instances in which operators possess or receive information on user age that conflicts with the technical signal: $2,947,678

These values include costs associated with potential appeals by users of operator age determination.

Parental Consent

The proposed regulations for SB 976 clarify and describe parental consent methods. The regulations require operators to provide notice to both minors and parents that operators cannot legally provide access to covered features without first obtaining parental consent. We estimate that the first-year cost of implementing a parental consent mechanism that satisfies the obligations within the proposed regulations will be $1,519,621 for all covered operators combined.

Compliance Framework

The regulations require operators follow industry-standard data security measures for collecting and storing any information collected for age assurance or parental consent after use. The regulations also introduce a requirement for operators to document and implement a protocol to account for the likelihood of circumvention, fraud, or misuse of age assurance and parental

[3] "Signal" is defined as age bracket data sent by a real-time secure application programming interface or operating system to an application.

consent methods. Additionally, the regulations require operators to document and publish a report describing the measures they take to reasonably determine a user is not a minor. We estimate the first-year costs for these compliance measures will be $1,097,909 for all covered operators combined.

Combined Incremental Costs

Table 1 provides a summary of total first-year cost estimates for the regulations, including age assurance, parental consent, and compliance costs. More granular estimates are provided in Chapter 4. The first-year cost attributable to the regulations totals $5,730,622. We estimate this cost represents an incremental increase of less than 0.5 percent of current annual compliance spending by covered operators.[4]

Table 1: Summary of First-Year Costs of SB 976 Regulations

Cost/Metric	Value
Age Assurance	$3,113,092
Parental Consent	$1,519,621
Compliance	$1,097,909
Total Cost to All Operators	**$5,730,622**

[4] These costs are described in greater detail in Chapter 4.

1 Introduction and Methodology

A regulatory impact assessment is intended to provide insight into proposed major regulations to allow for more robust understanding of how the regulations might impact affected populations in California. This report provides analysis to inform implementation on January 1, 2027 of proposed regulations drafted for Senate Bill 976 (SB 976).

The California legislature passed SB 976 to address negative public health impacts associated with engagement with addictive online feeds by minors. In passing the bill, lawmakers and public health advocates cited a list of health impacts associated with high levels of engagement with addictive online content.

Operators that employ algorithmic feeds often use mechanisms designed to extend user time on the platform. Studies document an increased risk of mental health problems, including depression, anxiety, and body image concerns associated with average child and adolescent social media use levels.[5] The U.S. Surgeon General warns that excessive social media use can trigger pathways comparable to addiction and lead to poor sleep, depressive symptoms, low self-esteem, online harassment, and other difficulties. SB 976 and proposed regulations for SB 976 address this urgent public health concern primarily by requiring parental consent before minors can access addictive feeds and by restricting notifications during nighttime and school hours.

1.1 Major Regulation Determination

Evergreen conducted an initial threshold evaluation of potential costs and benefits associated with hypothetical regulations to implement SB 976 for a 12-month period after full implementation (starting January 1, 2027). The evaluation estimated the sum of anticipated costs and benefits to determine whether regulations to implement the statute should be considered major regulations. Major regulations are defined as those that could exceed $50 million in impacts prior to or within the 12-month period after the regulations are fully implemented. The threshold evaluation findings demonstrated that costs and benefits associated with regulations to implement SB 976 could have exceeded $50 million and, thus, an assessment was conducted. Public feedback was solicited as part of preliminary rulemaking activities for SB 976 regulations and no substantial comments were received related to economic impacts. It is important to note that the initial evaluation was made on hypothetical regulations. Once the proposed regulations were developed, an actual determination of costs and benefits could be conducted. That analysis is detailed in this report.

[5] US Surgeon General's Advisory. Social Media and Youth Mental Health. 2023.

1.2 Statute

This section summarizes key elements of the SB 976 statute. The primary statute analyzed is Senate Bill 976 (SB 976), codified at California Health and Safety Code §§ 27000-27007 (Chapter 24 of Division 20).

1.2.1 Definitions

The statute defines several key terms, including “addictive feed,” “addictive internet-based service or application,” “minor,” “operator,” and “user.”

1.2.2 Prohibition on Addictive Feeds

Section 27001 specifies it is “unlawful for the operator of an addictive internet-based service or application to provide an addictive feed to a user unless…the operator does not have actual knowledge that the user is a minor.” This is known as the “actual knowledge” standard which is the threshold for triggering the law until January 1, 2027, when it expands to become unlawful for the operator of an addictive internet-based service or application to provide an "addictive feed" to a user unless the operator has:

1. Reasonably determined the user is not a minor; or
2. Obtained verifiable parental consent for the minor to access the addictive feed.

Until the expansion of the threshold on January 1, 2027, there is minimal action that operators providing addictive feeds must take, with the primary restrictions occurring if the operator has actual knowledge the user is a minor.

1.2.3 Notification Restrictions

Starting January 1, 2027, if an operator reasonably determines a user is a minor, section 27002 specifies it is unlawful for the operator to send notifications in the user’s local time zone between:

- 12am and 6am year-round; and
- 8am and 3pm, Monday through Friday, September through May

This restriction is in place unless the operator obtains parental consent to provide notifications.

1.2.4 Parental Controls and Defaults

Section 27002 also requires operators to set certain default settings and provide a mechanism for parental controls, allowing a parent to:

- Set a custom timeframe for when notifications are disabled;
- Set time limits on addictive feeds (operator default must be one hour per day);

- Limit their child's ability to view likes or other feedback to pieces of media within an addictive feed (must be set as operator default);
- Require a default feed when entering the internet-based service or application to not recommend, select, or prioritize pieces of media for display based on information provided by the user, other than age/minor status[6]; and
- Set their child's account to private mode to only interact with users with whom the child is connected (must be set as operator default).

1.2.5 Operator Reporting and Data Management

Section 27005 requires operators to report the number of minor users of its service/application, total number of users for whom the operator received parental consent to provide an addictive feed, and number of users for whom parental controls have and have not been set. The statute prohibits information collected for age determination or parental consent from being used for any purpose other than that stated in the statute. Additionally, information gathered must be immediately deleted after use except as necessary to comply with state or federal law.

1.2.6 Regulation Requirements

The statute requires the Attorney General adopt regulations to "further the purposes" of the law by January 1, 2027. Specific elements of the law the regulations are required to address include age assurance and parental consent. The regulations can also include exceptions to the law, though only if those exceptions further the statute's purpose of protections for minors.

1.3 Proposed Regulations

The proposed Protecting Our Kids from Social Media Addiction Act regulations implement portions of the statute related to age assurance and parental consent and govern compliance with the statute.[7] Article I of the proposed regulations details the definition of "parent" and adds definitions for covered features (i.e., addictive feeds and/or notifications).

1.3.1 Reasonable Determination of Age

The proposed regulations establish that operators do not need to reasonably determine a user is a minor if the operator already has actual knowledge of the users age, including through receipt of a technical signal. If an operator does not have actual knowledge, the operator must make a reasonable determination the user is not a minor through use of a commercially reasonable and technically feasible age assurance method. Operators must report their method for age assurance on their website, explain why it is a reasonable determination of age status, and provide a

[6] There is no specification in the statute that this must be a default action taken by operators in the absence of the parent controlling this.

[7] SB 976 draft regulations received from California OAG December 5, 2025, revised February 24, 2026.

quantitative description of the effectiveness of the age assurance method. Once determined, the operator must apply the determination to all points of access to covered services.

Appeals

The proposed regulations establish that operators must implement a process for a user to appeal the determination that the user is a minor and provide a written notice to the user if the previous determination is reversed.

Circumvention, Fraud, or Misuse

The proposed regulations require operators to document and implement a protocol to account for potential circumvention, fraud, or misuse of age assurance and parental consent methods.

Report or Information Indicating User's Age Status

The proposed regulations establish that operators must implement a process to receive and respond to any report or information indicating a user is a minor or that data was falsified regarding their age or location. The operator must investigate the report or information and provide a written notice to the user if the previous determination regarding the user's status as a minor is reversed.

1.3.2 Verifiable Parental Consent

Article 3 of the proposed regulations relates to how operators establish verifiable parental consent to provide covered features to minors.

Notice

The proposed regulations detail requirements for operators to provide notice to the minor seeking parental consent and requires operators to obtain the minor's consent to seek parental consent. The proposed regulations also detail notice requirements for parents.

Methods of Obtaining Parental Consent

The proposed regulations establish criteria for methods of verifying parental consent and reference methods listed under the Children's Online Privacy Protection Rule, 16 C.F.R. § 312.5;[8]

Consent Withdrawal

The proposed regulations state an operator must provide parents and minors with a method of withdrawing consent that is at least as easy to use as the mechanism used to give consent.

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[8] These methods include providing a consent form to be signed and returned via mail or electronically, using credit or debit card payment in the case of a transaction, having a phone or video conference line for the parent to call, checking government-issued identification and potential comparison to another picture using facial recognition technology, and using a knowledge-based assessment. From Children's Online Privacy Protection Rule, 16 C.F.R. § 312.5, https://www.ecfr.gov/current/title-16/chapter-I/subchapter-C/part-312.

Circumvention, Fraud, or Misuse

The proposed regulations require operators to document and implement a protocol to account for potential circumvention, fraud, or misuse of the parental consent methods.

2 Impacted Populations

This chapter characterizes the universe of stakeholders who will be affected by the proposed regulations. Entities impacted will primarily include operators of covered features that operate in California and users of those platforms who are minors.

2.1 Impacted Individuals

2.1.1 Minors

The legislation defines a minor as "an individual under 18 years of age who is located in the State of California." As Table 2 shows, approximately 8.4 million minors lived in the state in 2024.[9] One-half of California minors (4.2 million) are between 4 to 12 years of age, while 31 percent (2.6 million) are between 13 to 17 years of age, and the remaining 20 percent (1.7 million) are between 0 to 3 years of age.

Table 2: California Population Younger than 18 Years of Age (Millions), by Age Group, 2024

Age Group	Number of Children (Millions)	Percent of Total Population
0 to 3	1.7	20%
4 to 12	4.2	50%
13 to 17	2.6	31%
Total under 18*	8.4	100%

Source: U.S. Census Bureau, American Community Survey 2024.
*Children by age group do not sum to column total due to rounding.

Minor Engagement with Covered Features

Evergreen estimated the magnitude of California minor engagement with covered features, as defined in the proposed regulations. Our estimates are based on data about users of the six largest

[9] United States Census Bureau, American Community Survey 2023 dataset S0101 on age and sex. Data retrieved 08/11/25. This analysis uses 2024 population numbers to align closely with published estimates of social media use by minors

platforms with addictive feeds in California: Facebook and Instagram (Meta), Snapchat, YouTube (Google/Alphabet), TikTok, and X (Twitter).[10,11,12]

We estimate approximately 5.9 million California residents younger than 18 years of age use features covered by SB 976 and the statute's accompanying regulations. Evergreen extrapolated time spent for each unique user on the six media platforms combined from existing studies. Results show minors spend an estimated combined total average 994 hours per year per user on the platforms.[13]

2.2 Industry

Businesses that generate substantial revenue from addictive features include the operators, content creators, and brands that advertise on the platforms. In addition, companies that facilitate age assurance and/or parental consent, or those who help moderate addictive content, will also be impacted. We interpret the proposed regulations as applying to companies with a physical presence in California, defined as at least one physical establishment or place of business located in the state, regardless of the company's state of incorporation or location of headquarters.

