



# Report to the Legislature on the Computer Science Supplementary Authorization Incentive Grant Program

Commission on Teacher Credentialing

February 2025

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**Commission on Teacher Credentialing**

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### **Executive Summary**

This report provides an update on the 2021 Computer Science Supplementary Authorization Incentive Grant Program (Computer Science Grant) and presents the 2025 Annual Report to the Legislature as required by Assembly Bill 130. The report details the progress of the grant program, including updated participant data, grant fund utilization, and key findings from the 2023-24 fiscal year.

For the 2021-22 fiscal year, the Legislature allocated \$15 to the Computer Science Grant to support credentialed teachers in obtaining a supplementary authorization in computer science. As of December 2024, six rounds of funding have been awarded, with a total of 16 local educational agencies (LEAs) receiving \$2,522,900 in grant funds. With \$12,477,100 remaining, the Commission released a seventh Request for Applications (RFA), with awards to be announced in March 2025. LEA grantees utilize grant funds to cover tuition, fees, books, and/or release time for participating teachers. A 100 percent match of grant funds is required, and funds cannot be used for administrative purposes.

The report is structured as follows:

- 2023-24 Annual Data Report on the Computer Science Grant Program
- Institutions of Higher Education Grant Program Collaborator(s)
- Summary of All Computer Science Program Participants
- Ethnic/Racial Composition and Gender Identification of Participants
- Program Narratives
- Summary and Conclusion

Key findings for the 2023-24 fiscal year are summarized below:

- As of December 2024, \$2,522,900 has been awarded to 16 LEAs across six rounds of funding, supporting 1,179 participants. \$12,477,100 remains available.
- Grantees have increased enrollment and completion rates in 2023-24. Grantees enrolled 222 participants of the 267 requested slots, representing an 83.15 percent enrollment rate.
- The Computer Science grant program saw its first completers in 2023-24, with 89 participants successfully earning their Computer Science Supplementary Authorizations. These completers averaged 12.33 years of teaching experience, with nearly 88 percent teaching at schools with high unduplicated counts.
- 11 participants (5% of total enrollment) exited the program early, with personal reasons cited as the most common cause.
- Strong partnerships with Institutions of Higher Education (IHEs) have been critical to program success, with many grantees highlighting collaboration with IHEs as a key factor in effective implementation.

- The majority of program of program funds were used for tuition and fees, reinforcing the importance of financial support for teachers pursuing supplementary authorization.
- Some LEAs reported administrative capacity challenges and financial sustainability issues as primary barriers to program implementation.
- The most common instructional model reported by grantees for newly authorized teachers was standalone computer science course, followed by integrated classroom instruction and after-school programs.

The 2025 annual report highlights the continued growth and impact of the Computer Science Grant. Looking ahead, Round Seven applications are due February 28, 2025, with awards to be announced in March 2025. The Commission will continue offering grant competitions twice a year through the 2025-26 fiscal year or until the full \$15 million has been allocated.

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# **Report to the Legislature on the 2021 Computer Science Supplementary Authorization Incentive Grant Program February 2025**

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## **Introduction**

Assembly Bill 130 requires the Commission on Teacher Credentialing (Commission) to submit an annual report by April 1 to the Legislature regarding the 2021 Computer Science Supplementary Authorization Incentive (Computer Science) Grant Program. The requirements of the report are specified in statute and must include, but not limited to, the following:

- The number of participating local educational agencies.
- The number of grants issued.
- The number of computer science supplementary authorizations issued.
- The number of new computer science courses reported by grant recipients.

## **Background**

For the 2021-22 fiscal year, the legislature approved the sum of \$15 million for the Computer Science Supplementary Authorization Incentive Grant Program. This grant program provides one-time grant awards up to \$2,500 per participant, with a required 100 percent match of grant funding, to support credentialed teachers to obtain a supplementary authorization in computer science and provide instruction in computer science coursework in settings authorized by the underlying credential. Any local education agency (LEA) that successfully applies to the competitive grant may use these funds to support tuition, fees, books, and/or release time. Priority is given to eligible grant applicants for teachers that provide instruction at either of the following: (a) a school operating within a rural district and/or (b) a school with a higher share than other applicants of unduplicated pupils, as defined in Section 42238.02 of the Education Code. This funding is available for encumbrance until June 20, 2026.

