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Built for This

A Quantitative Analysis of South Dakota's Educational Adaptive Capacity

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What This Paper Is. What It Is Not.

This paper is:

- A quantitative readiness and adaptive-capacity analysis of South Dakota K-12 education, the third paper in the OCF Education and Workforce Readiness Series, applying the Readiness Stack Index (defined in Section II) across the seven-state Northern Great Plains and Mountain West corridor with South Dakota as the focal case.
- An assets-first analysis. South Dakota's existing infrastructure, including ConnectSD, the Technology and Innovation in Education cooperative, the April 2025 literacy standards reform, the Oceti Sakowin Essential Understandings, and the state's homeschool and alternative-instruction sector, is documented as the foundation for what comes next.
- A documentation of the Leapfrog Window: the argument that South Dakota's small population, short legislative sessions, and demonstrated reform velocity constitute a measurable adaptive-capacity advantage, with the April 2025 standards reform presented as evidence rather than theory.
- The third and final paper in a three-part series. It closes a gap the first two papers documented, using South Dakota's own subsequent action as the closing evidence.

This paper is not:

- A claim that South Dakota's K-12 preparation gaps, documented in the first two papers of this series, no longer exist. The Readiness Stack Index computed in Section III shows South Dakota still trails the corridor leaders on two of three tiers. The leapfrog argument is about trajectory and mechanism, not current parity.
- A policy prescription delivered as a mandate. Consistent with South Dakota's own governance preferences, documented in Section VII, this paper frames structured options and flexible pathways rather than top-down requirements.
- A single-narrative treatment of South Dakota's nine Tribal nations. Section IX names each nation individually and documents that Tribal education infrastructure, sovereignty, and outcomes vary substantially across them. Aggregated statewide figures are presented alongside this caveat, not in place of it.
- An indictment of any individual, administration, or agency. Where this paper documents friction between state and Tribal governance structures, it does so as a structural finding about jurisdictional fragmentation, not as commentary on any specific officeholder.

Abstract

This paper is the third and final installment in OCF's Education and Workforce Readiness Series. The first two papers documented, at national and regional scale, a structural K-12 preparation gap that compounds across six variables and lands hardest on rural, low-income, and Tribal land communities. This paper turns to South Dakota and asks a different question: given the documented gap, what does South Dakota have to build with, and how fast can it move? To answer the first part, this paper introduces the **Readiness Stack Index (RSI)**, a transparent 0-100 composite score computed across the three Readiness Stack tiers for South Dakota and six comparison states (Colorado, Minnesota, Montana, Nebraska, North Dakota, and Wyoming), using a disclosed scoring rubric applied to findings already documented in this series. To answer the second part, this paper documents a single event: on April 14, 2025, the South Dakota Board of Education Standards unanimously adopted Science of Reading-aligned ELA standards, backed by $6 million in state funding appropriated a year earlier and a $54 million federal literacy grant, while simultaneously adopting optional computer science content standards and revised Oceti Sakowin Essential Understandings. Computed against the corridor, this single action moves South Dakota's RSI from a tied-last position of approximately 22 to approximately 42, third of seven, driven entirely by the Tier 1 reform. This paper calls the underlying mechanism the **Leapfrog Window**: a small population, a constitutionally short citizen legislature, and a demonstrated willingness to pre-fund outcomes ahead of formal adoption combine to compress a content-standards cycle that nationally takes five to seven years into approximately twelve months. The paper documents South Dakota's other existing infrastructure, including the ConnectSD broadband program (self-funded since 2019, now completing via satellite), the 40-year-old Technology and Innovation in Education cooperative, and the state's nation-leading growth in homeschool and alternative instruction, as the platforms on which Tier 2 and Tier 3 gains can be built using the same mechanism. A dedicated section names South Dakota's nine federally recognized Tribal nations individually and documents both a severe Native American student attendance disparity and a working, community-based intervention already operating within the state.

Keywords: South Dakota, K-12 education, Readiness Stack Index, adaptive capacity, Leapfrog Window, Science of Reading, ConnectSD, Oceti Sakowin Essential Understandings, Tribal sovereignty, homeschool, technology adoption, citizen legislature, ocf_schema_v1

At a Glance

+20 pts South Dakota's Readiness Stack Index gain from a single April 2025 board action, moving from tied-last to third of seven corridor states.	**1 mtg** April 14, 2025: SD Board of Education Standards adopted Science of Reading ELA standards, optional CS standards, and revised OSEU standards unanimously, same meeting.	**$60M** Combined state ($6M) and federal ($54M) funding behind South Dakota's literacy reform, pre-positioned a full year before the standards vote.	**$269.8M** ConnectSD investment across 104 broadband projects since 2019, two years ahead of federal BEAD funding, now completing via satellite.
143% Growth in South Dakota homeschool and alternative-instruction enrollment over the last decade, the highest rate of any U.S. state.	**40 days** Maximum constitutional length of South Dakota's legislative session, with every introduced bill guaranteed a committee hearing.	**26% to 11%** Reduction in Sisseton high school chronic absenteeism over two years via the Check and Connect mentor program.	**9 nations** Federally recognized Tribal nations with land in South Dakota, named individually in Section IX, each with distinct infrastructure, governance, and outcomes.