2.2.1 Operators

An initial assessment of operators impacted by SB 976 regulations includes hundreds of California-based businesses. The six largest social media/media platforms in the world are headquartered or have a significant presence in California. Meta (which owns Facebook and Instagram, along with Threads and WhatsApp), Snapchat, and Google/Alphabet (owns YouTube) are headquartered in California. The other two largest platforms also operate substantial portions of their business from California: TikTok operates its U.S. headquarters out of California, while X (formerly Twitter) moved its headquarters out of California in 2024, though still operates several offices in the state. Additionally, TikTok recently signed a deal to restructure company ownership and U.S. operations into TikTok USDS Joint Venture LLC, a consortium of U.S. and global investors.[14,15,16] Managing

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[10] Pew Research Center. 2025. *Teens, social media and AI chatbots*. Washington, DC: Pew Research Center. https://www.pewresearch.org/internet/2025/12/09/teens-social-media-and-ai-chatbots-2025/

[11] Qustodio Team. 2025. *The Digital Dilemma: Childhood at a Crossroads — 2024 Annual Report on Kids' App Usage*. Charlotte, NC: Qustodio. https://www.qustodio.com/en/research/qustodio-releases-2024-annual-report/

[12] Raffoul et. al. 2003. Social media platforms generate billions of dollars in revenue from U.S. youth: Findings from a simulated revenue model. PLoS ONE 18(12): e0295337 (https://doi.org/10.1371/journal.pone.0295337)

[13] Evergreen estimates, using data from: see note 11, supra. and Common Sense Media. 2021. The Common Sense Census: Media Use by Tweens and Teens, 2021. San Francisco, CA: Common Sense Media. https://www.commonsensemedia.org/research/the-common-sense-census-media-use-by-tweens-and-teens-2021

[14] Fischer, Sara. Scoop: TikTok signs deal for U.S. unit after yearslong saga. Axios. December 18, 2025. Accessed December 31, 2025.

[15] Vanian and Boorstin. TikTok signs agreement to create new U.S. joint venture, memo says. CNBC. Published December 18, 2025, updated December 19, 2025. Accessed December 31, 2025.

[16] The new structure is due to go into effect on January 22, 2025.

investors in the new venture include California-based private equity firm Silver Lake. Other investors include California-based companies Sequoia Capital and KKR.

Other impacted operators in California include Roblox, Reddit, Twitch, and Discord, along with hundreds of other gaming platforms, social apps, community platforms, and networks. To comply with the statute, any of these companies that operate covered features need to employ age assurance methods, modify recommendation algorithms to provide non-personalized "chronological feeds" as the default for minors, and implement notification scheduling systems that respect prohibited hours.

2.2.2 Advertising

Advertising is the primary revenue stream for most major online platforms, including social media.[17] Social media companies pioneered the user-related advertising revenue model, in which companies charge advertisers a fee to show advertisements to users in a targeted manner, and as a result users typically do not pay a fee.[18] Companies can leverage large amounts of user data such as sociodemographic variables, content that is "liked," browser history, and in some cases location, movement, and sound recording data captured from users' cellphones. This information can be extracted using machine learning algorithms to detect patterns and match user-specific demographics and usage patterns with advertiser financial interests.[19] This general practice is known as "microtargeting." Microtargeting at scale generates substantial value for advertisers, while advertising revenue enables platforms to sustain free services and expand their user base. SB 976 limits the ability of advertisers to target minors by requiring parental consent for minors to access addictive feeds, and starting January 1, 2027, requiring that operator defaults be set to one hour per day of addictive feeds.

2.2.3 Age Verification and Parental Consent Companies

The age assurance industry expanded in recent years due in part to growing demand for age assurance and parental consent services from major online platforms. Many companies, including some of the six largest social media platforms, already use third-party services to comply with existing legislation and company policies. In New York OAG's Stop Addictive Feeds Exploitation (SAFE) for Kids Act Notice of Proposed Rulemaking, the age assurance market is described as

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[17] Vanian. Meta's advertising growth is proof that hefty AI spending is already paying off. CNBC. Published July 31, 2024. Accessed January 2, 2026. https://www.cnbc.com/2024/07/31/meta-advertising-growth-proof-that-hefty-ai-spending-is-paying off.html#:~:text=%22Those%20are%20already%20products%20that,target%20users%20across%20the%20Internet.

[18] Sindermann, C., Scholz, R. W., Löchner, N., Heinzelmann, R., & Montag, C. (2024). The revenue model of mainstream social media: advancing discussions on social media based on a European perspective derived from interviews with scientific and practical experts. *International Journal of Human–Computer Interaction*, *40*(23), 8107-8123.

[19] Raffoul, A., Ward, Z. J., Santoso, M., Kavanaugh, J. R., & Austin, S. B. (2023). Social media platforms generate billions of dollars in revenue from US youth: Findings from a simulated revenue model. *Plos one*, *18*(12), e0295337.

robust, offering a “variety of products that perform at a high accuracy rate, easily integrate with online platforms, handle large user volumes, and prioritize the preservation of user privacy and protection of user data.”

The age assurance and parental consent services market has experienced rapid growth in California. The sector includes San Francisco-based Persona Identities and InCode, and Stripe which operates offices in California as well.[20] Meta uses Yoti (headquartered in London) across its platform, TikTok uses InCode, and X (Twitter) uses Au10tix (Israel), Persona, and Stripe.[21,22,23]

2.3 Employment and Wages

Impacted industries fall mainly within three North American Industry Classification System (NAICS) codes that represent distinct but interconnected segments of the digital economy. Each segment is affected by SB 976 and the proposed regulations in varying ways.

- **NAICS 516210 (Media streaming distribution services, social networks, and other media networks and content providers)** encompasses social media platforms directly targeted by SB 976.
- **NAICS 518210 (Data Processing and Related Services)** includes cloud computing, data storage, and information processing services likely to experience increased demand as platforms develop and deploy age verification systems, content filtering technologies, and compliance monitoring infrastructure.
- **NAICS 519290 (Web Search Portals and All Other Information Services)** represents search engines and information services that may benefit from demand for age assurance technologies and may also face regulatory requirements depending on how their recommendation algorithms interact with minor users.

2.3.1 Establishments and Firms

The distinction between an "establishment" and a “firm” in the Bureau of Labor Statistics’ (BLS) Quarterly Census of Employment and Wages (QCEW) data is important to understand for this

[20] Gartner Magic Quadrant for Identity Verification, https://www.gartner.com/doc/reprints?id=1-2LQSQ0NQ&ct=250826&st=sb&submissionGuid=652e7dab-94ce-411e-bbab-a3f80ad6f041
[21] Introducing New Ways to Verify Age on Instagram, Meta. Accessed January 9, 2026. https://about.fb.com/news/2022/06/new-ways-to-verify-age-on-instagram/
[22] Underage appeals on TikTok, TikTok. Accessed January 9, 2026. https://www.tiktok.com/support/faq_detail?id=7543604788919851526&category=web_account
[23] ID Verification Policy & Privacy, X Help Center. Accessed January 9, 2026. https://help.x.com/en/rules-and-policies/verification-policy#:~:text=Which%20third%2Dparty%20processor%20do,of%20an%20account%20holder's%20importance.

analysis, as these definitions have implications for interpreting regulatory impact across firms.

- **Establishment**. A single economic unit, typically at one physical location, that engages in one, or predominantly one, type of economic activity for which a single industrial classification may be applied.[24]

- **Firm**. A business that consists of one or more establishments, where each establishment may participate in a different economic activity.[25]

For large multi-establishment technology companies, each establishment is tabulated separately based on its predominant business activity. For instance, Meta's social networking operations (Facebook, Instagram) would be classified under NAICS 516210, while its data center operations and cloud infrastructure services may be classified under NAICS 518210, and any search or information retrieval services may fall under NAICS 519290.[26]

This establishment-level classification means the statute or proposed regulations could simultaneously impose costs on one part of a firm's operations while creating revenue opportunities for another part. Using Meta as an example again, its social networking establishments (NAICS 516210) face compliance costs and potential revenue losses from restricted algorithmic engagement with users who are minors, while Meta's data processing and infrastructure establishments (NAICS 518210) might benefit from internal demand for age assurance and content filtering systems—compliance technologies Meta could potentially offer to other platforms as a service. Similarly, Alphabet Inc. operates establishments spanning web search operations (NAICS 519290), data processing and cloud services (NAICS 518210), and video streaming services like YouTube (NAICS 516210), each facing different regulatory pressures and opportunities.

2.3.2 California Dominance in Media Streaming and Social Networks

The media streaming distribution services, social networks, and other media networks sector (NAICS 516210), the primary sector targeted by SB 976, is highly concentrated in California. This concentration reflects California's position as home to the dominant social media platforms nationally and internationally. In 2024, California housed 14.5% of the nearly 15,000 establishments in this sector nationwide (2,161 establishments). These California-based establishments employed 31.6% of the sector's 224,810 workers (70,959 workers) and generated

[24] US Bureau of Labor Statistics, Handbook of Methods. https://www.bls.gov/opub/hom/cew/concepts.htm.
[25] Ibid
[26] The actual number of establishments Meta has in California is not stated in publicly available data provided by BLS, however a search of publicly available sources indicates that Meta has at least one establishment in each of the following 15 cities: Menlo Park, Burlingame, Foster City, Fremont, Irvine, Los Angeles, Mountain View, Newark, Northridge, Pasadena, San Diego, San Francisco, San Mateo, Santa Clara, Sunnyvale. [Internet search conducted on December 22, 2025.]

48.5% of the $72.7 billion in total wages paid across the entire United States ($35.3 billion). The average annual wage in California for this sector reached $497,276 in 2024, a 53.7% premium over the national average of $323,440. This wage grew substantially from $350,428 in 2023, an increase of $146,848 (41.9%) in just one year, suggesting intense competition for specialized talent even as regulatory pressures from other US states and other countries rose.

The economic magnitude of California's concentration in this sector amplifies both the regulatory impact and the state's regulatory leverage. Because California accounts for nearly half of all wages paid in this sector nationwide, and because affected platforms operate globally, compliance solutions developed for California's market are likely to influence—or become the de facto standard for—platform operations nationwide or even globally. This "California effect" in regulatory standard-setting has precedent in areas such as vehicle emissions standards and consumer privacy law. However, the compliance burden falls disproportionately on California-based establishments, which must not only implement technical solutions but also navigate the legal and operational complexities of the statute and associated regulations.

2.3.3 Compliance Technology Beneficiaries

The data processing and related services sector (NAICS 518210), which encompasses cloud computing, data storage, and information processing infrastructure also has substantial concentration in California. In 2024, California accounted for 8.3% of 55,488 establishments nationwide (4,615 establishments) and 16.4% of employment (79,430 of 483,457 workers), while generating 26.8% of total wages ($25.2 billion of $94.2 billion nationally). The average annual wage of $317,720 in California exceeded the national average of $194,740 by 63.2%, indicating, in part, that California hosts higher-value, more specialized data processing operations rather than routine back-office functions.

This sector may be positioned to benefit from compliance requirements imposed on platforms by SB 976. Age assurance methods follow various approaches that require a balance of accuracy, user experience, and privacy protection—a technically complex challenge requiring substantial data processing infrastructure and expertise.

Moreover, the prohibition on notifications during specified hours necessitates real-time age determination and content delivery systems that can dynamically adjust based on user location and age status. A 2025 report by The Sumsuber notes that platforms must now "continuously monitor verification processes for effectiveness, usability, and legal compliance" and "adapt quickly to evolving regulations and technologies."[27] This creates ongoing demand for data processing services including identity verification, age assurance, parental consent management, audit logging for regulatory compliance, and analytics to demonstrate compliance to regulators.

[27] The Sumsuber, June 26, 2025. https://sumsub.com/blog/age-verification-on-social-media/

The decline in California employment in this sector from 83,236 workers in 2023 to 79,430 in 2024 (a decrease of 3,806 jobs or 4.6%), coupled with an increase in total wages from $22.0 billion to $25.2 billion (an increase of $3.2 billion or 14.4%), suggests workforce optimization and automation. This pattern may reflect to some degree companies investing in more sophisticated, automated compliance infrastructure rather than labor-intensive manual processes. The higher wages for remaining workers likely reflect demand for specialized skills in areas such as machine learning for age estimation, privacy-preserving data processing, and regulatory compliance systems—precisely the expertise needed to build the technical infrastructure for California's youth protection law.

Alphabet Inc.'s cloud computing division, Google Cloud Platform, operates extensive data processing infrastructure from California facilities including operations in Mountain View, Sunnyvale, and other Bay Area locations. Amazon Web Services maintains data processing operations in Northern California as part of its US-West region. These companies are well-positioned to provide age verification and compliance infrastructure both internally for their own platforms and as services sold to other platforms seeking to comply with SB 976.