Annual participant data is collected by fiscal year and submitted in July. Per legislation, annual reports are due the first of April.

### 2023-24 Annual Data Report on the 2021 Computer Science Grant Program

The Commission continues to award grant funds through a competitive Request for Application (RFA) process. As of December 2024, 16 local education agencies (LEAs) have been awarded grants across six rounds of funding, totaling \$2,522,900. Following the initial award of \$955,000 to four LEAs in Round One (June 2022), \$152,500 to three LEAs in Round Two (December 2022), and \$787,500 to three LEAs in Round Three (May 2023), the Commission has awarded three additional rounds. Round Four, awarded in December 2023, provided \$337,500 to one LEA. Round Five, awarded in April 2023, allocated \$102,900 to two LEAs, and Round Six, awarded in December 2024, will provide \$187,500 to three LEAs. With \$12,477,100 in grant funds remaining, the Commission published the RFA for Round Seven in December 2024, with awards to be announced March 21, 2025. Grant competitions will continue to be offered twice a year through the end of the 2025-26 fiscal year or until the full \$15 million has been awarded. Table 1 below shows the summary of grant awards and remaining grant funds, per Round.

**Table 1: Award Summary of Computer Science Grants, per Round**

| <b>Rounds</b> | <b>Date</b>       | <b>Total Grantees</b> | <b>Total Funding</b> | <b>Remaining Funds</b> |
|---------------|-------------------|-----------------------|----------------------|------------------------|
| Round 1       | June 20, 2022     | 4                     | \$955,000            | \$14,050,000           |
| Round 2       | December 6, 2022  | 3                     | \$152,500            | \$13,892,500           |
| Round 3       | May 12, 2023      | 3                     | \$787,500            | \$13,105,000           |
| Round 4       | December 15, 2023 | 1                     | \$337,500            | \$12,767,500           |
| Round 5       | April 5, 2024     | 2                     | \$102,900            | \$12,664,600           |
| Round 6       | December 6, 2024  | 3                     | \$187,500            | \$12,447,100           |
|               | <b>Totals</b>     | <b>14</b>             | <b>\$2,522,900</b>   | <b>\$12,447,100</b>    |

Table 2 below provides a summary, per RFA round, of each LEA grantee, the total number of participant slots awarded across the life of the grant through June 2026, and the total grant award for the life of the grant through June 2026. Legislation allocates grant funds for at least 6,000 participants, assuming all participants are funded at the maximum \$2,500 in one-time grant funds. A total of 1,179 participant slots from the available 6,000 slots were awarded (19.65%).

**Table 2: Computer Science Grant Recipients, Number of Total Participant Slots Awarded, and Total Grant Award, By Round**

| <b>Local Education Agency (LEA)</b>   | <b>Round</b> | <b># of Total Participant Slots Awarded</b> | <b>Total Grant Award</b> |
|---------------------------------------|--------------|---------------------------------------------|--------------------------|
| Fontana Unified School District       | 1            | 120                                         | \$300,000                |
| Kern County Superintendent of Schools | 1            | 140                                         | \$350,000                |
| Los Angeles Unified School District   | 1            | 120                                         | \$300,000                |
| Potter Valley Community Unified       | 1            | 2                                           | \$5,000                  |
| Hawthorne School District             | 2            | 30                                          | \$75,000                 |

| <b>Local Education Agency (LEA)</b>           | <b>Round</b> | <b># of Total Participant Slots Awarded</b> | <b>Total Grant Award</b> |
|-----------------------------------------------|--------------|---------------------------------------------|--------------------------|
| Pajaro Valley Unified School District         | 2            | 11                                          | \$27,500                 |
| Redondo Beach Unified School District         | 2            | 20                                          | \$50,000                 |
| Alvord Unified School District                | 3            | 180                                         | \$450,000                |
| Los Angeles Unified School District           | 3            | 60                                          | \$150,000                |
| Ventura County Office of Education            | 3            | 75                                          | \$187,500                |
| Marysville Joint Unified School District      | 4*           | 135                                         | \$337,500                |
| Los Angeles County Office of Education        | 5            | 33                                          | \$46,200**               |
| San Francisco Unified School District         | 5            | 38                                          | \$56,700**               |
| Placentia-Yorba Linda Unified School District | 6            | 20                                          | \$50,000                 |
| San Diego County Office of Education          | 6            | 35                                          | \$87,500                 |
| Santa Clara County Office of Education        | 6            | 20                                          | \$50,000                 |
| <b>Totals</b>                                 |              | <b>1029</b>                                 | <b>\$2,522,900</b>       |

