



# Scaling Up Chess in Education in the US

A Collaborative Approach

By

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## Abstract

Governments and Ministries around the world are embracing chess as a new educational tool. They believe that chess can be the vehicle to deliver academic and 21<sup>st</sup> century skills. As a result, national chess in education (CIE) initiatives are emerging on multiple continents.

The United States has trailed many other countries in CIE adoption. There are many reasons for this, but recent events carry promise of a surge in CIE adoption in the present decade.

This paper explains the reasons why and lays out a strategic path for scaling CIE adoption in the US. A key insight is that no single organization has the expertise, capabilities and reach to lead on its own in the fragmented US educational market. However, those capabilities exist within the national CIE community, and there are signs of collaboration that have been missing in prior years. At the same time, there is a promise of emerging global CIE resources on the horizon.

We examine some of the key players within the CIE community using a SWOT analysis:

- **Strengths**
- **Weaknesses**
- **Opportunities**
- **Threats**

The SWOT analysis is applied to a collection of organizations with vested interests in CIE. Since no single organization has the full set of capabilities to lead a national CIE effort, a more promising model is that of a coalition, eventually evolving into an association.

However, the path to a CIE future requires more than a compelling strategic analysis and organizational model. As Malcolm Gladwell argues in *Revenge of the Tipping Point*, success requires an overstory, human resources (e.g., leaders, entrepreneurs, donors, advocates, researchers, teachers/coaches, administrators), organizational and technical infrastructure, and CIE content (e.g. curricula, lesson plans, CIE pedagogy). All these elements are present in the US CIE universe today but fragmented.

Finally, we end with an overstory that begins with a loosely coupled coalition of CIE advocates in the US. The coalition's goal would be to position itself as a US point of contact for emerging transnational CIE initiatives and resources.

Although in the early stages of development, efforts are underway to form an [International School Chess Federation](#) (ISCF) “to unite national school chess associations and support the global integration of chess into school curricula, so a broader range of children can have access to chess as an academic tool.” The transnational resources focused on this are real and could have significant implications for the future of CIE in the United States.

The challenge for CIE advocates in the US is to prepare for US participation in such an effort. One alternative would be to build upon the nascent CIE Coalition organization. As ISCF evolves, the CIE Coalition would position itself as a prospective “national school chess association”. This would be a steppingstone to a stable governance structure, such as a 501(c)(3) membership association.

## Authors

The views expressed are based on our collective experience with CIE, its organizational stakeholders, and the dynamics of systems and organizational change.



**Neil Dietsch, Managing Director, Chess in Education - US**

After earning an MBA at the University of Michigan, Neil Dietsch's professional career included information technology consulting, management, and senior project management positions in dozens of Fortune 500 companies. He served as president of the Alabama Chess Federation from 2010 to 2019. In 2016 he founded Chess in Schools – which became Chess in Education – US in 2023.

“Throughout my professional career, I've enjoyed working with people, organizations and technology to implement and adapt to change. Now I hope to bring those skills to bear in the realm of chess in education. The time is right!”



**Jerry Nash, National Chess Education Consultant, Chess in Education – US**

Jerry Nash believes in the power of chess to enable student success – both in and out of the classroom. In his own background as a teacher, campus minister, and office administrator, chess provided the critical thinking skills he needed to succeed.

Mr. Nash is an international leader in the growing Chess in Education movement. In 2022 he was appointed **Chairman** of the [FIDE Chess in Education Commission](#).

## Organizations Mentioned in this Paper



[Chess in Education – US](#) is a 501 (c)(3) non-profit founded in 2015.

Our mission is to advance the potential of **Chess in Education (CIE)** in the United States. Working with leaders in the international CIE movement, we bring CIE best practices to educators in a way that aligns with their education goals and standards. As a result, we help teachers use chess as an educational tool to help students develop the skills needed for success in the classroom and in life.



The **CIE Coalition** is a loosely-coupled coalition of international commercial and non-profit organizations that actively support Chess in Education Initiative through their programs and endorsements.

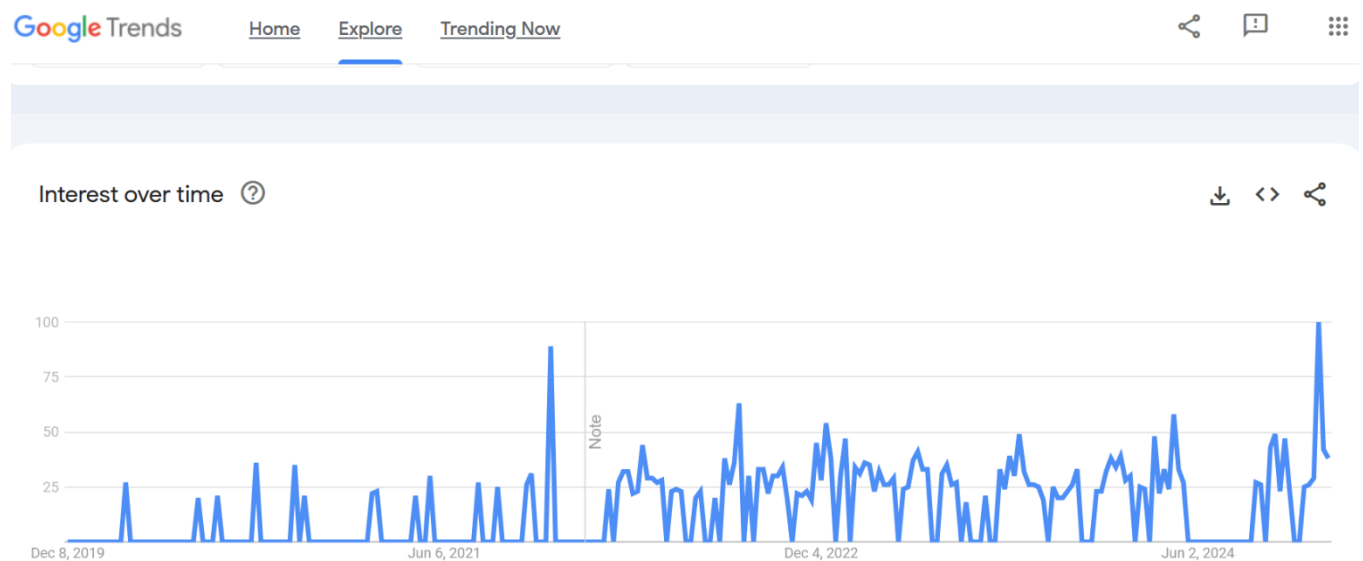
Website: [chessineducation.org](http://chessineducation.org) - This independent, non-commercial portal offers educators, researchers, and the public access to information about Chess in Education (CIE) theory and state of the art practices. It is operated by [Chess in Education – US](#). Other participants include the European Chess Union, ChessKid, Be Someone, FIDE, ChessPlus, First Move, the New Hampshire Chess Association, EduEscacs (Catalonia), Premier Chess and Learners Chess Academy.