2.3.4 Adjacent Regulatory Exposure and Compliance Demand

The web search portals and all other information services sector (NAICS 519290) is the most concentrated in California of the three sectors examined in this study. Despite representing only 5.0% of establishments nationwide in 2024 (737 of 14,642), California-based establishments in this sector employed 40.0% of the workforce (61,306 of 153,171 workers) and accounted for 57.0% of total wages paid ($30.2 billion of $53.0 billion nationally). Average annual wage in California stood at $492,388 in 2024, a 42.4% premium over the national average of $345,800. This extraordinary concentration reflects the dominance of Alphabet Inc. (Google) in web search and information services.

Web search platforms may face adjacent regulatory exposure and compliance demands if they provide “addictive feeds,” as defined in SB 976.

YouTube combines search functionality with video recommendations and is a video sharing platform. Requirements in the statute therefore compel companies in this sector to develop age assurance capabilities and potentially modify recommendation systems for minor users.

At the same time, companies in this sector are well-positioned to develop and monetize age verification and compliance technologies. Google has extensive experience with identity verification through its Google Account system, mobile device management through Android, and machine learning capabilities through AI research. These technical capabilities translate directly into infrastructure needed for age assurance systems. The 2025 report by The Sumsuber also notes that "AI-powered tools are at the forefront of age verification" and that platforms are "increasingly implementing more robust and secure age verification systems, moving beyond basic

self-attestation to actual age verification."[28] Companies with expertise in machine learning, device fingerprinting, and identity management—core competencies in the web search and information services sector—have competitive advantages in building these systems.

The sector showed slight employment contraction in California from 62,854 workers in 2023 to 61,306 in 2024 (a decrease of 1,548 jobs or 2.5%), while wages increased from $27.2 billion to $30.2 billion (an increase of $3.0 billion or 11.0%). This pattern, like the data processing sector, suggests productivity improvements, automation, and a strategic workforce. The relatively high wages paid to California-based employees in this sector indicate sustained demand for the specialized technical skills necessary for developing sophisticated compliance infrastructure.

2.3.5 Cross-Sector Dynamics and Firm-Level Impacts

Establishment-level nature of QCEW data obscures though does not eliminate cross-sector dynamics within individual firms. Large technology companies in California typically maintain establishments across at least two NAICS codes described above. Meta, for example, operates social networking services (NAICS 516210), data centers and cloud infrastructure (NAICS 518210), and potentially information services for search and discovery on its platforms (NAICS 519290). Likewise, Alphabet Inc. spans web search operations (NAICS 519290), cloud computing services (NAICS 518210), and video streaming/recommendation services through YouTube (NAICS 516210).

From a firm-level perspective, the statute creates both costs and opportunities to different establishments within the same corporate entity. Social networking establishments face direct costs including potential application of age verification technologies, modification of recommendation algorithms, implementation of notification scheduling systems, legal compliance overhead, and potential revenue losses from reduced engagement with minor users.

Conversely, data processing and infrastructure establishments within the firms may experience increased internal demand for compliance technologies, opportunities to develop proprietary age verification systems with potential external licensing value, increased cloud computing and data storage needs for audit trails and compliance monitoring, and competitive advantages selling compliance-as-a-service to smaller platforms lacking in-house technical capacity.

2.3.6 Employment and Wage Implications

The employment and wage data across these three NAICS codes reveal California's commanding position in the digital economy sectors most affected by the SB 976. California's 48.5% share of wages in media streaming and social networks, 26.8% in data processing, and 57.0% in web search and information services indicates the state hosts many workers in these industries and specifically the highest-value, highest-wage operations. This concentration reflects California's

[28] Ibid.

unique ecosystem of technical talent, venture capital, established industry leaders, and university research institutions.

Statutes and regulations for SB 976 will have differential impacts across and within firms in these sectors. Social media platforms (NAICS 516210) face direct compliance costs and potential business model disruption, while data processing operations (NAICS 518210) and web search companies (NAICS 519290) face both adjacent regulatory exposure and opportunities to develop and monetize compliance technologies. Because large technology firms typically operate establishments across multiple NAICS codes, net impacts on a firm depend on the balance between compliance costs in social networking operations and revenue opportunities in infrastructure and services operations.

Geographic and Economic Concentration: Implications for Regulatory Impact

Ultimately, California's restriction on social media access for minors represents both an economic burden on platforms and a potential catalyst for innovation in age verification, privacy-preserving identity systems, and content filtering technologies.

California's extraordinary concentration of employment and especially wages in these three technology sectors amplifies the state's leverage in shaping industry practices but also creates localized economic exposure to regulatory outcomes. California hosts the headquarters, strategic decision-making operations, and highest-paid technical talent for many of the firms in these industries. This concentration suggests that compliance strategies developed in California will likely set industry standards given the economic weight of California-based establishments and their disproportionate influence on corporate strategy.

3 Baseline Analysis

This chapter describes the regulatory baseline and anticipated behavior of impacted populations in the absence of proposed regulations.

3.1 Existing Statutes and Regulations

Several current laws, as well as company policies, contain provisions that overlap with requirements in SB 976. Economic impacts measured for this study derive from the incremental difference between what this baseline regulatory environment, which includes the SB 976 statute, already requires and additional requirements within the proposed regulations. This section describes key baseline legislation and policies, aside from SB 976, which is described in Chapter 1.

3.1.1 Data Privacy and Management Legislation

U.S. Children's Online Privacy Protection Rule (COPPA)

The U.S. Children's Online Privacy Protection Rule (COPPA) regulates privacy for children on websites and online service providers that direct content to youth younger than 13 years of age or that collect personal information online from children they have actual knowledge are younger than that age.[29] The rule requires verifiable parental consent before collecting information from children and clear communication of privacy policies and practices for collection of children's personal information. Parents also can review information collected on their children, request data be deleted, and prevent future collection. Age can be self-reported under COPPA. Thus, SB 976 requirements are more stringent than COPPA, in addition to applying to a wider range of ages.

California Consumer Privacy Act (CCPA)

The California Consumer Privacy Act (CCPA), including California Privacy Rights Act amendments, contains data protection provisions. The CCPA sets requirements for management of sensitive personal information, a category that includes data on minors 16 years of age and younger required for age assurance and parental consent.[30] The CCPA contains a data minimization and retention requirement that mandates businesses only collect and store personal information for as long as necessary.

California Age-Appropriate Design Code Act

The California Age-Appropriate Design Code Act (AADC) was modeled after the UK law of the same name. The AADC applies to all children younger than 18 years of age and businesses that provide a

[29] Children's Online Privacy Protection Act of 1998, 15 U.S.C 6501-6505.
[30] CA Civ Code § 1798.100(a) (2024)

an "online service, product, or feature likely to be accessed by children."[31] The AADC requires companies conduct data protection impact assessments. The law is currently enjoined.[32] Due to the status of the law, it is not considered as part of the baseline regulatory environment.

Digital Age Assurance Act

Assembly Bill (AB) 1043, the Digital Age Assurance Act is scheduled to become effective on January 1, 2027, the same day as proposed regulations for SB 976.[33] The act impacts SB 976's age assurance provisions, as it requires operating system providers, "a person or entity that develops, licenses, or controls the operating system software on a computer, mobile device, or any other general purpose computing device," to establish birth date, age, or both, for each user of a device. This information is to be used only to develop a digital signal that indicates the user's age group. The operating system then shares a signal indicating the user's age group with applications (apps) in app stores. Age categories follow:

- Younger than 13 years of age;
- At least 13 through younger than 16 years of age;
- At least age 16 through younger than 18 years of age; and
- At least 18 years of age.

Overlap and Integration with SB 976

An operator, as defined in SB 976, is a provider of an internet website, online service, online application, or mobile application. SB 976 specifically applies to operators of addictive feeds, even if not distributed through a typical app store or built by a traditional app developer. In contrast, a developer, as defined in the Digital Age Assurance Act, focuses on those who create apps, regardless of addictive feed content.

Most operators that provide addictive features are subject to both the Digital Age Assurance Act and SB 976. Most companies that provide addictive features operate both a web-based platform and an app. However, companies that provide addictive features exclusively through the web would not receive an age signal. These platforms would need to employ an age assurance method that meet the standards set forth in the proposed regulations if they do not already use one. It is not clear many operators fall in this category, and certainly none of the major operators do. This is discussed further in Section 4.2.1.

[31] California Age-Appropriate Design Code Act, Cal. Civ. Code § 1798.99.28, 2022.
[32] NetChoice v. Bonta (N.D. Cal. 2024) 761 F. Supp. 3d 1202, 1218.
[33] Digital Age Assurance Act, 2025 Cal. Stat. ch. 675 (Assemb. B. 1043).

3.2 Company Policies

Over the past few years, many companies that operate algorithmically driven feeds responded to rising pressure, including lawsuits, with protections for minors. These policies, as outlined below, demonstrate that the major social media companies have capabilities in place to comply with many aspects of SB 976 and have access to age assurance and parental consent technologies. However, the policies are not statutory requirements and, thus, no social media company policies are considered as part of the regulatory baseline for proposed SB 976 regulations.

3.2.1 Restricted Content and Parental Controls

Some companies instituted mechanisms for parental control of content minors can access, privacy of accounts, time on the platform, and notification settings. Meta introduced Teen Accounts, first on Instagram, then on Facebook and Messenger, for users younger than 16 years of age that require parent approval to change default restricted settings. Teen accounts feature a default Sleep Mode setting that blocks notifications during nighttime hours (10pm to 7am).[34] Meta reported in April 2025 that 97% of users 13 to 15 years of age kept their default restrictions on.[35] YouTube operates a separate YouTube Kids app for children younger than 13 years of age and a family link that allows parental controls for YouTube accounts for older children.

3.2.2 Age Assurance

Until recently, most large social media platforms in the US relied on self-reported birth dates to determine user age. In some cases, companies are beginning to use AI technology, video selfies, and identification card uploads to check user ages. Facebook works with a third-party age verification company, Yoti, to analyze selfies to estimate a user's age but not recognize their identity.[36] In 2025, YouTube announced it would begin testing AI-powered age assurance technology in the U.S.[37] The technology is designed to infer a user age and then deliver content appropriate to that age to the user's account. Appropriate content includes disabling personalized advertising, turning on "wellbeing tools," and restricting a set of content.[38] All impacted companies announced some form of age assurance process to comply with Australia's law mandating social media firms take "reasonable steps" to ban user accounts for children younger than 16 years of age. The law makes the social media companies responsible for determining user

[34] Meta. Timeline of tools, features, and resources to help support teens and parents. Accessed January 4, 2026.
[35] Meta. We're Introducing New Built-In Restrictions for Instagram Teen Accounts and Expanding to Facebook and Messenger. April 8, 2025. Accessed January 4, 2026.
[36] Yoti. Yoti Age Estimation. White Paper, Executive Summary. May 2022.
[37] Beser, James. Extending Our Built-In Protections to More Teens on YouTube. YouTube Official Blog. July 29, 2025. Accessed January 4, 2026.
[38] YouTube. Building content recommendations to meet the unique needs of teens and pre-teens. Accessed January 4, 2026.

age. Platforms the law applies to are Facebook, Instagram, Kick, Reddit, Snapchat, TikTok, Threads, Twitch, X, and YouTube.

Age Assurance

Social media companies employ some form of age assurance to comply with laws in other regions of the world. In the US, several companies verify ages, though often in response to certain criteria, such as a user signing up for a service for 18 years or older or changing their age on their account to over 18. While all social media companies can estimate user age to a certain degree, prior to SB 976, most California companies did not do so methodically or based on established standards.

Parental Consent

Some companies require parental consent to change default settings on accounts held by minors and employ a verification method to determine whether a user is a parent. However, in many cases parents can only approve or deny their child's request to change default settings.

Notifications

While parents can adjust notification setting for minor users, no platform voluntarily restricts notifications during school hours. Nighttime hours can be regulated on some platforms.