Reading Note: The first two papers in this series documented a structural K-12 preparation gap using a consistent six-variable framework and confidence-calibrated meta-analysis. This paper uses the same framework and the same underlying findings, including South Dakota's own documented position in Paper II, as the baseline against which the events of this paper are measured. Where this paper shows improvement, it is improvement against that documented baseline, computed using the same method. Where this paper shows continued gaps, those gaps are the same ones Papers I and II identified, not new findings.

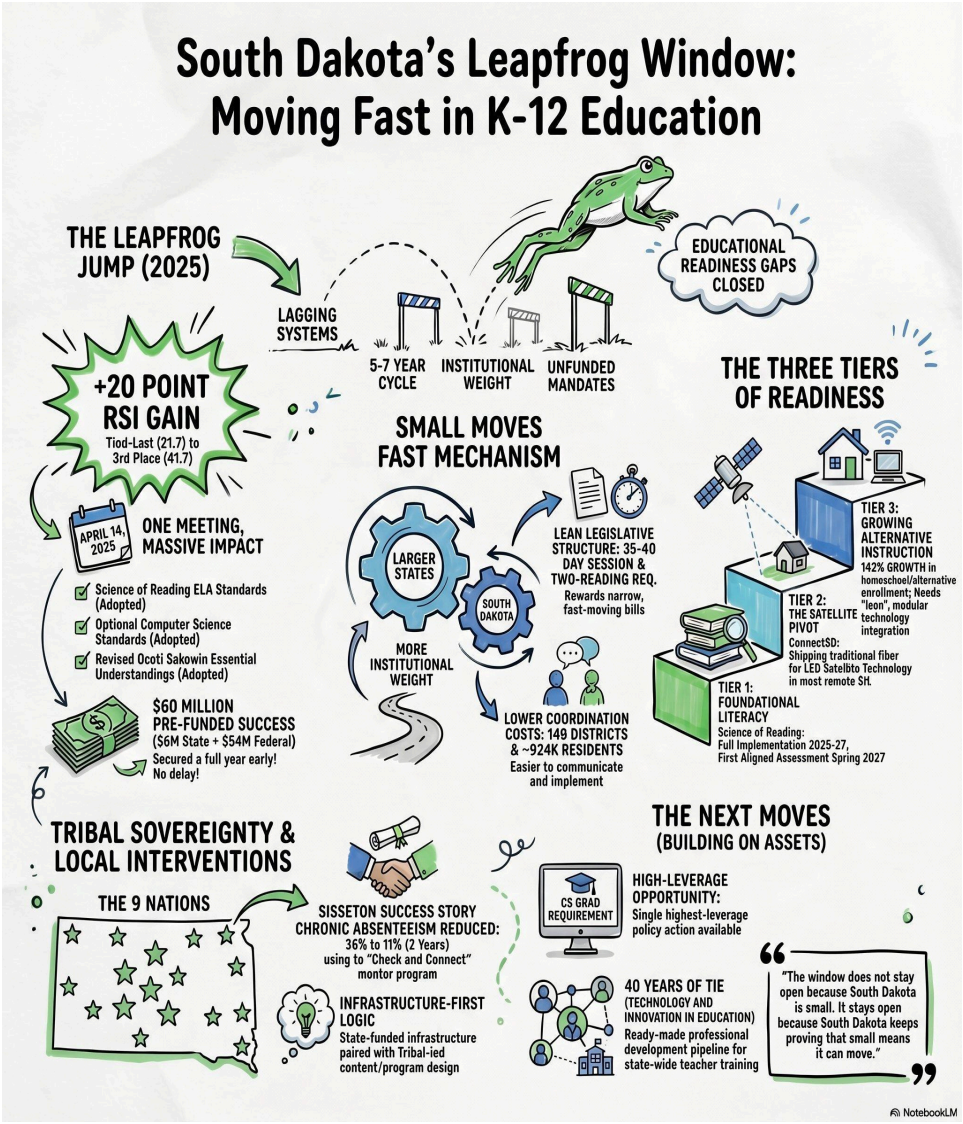

Figure 1. South Dakota's Leapfrog Window: Moving Fast in K-12 Education. OCF / NotebookLM, 2026

I. Introduction: A Gap Closing in Real Time

The second paper in this series computed a seven-state comparison across the Northern Great Plains and Mountain West corridor and found South Dakota in the corridor's bottom tier on the Tier 1 foundational variable, alongside Montana, Nebraska, and Wyoming, with no documented reading reform mechanism and no measurable improvement over a decade. That finding was accurate when it was published. It is no longer current.

On April 14, 2025, the South Dakota Board of Education Standards voted unanimously, after a fourth public hearing, to adopt English Language Arts standards aligned with the Science of Reading, the same reform category that Paper II identified as the one mechanism in the corridor with documented results. The vote was not an isolated curriculum update. The same meeting adopted optional computer science content standards and approved revised Oceti Sakowin Essential Understandings. And the funding for the literacy reform's implementation, $6 million for phonics teacher training, had already been appropriated by the legislature more than a year earlier, in the 2024 session, alongside a $54 million federal Comprehensive Literacy State Development grant secured for five-year district rollout.

This paper exists to answer two questions that follow from that sequence. First: how much does this move South Dakota's position, measured against the same corridor and the same documented findings as Paper II? Second, and more important for what comes next: what does the sequence itself reveal about how South Dakota moves, and where else can the same mechanism be pointed?