# 1) The Global Growth of Chess in Education

Governments and Ministries of Education around the world are embracing chess as a new educational tool. They believe that chess can be the vehicle to deliver academic and 21st-century skills. As a result, national Chess in Education (CIE) initiatives are emerging from Honduras and Argentina across Europe and into regions such as India and Kazakhstan.

How did this happen? Chess federations, CIE advocates, and decision-makers in government, education, and business joined hands to create programs that were focused on the development of skills that would help students achieve success in and beyond the classroom. They also understood that chess in education would ultimately have a positive social and economic impact.

## “Chess in Education” Searches Past 5 Years



Source: Google Trends

## The Benefits of Educational Chess<sup>[1] [1]</sup>

There is a plethora of Internet content on the benefits of chess and its educational benefits accessible through searches or generative AI queries. Here is a listing of the key benefits of educational chess:

- **Cognitive Development**
  - **Improved critical thinking skills:** Chess requires players to assess chess positions, consider different possibilities, and evaluate the potential consequences of their moves. This helps to develop critical thinking skills, such as the ability to think logically, identify patterns, and make informed decisions.
  - **Enhanced problem-solving abilities:** Chess is a game of problem-solving, as players must constantly strategize and find solutions to complex situations. This helps to improve problem-solving skills, such as the ability to break down problems

into smaller steps, identify potential solutions, and evaluate the effectiveness of different approaches.

- **Boosted memory:** Chess requires players to remember the positions of the pieces on the board, as well as the moves that have been made. This can help to improve memory skills, such as the ability to recall information and recognize patterns.
- **Better decision-making:** Chess is a game of decision-making, as players must constantly choose the best move to make. This helps to improve decision-making skills, such as the ability to weigh the pros and cons of different options, consider the potential consequences of different choices, and make decisions under pressure.

- **Academic Achievement**

- "The research reported thus far provides evidence that chess training has salutary cognitive and educational effects among school-aged students."

William M. Bart, Department of Educational Psychology, University of MN, MN, USA  
[2012]

- [Compendium of Chess in Education Research on chessineducation.org](https://chessineducation.org/research/)

- **Social-Emotional Development**

[list contains GenAI content]

Chess, often seen as a game of strategy and intellect, also offers significant benefits for social-emotional development. Let's explore how chess can nurture sportsmanship, self-esteem, focus, and emotional regulation:

- **Sportsmanship:**
  - **Fair Play:** Chess inherently promotes fair play and respect for opponents. Players learn to abide by rules, accept wins and losses gracefully, and maintain a positive attitude even in challenging situations.
  - **Respectful Interaction:** The one-on-one nature of chess fosters respectful communication and interaction between players. It encourages players to listen attentively, consider different perspectives, and engage in constructive dialogue.
- **Self-Esteem:**
  - **Sense of Accomplishment:** Chess offers opportunities for players to set and achieve goals, from mastering new tactics to defeating stronger opponents. These achievements boost self-confidence and a sense of accomplishment.
  - **Resilience:** Chess teaches players to bounce back from setbacks and learn from mistakes. This resilience helps build self-esteem and a growth mindset.

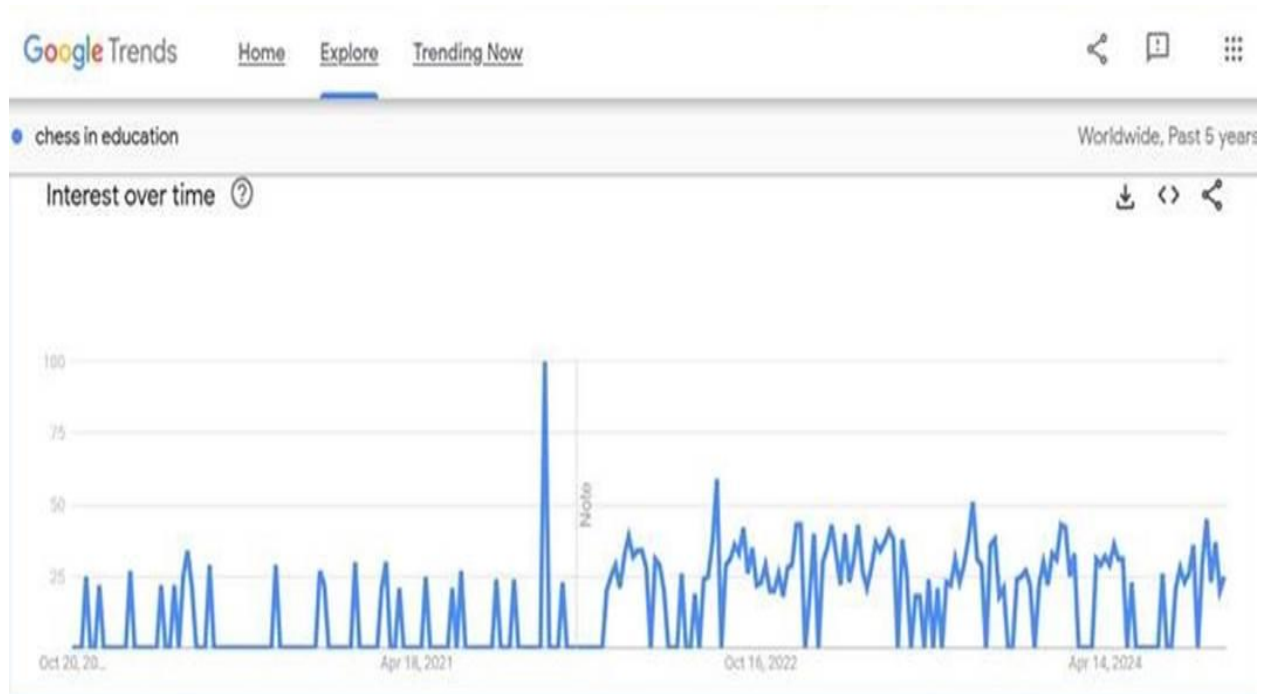
- **Focus:**
  - Chess demands intense concentration and the ability to focus on the task at hand. Regular chess practice enhances attention span and the ability to filter out distractions.
- **Emotional Regulation:**
  - **Managing Emotions:** Chess requires players to manage their emotions, especially during intense games. They learn to control impulses, stay calm under pressure, and respond thoughtfully to challenging situations.
  - **Delayed Gratification:** Chess teaches patience and the ability to delay gratification. Players must often wait for the right moment to make a move, fostering self-control and emotional maturity.
- **Life Skills**