3.3 School District Policies and Phone-Free School Act

State legislatures in 31 states adopted bell-to-bell or instructional time restrictions on phone use as of December 2025.[39] California joined this list with the Phone-Free Schools Act (AB 3216) that takes effect on July 1, 2026. The law requires adoption of policies to limit or prohibit student use of smartphones while at school or under the supervision of a school employee. The bill is described as a "state-mandated local program," in which the requirement to restrict phone use is set at the state level, though implementation is left up to local entities.[40]

Current phone bans in California include the two largest school districts, Los Angeles and San Diego Unified School Districts, both of which implemented bell-to-bell phone bans in 2025.[41] In total, these two school districts alone represent more than 600,000 students.[42]

By the time proposed SB 976 regulations take effect in 2027, all California students should be subject to some degree of phone use restrictions while at school. While some schools will likely

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[39] https://www.edweek.org/technology/which-states-ban-or-restrict-cellphones-in-schools/2024/06

[40] https://calmatters.digitaldemocracy.org/bills/ca_202320240ab3216

[41] https://laist.com/news/education/los-angeles-unified-phone-ban-end-of-first-semester-summer-starts, https://www.sandiegounified.org/about/newscenter/all_news/s_d_unified_implements_phone-_free_policy

[42] California Department of Education. "Largest & Smallest Public School Districts — 2024–25." *Accessing Educational Data*, California Department of Education. This report lists enrollment figures for the largest and smallest public school districts in California.

not ban phone use during school entirely and some students will inevitably find workarounds to bypass phone restrictions, the Phone-Free Schools Act and existing school policies significantly reduces potential minor time interacting with covered features during school hours.

3.4 Incremental Change from Baseline

Instances in which the proposed regulations for SB 976 may have an incremental impact beyond this regulatory baseline are listed below and discussed further in the following chapters on costs and benefits. Incremental changes from baseline include:

1. Differences in cost between the age assurance method and the standards companies currently employ and those established in the regulation.
2. Instances in which a company operates a web-based platform and not an app and, therefore, does not receive a digital signal of age.
3. Instances in which a company has or receives information that conflicts with the age indicated in the digital signal received from an operating system or app store.
4. Compliance activity not already undertaken in response to the current regulatory environment, including communications with users, data and process publication, appeals process protocols, and protocols to deal with potential circumvention, misuse, or fraud.

4 Direct Costs

This chapter presents qualitative and quantitative assessment of the direct costs of SB 976 and proposed SB 976 regulations. The SB 976 statute and other existing laws limit addictive features for minors on social media, require operators to obtain parental consent for minors to receive algorithmic feeds, mandate default privacy settings, and restrict minors from receiving late-night or school-hour notifications. We find substantial qualitative and quantitative costs associated with SB 976. In contrast, the proposed regulations provide guidance and establish standards and a compliance framework for age assurance and parental consent methods, as required to fully implement SB 976. This chapter addresses incremental costs between the baseline and the proposed regulations.

4.1 Summary of Costs of SB 976

Costs associated with SB 976 are not included in the impact assessment They are, however, important to consider in developing the baseline for analysis. The primary costs that SB 976 imposes on covered operators include:

1. Reduced advertising revenue due to decreased time on addictive feeds through:
    a. Reduced access to minors
    b. Default settings for time limits and engagement metrics for minors
    c. Reduced notifications to minors
2. Additional compliance costs to:
    a. Identify addictive feeds
    b. Establish content delivery systems to dynamically adjust feed design and engagement features based on user location and age status
    c. Track user time on addictive versus non-addictive feeds.

4.2 Incremental Cost of Proposed Regulations

Our assessment finds the proposed regulations may impose incremental costs on firms or individuals affected by SB 976 via the reasonable determination of age assurance and verified parental consent provisions and associated compliance requirements in the regulations.

4.2.1 Age Assurance

Under SB 976, the onus is on the operator to determine a user is not a minor before providing a covered feature. Age assurance processes require a balance between accuracy, user experience, and privacy protection—a technically complex challenge requiring substantial data processing

infrastructure and expertise. The proposed regulations for SB 976 set forth standards describing how operators can reasonably determine whether a user is a minor. We assume there are impacts associated with age assurance that are directly attributable to the proposed regulations.

As discussed earlier in this report, the regulations state that if a technical signal generated because of Digital Age Assurance Act requirements indicates the user is a minor, an operator does not have to further reasonably determine that the user is not a minor. This scenario should apply to most operators subject to the proposed regulations, as nearly all operators of covered features include an app in their services. Operators who do not receive a signal, which could be the case for companies that only operate a web-based platform only, will need to verify user ages either through an approved in-house verification method or through a third-party service.

Cost of Age Assurance

Estimates of age assurance costs were conducted by both the State of New York, in relation to the state's SAFE for Kids Act, and Utah, in relation to the Minor Protection in Social Media Act.

New York's SAFE for Kids Act regulatory impact analysis provides per-user cost estimates for age assurance verification, broken down by method and platform size. They use a "waterfall" age verification approach in which platforms employ multiple methods of age checks, starting with methods requiring limited user burden and cost, and advancing users to more time-intensive and costly methods if initial methods are unsuccessful. New York's waterfall approach includes, for example, initial biometric scans for all users, then document verification, then appeals if other methods are unsuccessful.

New York estimates that biometric scans cost $0.05 to $0.15 per user, depending on platform size (declining with increasing firm size due to volume discounts). Document verification methods cost $0.08 to $0.15 per user, depending on platform size. Finally, they estimate that the cost of an appeal is $6.25 per user; the appeals process in New York's rule is comparable to that in California's proposed regulations.[43] These cost estimates are derived from publicly available pricing provided by age assurance providers and are considered valid for the California analysis.

Utah's regulatory impact analysis for its Minor Protection in Social Media Act Rule provides substantially broader estimates. The Division of Consumer Protection anticipates age assurance costs of $0.05 to $0.45 per completed age assurance attempt, depending on method used, vendor, and volume. However, Utah's regulatory impact statement explicitly states that many cost estimates are "inestimable" because the number of affected platforms is unknown and costs vary

[43] The appeals process is introduced in the proposed regulations and any costs associated with appeals could be considered attributable to the regulation rather than the statute. However, most appeals are anticipated to occur in response to technical signals generated under the Digital Age Assurance Act.

significantly based on whether platforms already have existing age assurance or parental consent verification systems.[44]

As already stated, in California, most age assurance requirements will be met largely by signals produced because of the Digital Age Assurance Act. Most operators will receive age signals from an operating system or app store, and do not need to determine whether a user is a minor. Additionally, most operators currently employ some age assurance processes.

However, when none of these scenarios occurs, it is important to understand costs of age assurance for impacted California companies.

No Technical Signal

The technical signal allowed by the proposed regulations can greatly reduce or eliminates costs that operators might otherwise incur to determine age through other methods. Often, this signal will eliminate the need to engage in other age assurance activities, to the benefit of the operator. Benefits associated with receiving a signal are discussed in the following chapter. We recognize that companies may still incur costs for existing age assurance activities not attributable to the regulations.

For operators that do not receive a signal, other methods of age determination will need to be employed. While operators currently estimate age for many reasons, including content minors are not allowed to access and in response to laws in other geographic locations, some compliance costs may occur for operators that both do not receive a signal and do not currently use an age assurance method that meets standards set forth in the proposed regulations.

Our analysis assumes that there are only two web-only platforms for which age assurance costs will apply. Given the ad revenue-driven business model of companies providing addictive feeds, it is incredibly disadvantageous to not have a mobile application through which to reach users at all times of the day. In Evergreen's comprehensive search for web-only platforms, we identified that many of the web-only platforms intentionally cater to either an audience seeking the nostalgia of non-algorithmic social networking feeds or a user base seeking increased privacy, and even these platforms tend to eventually launch a mobile app. For example, Pixelfed is an ad-free, open source, decentralized website that defaults to chronological feeds. It was a website-only platform until it launched a mobile app in January 2025.[45] Similarly, SpaceHey is a website intended to mimic MySpace that was launched as a website-only platform in 2020, but launched a mobile app

[44] Utah Department of Commerce, Division of Consumer Protection, *Utah Minor Protection in Social Media Act Rule*, Utah Admin. Code R152-71 (2026).

[45] Sarah Perez, "Decentralized Instagram Alternative Pixelfed Launches Mobile Apps," *Yahoo Finance*, January 14, 2025, https://finance.yahoo.com/news/decentralized-instagram-alternative-pixelfed-launches-160007797.html

in 2023.[46] Mastodon is an open-source, decentralized social network that operates on a system of user-run servers and provides chronological feeds.[47] These and similar platforms constitute the "fediverse," which is a network of decentralized, non-algorithmic social networks.[48] While algorithms may be removed or user-adjusted through these platforms, we recognize that these platforms may still include engaging or reinforcing and interactive content, such as like buttons, and conservatively assume that one of these platforms may not yet have an app and constitute a web-only platform providing an addictive feed. We also conservatively assume there may be one other web-only platform yet to launch a mobile app that intentionally provides addictive feeds intended to serve a specialized community.

To calculate the age assurance cost for these two "no technical signal" firms, we calculated a per-operator value based on New York's waterfall age assurance method and calculations. While operators in California may choose methods of age assurance other that biometric scans and document verification, we arrive at the same conclusion as New York's OAG that other methods tend to be no more expensive than these two.[49]

Inputs and results are shown in Table 3. The New York analysis provided estimates of the per-user costs to conduct biometric scans and document verification based on five alternative firm sizes. We used this information to develop weighted average estimates of the per-account costs of biometric scan and document verification for covered operators in California.[50] We used the same constant per-account cost of appeal of $6.25. Age assurance must be completed for all user accounts, not just those of minors. We estimated the total number of user accounts in California at 103,568,356.[51] We replicated New York's methodology to estimate total age assurance costs across all user accounts, then divided by an assumed 200 covered California operators to derive a

[46] An, "Announcing SpaceHey Mobile," *SpaceHey Blog*, published March 27, 2024, https://blog.spacehey.com/entry?id=982920

[47] https://joinmastodon.org/

[48] Haje Jan Kamps, "Welcome to the fediverse: Your guide to Mastodon, Threads, Bluesky and more," *TechCrunch*, June 25, 2024, https://techcrunch.com/2024/06/25/welcome-to-the-fediverse-your-guide-to-mastodon-threads-bluesky-and-more/

[49] *Safe for Kids Act Notice of Proposed Rulemaking*, Office of the New York State Attorney General, September 15, 2025, PDF, https://ag.ny.gov/sites/default/files/regulatory-documents/safe-for-kids-act-nprm.pdf, see footnote 161.

[50] We weighted costs by the provided US monthly average users (MAU) of the platforms.

[51] See note 16, supra. Table S3, Summary of estimates of social media platform use by age group in the U.S. Evergreen compiled usage for all age groups and assumed 11.6% of users are California-based. The California-based percentage was derived from July 2024 California and U.S. population estimates, https://www.census.gov/data/tables/time-series/demo/popest/2020s-national-total.html, Annual Estimates of the Resident Population for the United States, Regions, States, District of Columbia and Puerto Rico: April 1, 2020 to July 1, 2024 (NST-EST2024-POP). We applied an additional 15% of users to account for small operators not included in the big six, arriving at 103,568,356 accounts.

per-operator cost of $82,707.[52] We doubled this figure to estimate the first-year age assurance cost for the two operators without access to a technical signal, resulting in a total cost of $165,414.

Table 3: First Year Cost of Age Assurance for Two Web-Only Operators

Cost/Metric	Value
Biometric Scan Cost (per account)	$0.08
Document Verification Cost (per account)	$0.09
Appeals Cost (per account)	$6.25
Cost of Facial Age Estimation (per operator)	$41,104
Cost of Document Verification (per operator)	$8,591
Cost of Appeals Due to Unresolved Verification	$17,477
Cost of Appeals Due to Misclassification	$26,539
Total Cost of Appeals (per operator)	$33,012
Cost of Age Assurance Per Operator	$82,707
Cost of Age Assurance for No Technical Signal Operators	**$165,414**

Source: Evergreen calculations.

Conflicting Age Data

A second group of operators that will have to pay age assurance costs are those who receive a technical signal but have conflicting information on user age based either on existing data or any newly received report or information indicating a user's age status. We conservatively assume that an operator that receives a technical signal will have conflicting information 18 percent of the time. The Digital Age Assurance Act still relies on parental self-declaration methods of age verification, and while circumvention rates may be lower compared to child self-declaration rates, there is still likely to be error and intentional circumvention. We use the 18 percent error rate associated with the biometric scan in the waterfall age verification method as a proxy because this is similarly viewed as a "first line of defense." Additionally, New York set maximum allowable false positive rates (the rate of minors falsely determined to be adults) for age assurance methods and

[52] We derived the assumed number of operators in California based on the number of establishments in NAICS code 516210 "Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers" in the state in 2024. We allocated establishments across firms of various platform size, following the platform definitions provided in note 49, supra.

the highest value was 15 percent.[53] Because New York proceeded to offer more accurate, non-self-declaration methods of age assurance, they implicitly assume that an error rate for self-declaration methods must be higher than 15 percent. This supports Evergreen's use of 18 percent for the rate of conflicting information.