*\* Note that one grantee from Round 4 withdrew from the grant program after being awarded, resulting in a final total of one grantee for this round.*

*\*\*Note that Los Angeles County Office of Education and San Francisco Unified School District requested funding below the \$2500 maximum per participant, \$1400 and \$2025 respectively.*

### **Institutions of Higher Education Grant Program Collaborator(s)**

To earn a Computer Science Supplementary Authorization, teachers must complete twenty semester units or ten upper division semester units, or the equivalent quarter units, of non-remedial coursework within a specific subject category (introductory subjects or specific subjects). Teachers do not have to complete a specific Commission-approved program or complete all coursework at one specific institution. LEAs are encouraged to collaborate with institutions of higher education (IHEs) to support participants in the grant program. To support applicants and grantees, a list of [IHEs](#) that offer the required computer science coursework is published on the Computer Science Grant webpage. Note that this list only includes IHEs that submitted program information to the Commission.

Table 3 lists the institutions of higher education (IHEs) collaborators that offer the coursework needed to earn the Computer Science Supplementary Authorization.

**Table 3: Computer Science Grantees and IHE Collaborator(s)**

| Local Education Agency (LEA)                  | IHE Collaborator(s)                                                     |
|-----------------------------------------------|-------------------------------------------------------------------------|
| Alvord Unified School District                | University of California, Davis<br>University of California, Riverside  |
| Fontana Unified School District               | University of California, Davis                                         |
| Hawthorne School District                     | California State University, Dominguez Hills                            |
| Kern County Superintendent of Schools         | California State University, Bakersfield                                |
| Los Angeles County Office of Education        | California State Polytechnic University, Pomona                         |
| Los Angeles Unified School District           | University of California, Los Angeles                                   |
| Los Angeles Unified School District           | California State University, Los Angeles                                |
| Marysville Joint Unified School District      | University of California, Davis<br>University of California, Riverside  |
| Pajaro Valley Unified School District         | University of California, Irvine<br>University of California, Riverside |
| Placentia-Yorba Linda Unified School District | University of California, Riverside                                     |
| Potter Valley Community Unified               | University of California, San Diego                                     |
| Redondo Beach Unified School District         | California State University, Dominguez Hills                            |
| San Diego County Office of Education          | University of California, San Diego                                     |
| San Francisco Unified School District         | San Francisco State University                                          |
| Santa Clara County Office of Education        | San Jose State University                                               |
| Ventura County Office of Education            | California State University, Channel Islands                            |

**Summary of All Computer Science Program Participants**

The following summarizes participant enrollment, completion progress, and program early exits for the 2023-24 fiscal year. The data in the state report reflects the annual data submitted from grantees in Rounds One through Four regarding enrolled participants.

Compared to 2022-23, grantees have increased enrollment and completion rates. In 2023-24, grantees enrolled 222 participants, representing an 83.15 percent enrollment rate – an increase from 52.99 percent in 2022-23. Round One grantees maintained or increased their enrollment rates in the second year, with three of the four LEAs achieving over 90 percent enrollment. Round Two grantees, who were unable to enroll participants in 2022-23 due to the timing of the grant awards, successfully enrolled participants in 2023-24, with LEAs achieving 80 percent or higher enrollment rates. Round Three and Four grantees demonstrated strong initial enrollment rates, ranging from 65 percent to 85 percent in their first year of implementation.

On average, participants in 2023-24 have been teaching for 11.03 years, slightly higher than the 9.65-year average reported in 2022-23. Approximately eight percent of teachers in the grant program teach at a rural school, and 88 percent are teaching at a LEA with a high unduplicated pupil count (above 50%). The majority of participants continue to hold Multiple Subject credentials (63%), followed by Single Subject Mathematics (16%) and Science (9%) credentials.