In addition to the previously listed skills, *chess fosters valuable skills like planning, strategic thinking, patience, and resilience, which are directly applicable to real-life situations.*

- **Strategic Thinking:**
  - **Foresight and Planning:** Chess demands players to think several moves ahead, anticipating potential outcomes and formulating strategies to achieve desired results. This skill is invaluable in various fields, from business to academia.
  - **Adaptability:** Chess is a dynamic game where strategies need to be adjusted based on the opponent's moves and changing circumstances. This adaptability is crucial for navigating the complexities of real-world challenges.
- **Patience and Perseverance:**
  - **Delayed Gratification:** Chess teaches patience, as players must often wait for the right moment to make a decisive move. This ability to resist immediate gratification is essential for long-term goals and success.
  - **Resilience:** Chess is a game of wins and losses. Learning to cope with defeats and using them as opportunities for growth fosters resilience, a quality vital for overcoming obstacles in life.
- **Mental Agility:** Chess players must be able to switch between different lines of thought and evaluate multiple possibilities simultaneously. This mental agility is beneficial for multitasking and efficient problem-solving.

By nurturing these skills, chess provides a solid foundation for success in various aspects of life. It empowers individuals to approach challenges with a strategic mindset, a patient demeanor, and a resilient spirit.

## 2) The State of Chess in Education in the United States



### Strengths

- **Growing interest in chess**

The resurgence of chess, particularly within the past two to four years, can be attributed to a confluence of factors:

- **The Pandemic and "The Queen's Gambit":** The COVID-19 pandemic forced people indoors and many sought new hobbies and intellectual stimulation. Netflix's "The Queen's Gambit" capitalized on this timing, introducing the game to a broader audience and romanticizing its complexity. This sparked a renewed interest in the game, particularly among the younger generations.
- **Accessibility through Online Platforms:** Online platforms like Chess.com and Lichess offer interactive lessons, puzzles, and the ability to connect with players of all skill levels globally, fostering a sense of community and competition.
- **Streaming and Content Creation:** Popular streamers and content creators on platforms like Twitch and YouTube have embraced chess, showcasing their skills and personalities while playing. This has not only entertained viewers but also demystified the game, making it more approachable for casual observers.
- **Greater CIE awareness and practice**

Judging from the response and presentation at the October 2024 Saint Louis Chess Conference, there is a growing awareness of CIE and local organizations who are

incorporating practices in their programs. While many of the large metropolitan chess programs were absent, at least two New York City programs with roots in competitive chess were present and supportive of the CIE movement. An impressive array of presenters from mid-size and small cities discussed the CIE elements of their programs. Presentations from the conference are expected to be available in December 2024.

- **State-sponsored initiatives**

State-sponsored Chess in Education programs are available, replicable and scalable.

- Alabama Chess in Schools

- In 2014 the Alabama Chess Federation initiated the first statewide CIE program, [Alabama Chess in Schools \(ACIS\)](#), in the United States. Designed and managed by the authors, the program was in operation in classrooms from 2015 – 2019 and included a [research component documenting the program’s benefits](#).

- Granite Gambit (New Hampshire)

- Drawing upon federal ESSER funding, the New Hampshire Department of Education engaged Chess in Education – US to make a program of free CIE professional development and certification, classroom chess equipment, chess training licenses, a [program website](#), and events available to teachers.

- **US-based Chess in Education Conferences**

- The Saint Louis Chess Conference held in October 2024 marked a milestone in staging a major CIE conference in the US for the first time in over a decade. Also notable was the general recognition of the distinction of the differences between competitive and educational chess (and an appreciation of both!) Over 200 attendees participated. A similar conference is planned for New York City in 2025. Video from the conference is expected to be available on the Saint Louis Chess Club website in December 2024.

## Weaknesses

In the current century growth of Chess in Education in the United States has lagged many industrialized countries. Causes include:

- **A decentralized education system**

- There are systemic differences in the US educational system. Unlike most countries where there is a strong centralized education ministry to set educational policy and direct funding, decision-making in the US is highly decentralized. While national and state departments of education administer some funding, local education agencies (or school districts) make most spending decisions. Rather than marketing to a single organization, CIE advocates face the hurdle and costs of marketing and selling to thousands of smaller educational institutions. The result has been an ad hoc bottom-up process mostly dependent on local advocates. Such programs are difficult to sustain and/or scale up.

- **Politics**

US Education is embroiled in political controversy about declining student performance, high educator turnover, and debate about funding of public and private schools. In this tumult, pleas for CIE consideration may be drowned out. In seeking to be heard, CIE advocates should be sensitive to political aspects that may influence decision making:

- [Echoes of an Old Pedagogical Debate: Content vs. Transversal Skills](#) – the argument for CIE is based upon its value in teaching transversal skills. Appeals to educators that emphasize tournament and trophy wins may undercut this important message.
- Vested Interests in the status quo. Change can be difficult and stressful. There is an understandable bias, particularly when stress is high, to cling to the familiar. CIE advocates need to address the impact of adopting CIE not just on students, but on teachers and administrators. Done right, CIE is an activity enjoyed by students and teachers.
- Education funding: Public vs. Charter Schools - CIE can work equally well for both but be sensitive to the views of decision makers when proposing scope.

- **National chess federation priorities**

While the benefits of chess have long been discussed in academia, broad progress in the implementation of the CIE, as a distinct subset of scholastic chess, began only in the past decade. The London Chess Conference, first held in 2013, was a center point for CIE's early development. Chess federations including the European Chess Union, FIDE, Russia, and Armenia played prominent roles in the evolution of CIE as it is conceived today.

Other national chess federations, including US Chess, were slow to embrace CIE, choosing instead to focus on their core mission as governing organizations for competitive chess.