To calculate the age assurance costs associated with the conflicting information instances, we removed accounts associated with the two web-only platforms and took 18 percent of the remainder, arriving at 18,455,881 total accounts.[54] We performed the same age assurance calculations, shown in Table 4. We estimate that the first year age assurance cost for instances when existing information conflicts with the technical signal is $2,947,678. Therefore, total age assurance costs for this group and the web-only platform/no technical signal group are $3,113,092.

Table 4: First Year Cost of Age Assurance for Conflicting Information

Cost/Metric	Value
Biometric Scan Cost (per account)	$0.08
Document Verification Cost (per account)	$0.09
Appeals Cost (per account)	$6.25
CA User Accounts (all ages)	18,455,881
Cost of Facial Age Estimation	$1,464,927
Cost of Document Verification	$306,189
Cost of Appeals Due to Unresolved Verification	$622,886
Cost of Appeals Due to Misclassification	$945,864
Total Cost of Appeals	$1,176,562
Total Age Assurance Cost for Conflicting Signals	**$2,947,678**

4.2.2 Parental Consent

The SB 976 statute provides parents with broad leverage over a child's access to addictive feeds. Mechanisms to allow parents to change settings on minor's accounts are already in place on social media platforms, though SB 976 requires a new level of parental consent and applies to all platforms providing addictive feeds. While parental consent provisions are included in SB 976, the

[53] See note 49, supra. See Section 700.4 Actual knowledge of minor age status and age assurance methods.
[54] We assume the two web-only platforms have 517,842 accounts each, calculated as total California user accounts/200 firms.

Attorney General was directed to provide guidance on obtaining verifiable parental consent. We assume that any impacts associated with the parental consent method in the proposed regulations are directly attributable to the regulations.

As shown in Table 5, actions required by the proposed regulations and potential costs associated with each are mostly administrative.

Table 5: Parental Consent Tasks Required of Providers Under SB 976 Regulations

Action by Operators	Potential Cost to Operators
Notify minors that parental consent will be sought and obtain valid consent from the minor to contact the parent	• Identify minors • Contact parents • Develop communications • Send notices and track responses
Notify parents that consent is needed to access covered features	• Develop and send communications, track responses
Provide parents with methods of granting consent	• Identify existing methods or develop new methods if necessary • Develop and send communications, track responses
Provide parents with a simple method to withdraw that consent	• Identify existing methods or develop new methods if necessary • Develop and send communications, track responses
Document and implement a protocol to identify and mitigate attempts to circumvent, commit fraud, or misuse a method of parental consent offered	• Identify existing protocols or develop if necessary

Most language in the proposed regulations related to parental consent requires correspondence with minors and their parents about operator actions in response to SB 976. Operators can automate most of this correspondence, including notification to the minor that parental consent is being sought and documentation of consent by the minor to contact the parents. Parental consent can be confirmed and withdrawn through existing pathways, including those already in place because of the Children's Online Privacy Protection Rule.[55] Data management systems and

[55] These methods include a consent form to be returned via mail or electronically, using credit or debit card payment during transactions, availability of a phone or video conference line for parents, checking government-issued identification and potential comparison to another picture using facial recognition technology, and using a knowledge-

automation that is already in place to track data and interact with users can be employed for these purposes and to track consent decisions. Much of this activity already occurs through requirements for verifiable parental consent under the Children's Online Privacy Protection Rule.

Cost of Parental Consent

The New York SAFE for Kids Act regulatory impact analysis includes platform-level cost estimates for implementation of parental consent mechanisms. For an online platform that already complies with COPPA, the estimated cost of implementing a parental consent mechanism that complies with New York's proposed regulations is $4,008 per platform. This cost is derived from the estimated time required to prepare and implement the notice to minors as stated in the proposed rule. The notice requirement is comparable between the New York proposed rule and California's proposed regulations.

Under New York's proposed rule, parental consent requires conducting age assurance on the parent, at the same estimated cost as age assurance for platform users. Therefore, the cost for each parent is consistent with the $0.05 to $0.15 range for biometric scans and $0.08 to $0.15 for document verification, depending on platform size.

Following the assumptions made in New York's regulatory impact analysis, we estimate that implementing a parental consent mechanism will cost $1,519,621 across all platforms. This calculation assumes that one third of users age 13-17 will seek parental consent, and one fourth of parents who receive a request for parental consent will initiate a parental consent mechanism, which has the same per-unit cost as age assurance, discussed above. Parental consent costs are applied to this subset of users. The technical cost of implementing the parental consent mechanism is therefore a total of $89,522 across all platforms.

The total parental consent calculation also includes the cost of providing notices to both minors and parents that operators cannot provide minors with access to covered features without verifiable parental consent. Following the New York methodology, we estimate the cost of notice provision based on the projected hours required by legal professionals, technical personnel, and translation services. We assume that all operators will need to develop these notices. The total cost of notice provision is estimated at $1,430,099.

4.2.3 Compliance

Operators will need to pay for costs to comply with the rest of the SB 976 regulation, though some compliance costs are already included within age verification and parental consent costs. Companies will need to maintain content delivery systems to identify covered features and

based assessment. Children's Online Privacy Protection Rule, 16 C.F.R. § 312.5, https://www.ecfr.gov/current/title-16/chapter-I/subchapter-C/part-312.

potentially amend feeds to comply with SB 976 regulations. Systems will need to dynamically adjust based on user age status and California location. Operators will also need to schedule when to send notifications to comply with prohibited hours and adjust services using ongoing age determination as users move between minor and adult status. These systems must handle millions of concurrent users, maintain low latency to preserve user experience, and provide audit trails demonstrating compliance to regulators.

Operators currently build and operate systems to comply with other laws and regulations that either overlap with SB 976 requirements or address similar issues in jurisdictions outside of California, including data security measures. Thus, some compliance costs will already be borne by operators. Additional compliance tasks associated with SB 976 regulations, and not already included in age assurance and parental consent costs, include:

1) A published report on operator websites of the methodology used to determine age, an explanation of why the chosen method is reasonable, and a summary of steps taken to ensure the accuracy of the age assurance method used; and

2) Documentation of a protocol to account for potential circumvention, fraud, or misuse of verification methods and other requirements in the proposed regulations.

Considering many operators already have either internal or third-party age verification systems in place to comply with existing laws and regulations, we anticipate the costs associated with documentation and publication of age verification methodology to be minimal. We assume that operators will refer to industry-standard metrics for accuracy of a given age assurance method in developing their quantitative description of method effectiveness. Based on the projected hours of labor required by legal professionals, technical personnel, and translation services, we estimate that this compliance measure will cost operators $1,610 on average, or $322,049 in total.

For task 2 above, such circumvention is considered unlikely with the use of a signal for California users, though one major loophole may be use of technology by users to change their location outside of the state, such as through use of a virtual private network (VPN). As the operator is required to try and prevent such circumvention, they may need to develop or purchase technology to do so. It is likely that operators with services in areas that already ban or limit addictive feed access for minors already have a geo-location assurance system accessible to them or in place. Thus, we estimate that costs associated with this requirement will be incremental. Based on projected hours of labor required by legal professionals and technical personnel to document and implement this protocol, we estimate the per operator cost to be $3,880 for total first-year costs of $775,860. This brings the total compliance costs of the regulation to $1,097,909 in the first year.

4.2.4 Cost Summary of Proposed Regulations

Table 6 provides a summary of all incremental costs for age assurance, parental consent, and compliance associated with the regulations. Age assurance costs are split into costs for the two

operators with no technical signal received and the costs associated with conflicting information that is received 18 percent of the time. Parental consent costs include the technical cost for implementing the consent mechanism and the cost of providing notices to both minors and parents, for all operators. Compliance costs apply to all operators and include labor costs for the age assurance methodology publication on operator websites and the documentation of a circumvention, fraud, or misuse protocol.

Table 6: Summary of Age Assurance, Parental Consent, and Compliance Total First Year Cost

Cost Category	Cost/Metric	Value
Age Assurance	No Technical Signal Received*	$165,414
	Conflicting Information with Technical Signal*	$2,947,678
	Total Age Assurance Cost	**$3,113,092**
Parental Consent	Parental Verification	$89,522
	Communication with Parents and Minors	$1,430,099
	Total Parental Consent Cost	**$1,519,621**
Compliance	Circumvention, Fraud, Misuse	$775,860
	Publication of Methodology	$322,049
	Total Compliance Cost	**$1,097,909**
Total Cost to All Operators Combined		**$5,730,622**

*Includes cost of appeals.

The $5,730,622 in costs attributable to the proposed regulations represents an incremental increase of less than 0.5 percent of current annual compliance spending. California operators covered by SB 976 currently spend approximately $1.2 billion annually on all regulatory compliance. This baseline estimate assumes regulatory compliance costs equal 1.34 percent of a firm's annual wage bill.[56] The proposed regulations thus constitute a modest addition to existing compliance burdens.

4.3 Analysis of SB 976 Costs

This section provides insight into major costs identified for SB 976. As the baseline analysis in Chapter 3 describes, several laws and policies overlap with requirements and restrictions set forth in SB 976. The most relevant overlap for this analysis occurs through the California Consumer

[56] Trebbi, Francesco, and Miao Ben Zhang. *The cost of regulatory compliance in the United States*. No. w30691. National Bureau of Economic Research, 2022.

Privacy Act (CCPA), Digital Age Assurance Act, social media company policies and practices, and the California Phone-Free School Act. This existing regulatory environment reduces some costs of SB 976. Specific cost reductions include age verification, parental verification and consent, and data management and reporting.

4.3.1 Impacts of Reduced Time on Addictive Feeds

Remaining costs of significance for SB 976 are the reduced time by minors on addictive feeds. Also, compliance costs may increase if operators or regulators elect to discern addictive from non-addictive feeds, change feed content, or track user time on addictive versus non-addictive feeds.

Analytical Approach for Conducting Cost Assessments

Measurement of direct costs associated with SB 976 is a complex process, particularly because there are a wide number of ways impacted populations will respond to this legislation. Thus, this analysis describes the range of potential impacts within a defined set of assumptions. The following sections describe assumptions made in this analysis and resulting cost estimates.

As discussed in Chapter 2, operators impacted by SB 976 include hundreds of California-based businesses. These include the companies that operate the largest six social media platforms in the world, all of which are either headquartered in California or have a significant presence in the state. While most social media platforms with operations in California are considered impacted operators for this study, the six major platforms have an outsized presence, with a dominant percentage of users and social media advertising market share. They are also the most well studied, with existing data available on number of users, time spent on the platforms, and advertising revenue generated. Thus, to estimate magnitude of costs associated with the proposed regulations, we quantify impacts for the six major social media platforms.

To quantify cost implications of SB 976 on social media operator advertising revenue, we estimated the number of unique users of social media who are minors in California. We also estimated average advertising revenue generated per user for each hour on the platform. These estimates are based on studies of social media behavior and advertising revenue reports. We also make the following assumptions, as described below and in Table 7.

1. **Proportion of addictive feeds.** A portion of time on social media platforms is associated with addictive feeds (i.e. associated with material generated through an algorithm), while another portion is on non-addictive feeds, such as time spent with material generated chronologically. While available research suggests time on feeds is predominately associated with algorithmically generated material, the mix of addictive and non-addictive feeds likely varies by service and by user. We apply an across-the-board estimate that 80 percent of time on social media platforms is currently associated with an addictive feed.
2. **Static feed composition**. We do not know how companies will adapt their services in response to the proposed regulations. It is possible they will change the proportion of

addictive versus non-addictive material they supply to users, though we do not know what the resulting proportions might be. To demonstrate the impact of these regulations compared to baseline conditions, we assume all feeds on social media platforms remain 80 percent algorithmically generated once the regulations are implemented.