To answer the first question, Section II introduces the Readiness Stack Index, a transparent composite score built entirely from findings already documented in this series, computed for South Dakota and six comparison states. Section III presents the result: a single board action moved South Dakota's overall index by 20 points, from a tied-last position to third of seven.

To answer the second question, this paper looks at the mechanism rather than just the outcome. South Dakota has a constitutionally short, part-time citizen legislature that guarantees every bill a hearing and requires only two readings per chamber. It pre-funded an outcome a year before the standards process that would use that funding was complete. It has run a self-funded statewide broadband program since 2019, two years before federal BEAD money existed, and as of January 2026 is completing the hardest remaining connections using satellite technology that did not exist at commercial scale when the program began. This paper calls the resulting pattern the Leapfrog Window: small systems carry less institutional weight to move, and when they move, they can skip generations of infrastructure that larger systems are still working through in sequence.

This paper deliberately frames its subject as technology adoption broadly rather than AI specifically. The Dependency Paradox documented in Paper II remains relevant and is addressed in Section VI as one input among several. But South Dakota's most consequential recent action was a literacy standards reform, not an AI policy, and the mechanism that produced it, small population, short session, pre-positioned funding, applies to whatever the next technology-integration decision turns out to be. The argument of this paper is not that South Dakota has solved its preparation gap. Sections III, V, and VI show plainly that it has not, particularly on Tier 2 and Tier 3. The argument is that South Dakota has just demonstrated, on

the record, that it can close a documented gap faster than the corridor's larger states, and that the same demonstrated capacity is available for the gaps that remain.

> *Paper II measured South Dakota against the corridor and found it tied for last on the variable that mattered most. South Dakota then closed that gap in the time it took to publish the next paper in the series. That is not a coincidence to footnote. That is the finding.*

II. Methodology: The Readiness Stack Index

A. Purpose and Scope

This paper introduces the Readiness Stack Index (RSI), a 0-100 composite score computed for each tier of the Readiness Stack framework established in Paper I and applied regionally in Paper II. The RSI is ordinal scoring of documented categorical findings using a disclosed rubric. It is not a statistical model, does not claim measurement precision beyond its inputs, and is presented as a transparent comparative tool rather than a definitive ranking. Every input to the RSI traces to a specific finding already documented in this series or verified for this paper, with sources disclosed in Section II.E and the Sources Cited table.

The RSI is computed for the same seven-state corridor established in Paper II: Colorado, Minnesota, Montana, Nebraska, North Dakota, South Dakota, and Wyoming. South Dakota is the focal case. The other six states provide the comparative frame that gives South Dakota's position, and its change, meaning.

B. Tier 1: Foundational Readiness

Tier 1 is the average of two components, each scored 0-100.

Absenteeism Index = (35 minus the state's 2024-25 chronic absenteeism rate, expressed as a whole number) divided by 25, multiplied by 100, bounded to the 0-100 range. The constant 35 approximates the highest documented state-level chronic absenteeism rates in the corpus; the constant 25 scales the typical corridor range (roughly 19% to 21%) to a meaningful spread. A state at 10% absenteeism scores 100; a state at 35% scores 0; the corridor's actual range of 19-21% produces scores of 56 to 64.

Literacy Reform Index scores 100 if a state has adopted Science of Reading-aligned standards with documented dedicated implementation funding; 0 if no such reform is documented in this series' corpus. This is a binary score reflecting documented action, not an assessment of instructional quality. A score of 0 reflects absence of evidence in the corpus, not a claim that no such reform exists; where OCF has not researched a given state's literacy policy in depth, that state's score reflects this limitation, disclosed in Section II.E.

C. Tier 2: Digital Readiness

Tier 2 uses a single component: the **Broadband Affordability Index**, drawn directly from Paper II's documented finding that four of five worst-ranked states nationally for broadband affordability (BroadbandNow 2025) sit in this corridor. States identified in that finding as having an affordability gap exceeding 20% of households score 25. States identified as having a moderate gap score 60. This paper does not introduce a second Tier 2 component into the comparative index, because comparable program-level investment data (of the kind available for South Dakota's ConnectSD) was not independently verified for the other six states within this paper's scope. ConnectSD is documented separately, as a qualitative case study, in Section V.

D. Tier 3: Technology Readiness

Tier 3 is the average of three components. The **Guidance Index** scores state AI or technology integration guidance on the scale established in Paper II: full roadmap and skills progression guide scores 100; standards-only connection (without a roadmap) scores 50; minimal or informal guidance scores 30; no documented guidance scores 0. The **Training Index** reflects Paper II's documented teacher AI training levels: "moderate" scores 60, "thin" scores 30. The **CS Graduation Index** scores 0 for every state in the corridor, reflecting Paper II's finding that no corridor state requires computer science for graduation. This component is uniform across all seven states; it is included for index transparency and because it represents the corridor's shared floor, not because it differentiates the comparison.