- The past operational and financial priorities of US Chess have been almost exclusively related to competitive chess. Its Chess in Education Committee, resurrected in 2022 after being disbanded for several years, has a very limited role in the organization. In 2024 its activities included donating a few hundred chess sets and US Chess memberships to Title 1 schools and students and hosting three virtual one-hour presentations. These included two school presentations (one competitive and one educational<sup>[2]</sup>) and a discussion by US Chess donors of their support of scholastic chess.
- US Chess's education website has resource pages that include commercial chess training company sites but has rejected requests to include links to non-commercial CIE websites with in-depth CIE material, including [edu.fide.com](http://edu.fide.com), [chessineducation.org](http://chessineducation.org), and sites related to activities of the European Chess Union.
- To its credit, US Chess was a key sponsor of the 2024 Saint Louis Chess Conference organized by the Saint Louis Chess Club. Several Chess in Education Committee members participated in the conference, making the case for the positive impact of CIE on their students.

## Opportunities

### *The Case for CIE Expansion*

#### The Current Landscape

Given the previously listed causes of slow CIE progress by the US, is it realistic to think that these barriers can be overcome? What changes need to occur to make progress possible considering the fragmented CIE responses prevalent today?

Certainly, the potential exists. Clues to solving this problem arise from an assessment of the stakeholder organizations and groups with vested interests in CIE in the US. An example of such an assessment may be found in the SWOT analysis<sup>[iii]</sup> in Appendix A.

#### The Untapped Potential

The following data highlights the untapped potential for expansion of chess in education.

- The approximate total number of K-12 students in the US attending public, charter, and private schools: **59,000,000**. [Source: Appendix B]
- As of April 1, 2023, there were **65,420** US Chess members ages 17 and under.
- The percentage of US students who are members of US Chess and therefore eligible to compete in rated chess tournaments: **0.1%**.
- Total number of schools in the US: 128,961. [Source: Appendix B].
- Number of schools or school districts with ChessKid licenses: approximately 2,000 [Source: ChessKid] or less than 2%.
- While many large urban areas have established scholastic chess programs, student chess programs in rural and suburban areas are less common.
- While educational chess methods are gaining ground, most school programs are focused on competitive chess.

### *The Case for Collaboration*

In light of the state of the current state of Chess in Education in the US and the need for CIE expansion, we consider both emerging opportunities and existing collaborations which might serve as the foundation for future CIE progress.

#### The International School Chess Federation (ISCF)

A new international association devoted to school chess may be on the horizon.

In a September 23, 2024, announcement, FIDE's General Assembly voted to support the proposal from Kazakhstan's chess federation president, Timur Turlov, to make the **ISCF**) an affiliated organization of FIDE. In his speech to the General Assembly, Timur Turlov explained that the mission of the ISCF would be to unite national school chess associations and support the global integration of chess into school curricula. Asia, Africa, and the Americas have been discussed as initial targets of the organization.

ISCF is working with FIDE's Chess in Education Commission chairman, Jerry Nash on details of this new relationship. Expect to hear more in 2025.

## Funding of Chess Programs in US Schools

Precise figures on funding for chess programs in schools are hard to come by. There's no central, comprehensive database tracking these expenditures. Clearly US school chess funding is largely fragmented and decentralized in comparison to many other countries.

There are various funding sources for chess programs in schools, including philanthropy, fundraising, and school budgets. Some programs are fee-based, paid for by parents. Non-profit organizations may offer low-cost or free chess programs to schools, supported by online fundraising platforms, social media campaigns, email campaigns, or grants administered through state departments of education.

## Encouraging Signs of Collaboration

### *Growing Availability of Information about CIE*

Chess in Education – US created the chessineducation.org website to serve as a source of information about CIE. Search engines and generative AI tools have served to amplify its content and make it and other high quality CIE sources readily available to a broad audience.

US-based Chess in Education Conferences: The Saint Louis Chess Club, with support from US Chess, the Kasparov Chess Foundation and other organizations, held the first successful CIE conference in a decade in 2024. The National Scholastic Chess Foundation has announced that it will be a sponsor of a similar conference.

The Saint Louis Chess Club (SLCC) has taken important steps to increase awareness of the educational value chess of chess. This has included the creation of a research portal in 2014. SLCC was instrumental in developing a chess program for Saint Louis County schools. While the University of Missouri has not yet published research results for the program, preliminary reporting of results presented at the Saint Louis Chess Conference failed to show significant student academic improvement for the program. While this single study may have disappointed chess advocates, like all chess losses it offers an opportunity to learn. It is worth noting that there are distinct differences in the curriculum and teaching methods used by SLCC, the CIE commissions of European Chess Union and FIDE. A willingness to objectively assess these differences can lead to CIE progress.

## Threats

### *Funding for Education*

While **public funding** of chess in schools is common in many countries, that is not the case in the US. While some small amount of federal grant funding may trickle down indirectly to school chess programs, future federal funding through the US Department of Education is in doubt as the incoming administration promises to eliminate the Department of Education. It is unclear how such cuts will impact scholastic chess programs.

There are a multitude of donors currently supporting local school chess programs, but seemingly few are interested in investing in CIE outside their immediate locale.

### *Push vs. Pull Marketing of Chess*

For too long, the chess community has pushed the notion that simply playing chess has inherent educational benefits. While research has been generally supportive of this hypothesis, it has not proven to be a compelling force in moving educators to widespread use of chess as an educational tool. Also there have been failed initiatives that suggest that the nature, quality, and methods of chess instruction warrant greater scrutiny.



A pull marketing would revolve around enticing potential educators to seek out a chess service or program solution, rather than aggressively pushing the brand onto them. That is, educators need to see chess as a solution to fulfilling their mission. They need to have trust that the service provider has their interests at heart. What needs to change for this to happen? We will answer this question in the next section.

### 3) “Why Can’t We Teach Chess in Schools?”



*[This section is taken from a blog by Jerry Nash on [chessineducation.org](http://chessineducation.org). An earlier version first appeared on [edu.fide.com](http://edu.fide.com).]*

I saw this question in a social media post recently. It is attributed to WCM Charvi Anilkumar, the Under-8 Girls World Champion. I think it is a good question. The answer is somewhat complicated.

The Chess in Education Commission is committed to embedding chess as an educational tool within the global education community. The focus of our efforts is the emphasis on the interdisciplinary and transversal connections that chess offers to the normal school curriculum. Chess in this case becomes the vehicle to deliver academic and

21<sup>st</sup> century skills. But this doesn't require a separate class. Teachers can use chess in a classroom to introduce math, literacy, or critical thinking skills, for example. In this way, every student becomes exposed to the fun and the benefits of the game.