3. **Default setting compliance costs**. We cannot yet estimate costs for how companies will manage and the State of California will enforce default settings that require a cap of one hour per day of time on addictive feeds and that restrict notifications. We also cannot estimate costs of identifying and tracking use of addictive versus non-addictive feeds.
4. **Advertising revenue by feed type.** Addictive feeds have been proven to increase user engagement and are, thus, associated with higher advertising revenue than non-addictive feeds. Some revenue is still generated on platforms from non-addictive feeds. Studies on this difference find a range of revenue impacts. Studies on this difference find a range of revenue impacts. For this study, we use a conservative estimate that ads in addictive feeds are 20 percent more profitable than those in non-addictive feeds.
5. **Notification impacts on use.** Studies demonstrate that notifications are an effective method for increasing user time on platforms. Thus, reduction in notifications is associated with reduced overall user time on a platform. For the purposes of this study, we apply a 25 percent reduction in time spent on social media during the hours the proposed regulations restrict notifications, which we equate to a 10 percent reduction per day overall.

Quantitative Assessment

Social media platforms primarily generate revenue through advertising. The initial market shift from chronological feeds to algorithmic feeds was motivated by revenue optimization. Research demonstrates that advertising rates on social media platforms increase proportionally with user engagement levels.[57] Approximately $8.7 billion is generated annually in California from advertising revenue by the largest six social media platforms alone. On average, baseline advertising revenue per minor user of social media platforms in California is estimated at $1,467 annually. Because SB 976 limits the algorithmic feeds designed to maximize engagement, the statute is projected to reduce user engagement and time spent on platforms.

This reduction in engagement represents a direct cost to operators through decreased advertising rates and associated advertising revenue.

[57] Dunn, Kayla. "Mitigating Algorithmic Targeting in Social Media Platforms." *STEPs* (2024): 38.

Table 7: Cost Analysis Assumptions

Assumption/Metric	Value
Number of Unique Users Determined to be a Minor (0-17)	5,926,820
Average Ad Revenue to Platforms Per Hour Per User	$1.48
Estimated Ad Revenue per Hour per User for Addictive Feed	$1.54
Estimated Ad Revenue per Hour per User for Non-Addictive Feed	$1.23
Annual Hours on Platforms per User	994
Annual Addictive Feed Hours per User	795
Annual Non-Addictive Feed Hours per User	199
Annual Addictive Feed Hours per User, Notifications Restricted	179
Annual Ad Revenue per User	$1,467
Percent of Feeds that are Addictive	80%
Notification Default Reduction in Hours on Platform	10%
Default Setting Addictive Feed Hours per Year	365

*Evergreen estimates. Sources include user estimate derived from Census data, Pew Research Center, and Common Sense Media reports. Qustodio 2024 annual report usage estimates used to estimate hours per user.[58]

Implementation Options

The amount of time a user engages with an addictive feed will under SB 976 depends on various factors, including the use of default settings and parental preferences for access and notifications. For the purposes of this study, we examined a range of potential impacts on use that can occur once a user is determined to be a minor. These scenarios range from strict compliance with the statute and no parental consent for access, to a mix of access and parental restrictions, to the status quo where no restrictions on access are applied due to parental consent for all access.

Impacts to advertising revenue from the proposed regulations vary widely depending on the degree and type of parental consent given. One important note is that the age of a user likely also impacts advertising revenue generated, as the number of social media accounts and time spent on accounts varies by age.

[58] See notes 6, 7, 8, 10 supra.

This chapter presents qualitative and quantitative assessments of direct benefits of SB 976 and the proposed regulations developed to govern compliance with SB 976. As with direct costs of SB 976, we find substantial qualitative and quantitative benefits associated with SB 976. In contrast, we find *incremental* benefits associated with the proposed regulations to be primarily descriptive in nature and modest in impact.

5.1 Summary of Benefits of SB 976

The impact assessment does not account for the benefits associated with SB 976, though they are important to understand as they represent the baseline of benefits from which we measure any benefits associated with the proposed regulations governing compliance with SB 976.

Key benefits of SB 976 for California minors and parents include the following.

1. Reduced time on social media due to
2. Fewer nighttime distractions from social media
3. Fewer social media-related distractions during school-hours

5.2 Summary of Incremental Benefits of Proposed Regulations

The proposed regulations for SB 976 will likely provide incremental benefits to operators affected by the SB 976. The proposed regulations provide explicit guidance on what is required of operators to comply with SB 976. This regulatory clarity reduces the transaction costs of compliance by eliminating ambiguity about what is required of operators, which minimizes the need for operators to seek costly legal interpretations, and enables businesses to develop compliance systems with confidence that their approach will satisfy regulatory expectations.

The regulations allow operators to implement necessary compliance structures without the cost in time and resources associated with seeking regulatory clarifications or waiting for enforcement actions to reveal regulatory intent. The regulations also enable operators to make informed investment decisions, continue innovating within clearly defined regulatory boundaries, and likely ultimately improve compliance with SB 976.

Descriptions of methods that are considered “commercially reasonable” and “technically feasible” within the proposed regulations provide important regulatory clarifications for operators affected by the statute. The methods listed as examples provide assurance to operators that there are limits on the effort and expense required to comply. The regulations also include a requirement that age assurance methods be reasonably effective, measurably consistent, and testable, which

further clarifies the scope of a commercially reasonable and technically feasible method. In combination, these guidelines help provide operators with clarity on what constitutes compliance.

Potential benefits of the proposed regulations to operators include, but may not be limited to:

- **Reduced Compliance Costs** – Operators will spend less on legal consultations and alternative compliance strategies.
- **Legal Certainty and Reduced Litigation** – Minimize disputes over statutory interpretation, which reduces or eliminates the need for costly litigation between operators and regulatory agencies.
- **Faster Implementation** – Operators can develop and deploy compliance systems immediately rather than waiting for regulatory guidance or enforcement precedents.
- **Improved Compliance** – Operators are less likely to violate SB 976 due to confusion with (potentially) ambiguous requirements in the statute.
- **Consistent Enforcement** – Explicit regulations enable the DOJ to apply standards uniformly across covered operators.
- **Reduced Regulatory Burden** – Operators are less likely to request advisory opinions from the DOJ.
- **Enhanced Planning and Investment** – Operators able to make long-term business decisions when they understand the regulatory landscape, which promotes economic investment.
- **Innovation Within Boundaries** – Operators can innovate and optimize operations while remaining compliant.
- **Competitive Fairness** – The proposed regulations prevent competitive advantages for operators willing to exploit ambiguity or take aggressive interpretive positions.

In addition to operators, data processing and infrastructure establishments may experience increased internal demand for compliance technologies, opportunities to develop proprietary age verification systems with potential external licensing value, increased cloud computing and data storage needs for audit trails and compliance monitoring, and competitive advantages in selling compliance-as-a-service to smaller platforms lacking in-house technical capacity.

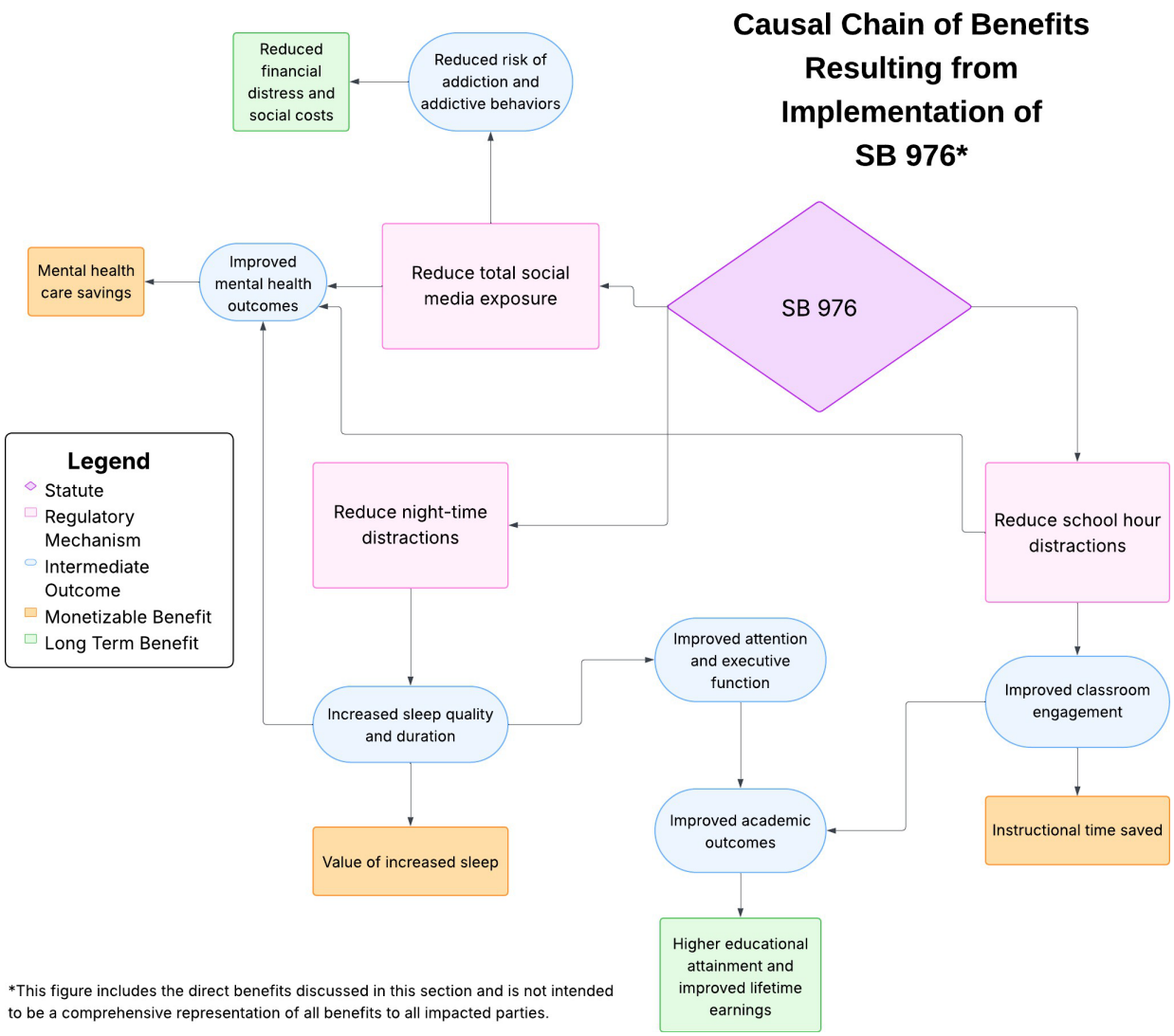
5.3 Analytical Approach for Conducting Social Benefits Assessments

Evergreen conducted a comprehensive literature review on causal relationships between addictive feed restrictions for minors and resulting economic and social benefits. The review synthesizes peer-reviewed research, randomized controlled trials, and observational studies, focusing on studies with sufficient methodological rigor to support quantitative or qualitative benefit estimation. Randomized control trials considered include those that examined causal impacts of reduced social media use, phone restrictions, or sleep interventions on cognitive, academic, and

mental health outcomes. Quasi-experimental studies evaluated school-level phone policies and their effects on academic achievement, attendance, and mental health. Longitudinal studies reviewed had established dose-response relationships between social media use and mental health outcomes, such as depression and anxiety.

To quantify benefits, we employed a causal chain methodology to trace the path from regulatory intervention through intermediate outcomes to monetizable benefits. For each pathway described below, we identified three key components. First, we estimated the magnitude and type of impact on addictive feed engagement by minors anticipated under SB 976. Second, using estimates from the literature, we established dose-response relationships between changes in social media use and intermediate outcomes such as sleep duration and quality, attention and working memory, and mental health symptoms. Third, we translated intermediate outcomes into economic values where feasible using empirical evidence and relevant data from the literature.

Several key assumptions govern this analysis. We assume full compliance with SB 976 by operators, though in practice enforcement challenges and non-compliance could reduce benefits achieved. We assume required operator default settings (one hour time limit, disabled likes, and default feed) will meaningfully constrain compulsive use even if parents do not actively manage controls. We estimate annual basis benefits that are achieved in the short-term, we discuss long-term benefits, such as lifetime earnings and sustained mental health improvements, qualitatively.