E. South Dakota's Updated Inputs and Limitations

Two of South Dakota's inputs are updated from Paper II's documented values, reflecting verified action taken after Paper II's publication. South Dakota's Literacy Reform Index moves from 0 to 100, reflecting the April 14, 2025 standards adoption documented in Section I and detailed in Section IV. South Dakota's Guidance Index moves from 0 to 30, reflecting the same meeting's adoption of optional computer science content standards, placing South Dakota at the "minimal guidance" tier alongside Minnesota. No other state's inputs are updated in this paper; this reflects the scope of research conducted for this paper, not a claim that no other corridor state has taken comparable action since Paper II's publication. South Dakota's absenteeism rate is updated to its confirmed 2024-25 value of 20%, from the placeholder value used in Paper II's draft table.

This index has three disclosed limitations. First, it scores documented categorical findings, not continuous underlying data; a state one point from a scoring threshold and a state at the threshold's center receive the same score. Second, it reflects the research scope of this series; states may have taken actions this series has not yet documented. Third, it does not capture within-state variation, most importantly the Native American student outcome disparities documented in Section IX, which a statewide index by construction cannot represent. Section IX addresses this directly rather than folding it into a single number that would obscure it.

III. South Dakota in the Corridor: The Readiness Stack Index

Table 1 presents the Readiness Stack Index for all seven corridor states, computed using the method in Section II. South Dakota's row reflects its position as of this paper's publication, including the April 2025 reform. A second table immediately below shows South Dakota's position recomputed using only its pre-April-2025 inputs, the position Paper II would have shown had it been computed using this index.

State	Tier 1	Tier 2	Tier 3	RSI	Rank
Minnesota	80	60	30	56.7	1
Colorado	30	60	53.3	47.8	2
South Dakota (current)	**80**	**25**	**20**	**41.7**	**3**
North Dakota	30	25	26.7	27.2	4
Wyoming	32	25	10	22.3	5
Montana	28	25	10	21.0	6
Nebraska	28	25	10	21.0	6

Table 1. Readiness Stack Index by corridor state, current position. South Dakota highlighted. Computed per Section II methodology from findings documented in Papers I and II plus verified updates for South Dakota described in Section II.E.

South Dakota Before April 2025

Table 2 recomputes South Dakota's row using only the inputs Paper II would have used: Literacy Reform Index = 0 and Guidance Index = 0, the values consistent with Paper II's finding of zero statistical reading improvement and no AI or technology guidance documented for South Dakota.

State	Tier 1	Tier 2	Tier 3	RSI	Rank
Minnesota	80	60	30	56.7	1
Colorado	30	60	53.3	47.8	2
North Dakota	30	25	26.7	27.2	3
South Dakota (pre-April 2025)	**30**	**25**	**10**	**21.7**	**4 (tied)**
Montana	28	25	10	21.0	4 (tied)
Nebraska	28	25	10	21.0	4 (tied)
Wyoming	32	25	10	22.3	4 (tied)

Table 2. Readiness Stack Index by corridor state, South Dakota's pre-April-2025 position. This is the position Paper II's findings imply under this index. Note Wyoming's RSI of 22.3 is technically marginally higher than the tied group at 21.0-21.7; all four states occupy the corridor's bottom tier with no meaningful separation.

The comparison is the finding. Between Table 2 and Table 1, three numbers change: South Dakota's Literacy Reform Index (0 to 100), South Dakota's Guidance Index (0 to 30), and everything those two changes propagate into. Tier 1 moves from 30 to 80. Tier 3 moves from 10 to 20. The overall RSI moves from 21.7 to 41.7, a 20-point gain, and South Dakota's rank moves from the bottom tier (tied with Montana, Nebraska, and Wyoming) to third of seven, ahead of North Dakota and within 6.1 points of Colorado.

Two things are true at once, and both matter. South Dakota remains behind Minnesota and Colorado, the corridor's two states with documented technology integration guidance frameworks, and South Dakota's Tier 2 score (25) reflects the same broadband affordability gap documented in Paper II and not yet closed. The gap did not disappear. But a 20-point movement on a 100-point composite index, achieved through a single board meeting backed by funding the legislature had already appropriated, is not a marginal result. It is the largest single-action movement this index can register for any state in the corridor under the documented findings of this series, and South Dakota is the state that produced it.

> *Twenty points. One meeting. Funding that was already in place. This is what the Leapfrog Window looks like when it opens: not a plan to close a gap someday, but a gap closed between two papers in the same series.*