#### What about chess as a subject?

Chess as a subject raises several questions. A separate class? A required class or an elective one? How many students will participate? How often does the class meet? Who teaches the class and what are their educational qualifications? How much will this cost? What is the goal of the class?

As an educator (I have spent a few years as a classroom teacher, and my wife has been a K-8 teacher for over 30 years.), I understand the stresses within the education community in the US that is not that different from situations around the world. Educators leave in droves due to the increased stresses (certainly accelerated by the pandemic). Distracted students. Constant changes in educational leadership at every level. Difficulty in hiring and keeping qualified staff. These are only a few of the [challenges facing schools in the post-pandemic environment](#).

#### The Justification Hurdle

And into all this stress (and in some cases, chaos), do we request a separate class just for chess? Almost any educator, would ask, “Why?” Follow up questions might include those addressed above. Of particular interest, how does this class address the requirements of the state or national education standards?

A separate chess class – as a subject – can work. However, if the goal of the class is to **only** introduce chess skills and prepare students for competition, I have serious doubts about such an approach. Certainly, chess classes during school hours – focused solely or mainly on chess skill development – already exist in both public and private schools around the world. But they are generally exceptions to the rule. And it is difficult to use that model to develop sustainable and

scalable initiatives. Finding qualified instructors and acquiring adequate funding are only two of the issues that make this approach less likely to find support.

These competitive goals are normally addressed in after school programs. To have chess as a subject offered during the school day, the instruction must do something else: the class must offer deliberate skill building for academic, 21<sup>st</sup> century skills, and social emotional learning at the very least. The only people who can deliver such an educational program in a sustainable way are classroom teachers. And they are seldom competitive chess players themselves.

## Preparing Teachers

FIDE EDU has developed its [Preparation of Teachers course](#) exactly for this purpose: teachers learn how to introduce the board, the chess pieces, and the rules of the game through a series of minigames, collective games, and curriculum-linked exercises. There are enough activities there for a year's worth of chess lessons assuming one lesson per week. The European Chess Union offers CIE certification courses through [ChessPlus](#). **Chess in Education – US** offers [CIE certification courses for teachers in the United States](#).

If we want chess to be accepted as an educational tool, the goals of chess instruction must meet the needs of educators and their students and go far beyond the lifting of trophies in the air at the end of a tournament. If those needs are addressed, we have a much better chance of introducing chess as a subject in school.



## 4) Next Steps

The CIE Coalition is now seeking member organizations interested in realizing the opportunities presented in this paper. While no single organization can scale up CIE successfully in the fragmented US education market, a concerted collaborative effort by organizations like those listed in Appendix A can.

Please consider the following next steps and the given timeline.

### **i. Let's talk.** (Now thru January, 2025)

The authors invite feedback on this article and its suggestion of expansion of the CIE Coalition as a transitional step to the establishment of a formal association. We are also interested in alternative ideas for establishing a US point of contact for emerging transnational CIE initiatives and resources.

Contact the authors at [cie@chessineducation.us](mailto:cie@chessineducation.us).

### **ii. Join the CIE Coalition** (Now thru February 14, 2025)

There is no charge to join, but the candidate organization must meet certain requirements that demonstrate an active commitment to educational chess, as well as the capacity and commitment to contribute to CIE growth in the US. Upon acceptance we will request a contact for future communications and permission to add your organization's logo to the [chessineducation.org](http://chessineducation.org) website as a CIE Coalition member. Send your request to join to the email address above.

### **iii. One-on-One Meetings to Clarify Individual Interests and Roles** (now thru February 28, 2025)

Upon joining, Chess in Education - US may request individual meetings to ensure clarity as to the specific interests of each organization and the potential roles they see for their organization. This will be in preparation for a joint meeting of all interested Coalition members to discuss opportunities, strategies, and governance.

### **iv. Organizational Meeting** [March, 2025]

In March of 2025, we propose to schedule an organizational meeting of interested CIE Coalition members to develop a charter for the organization and discuss strategy for the future evolution and governance of the Coalition.

## 5) Conclusion



As mentioned earlier, Ministries of Education around the world are embracing chess as a new educational tool. They believe that chess can be the vehicle to deliver academic and 21st century skills. As a result, national chess in education (CIE) initiatives are emerging on multiple continents. From Honduras to Bhutan, chess federations are recognizing the potential of CIE to impact education and society as well as provide significant growth

for the federation's activities.

For similar results in the United States, a coalition of CIE voices is required to influence decision-makers and coordinate initiatives that go beyond the local setting. Scalability and sustainability are crucial to the success of CIE initiatives and require not only the expertise of CIE-related organizations, but their passion as well.

The justification for a coalition was formulated by the author and journalist, Thomas Friedman. Too often in our complex society, large institutions can be unresponsive to newly emerging changes and opportunities. They tend to construct and work in silos. For Friedman, in the absence of formal leadership, "leaders without authority" (who check their politics at the door and focus on what works) can network together into what Friedman calls "**complex adaptive coalitions**" to spearhead both economic and societal change.

One alternative would be to do this through the nascent CIE Coalition organization. The CIE Coalition's initial goal would be to position itself as a trusted US point of contact for emerging transnational CIE initiatives and resources.

As opportunities like ISCF evolve, the CIE Coalition would position itself as a prospective "national school chess association". This could be a steppingstone to a more permanent governance structure, such as a 501(c)(3) membership association.

We are greatly appreciative of the fine example set by the organizers of the Saint Louis Chess Conference.

## Appendices

### Appendix A – SWOT Analysis of Key CIE Stakeholders

#### *Introduction*

This analysis includes organizations that the authors have so far identified as potential candidates for participation in a CIE Coalition like that described in the body of this paper.

SWOT analyses are frequently used for strategic planning. It describes the

- **Strengths**
- **Weaknesses / capability gaps**
- **Opportunities**
- **Threats**

**specifically related to a mission to scale up chess in education nationally**, not necessarily to the core mission of the organization. That is, some listed “weaknesses” may be strengths in the context of the organization’s core mission. For example, a strong competitive chess branding may be a detriment to be overcome in the education market, but a strength for achieving its competitive chess goals.

#### *Scope*

The table content is based upon information which the authors have been able to gather through review of organizational websites, attendance at conferences (including the 2024 Saint Louis Chess Conference), news releases, public videos and documents, curricula, and personal discussions. In many cases, empty bullets and question marks denote missing or speculative conclusions requiring validation. Our goal is to fairly represent the organizations involved in a way that provides insights into the potential future roles of each party. We invite clarifications and comments from any of the listed organizations.