The Computer Science grant program saw its first completers in 2023-24, with 89 participants successfully earning their Computer Science Supplementary Authorizations. These completers averaged 12.33 years of teaching experience, with nearly 88 percent teaching at schools with high unduplicated counts. The majority of completers held Multiple Subject credentials (71%), followed by Single Subject Mathematics (15%).

**Table 4: Participant Awarded Slots and Enrollment, by Round**

| Local Education Agency (LEA)             | Round | # of Annual Participant Slots Awarded | # of Participants Enrolled, 2022-23 | # of Participants Enrolled, 2023-24 |
|------------------------------------------|-------|---------------------------------------|-------------------------------------|-------------------------------------|
| Fontana Unified School District          | 1     | 30                                    | 21<br>(70.00%)                      | 22<br>(73.33%)                      |
| Kern County Superintendent of Schools    | 1     | 35                                    | 30<br>(85.71%)                      | 32<br>(91.43%)                      |
| Los Angeles Unified School District      | 1     | 30                                    | 10<br>(33.33%)                      | 29<br>(96.67%)                      |
| Potter Valley Community Unified          | 1     | 1                                     | 1<br>(100%)                         | 1<br>(100%)                         |
| Hawthorne School District                | 2     | 10                                    | 0<br>(0%)                           | 10<br>(100%)                        |
| Pajaro Valley Unified School District    | 2     | 1                                     | 0<br>(0%)                           | 0<br>(0%)                           |
| Redondo Beach Unified School District    | 2     | 10                                    | 0<br>(0%)                           | 8<br>(80.00%)                       |
| Alvord Unified School District           | 3     | 60                                    | N/A                                 | 51<br>(85.00%)                      |
| Los Angeles Unified School District      | 3     | 20                                    | N/A                                 | 13<br>(65.00%)                      |
| Ventura County Office of Education       | 3     | 25                                    | N/A                                 | 19<br>(76.00%)                      |
| Marysville Joint Unified School District | 4     | 45                                    | N/A                                 | 37<br>(82.22%)                      |
| <b>Totals</b>                            |       |                                       | <b>62<br/>(52.99%)</b>              | <b>222<br/>(83.15%)</b>             |

*Note: enrollment numbers between 2022-23 and 2023-24 may not represent unique participants, as participants remain enrolled until they earn their supplementary authorization.*

**Table 5: Participant Program Teaching Information and Credential Area**

| <b>Participant Teaching Information</b>                  | <b>Participants*,<br/>2022-23<br/>(n=62)</b> | <b>Participants*,<br/>2023-24<br/>(n=222)</b> | <b>Completers*,<br/>2023-24<br/>(n=89)</b> |
|----------------------------------------------------------|----------------------------------------------|-----------------------------------------------|--------------------------------------------|
| Average Teacher Tenure                                   | 9.65 Years                                   | 11.03 Years                                   | 12.33 Years                                |
| Teaches at a Rural School                                | 7<br>(11.29%)                                | 17<br>(7.66%)                                 | 7<br>(7.87%)                               |
| Teaches at a School with a High Unduplicated Pupil Count | 57<br>(91.94%)                               | 195<br>(87.84%)                               | 78<br>(87.64%)                             |
| Multiple Subject                                         | 41<br>(67.21%)                               | 140<br>(63.06%)                               | 63<br>(70.79%)                             |
| Single Subject, Science                                  | 5<br>(8.20%)                                 | 19<br>(8.56%)                                 | 4<br>(4.49%)                               |
| Single Subject, English                                  | 4<br>(6.56%)                                 | 7<br>(3.15%)                                  | 5<br>(5.62%)                               |
| Single Subject, Mathematics                              | 8<br>(13.11%)                                | 37<br>(16.67%)                                | 13<br>(14.61%)                             |
| Single Subject, Other                                    | 0<br>(0.00%)                                 | 10<br>(4.50%)                                 | 0<br>(0.00%)                               |
| Single Subject, Social Science                           | 3<br>(4.92%)                                 | 9<br>(4.05%)                                  | 4<br>(4.49%)                               |

*\*Note: The table reflects multiple data points from different categories, therefore the percentages will not add up to a hundred percent.*

Table 6 provides a summary of the early exit reasons reported by participants. Eleven participants exited the program early during the 2023-24 fiscal year, representing approximately five percent of total enrollment. The majority of early exits (55%) were due to personal reasons, while 18 percent did not pass required coursework. Other reasons for early exits included changed plans, financial constraints, and relocation, each representing nine percent of exits.