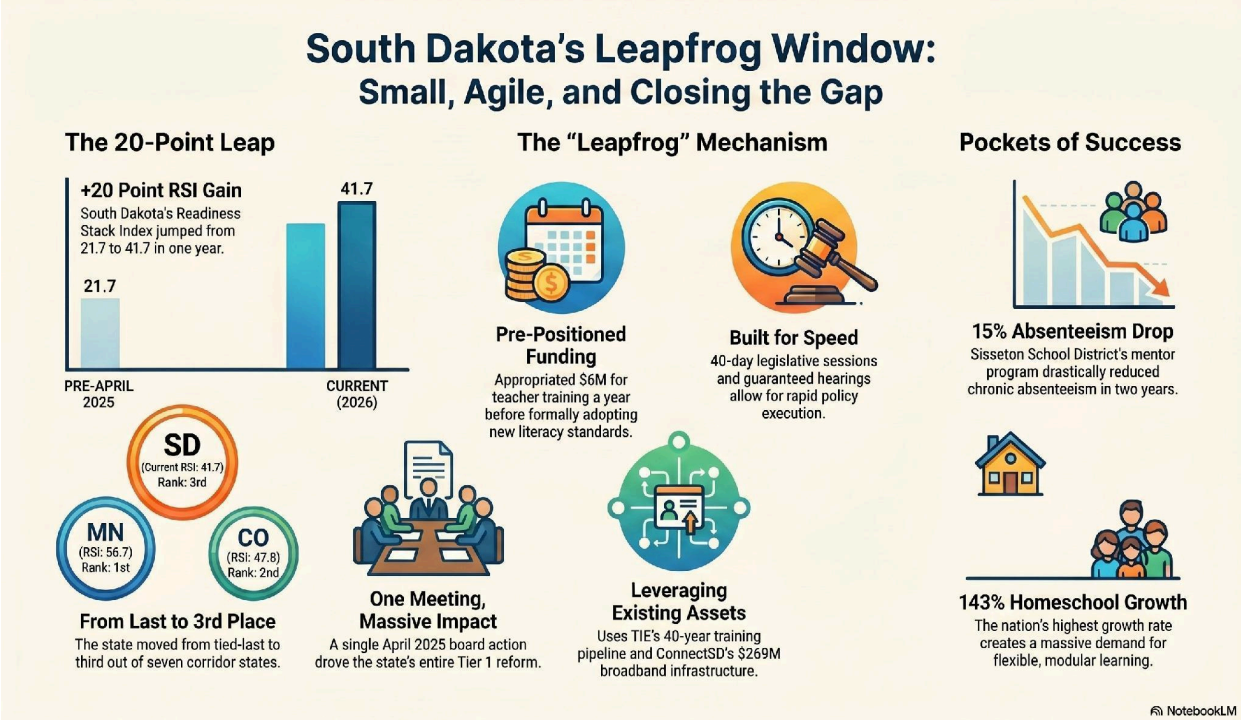

Figure 2. South Dakota's Leapfrog Window: Small, Agile, and Closing the Gap. OCF / NotebookLM, 2026

IV. Tier 1 in Motion: The Literacy Reform and What It Demonstrates

A. The April 2025 Action

The South Dakota Board of Education Standards approved revised English Language Arts standards on April 14, 2025, in Rapid City, by unanimous vote, following a fourth public hearing. The revision aligns South Dakota's standards with the Science of Reading: explicit attention to phonemic awareness, phonics, fluency, vocabulary, and comprehension, organized for vertical alignment from kindergarten through grade 12. The rollout timeline is disclosed and specific: 2025-26 is a transition year with professional development, curriculum planning, and pilot programs; 2026-27 is full implementation; the first aligned statewide assessment is spring 2027.

The funding sequence is the part of this story that deserves more attention than a standards adoption normally gets. In the 2024 legislative session, a full year before the standards vote, South Dakota's legislature appropriated $6 million specifically for phonics-based teacher training. Separately, South Dakota secured a $54 million federal Comprehensive Literacy State Development grant, awarded competitively and earmarked for five-year district-level implementation support including literacy coach salaries, teacher training, and curriculum review, prioritized toward districts with higher proportions of low-income students.

By the time the Board of Education Standards voted, the money to implement what they were voting on already existed. This is the inverse of the unfunded mandate pattern that the Code.org/CSforAll research documents as a primary driver of policy fragmentation nationally: standards adopted without resources to implement them, producing exactly the adoption-without-infrastructure pattern Paper II documented for AI tools across the corridor. South Dakota's literacy reform did not follow that pattern. It follows the opposite sequence.

B. Why This Matters Beyond Reading

Paper II's central finding for South Dakota was specific: zero statistical improvement in 8th-grade reading scores over a decade, in a state that had not implemented the Science of Reading reforms that produced measurable improvement in Minnesota. That finding was the clearest available evidence, at the time, that South Dakota's Tier 1 position was structurally stuck.

The April 2025 action does not retroactively change the decade Paper II documented. What it changes is the forward trajectory, and it does so using the exact mechanism the prior research identified as the one that works. South Dakota is not attempting an untested intervention. It adopted the intervention with the strongest documented evidence in the corridor, the same one Minnesota used, with funding already in place. The first assessment evidence will not arrive until spring 2027, an honest limitation this paper does not paper over. But the Tier 1 reform itself, as a documented action with documented funding and a documented timeline, is no longer a gap. It is a position in progress, on a known timeline, with a known evidence date.

C. Statewide Attendance: A Quieter Asset

South Dakota's statewide chronic absenteeism rate was 20% in 2024-25, down from 21% the prior two years, and below the typical corridor range. This places South Dakota's Absenteeism Index (60) in the middle of the corridor's range, neither a standout nor an outlier, consistent with Wyoming and slightly behind it. The statewide attendance rate of 87% has improved modestly and steadily since the 2021-22 pandemic peak. This is not a dramatic finding, and this paper does not present it as one. It is a stable, unremarkable, adequate foundation, which in a Tier 1 context is itself an asset: the literacy reform is being implemented in classrooms that students are, for the most part, actually in.

V. Tier 2: ConnectSD and the Satellite Pivot

A. A Program That Started Before the Money Did

South Dakota's legislature appropriated $5 million in 2019 to launch ConnectSD, the state's rural broadband infrastructure program. This predates the federal Broadband Equity, Access, and Deployment (BEAD) program, authorized by the 2021 Infrastructure Investment and Jobs Act, by two years. South Dakota did not wait for a federal program to exist before funding rural connectivity. As of the program's most recent reported allotment, ConnectSD has distributed $269.8 million across 104 approved broadband infrastructure projects since 2019, combining state general funds, federal pass-through funds, and private investment from telecommunications providers.