There are clearly organizations missing from this analysis that could be valuable CIE contributors, notably educational organizations, donors and sponsors.

The authors invite discussion with the organizations listed, or those who wish to be considered part of a CIE Coalition. We welcome information to help better understand your organization, its capabilities, and the scope of your interest and involvement in CIE.

#### *Candidates (in alphabetical order)*

Candidates include the International School Chess Federation, sponsors of the 2024 Saint Louis Chess Conference, and current CIE Coalition participants active in the United States.

- [\*Basis Policy Research\*](#)
- [\*Be Someone\*](#)
- [\*Chess in Education - US\*](#)
- [\*ChessKid\*](#)

- [FIDE – Chess in Education Commission](#)
- [First Move](#)
- [Full Tilt Ahead](#)
- [International School Chess Federation](#)
- [Kasparov Chess Foundation](#)
- [New Hampshire Chess Association](#)
- [Policy Research in Missouri Education](#)
- [Premier Chess](#)
- [Saint Louis Chess Club](#)
- [SLU Research Sinquefeld Center for Applied Economic Research](#)
- [US Chess](#)
- [US Chess Trust](#)

### **International School Chess Federation (ISCF)**

ISCF is a new association and FIDE affiliate dedicated to promoting chess among schoolchildren internationally. Its mission is to unite national school chess associations and support the global integration of chess into school curricula, so a broader range of children can have access to chess as an academic tool.

The organization is sponsored and headed by Timur Turlov, president of the Kazakh Chess Federation and CEO and founder of Freedom Holding, a Kazakhstan-based retail brokerage; it operates in Central Asia, Europe and the U.S.

<p><b>Strengths</b></p> <ul style="list-style-type: none"><li>• Global scope</li><li>• Financial resources; <a href="#">according to Forbes Magazine, Timur Turlov’s net worth is \$4.7 billion</a>. He is a major financial backer of several FIDE initiatives.</li><li>• ISCF received the backing of FIDE and will coordinate with FIDE’s Chess in Education Commission in the development of its plans.</li><li>• Independence: Although technically a federation under Kazakhstan law, we understand that ISCF would operate as what is commonly understood in the US to be an association.</li><li>• Long-term planning horizon (5-10 years?)</li><li>• Supportive of chess as an academic tool.</li></ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"><li>• ISCF is a new organization in the process of being formed.</li><li>• Core activities, programs are under development.</li></ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"><li>• Whereas FIDE is governed and constrained by national chess federations, ISCF has greater flexibility in selecting and establishing ties with a national school chess association.</li></ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"><li>• ISCF faces the typical formation challenges of any startup organization.</li><li>• Potential adverse publicity related to a company owned by the sponsor. In October 2023, Freedom Holding was reported to be under investigation by <a href="#">the U.S. Department of Justice related to financial trading practices</a>. However, no charges have been brought or sanctions have been applied in the US in the year since this was reported.</li></ul>

**Saint Louis Chess Conference Sponsors** (in alphabetical order)

**Basis Policy Research**

Basis Policy Research is an independent research organization specializing in data analytics, program evaluation, and applied research. They have been involved with research for the Saint Louis Chess Club and an analysis of the results of the Saint Louis County Schools chess program.

**Chess in Education – US (CIE-US)**

CIE-US is a 501(c)(3) non-profit organization founded in 2015 in conjunction with starting the first statewide chess in education program in the United States. The program features in-classroom chess training by teachers and operated by schools. A similar statewide program was established with the New Hampshire Department of Education and continues today.

The organization also works to foster a worldwide chess in education community. The result is a loosely-coupled group dubbed the CIE Coalition. CIE-US operates the chessineducation.org website on the Coalition’s behalf to provide information about chess in education to the public.

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Professional development for teachers</li> <li>• Extensive CIE contacts and international leadership. Chief trainer, Jerry Nash, is chairman of the FIDE Chess in Education Commission</li> <li>• Successful track record of low-cost scalable and sustainable CIE programs</li> <li>• Project management</li> <li>• CIE pedagogy</li> <li>• Business/organizational strategy</li> <li>• CIE Resource Library (developed by teachers)</li> <li>• IT resources and website skills</li> <li>• Generative AI opportunity awareness and interest</li> <li>• CIE Instructor Certification program</li> <li>• Established collaborative CIE website with high SEO rankings</li> <li>• Quarterly CIE Newsletter: Connections</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Small organization. Limited resources.</li> <li>• Limited past interactions with national chess federation</li> <li>• Limited reach to national chess and education community members.</li> <li>• Event planning</li> <li>• Social media use</li> <li>• Fundraising</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Assisting in the development of a national school chess association</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Succession planning</li> <li>•</li> </ul>

**Full Tilt Ahead**

Full Tilt Ahead is an award-winning education, technology and academic design studio located in the Washington DC metro area. They partner with subject matter experts to build significant learning experiences online.

**Kasparov Chess Foundation**

Founded by World Chess Champion Garry Kasparov, Kasparov Chess Foundation’s mission is to bring the many educational benefits of chess to children worldwide by providing a complete chess curriculum and enrichment programs. The Foundation promotes the study of chess as a cognitive learning tool in curricular classes and after-school programs for elementary, middle and high schools, both in the public and private school sectors. The not-for-profit Foundation also organizes regional, national, and worldwide tournaments, programs for talented students, and promotional chess events.

<b>Strengths</b> <ul style="list-style-type: none"><li>• Competitive chess training</li><li>• Chess Tournament Sponsorship</li><li>• Advocacy for scholastic chess</li><li>• Financial resources (Net assets as of 12/31/2022: \$8,961,752; source Form 990)</li><li>• Celebrity leadership; international connections</li></ul>	<b>Weaknesses</b> <ul style="list-style-type: none"><li>• Branding predominantly features elite competitive chess</li><li>• Proprietary curriculum and training programs based on competitive chess</li></ul>
<b>Opportunities</b> <ul style="list-style-type: none"><li>• Build on success of Saint Louis Chess Conference sponsorship and international connections</li></ul>	<b>Threats</b> <ul style="list-style-type: none"><li>• ?</li></ul>

**Policy Research in Missouri Education (PRIME)**

The Prime Center is a non-partisan research center housed in the Saint Louis University School of Education. According to its website, its focus is on students in Missouri.

**Saint Louis Chess Club**

The Saint Louis Chess Club, a 501(c)(3) educational organization, is widely recognized as the premier chess facility in the country and one of the best in the world. It is the mission of the Saint Louis Chess Club to maintain a formal program of instruction to teach the game of chess and to promote and support its educational program through community outreach and local and national partnerships to increase the awareness of the educational value of chess.