5.4 Assessment of Benefits of SB 976

This section provides insight into benefits identified for SB 976. As the baseline analysis in Chapter 3 describes, several laws and policies overlap with requirements and restrictions set forth in SB 976 and are thus, not assigned to the statute.

5.4.1 Benefits of Reducing Time on Addictive Feeds

SB 976 aim to substantially reduces overall compulsive social media use by reducing access for minors to addictive feeds. These algorithmic feeds are the core mechanism driving compulsive social media use.[59]

SB 976 prohibits operators from providing addictive feeds to minors without parental consent. This prohibition directly eliminates access to algorithmic features. For minors who are given parental consent to access addictive social media feeds, operator defaults within the statute impose a one-hour daily time limit on addictive feed access. This time reduction substantially reduces opportunities for engagement with service. Additionally, default settings require operators disable features, such as likes and other feedback mechanisms, that enable the reward-feedback loop driving compulsive checking and social comparison behaviors.

Research demonstrates that even modest reductions in overall social media use produce significant mental health benefits. A randomized controlled trial of undergraduate students found reducing social media use to one hour per day among young people 17 through 25 years of age yielded significant reductions in depression, anxiety, and fear of missing out.[60] A study of binding daily time limits found a 10-minute daily limit on social media produces improvements in well-being, even if users substitute compulsive social media use for use of other apps.[61] When mobile internet is restricted, adolescents spend more time socializing in person, exercising, and being in nature, with documented positive effects on mental health and social development.[62] The same study found that blocking mobile internet for two weeks reduces smartphone use and improves well-being and mental health outcomes comparable to or exceeding antidepressant medications.

The dose-response relationship between social media use and mental health is well-documented and substantial: across several studies, risk of depression increases by 13 percent for each additional hour of social media use per day by adolescents.[63] Large-scale studies in Italy and Spain

[59] Allcott, Hunt, Matthew Gentzkow, and Lena Song. "Digital addiction." *American Economic Review* 112.7 (2022): 2424-2463.
[60] Davis, Christopher G., and Gary S. Goldfield. "Limiting social media use decreases depression, anxiety, and fear of missing out in youth with emotional distress: A randomized controlled trial." Psychology of Popular Media 14.1 (2025): 1.
[61] Collis, Avinash, and Felix Eggers. "Effects of restricting social media usage on wellbeing and performance: A randomized control trial among students." *PloS one* 17.8 (2022): e0272416.
[62] Castelo, Noah, et al. "Blocking mobile internet on smartphones improves sustained attention, mental health, and subjective well-being." *PNAS nexus* 4.2 (2025): pgaf017.
[63] Liu, Mingli, et al. "Time spent on social media and risk of depression in adolescents: a dose–response meta-analysis." *International journal of environmental research and public health* 19.9 (2022): 5164.

demonstrate that increased social media use is linked to an increase in probability of depression and anxiety diagnoses and a rise in self-harm incidents among youth.[64]

Beyond immediate mental health, less compulsive social media use also reduces vulnerability to addictive and risky behaviors that result in long-term consequences. Adolescents with an "increasing addictive use" trajectory for social media or mobiles phones starting by age 11 have a 2.14 times higher risk of suicidal behaviors by age 15.[65] Chronic sleep problems early in childhood, which may be driven by compulsive phone use, are also associated with heightened risk-taking later in adolescence.[66]

Quantitative Assessment

While the qualitative evidence for mental health benefits from reduced social media use is robust, translating these benefits into annual quantitative values requires several assumptions about the magnitude of social media use reduction SB 976 might achieve and appropriate economic valuation of potential mental health improvements.

Quantifiable mental health benefits from reduced compulsive use materialize primarily through reduced health care use. Mental health conditions account for substantial health care spending among children ages 3 through 17 years in public programs, accounting for 55 percent of Medicaid spending in this age group.[67] California's $4.7 billion investment in youth behavioral health services, through the Children and Youth Behavioral Health Initiative, reflects the scale of this issue and the value associated with reducing drivers of youth mental health issues, including compulsive social media use.

Previous studies provide a quantitative basis to estimate the economic value of mental health improvements associated with reduced engagement in addictive social media feeds. A macroeconomic lifecycle model published by the National Bureau of Research provides a rigorous framework for monetizing mental health gains made among adolescents and young adults.[68] Using an overlapping generations model calibrated to empirical data on mental health prevalence,

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[64] Pugno, Maurizio. "Does social media harm young people's well-being? A suggestion from economic research." *Academia Mental Health and Well-Being* 2.1 (2025).
[65] Xiao, Yunyu, et al. "Addictive screen use trajectories and suicidal behaviors, suicidal ideation, and mental health in US youths." *JAMA* (2025).
[66] Thomas, April Gile, et al. "Sleep problems across development: a pathway to adolescent risk taking through working memory." *Journal of youth and adolescence* 44.2 (2015): 447-464.
[67] Doupnik, Stephanie K., et al. "Health care utilization and spending for children with mental health conditions in Medicaid." *Academic pediatrics* 20.5 (2020): 678-686.
[68] Abramson, Boaz, Job Boerma, and Aleh Tsyvinski. *Macroeconomics of mental health*. No. w32354. National Bureau of Economic Research (2024)

treatment effectiveness, and lifetime economic outcomes, the authors examined the welfare implications of improved mental health treatment for individuals ages 16-25 in the United States.

The authors define welfare gains in consumption-equivalent terms, estimating the percentage increase in annual consumption that would make an individual indifferent between remaining mentally ill and being mentally healthy. Using this framework, the study estimates that eliminating mild mental illness yields a welfare gain equivalent to 14.4 percent of annual consumption, while eliminating serious mental illness yields a gain equivalent to 27.2 percent of annual consumption.

In a policy simulation providing universal access to mental health treatment for the 16-25 age cohort, the study finds that the prevalence of mild mental illness falls by 6.2 percentage points and the prevalence of serious mental illness falls by 3.1 percentage points, generating an aggregate welfare gain equivalent to 1.7 percent of annual consumption.

To adapt this national level finding for California, we apply a conservative adjustment reflecting the projected impact of SB 976. The statute does not provide universal mental health treatment but rather reduces exposure to algorithmically driven social media feeds designed to maximize engagement. Based on the literature discussed above, we conservatively estimate that the restrictions on addictive feeds would produce mental health improvements equivalent to 5 percent of the full treatment effect modeled in the NBER study, reflecting both the prevention-focused nature of the statute and expected behavioral responses.

Applying this scaling yields an assumed reduction in the prevalence of mild mental illness of 0.31 percentage points and a reduction in serious mental illness of 0.155 percentage points. These assumptions are well within the range implied by the empirical literature documenting dose-response relationships between social media use and depression, anxiety, and self-harm risk.

To convert consumption equivalent welfare gains into dollar terms, we apply California's per-capita personal consumption expenditure of $64,835.[69] Using this value, preventing a case of mild mental illness yields an annual welfare gain of approximately $9,340 per individual, while preventing a case of serious mental illness yields an annual gain of approximately $17,640 per individual. Combining these values with the assumed prevalence reductions yields an estimated annual mental health benefit of approximately $56 per minor. This estimate should be interpreted as average annual welfare gains per minor, inclusive of both affected and unaffected individuals.

5.4.2 Benefits of Reducing Nighttime Distractions

Nighttime social media use and notifications significantly disrupt adolescent sleep. Approximately 59 percent of adolescents use their smartphones between midnight and 5:00 am on school nights,

[69] Bureau of Economic Analysis. *Personal Consumption Expenditures by State, 2023*. (2024).

with median usage at 20 minutes per night.[70] Beyond usage, 5 percent of daily notifications arrive during typical sleep hours, creating recurring disruptions through the night.

The statute directly addresses this pathway through two complementary mechanisms. First, operators are prohibited from providing addictive feeds to minors entirely (absent parental consent), eliminating the algorithmic content that drives compulsive nighttime engagement. Second, notifications are prohibited between 12am and 6am, preventing disruptive alerts that interrupt sleep. Together, these restrictions stand to substantially reduce nighttime social media-driven sleep disruption.

Literature demonstrates a clear causal chain from reduced nighttime phone use to improved sleep outcomes, cognitive function, and mental health. A randomized controlled trial found that reducing phone use for 30 minutes before bedtime for four weeks reduced sleep latency by approximately 12 minutes and increased total sleep duration by 18 minutes among college students.[71] A second study of undergraduates found that limiting social media use to one hour per day resulted in an average increase of 30 minutes of sleep per night.[72] There is also clear evidence of an exposure-response relationship: two or more hours of daily electronic device use is associated with obtaining less than seven hours of sleep.[73]

Longer duration, uninterrupted sleep directly translates into cognitive and emotional benefits. Sleep quality is directly associated with daytime alertness and academic engagement while sleepiness is linked to difficulty concentrating, memory lapses, and cognitive slowing.[74] Sleep deprivation causes dysfunction in the prefrontal cortex, which is the brain region managing complex tasks, creative thinking, and goal-oriented behaviors.[75] Additionally, poorer sleep quality is associated with greater feelings of depression, and non-restorative sleep in early adolescence is positively associated with depressive symptoms several years later.[76]

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[70] Radesky, Jenny, et al. "Constant companion: A week in the life of a young person's smartphone use." *Common Sense*. 2023.
[71] He, Jing-wen, et al. "Effect of restricting bedtime mobile phone use on sleep, arousal, mood, and working memory: A randomized pilot trial." *PloS one* 15.2 (2020): e0228756.
[72] Davis and Goldfield (2025)
[73] Twenge JM, Krizan Z, Hisler G. Decreases in self-reported sleep duration among U.S. *adolescents 2009-2015 and association with new media screen time. Sleep Med. 2017;* 39:47-53.
[74] Short, Michelle A., et al. "The impact of sleep on adolescent depressed mood, alertness and academic performance." *Journal of adolescence* 36.6 (2013): 1025-1033.
[75] Mitru, Georgios, Daniel L. Millrood, and Jason H. Mateika. "The impact of sleep on learning and behavior in adolescents." *Teachers College Record* 104.4 (2002): 704-726.
[76] Tarokh, Leila, Jared M. Saletin, and Mary A. Carskadon. "Sleep in adolescence: Physiology, cognition and mental health." *Neuroscience & Biobehavioral Reviews* 70 (2016): 182-188.

Quantitative Assessment

Previous studies of benefits associated with delayed school start times provide a quantitative basis to estimate annual per-minor benefits from reduced nighttime distractions and associated sleep improvement. One study by RAND provides a rigorous framework for monetizing sleep gains among school-aged minors. [77] Using a macroeconomic overlapping generations model, RAND examined the economic implications of a shift to 8:30 am school start times across 47 U.S. states.[78] In California, this translated to an average gain of 22 minutes of sleep per night, resulting in an combined economic benefit of $335 per student after 2 years, $1,357 after 5 years, and $3,097 after 10 years. These values were based on improved academic performance and reduced motor vehicle crash mortality among adolescents. These estimates are considered conservative, as they exclude monetization of mental health benefits despite robust evidence linking sleep improvements to reduced depression, anxiety, and risk of suicidal behaviors.

As established earlier in this section, research on sleep gains from phone use reduction provides two relevant data points: an 18-minute gain from eliminating use immediately prior to sleep, and a 30-minute gain from the overall restriction of social media use to one hour per day. Given that SB 976 both targets nighttime engagement specifically and includes an operator default of one hour of social media use per day, we estimate a middle-ground sleep gain of 24 minutes per night because of SB 976, reflecting a moderate behavioral response to notification and feed restrictions. Using the California-specific estimate from the RAND study, this results in a benefit of $366 per school-aged minor over a 2-year time horizon, or $183 per school-aged minor per year.

5.4.3 Benefits of Reducing Distractions During School Hours

Phone and social media use during school hours significantly disrupts classroom learning. Adolescents in the United States use their phones during the school day for a median of 43 minutes, with social media accounting for 32 percent of that usage.[79] Approximately 25 percent of daily notifications arrive during school hours, creating frequent disruptions.

SB 976 directly addresses school-hour disruptions through multiple mechanisms. Beginning January 1, 2027, as operators cannot provide addictive feeds to minors without parental consent, access to algorithmically driven content during school hours is eliminated unless consent is given. Additionally, operators are prohibited from sending notifications between 8am and 3pm Monday through Friday during the school year, preventing notification driven interruptions.