This sequencing matters for the same reason the literacy funding sequencing matters in Section IV. A five-year-old, self-funded, actively-operating program is a fundamentally different starting position than a state waiting for its first BEAD subgrant agreements to be signed, which as of late 2025 described most states in the country.

B. The Affordability Gap Remains, and the Index Reflects It

South Dakota's Tier 2 score in Table 1 is 25, the same as Montana, Wyoming, North Dakota, and Nebraska, reflecting Paper II's documented finding that South Dakota sits among the four of five worst-ranked states nationally for broadband affordability. ConnectSD's investment total does not by itself change this score, because the affordability gap measures whether households can afford to subscribe to available service, a different question than whether infrastructure has been deployed. This paper does not inflate South Dakota's Tier 2 position to match its Tier 1 story. The gap documented in Paper II is real and remains the honest reading of the current data.

C. The Leapfrog Case Study: Satellite as the Final Mile

What ConnectSD demonstrates is not a current Tier 2 score advantage but a mechanism. As of January 2026, South Dakota's broadband program is addressing its remaining unserved locations using low Earth orbit satellite connectivity, a technology that did not exist at the commercial scale or price point required for this use case when ConnectSD launched in 2019.

South Dakota's BEAD allocation, finalized in late 2025, covers 6,992 locations using a mix of fiber, licensed fixed wireless, and LEO satellite, explicitly described by the state as covering all remaining unserved and underserved areas.

The mechanism is the leapfrog argument in miniature: rather than a multi-year fiber buildout to the most remote 5% of locations, the technology-neutral approach skips directly to whatever current technology solves the problem fastest. A program that started in 2019 with the technology of 2019 is finishing in 2026 with the technology of 2026, without having had to wait for a master plan to be rewritten. For a state pursuing technology-integration goals broadly, the operative lesson is the same one: define the outcome, fund it, and let the technology used to reach it update as better options become available, rather than committing early to a specific technology generation.

VI. Tier 3: Standards, Training Infrastructure, and TIE

A. Optional Standards: The Foundation Without the Requirement

The same April 14, 2025 board meeting that adopted the literacy standards also adopted optional computer science content standards. This moves South Dakota's Guidance Index from 0 to 30, the "minimal guidance" tier alongside Minnesota, and ahead of Montana, Wyoming, and Nebraska, which have no documented technology integration guidance at all. It remains behind North Dakota, which Paper II documented as one of four states nationally connecting AI literacy explicitly to CS standards, and well behind Colorado's full roadmap and skills progression guide.

Optional standards are not a graduation requirement. Paper II's central policy finding, that CS access increases measurably only in states with graduation requirements, still applies, and South Dakota has not enacted one. What the optional standards represent is the foundation that a future requirement would formalize: the content exists, has been through the state's standards review process, and is available for districts to adopt voluntarily. The gap between "available" and "required" is exactly the gap the Leapfrog Window mechanism is suited to close, given that it is a single, narrow legislative action of the kind South Dakota's session structure handles well.

B. The Dependency Paradox, Briefly

Paper II documented the Dependency Paradox: AI tools arriving in classrooms without instructional scaffolding produce AI-adjacent rather than AI-literate students, with a PNAS-published randomized trial showing a 17% performance decline when unguarded AI access was removed, against no decline when AI access included guardrails. This remains relevant to South Dakota's Tier 3 position and is not contradicted by anything in this paper. South Dakota's Training Index (30, "thin") reflects the same corridor-wide teacher AI training gap Paper II documented. The point of raising it briefly here, rather than centering it, is that it is one input into a broader technology-adoption picture, and the same mechanism that closed the Tier

1 gap, route the new content through existing delivery infrastructure with funding attached, applies to it directly. Section VI.C describes that infrastructure.

C. TIE: Forty Years of Existing Delivery Infrastructure

Technology and Innovation in Education (TIE), a division of the Black Hills Special Services Cooperative, has operated statewide for more than 30 years and will mark its 40th anniversary conference in April 2026. TIE's annual conference, alternating between Rapid City and Sioux Falls, is South Dakota's largest professional development event for educators, drawing teachers and administrators from across the state for sessions on instructional technology, customized and individualized learning models, and, specifically, resources for teaching South Dakota's Native American cultures and the Oceti Sakowin Essential Understandings.

This is the asset that the Training Index (30) does not capture, because the index measures documented training rates, not delivery capacity. South Dakota does not need to build a statewide teacher professional development infrastructure to raise its Training Index. That infrastructure already exists, has existed for 40 years, and already includes a track record of adapting its content as instructional priorities shift, as its history from early classroom computing to customized learning models to Indigenous education resources demonstrates. Raising South Dakota's Training Index on any future technology-integration priority is, in significant part, a question of what content TIE's existing conference and professional development pipeline carries next, not a question of building new delivery infrastructure from nothing.