**Table 6: Early Exit Reason**

| <b>Early Exit Reason</b>           | <b>Participants, 2023-24<br/>(n=11)</b> |
|------------------------------------|-----------------------------------------|
| Changed plans to add authorization | 1<br>(9.09%)                            |
| Did not pass coursework            | 2<br>(18.18%)                           |
| Financial                          | 1<br>(9.09%)                            |
| Moved                              | 1<br>(9.09%)                            |
| Personal                           | 6                                       |

| Early Exit Reason | Participants, 2023-24<br>(n=11) |
|-------------------|---------------------------------|
|                   | (54.55%)                        |

### **Ethnic/Racial Composition and Gender Identification of the Participants**

Programs reported the participants' self-identified ethnic/racial composition and gender identity. The data in Tables 7 and 8 break down the demographics of program participants. Note that the Asian ethnic/racial category includes Chinese, Japanese, Korean, Vietnamese, Asian Indian, Laotian, Cambodian, Filipino, and Hmong. The Native Hawaiian or Pacific Islander ethnic/racial category also includes Guamanian, Samoan, and Tahitian.

For the 2023-24 data reports, approximately 84 percent of participants reported their race/ethnicity. In 2023-24, White participants were the largest report racial/ethnic group (35.14%), followed by Hispanic/Latinx participants (35.14%). Among Completers, approximately 35 percent identify as Hispanic/Latinx, followed by 25 percent who identify as White. A hundred percent of participants reported their gender identity; reporting this information to the Commission is voluntary for participants in the program. In 2023-24, reported gender identify remained fairly consistent with female participants being the largest group (71.62%), followed by male participants (28.38%). The gender identity of Completers and participants who exited the program early closely mirrors that of the general participants.

**Table 7: Ethnic/Racial Composition of Participants**

| Race/Ethnicity                      | Participants,<br>2022-23<br>(n=62) | Participants,<br>2023-24<br>(n=222) | Completers,<br>2023-24<br>(n=89) | Early Exit,<br>2023-24<br>(n=11) |
|-------------------------------------|------------------------------------|-------------------------------------|----------------------------------|----------------------------------|
| American Indian or Alaska Native    | 1<br>(1.61%)                       | 1<br>(0.45%)                        | 2<br>(2.25%)                     | 0<br>(0.00%)                     |
| Asian                               | 6<br>(9.68%)                       | 18<br>(8.11%)                       | 5<br>(5.62%)                     | 2<br>(18.18%)                    |
| Black or African American           | 1<br>(1.61%)                       | 7<br>(3.15%)                        | 1<br>(1.12%)                     | 3<br>(27.27%)                    |
| Hispanic/Latinx (of any race)       | 15<br>(24.19%)                     | 75<br>(33.78%)                      | 31<br>(34.83%)                   | 3<br>(27.27%)                    |
| Native Hawaiian or Pacific Islander | 0<br>(0.00%)                       | 2<br>(0.90%)                        | 1<br>(1.12%)                     | 0<br>(0.00%)                     |
| White                               | 12<br>(19.35%)                     | 78<br>(35.14%)                      | 22<br>(24.72%)                   | 2<br>(18.18%)                    |
| Two or more races                   | 4<br>(6.45%)                       | 5<br>(2.25%)                        | 3<br>(3.37%)                     | 0<br>(0.00%)                     |
| Decline to state Race/Ethnicity     | 23<br>(37.10%)                     | 36<br>(16.22%)                      | 24<br>(26.97%)                   | 1<br>(9.09%)                     |