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Initiative in staging the first successful US Chess in Education Conference in a decade.</li> <li>• Event Organization</li> <li>• Financials (Net assets: \$8,049,396 as of 12/31/2022; source Form 990)</li> <li>• Marketing</li> <li>• Connections with Chess Community</li> <li>• Competitive chess training</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Perception/branding as being predominantly a chess-driven organization</li> <li>• Recovering from reputation damage arising from past allegations of sexual harassment</li> <li>• Disappointing research results for its Saint Louis County Chess program based upon chess-centric standards and curriculum. Standards are chess competency based and not linked to grades. While this may work for chess domain training, it is problematic for educators wishing to use chess as a tool in teaching to grade-based education standards.</li> <li>• Scholastic programs historically limited to Saint Louis County</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Build on CIE conference success</li> <li>• Build on alliances with university researchers(?)</li> <li>• ?</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Uncertainty of interest / funding / resources for CIE programming outside of Saint Louis County</li> </ul>

**SLU Research Sinquefeld Center for Applied Economic Research**

The Sinquefeld Center for Applied Economic Research brings together researchers throughout Saint Louis University who share a common interest in applied economic research. The center's mission is to advance rigorous research on economic growth and social welfare that can inform public policy. Our research interest is urban economic development, with St. Louis as our laboratory.

## US Chess

US Chess’s vision recognizes chess as an essential tool that promotes inclusiveness and benefits education, rehabilitation, recreation, and friendly competition.

Its goals include

- Expand the educational, social, recreational and rehabilitative applications of chess.
- Increase the visibility of chess on mainstream communications channels.
- Develop the depth and breadth of our partnerships.
- Use chess to increase opportunities for under-represented segments of society.
- Continuously improve internal operations and member services.

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"><li>• Governs competitive chess in the United States</li><li>• National reach; communication channels to competitive chess community in the US</li><li>• Has a Chess in Education Committee and website</li><li>• Co-sponsored the Saint Louis Chess Conference</li><li>• Financial assets (Net assets: \$6,023,325 as of 5/31/2023; source Form 990)</li></ul>	<ul style="list-style-type: none"><li>• Bureaucratic governance structure. The heavy executive board involvement in policy and operations works for the stable core activities of the federation but could be cumbersome when faced with emerging opportunities demanding agile operational responses and decision-making.</li><li>• The Chess in Education Committee is an advisory body giving priority to the development of its own internally produced work products. For example, as reported at the 2024 Saint Louis Chess Conference, the Committee is working on a yet unreleased set of scholastic chess standards and curriculum.</li><li>• In comparison to other national and international chess organizations, US Chess has been passive in its support of chess in education over the past decade.</li><li>• Perception/branding as being predominantly a chess-driven organization with light education credentials.</li></ul>

<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Build upon the success of the Saint Louis Chess Conference</li> <li>• Set education goals, backed up by meaningful CIE programs with scopes that extend beyond competitive chess.</li> <li>• Engage with other organizations with aligned CIE goals.</li> <li>• Open the Chess in Education Committee to additional sources CIE information sources</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Status quo could lead to missing out on emerging opportunities.</li> <li>• Developing its own proprietary scholastic chess standards and curriculum makes US Chess a new competitor in a crowded market. FIDE, the European Chess Union, and many other countries already have a plethora of true educational CIE chess training and certification programs. In the US, the <a href="#">SLCC has recently developed its standards and curriculum</a>. <a href="#">ChessKid has a CIE-influenced curriculum</a> vertically aligned to <a href="#">21<sup>st</sup> Century Skills</a>. Numerous other organizations and coaches have their own proprietary training materials and certification programs, many built on sophisticated technology platforms.</li> </ul>
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**US Chess Trust**

The U.S. Chess Trust is an independent 501(c)(3), non-profit organization. The Trust was organized in 1967 to promote, stimulate and encourage the study and play of the game of chess as a means of intellectual development. The Trust supports chess in the community through programs, and by providing resources that help support our mission. They also actively support charities conducted by the USCF and other chess organizations.

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• National scope in support of scholastic chess</li> <li>• Program in place offering limited support for scholastic chess</li> <li>• Financial assets (Net assets: \$1.35 million as of 5/31/2023. Source: Form 990 for 2022)</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Communications; last annual newsletter on website was from 2021. Authors were unable to obtain data on the number of free chess sets that were actually delivered to schools from a representative at the Saint Louis Chess Conference.</li> <li>• Conference event planning.</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• ?</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• ?</li> </ul>

### *Educational Organizations*

Education organizations capable of influencing curriculum choices are essential to a national CIE effort. Developing a comprehensive list of such candidates is important but beyond the scope of this paper.

### *Philanthropic Organizations*

In addition to the previously mentioned ISCF (in the future), generative AI provided the following:

Prompt: Suggest philanthropic organizations that might support educational innovations in the United States such as chess in education.

#### Gemini Pro Response:

Here are some philanthropic organizations that might be interested in supporting educational innovations like chess in education:

- **The Bill & Melinda Gates Foundation:** This foundation is a major player in education reform and is open to innovative approaches. Chess, with its focus on critical thinking and problem-solving, could align with their interests.
- **The Walton Family Foundation:** This foundation is also heavily involved in education reform, with a focus on improving K-12 education. Chess could be seen as a tool to enhance students' cognitive skills, making it a potential area of interest.
- **The Carnegie Corporation of New York:** This foundation supports a wide range of educational initiatives, including programs that promote critical thinking and problem-solving skills. Chess could be a good fit for their interests.
- **The Lumina Foundation:** This foundation focuses on expanding access to higher education. While chess might not be a direct fit for their core mission, it could be seen as a way to improve students' academic preparation for college.
- **The W.K. Kellogg Foundation:** This foundation supports a variety of initiatives aimed at improving the lives of children and families. Chess could be seen as a way to promote youth development and educational attainment.

It's important to note that these are just a few examples, and there are many other philanthropic organizations that might be interested in supporting chess in education. The best way to determine which organizations are the best fit for your project is to research their specific interests and priorities. You can also reach out to the organizations directly to inquire about their funding opportunities.

### *Chess Training Organizations*

A few Chess training organizations have adapted their products for use in schools. They have natural incentives to seek expanded use of CIE in schools.