> *The infrastructure question that takes other states years to solve, who delivers the training, and how, is already solved in South Dakota. It has a name, a 40-year track record, and a conference in April. What it carries next is a policy decision, not an infrastructure project.*

VII. The Leapfrog Capacity Score: Why Small Moves Fast

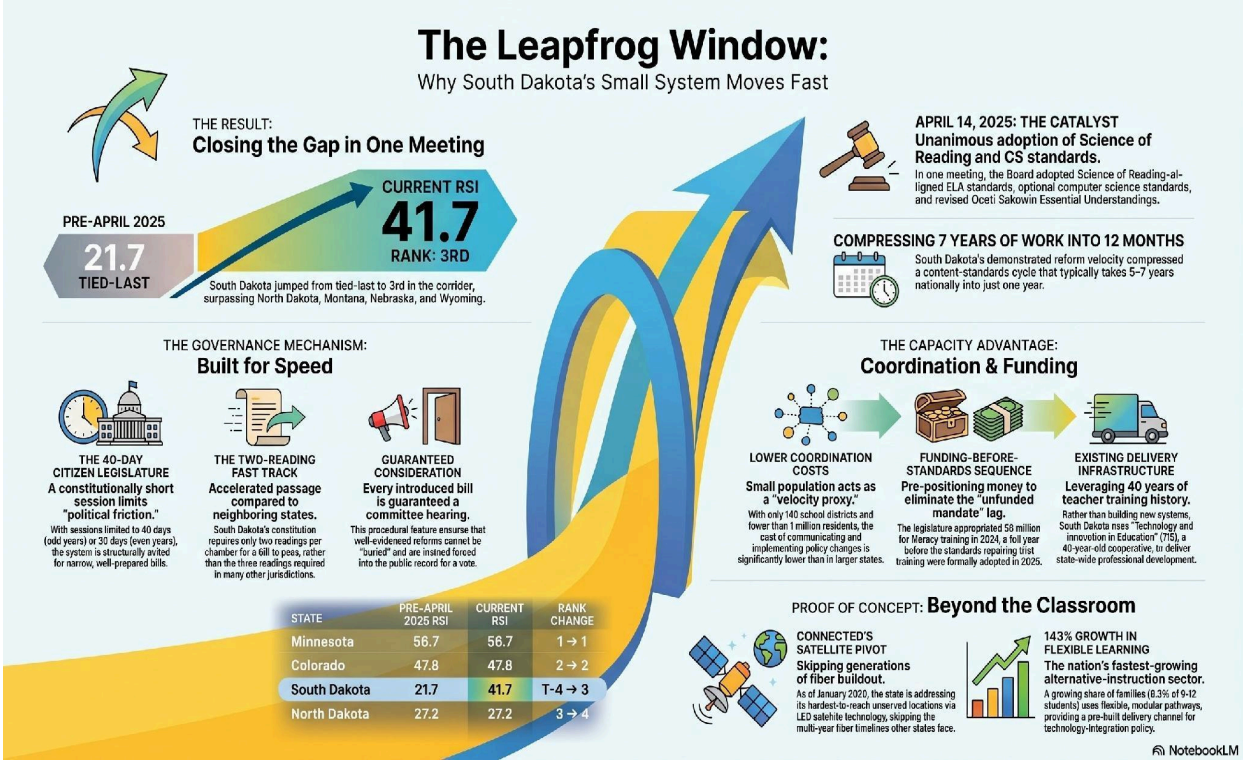

Figure 3. The Leapfrog Window: Why South Dakota's Small System Moves Fast. OCF / NotebookLM, 2026

A. The Governance Mechanism, Documented

South Dakota's legislature is among the smallest and shortest-sessioned in the country. The constitution limits sessions to 40 days in odd-numbered years and 35 days in even-numbered years, beginning the second Tuesday in January. The legislature consists of 105 total members (35 Senate, 70 House), among the smaller bodies nationally. South Dakota is one of fourteen states with a part-time, citizen legislature, a designation reflecting both session length and the constitutional philosophy behind it: that legislators should hold other occupations, and that a part-time, rotating body is a check on the development of a professional political class.

Two procedural features compound the session-length effect. South Dakota's constitution requires only two readings per chamber for a bill to pass, compared to three in many states, a difference one legislative analysis attributes directly to the practical necessity of shorter sessions. And South Dakota guarantees a committee hearing to every introduced bill, a feature explicitly contrasted with states where a bill can be introduced and simply never receive consideration. The combination is a system structurally suited to narrow, well-prepared bills: a hearing is guaranteed, two readings is the bar, and forty days is the clock.

B. Population as Coordination Cost

South Dakota's population is approximately 924,000 (U.S. Census Bureau estimate), among the smallest in the country and the smallest in this corridor alongside Wyoming and North Dakota. South Dakota's K-12 system is organized into 148 school districts. Population size is a proxy for coordination cost: a policy change that requires buy-in, communication, or implementation

coordination across a state's education system scales, roughly, with the number of districts, administrators, and stakeholder organizations that must be reached. A state with 148 districts and under a million residents has a fundamentally different coordination problem than a state with several million residents and several hundred districts.

This is not an argument that South Dakota's smaller size makes its problems smaller. The Readiness Stack Index in Section III shows South Dakota's Tier 2 and Tier 3 gaps are real and comparable in kind to its larger neighbors'. It is an argument that the cost of coordinating a fix, once a fix is identified and funded, is lower. The April 2025 reform is the demonstration: a single board, in a single meeting, moved the entire state's Tier 1 trajectory. In a state with ten times the districts, the same content standards revision would still require the same single board action, but implementation coordination across an order of magnitude more districts would be a correspondingly larger undertaking.