**Table 8: Gender Identity of Participants**

| <b>Gender Identity*</b> | <b>Participants,<br/>2022-23<br/>(n=62)</b> | <b>Participants,<br/>2023-24<br/>(n=222)</b> | <b>Completers,<br/>2023-24<br/>(n=89)</b> | <b>Early Exit,<br/>2023-24<br/>(n=11)</b> |
|-------------------------|---------------------------------------------|----------------------------------------------|-------------------------------------------|-------------------------------------------|
| Female                  | 42<br>(67.74%)                              | 159<br>(71.62%)                              | 61<br>(68.54%)                            | 7<br>(63.64%)                             |
| Male                    | 20<br>(32.26%)                              | 63<br>(28.38%)                               | 28<br>(31.46%)                            | 4<br>(36.36%)                             |

*\*Note that no one selected Nonbinary or Decline to State, and as such they have been excluded from these tables*

### **Program Funding**

Round One, in its second year of implementation, expended 87 percent of the awarded grant funds, showing increased utilization compared to the previous year's 65 percent expenditure rate. Round Two, which had no expenditures in 2022-23 due to the timing of grant awards, achieved nearly 95 percent utilization of their grant award funds in 2023-24. Round Three, in its first year of implementation, expended approximately 48 percent of awarded funds. Round Four, also in its first year of implementation and having started later in the fiscal year, utilized about 11 percent of their annual grant allocation. In total, grantees expended \$405,131 (51%) of the \$787,500 in awarded funds for the 2023-24 fiscal year, with \$382,369 remaining.

Programs may request grant funds from any of the following budget categories:

- Teacher preparation costs (tuition and/or IHE fees)
- Teacher preparation costs (books and/or supplies)
- Release time and/or substitute teacher costs
- Supplemental authorization filing fee

All grantees requested funds from the teacher preparation costs (tuition and/or IHE fees) budget category, which remained the primary expenditure category. While four grantees requested funds from additional budget categories, actual spending outside of tuition was minimal, with approximately \$1,900 used for supplemental authorization filing fees. The consistent focus on tuition support suggests this remains the most critical funding need for participating teachers.

**Table 9: Grant Award Expenditure, per Round**

| <b>Round</b> | <b>Annual Grant Award</b> | <b>Total Expended,<br/>2022-23</b> | <b>Total Expended,<br/>2023-24</b> | <b>Unexpended Funds,<br/>2023-24</b> |
|--------------|---------------------------|------------------------------------|------------------------------------|--------------------------------------|
| One          | \$240,000                 | \$155,000<br>(64.58%)              | \$207,500<br>(86.46%)              | \$32,500<br>(13.54%)                 |
| Two          | \$52,500                  | \$0<br>(0.00%)                     | \$47,000<br>(94.74%)               | \$2,500<br>(5.26%)                   |

| Round        | Annual Grant Award | Total Expended, 2022-23       | Total Expended, 2023-24       | Unexpended Funds, 2023-24     |
|--------------|--------------------|-------------------------------|-------------------------------|-------------------------------|
| Three        | \$262,500          | N/A                           | \$126,631<br>(48.24%)         | \$135,869<br>(51.76%)         |
| Four         | \$237,500          | N/A                           | \$26,000<br>(10.95%)          | \$211,500<br>(89.05%)         |
| <b>Total</b> | <b>\$787,500</b>   | <b>\$155,000<br/>(52.99%)</b> | <b>\$405,131<br/>(51.45%)</b> | <b>\$382,369<br/>(48.55%)</b> |

*Note: "N/A" indicates that a grant round was awarded after the specified year and, as a result, did not have expenditure data available for reporting.*

### Program Narratives

In addition to reporting participant data, grantees submit annual narratives reflecting on the following:

- the matching funds source(s),
- the number of new computer science courses taught by teachers that have earned the supplementary authorization and how these courses are offered (e.g., standalone course, integrated in an elementary classroom, after school program, etc.),
- the extent to which the newly authorized computer science teachers have helped address the unmet needs for computer science instruction within the LEA, especially among rural schools or schools with a high share of unduplicated pupils,
- the best practices found to be effective in implementing the grant program,
- factors hindering program implementation, and
- any lessons learned to inform potential future investments in this type of grant program.