These internet-based training providers are serving schools and demonstrate strong awareness of CIE pedagogy and may play niche roles. All of these tools have administrative management systems that are scalable. That is, they can manage licenses and monitoring performance across

multiple classroom implementations. These are products with which the authors are familiar; there may be others.

- ChessKid - The #1 site for kids worked with us a decade ago to make ChessKid to make its offering suitable for the classroom. It has a clever, fun vibe that makes it highly appealing to elementary school students but may be seen as childish by some older students. ChessKid emphasizes video lessons and interactive play.
- Think Like a King (TLAK) – This classic chess training program has been upgraded to work well in schools. TLAK may be favored over ChessKid by educators looking for a product that exercises students reading and vocabulary skills. It offers comprehensive digital textbooks with interactive elements suitable for children and adults.
- Learning Chess - Learning Chess is an online platform offering structured courses for various skill levels. Its features include:
  - **Structured Courses:** The platform offers a series of courses tailored to different skill levels, ensuring a clear learning path.
  - **Interactive Exercises:** Lessons are complemented by interactive exercises to reinforce concepts.
  - **Progress Tracking:** Users can monitor their advancement through the courses.
  - **Multi-Language Support:** The platform supports multiple languages, making it accessible to a broader audience.

For additional information about the pros and cons of each, try the following query in your favorite Gen AI tool:

[“Compare and contrast these three chess training packages for children: ChessKid, Think Like A King, and Learning Chess.”](#)

## Appendix B – Education Statistics

### Education Statistics: Facts About American Schools

Source: edweek.org

By [Maya Riser-Kositsky](#) — January 03, 2019 | Corrected: November 22, 2021

**Updated: July 22, 2024**

#### How many schools are there in the U.S.?

There are 128,961 public and private K-12 schools in the U.S., according to [2019-20 data](#) from the National Center for Education Statistics (NCES). Here's how they break down:

- All: 128,961
- Prekindergarten, elementary, and middle schools: 88,909
- Secondary and high schools: 27,155
- Other, ungraded, and not applicable/not reported: 12,897

#### How many are traditional public schools, public charter schools, or private schools?

While charter schools are often the topic of debate, they make up only a small portion of all schools.

- Traditional public schools: 91,390 (2022-23, [Source](#))
- Public charter schools: 7,998 (2022-23, [Source](#))
- Private schools: 30,492 (2019-20, [Source](#) \* 2022-23 figures are not available yet)

#### Among public schools, how many high schools are there in the U.S.?

- Total public schools: 99,388
- Secondary and high schools: 23,810
- Middle schools: 16,298
- Elementary schools: 52,474
- Prekindergarten: 1,570
- Other, ungraded, and not applicable/not reported: 5,236

There are 13,318 regular school districts in the U.S. (2022-23, [Source](#))

How many students attend public schools?

In America's public schools, there are 48.7 million students, based on [federal projections](#) for the fall of 2024.

How many students attend charter schools?

According to [data from two years earlier](#), over 3.71 million students, or 7.6 percent of all public school students, attend charter schools.

How many students attend private schools? What are the religious affiliations of those schools?

In total, almost 5.5 million students attend private schools, according to [2021 NCES](#) data.

Where do most students attend school—the city, the suburbs or rural areas?

According to [2022 data](#), a plurality of public school students attend suburban schools, but enrollment in urban schools is not far behind.

- Suburban: 38.9% of public school students
- City: 29.7% of public school students
- Rural: 20.3% of public school students
- Town: 10.8% of public school students

Meanwhile, as of 2019-20, most private school students [attend schools in the city](#).

- City: 42.7% of private school students
- Suburban: 40.4% of private school students
- Rural: 10.8% of private school students
- Town: 6.1% of private school students

How many teachers are there in the U.S.?

In America's public schools there will be 3.2 million full-time-equivalent teachers in the fall of 2024, according to [federal projections](#).

What percent of teachers are women?

Teaching continues to be a profession dominated by women. According to [2020-21 numbers from NCES](#), 76.8 percent of teachers are female, while 23.2 percent are male.

### How many principals are there?

There are 91,900 public school principals in the U.S., according to 2020-21 numbers from [NCES](#).

### What are the racial demographics of teachers?

When it comes to race, America's public school teachers look very different from its student population.

- 79.9% White
- 9.4% Hispanic
- 6.1% Black
- 2.4% Asian
- 1.6% Two or more races
- 0.4% American Indian/Alaska Native
- 0.2% Native Hawaiian/Pacific Islander

### Who are U.S. public school principals?

Like teachers, most American principals are white and female.

- 56% Female
- 44% Male
- 77.1% White
- 10.4% Black
- 9.3% Hispanic
- 1.3% Two or more races
- 1.0% Asian
- 0.6% American Indian/Alaska Native
- 0.3% Native Hawaiian/Pacific Islander

### What is the average student to teacher ratio in schools?

On average, in the fall of 2024, there will be 15.2 students assigned to a single teacher in public schools, [NCES projections](#) show.

The state with highest student to teacher ratio is, [as of 2022](#), Arizona, with 22.8 students for each teacher. The state with lowest student to teacher ratio? Vermont, with 10.5 students for each teacher.

*Note: The pupil/teacher ratio includes teachers for students with disabilities and other special teachers, while these teachers are generally excluded from class size calculations.*

#### How much does the U.S. spend on K-12 education?

In 2020-21, \$809 billion [was spent](#) on public elementary and secondary education by local, state, and federal agencies. State and local governments provided about 89 percent of the funding, while the federal government chipped in around 10.5 percent. The federal government's share of education funding was higher than normal due to pandemic relief aid. In 2019-20, only 7.5 percent of total school funding came from the federal government.

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<sup>[1]</sup> “Educational chess” is used synonymously with “chess in education”.

<sup>[2]</sup> Veronica Hopkins, Lakeland Elementary/Middle School, Baltimore, MD; presentation begins at 2:05 of this video:

[https://www.youtube.com/watch?v=7YNaLOtrJz8&list=PLWz0jCeofD\\_F\\_5Gh\\_gnOdloxoTlxBBS\\_f&index=11](https://www.youtube.com/watch?v=7YNaLOtrJz8&list=PLWz0jCeofD_F_5Gh_gnOdloxoTlxBBS_f&index=11)

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<sup>[3]</sup> The Benefits section contains some [GenAI](#) content supplied by Google's Gemini. The content has been reviewed and validated by the authors.

<sup>[4]</sup> SWOT is an acronym for the four main assessment categories: **S**trengths, **W**eaknesses, **O**pportunities and **T**hreats.