Research on school-level phone policies demonstrates consistent benefits from reducing school-hours phone access. A study on smartphone bans in middle schools found a significant reduction

[77] Hafner, Marco, Martin Stepanek, and Wendy M. Troxel. "Later school start times in the US." *An economic analysis (RAND Corporation, Santa Monica, CA), Technical Report RR-2109-RE* (2017).
[78] Ibid.
[79] Radesky et al. (2023)

in bullying incidence, by 46 percent for girls and 43 percent for boys.[80] Critically, the presence of a smartphone, even without active engagement, is sufficient to hinder cognitive performance among students. One study found students without phone access during study sessions attain 12 percent more of their learning goals than those with phones present.[81]

Improvements in classroom attention and reduced distractions translate directly into academic gains. Banning phones in middle schools led to an average gain of 0.08 standard deviations in GPA and 0.22 standard deviations in mathematics exam score for girls, a much larger effect than reducing class size by one student.[82] In another study, low-achieving students were shown to be particularly susceptible to phone-based distractions and saw significant test score improvements when bans were instituted.[83] Additionally, substantial increases in social media use over a two-year period are associated with lower performance in stored language knowledge and vocabulary tests.[84]

Beyond immediate academic outcomes, reduced phone use during school hours also produces behavioral benefits that reduce teacher workload and administrative burden. Teachers report that they often spend class time policing mobile devices and managing phone-related disruptions rather than actively teaching.[85] Strict bans have significantly reduced unexcused absences among middle and high schoolers, reducing need for administrative intervention and allowing teachers to focus instructional time on engaging with students.[86] Reduced bullying incidents also decrease the administrative burden associated with discipline and investigation.

For minors, these improvements in classroom engagement produce both immediate cognitive benefits and longer-term educational benefits. For schools and teachers, reduced phone-related disruptions lower classroom management burden and allow more instructional time for teaching.

Quantitative Assessment

Short-term benefits from reduced school-hour distractions can be quantified through administrative cost savings associated with avoided loss of instructional time. Increased

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[80] Abrahamsson, Sara. “Smartphone bans, student outcomes and mental health”. Institutt for samfunnsøkonomi Department of Economics. (2024).

[81] Cutino, Chelsea M., and Michael A. Nees. "Restricting mobile phone access during homework increases attainment of study goals." *Mobile Media & Communication* 5.1 (2017): 63-79.

[82] Abrahamsson (2024)

[83] Beland, Louis-Philippe, and Richard Murphy. "Ill communication: technology, distraction & student performance." *Labour Economics* 41 (2016): 61-76.

[84] Nagata, Jason M., et al. "Social media use trajectories and cognitive performance in adolescents." *JAMA* 334.21 (2025): 1948-1950.

[85] Karch, Krista. *An investigation of perceptions about smart mobile phone usage as an instructional tool in a high school classroom*. Capella University, 2014.

[86] Figlio, David N., and Umut Özek. *The Impact of Cellphone Bans in Schools on Student Outcomes: Evidence from Florida*. No. w34388. National Bureau of Economic Research, 2025.

educational attainment and improved lifetime earnings are long-term benefits that arise from this pathway and are discussed further in section 6.2.5.

Research on school-level phone policies shows consistent benefits from reducing school-hour phone access. We quantify these benefits using an instructional time recovery approach, which translates reduced distractions into economic value based on California's per-pupil spending. According to the California Department of Education, statewide spending per average daily attendance in the 2023-2024 school year was $20,281.45.[87] Over a standard 180-day school year with approximately 6 instructional hours per day, this translates to roughly $0.31 per instructional minute per student. This figure represents the opportunity cost of lost instructional time as each minute of distraction from academic tasks represents foregone learning opportunities and expenditure of public resources.

Research establishes that adolescents use phones during the school day for a median of 43 minutes per day, with social media accounting for 32 percent of that usage, or roughly 14 minutes of daily social media use during school hours.

The literature on phone bans in schools provides evidence on behavioral responses to restrictive policies. However, by the January 1, 2027 implementation date, California will already have statewide phone bans in place, so SB 976's impact represents the incremental effect beyond existing ban policies. We present a conservative estimate assuming SB 976's restrictions on addictive feeds and notifications recover 50 percent of the daily school-hours social media engagement, to recapture 7 minutes of instructional time per day, per student.

Over a 180-day school year, recovering 7 minutes of instructional time per day yields 1,260 minutes per year, equivalent to 3.5 full days. The per student annual benefit of this recovery, based on spending per instructional minute per student, is $390 per student per year.

5.4.4 Benefits of Increased Demand for Age Assurance Services

Implementation of SB 976 requires operators to either reasonably determine a user is not a minor or obtain verifiable parental consent before providing a covered feature. This requirement creates new demand for age assurance technologies and parental consent verification services. Age assurance technologies enable platforms to verify user age and comply with regulatory requirements restricting certain user access.

Implementation of SB 976 is anticipated to increase demand for these services across all major covered platforms and potentially incentivize development of new or in-house service providers. Providers could benefit from increased volume of age verification and parental consent

[87] Current Expense of Education & Per-Pupil Spending - Financial (CA Dept of Education). https://www.cde.ca.gov/ds/fd/ec

transactions. The expansion of these services to full compliance with California's requirements represents a direct economic benefit to age assurance and identity verification companies operating in California or serving California users.

5.4.5 Long-Term Benefits of Reduced Social Media Use During Childhood

Several benefits to minors expected to arise from SB976 would likely materialize an extended period. Main long-term benefits follow.

- **Improved academic achievement and lifetime earnings.** Educational attainment and lifetime earnings are associated with test scores and GPA. A 1.0 standard deviation improvement in 8th grade math achievement is associated with an 8 percent rise in adult earned income.[88] Reduced school-hour distractions and improved sleep, combined with improved classroom engagement, are expected to increase test scores and GPA. In one study, girls exposed to school-day phone bans were more likely to enroll in an academic high school track rather than a vocational one, increasing their likelihood of attending university.[89]
- **Reduced social costs**. Improved academic outcomes and mental health are linked to lower rates of incarceration, arrests, and teen motherhood.[90]
- **Sustained mental health improvements**. Mental health improvements sustained into adulthood would generate long-term cost avoidance and improved quality of life. Reductions in depression and anxiety emerging in adolescence are associated with improved labor market outcomes and reduced health care spending at age 30.[91]

[88] Doty, Elena, et al. What do changes in state test scores imply for later life outcomes? No. w30701. National Bureau of Economic Research, 2022.
[89] Abrahamsson (2024)
[90] Doty et al. (2022)
[91] Beecham, Jennifer. "Annual research review: Child and adolescent mental health interventions: A review of progress in economic studies across different disorders." *Journal of Child Psychology and Psychiatry* 55.6 (2014): 714-732.

6 Alternatives Analysis

This chapter considers two primary alternatives to the proposed SB 976 regulations. First, we consider a relatively stricter scenario than the proposed regulations akin to New York's Stop Addictive Feeds Exploitation (SAFE) for Kids Act. Second, we consider an alternative that aligns with regulations for the Utah Minor Protection in Social Media Act Rule.

6.1 SAFE for Kids Act Rules

SB 976 is broadly similar to New York's SAFE for Kids Act which was passed in June 2024. Proposed rules were released in September 2025, and the legislation is awaiting final rule. While SB 976 and the SAFE for Kids Act share a common goal of protecting minors from addictive social media features, they take different regulatory approaches.

The most significant distinction lies in how the regulations establish age assurance standards. New York's rule mandates objective, quantified accuracy minimums disaggregated by age cohort (0.1% false positive rate for ages 0-7, increasing to 15% for age 17) and requires all methods to detect 98% of circumvention attempts, verified through third-party annual testing and certification. The proposed regulations in California, by contrast, require operators to reasonably determine users are not minors through commercially reasonable and technically feasible means, though do not set a strict accuracy minimum or implement third-party certification processes.

For parental consent, New York requires that parents themselves undergo age assurance before consent is valid. The regulations define "valid consent" as clear and unambiguous, specific, informed, and freely granted, with explicit prohibitions on "dark patterns" and repeated solicitation after refusal. At least one consent method must not require government identification, and at least one must not require platform account creation. These last two stipulations are consistent with the proposed regulations in California.

New York requires that age assurance data be minimized, encrypted in transit and at rest, and deleted after minimum use. However, operators must retain specific aggregate data for 10 years, including the fact that age assurance was attempted, the method used, user age status, and monthly statistics on method effectiveness and circumvention deletion. California's proposed regulations require that data collected for age assurance verification be collected and stored using industry-standard data security measures and held no longer than the minimum time required.

6.2 Utah Minor Protection in Social Media Act Rule

The Utah Minor Protection in Social Media Act Rule is very similar in scope and purpose to the proposed regulations for SB 976. Both are intended to establish processes and means by which an operator may conduct age assurance verification and obtain verifiable parental consent.

Like the regulations in New York, Utah's regulations establish a performance-based standard for age assurance: operators must achieve a 95% accuracy minimum. Additionally, age assurance system results must be verified annually by an independent third-party auditor. The regulations specify an accuracy table with a maximum 3% false positive rate, 10% false negative rate, and 1% liveness false acceptance rate, with an additional requirement that accuracy determinations be equal across different skin colors and sexes (1% maximum disparity).

Operators have discretion over age assurance method type, given they meet these performance standards and provide reasonable means for a user to challenge an age assurance result. These accuracy minimums are more stringent than the guidance provided in the California proposed regulations, which require only that operators make a reasonable determination using commercially reasonable and technically feasible age assurance methods.

For parental consent, Utah requires operators to use either COPPA-compliant methods or other FTC-approved methods, plus written attestation that the consenting person is the minor's legal guardian. The regulations do not mandate specific parental control mechanisms beyond data privacy settings.

Data collected for age assurance and parental consent must be deleted within 45 days (extended to 90 days if reasonably necessary), and operators must create a record for each account documenting the date of age assurance, type of data collected, and date of deletion. Notably, Utah provides explicit "safe harbor" liability protection for operators who meet the accuracy table criteria and obtain annual third-party verification. This protection is absent in California's proposed regulations.

6.3 Regulatory Baseline Unaffected by SB 976

Under this alternative interpretation, certain provisions of SB 976 could be rendered redundant by the existing and forthcoming regulatory landscape by January 1, 2027. Notably, the Phone-Free Schools Act's school-hour phone restrictions could accomplish SB 976's requirement to block notifications during 8am – 3pm, Monday-Friday, September-May, since widespread school phone bans would prevent minors from receiving and engaging with notifications during those hours. Additionally, the Digital Age Assurance Act's age verification framework could satisfy age determination requirements under SB 976, as most large operators would receive age signals through operating systems and app stores to comply with that law by 2027.

However, as detailed in Section 4.4, other core aspects of SB 976 cannot be replaced by existing regulatory or voluntary mechanisms. COPPA and CCPA address data privacy but do not regulate addictive feed design or algorithmic recommendation systems for minors. No existing law or current company policy mandates default parental controls or requires that these remain enabled by default. Compliance with these latter provisions depends entirely on voluntary operator adoption, which has not materialized at scale in the market.

7 Small Business Impact

To assess the impact of the proposed regulations on small businesses, we adopt the definition of a small operator used in the New York analysis: businesses with 2 million or fewer global monthly average users and 1 million or fewer U.S. monthly average users.[92] The proposed regulations may impose relatively greater costs to these smaller operators due to their relatively limited existing age verification, parental consent, and compliance infrastructure.

The Digital Age Assurance Act will provide a signal to operators with a mobile application, regardless of size, and in most cases the operator will not need to conduct further age assurance or parental consent steps. However, when the signal conflicts with existing or newly received operator data (an assumed 18 percent of the time), the operator will bear the cost of additional age assurance and parental consent tasks. As discussed in section 2.2.3, many larger operators already use third-party age assurance services to comply with existing legislation and company policies, but it is less likely that smaller operators will have a third-party service or internal assurance methods in place when the regulations are implemented. Therefore, we suspect that smaller operators will incur relatively greater costs than large operators. However, because the total costs attributable to the regulations represent an incremental increase compared to annual compliance spending, the actual fiscal impacts to all firms remain minimal.

[92] See note 49, supra. See page 123. Evergreen assumes this definition based on grouping of platform types 4 and 5.