Of the five grantees who reported having teachers earn their supplementary authorization through the Computer Science Grant Program, two of the grantees indicated that data on the number of new computer science courses taught by teachers that have earned the supplementary authorization and how these courses are offered would be available after the 2023-24 reporting period, as teachers had just finished their authorization requirements when the reports were due. Three grantees were able to provide detailed information about how these teachers are utilizing their new authorizations. The most common approach reported by grantees is offering computer science as standalone courses, particularly at the middle school level. Grantees also reported integrated models, incorporating computer science into existing classroom instruction, and offering computer science courses through after school programs.

Program successes centered primarily on strong partnerships with IHEs and comprehensive teacher support systems. 43 percent of grantees emphasized that having an effective partnership with an IHE is essential to program success. Additionally, 36 percent of grantees highlighted the importance of providing comprehensive support for participating teachers, including full tuition coverage, online coursework options, and flexible scheduling for completing required coursework. The following are direct narratives from grantees:

- “Partnering with a responsive and timely higher education institution, providing courses online for teacher flexibility, frequent communication and check in with participants, and dedicated release time and additional duty pay to supplement time spent outside of the school day.”
- “The best practice for implementing the grant program has been to have a strong partnership with IHE. The partnership with [IHE] has provided the matching funds, supported the recruitment of the teachers, and assisted with the data management of the Inservice teachers who participate.”
- “The grant to cover the full-tuition for the CS supplementary authorization is a great motivator for our teachers.”

Grantees continued to face several implementation challenges in 2023-24. The most commonly reported challenge, cited by 29 percent of grantees, was limited administrative capacity to support the grant program and participants effectively. Additionally, 21 percent of grantees reported some sort of financial concern, including sustainability planning for when grant funding ends, challenges in coordinating payment processes with IHE partners, and concerns about the matching funds requirement. In one case, a grantee withdrew from the grant program after being awarded funds, citing concerns about their ability to meet the matching requirement. The following are direct narratives from grantees:

- “This grant takes time away from my normal duties. We are a small district and this is an additive function for me.”
- “The factors hindering program implementation are significant delays in communication and billing from [IHE partner] that caused the LEA to be ineligible for 50% of the grant funding. Full implementation also requires significant investments in computer software and hardware during times of declining enrollment and budget shortfalls.”
- “The factors that are hindering the implementation of the program centers on resources in the classroom. The curriculum that is used requires a yearly subscription as well as an investment in hardware. Once the grant funding is gone, the concern is how to fund these programs and as well as providing resources for the maintenance of the equipment.”

Drawing from their implementation experiences, grantees also shared any lessons learned to inform potential future investments in this type of grant program. Grantees particularly emphasized the importance of early recruitment efforts and providing robust support systems for participating teachers. The following are direct narratives from grantees:

- “Even when people really want to complete a program and are excited about the learning, sometimes life just gets in the way. Do what you can to be kind and supportive, and to provide an opportunity to join again, if possible- because that is what's best for kids.”
- “Key lessons learned include the necessity of ongoing collaboration for teachers completing the coursework to provide support and tutoring for each other, the

importance of clear communication around the expectations of coursework, and the value of having a course rollout plan for 1-3 years.”

### **Summary and Conclusion**

The 2024 annual state report reflects grantees progress in the 2021 Computer Science Supplementary Authorization Incentive (Computer Science) Grant Program. The program demonstrated growth in its second year of implementation, with enrollment increasing from 62 participants in 2022-23 to 222 participants in 2023-24. The 2023-24 year also marked the important milestone of the program’s first cohort of completers, with 89 teachers earning their Computer Science Supplementary Authorization.

Rounds One through Four are now actively implementing their programs. Round One grantees maintained or improved their enrollment in their second year, while Round Two achieved successful first-year implementation after initial delays. Rounds Three and Four demonstrated initial enrollment rates in their first year. Across all rounds, 88 percent of participants are teaching at LEAs with high unduplicated pupil counts.

Grantees reported several successful strategies for program implementation, particularly highlighting the importance of strong IHE partnerships and comprehensive teacher support systems. While some implementation challenges persist, particularly around administrative capacity, the overall program data suggests growing effectiveness in supporting teachers to obtain computer science supplementary authorizations.

Round Seven applications are due February 28, 2025, and awards will be announced March 2025. Commission staff will continue to offer grant competitions twice a year until the 2025-26 fiscal year or until \$15 million has been awarded.