C. The Funding-Before-Standards Sequence as Evidence of Capacity

The most important evidence for the Leapfrog Capacity Score is not a structural feature of South Dakota's government in the abstract. It is the sequence documented in Section IV: the legislature appropriated implementation funding for a literacy reform in 2024, before the standards process that would formally adopt the reform was complete in 2025. This sequencing requires a legislature and an executive branch that are paying close enough attention to a multi-year administrative process to fund its outcome ahead of its formal conclusion, and that are willing to do so. It is evidence of capacity that a smaller, more closely-coupled system can produce, and that this paper documents as having actually occurred, not as a theoretical advantage of smallness.

D. What This Does and Does Not Predict

The Leapfrog Window is a description of demonstrated capacity, not a guarantee of future action. South Dakota's RSI in Table 1 shows real, undisputed gaps on Tier 2 (broadband affordability) and Tier 3 (CS graduation requirement, AI guidance depth, teacher training rates) that the April 2025 reform did not touch. Nothing in this paper's analysis of governance structure makes those gaps close themselves. What this section establishes is that the mechanism required to close them, identify a narrow, well-evidenced policy change; secure funding through a session that guarantees the bill a hearing; route implementation through existing infrastructure like TIE and ConnectSD, is a mechanism South Dakota has just used successfully, on the record, within the timeframe of this series. The window is the period during which that demonstrated capacity remains available before larger, slower-moving states in the corridor close their own gaps through different mechanisms and the comparative advantage narrows.

E. Structural Tradeoffs of the Leapfrog Mechanism

Two structural tradeoffs of the leapfrog mechanism are documented here as a matter of analytical balance, not as objections to the argument. First, the funding-before-standards sequencing that eliminated the unfunded-mandate lag for the April 2025 literacy reform also compressed the public comment period. Appropriating $6 million for phonics training in the 2024

session, before the standards that training would support were finalized in 2025, effectively committed resources to an outcome before the fourth public hearing that formally adopted it had occurred. The hearings retained procedural validity. Their influence over the funding decision had already been constrained by the prior appropriation. That is a real tradeoff between speed and deliberative process, and it is worth naming rather than eliding.

Second, a 40-day session with no ability to reconvene without gubernatorial or supermajority petition cannot dynamically course-correct mid-implementation. If the 2025-26 transition year reveals structural problems in the Science of Reading rollout, the legislature has no mechanism to respond until January 2027 at the earliest. The same compressed session structure that enables fast adoption also limits adaptive response if implementation reveals errors after adjournment. South Dakota's interim committee process addresses this partially, studying assigned topics between sessions and developing recommendations for the following year. It does not eliminate the structural lag. Both tradeoffs are features of the same mechanism, not arguments against it. They are documented here because a policy document claiming to describe adaptive capacity should be transparent about what that capacity costs.

VIII. Lean by Design: Homeschool Growth and Flexible Pathways

A. The Numbers

South Dakota's homeschool and alternative-instruction enrollment grew 143% between 2015-16 and 2023-24, from 4,333 to 10,536 students, the highest growth rate of any U.S. state over that period according to Johns Hopkins University's homeschool research database. The growth has continued: South Dakota Department of Education data shows alternative instruction enrollment rising from 11,489 to 12,433 students between the 2023-24 and 2024-25 school years, an increase of nearly 950 students in a single year, even as traditional public school enrollment declined slightly over the same period. South Dakota is now among the states with the highest homeschool participation rates nationally, at approximately 6.5% of K-12 students by one national estimate, with South Dakota's own DOE figures placing alternative instruction at roughly 8.3% of the state's K-12 population when combined with the broader non-public enrollment figures.

B. What This Means for Technology Integration Policy

A state where a growing share of families are choosing flexible, non-traditional instructional arrangements is a state where flexible, modular, asynchronous technology-integration pathways are not a hypothetical accommodation. They are a delivery mechanism for a population that already exists and is growing. South Dakota's homeschool families are, by definition, already navigating instruction outside the conventional classroom structure. A technology and AI literacy curriculum designed as modular, self-paced content, rather than as a sequence of classroom

periods, would reach this population by default in a way that a traditionally-structured requirement would not.

This connects directly to South Dakota's documented governance preferences. South Dakota News Watch reported that the rapid homeschool growth has produced budget pressure on public districts, which receive approximately $7,000 per student from the state, a collective drop of more than $60 million in public school funding as families have shifted to alternative instruction. Whatever the fiscal policy implications of that shift, which are outside this paper's scope, the educational policy implication is straightforward: South Dakota families are voting, in large and growing numbers, for less centrally-structured instruction. A technology-integration strategy that works with this preference, flexible, opt-in, modular pathways available through existing alternative-instruction channels as well as traditional classrooms, fits the state's demonstrated demand pattern. A strategy that works against it, a single mandatory classroom-based curriculum sequence, would reach a shrinking share of South Dakota's K-12 population even if perfectly implemented.

C. Lean, Not Less

"Lean" technology integration is not a euphemism for less investment or lower standards. It describes a delivery model: modular content, available through multiple pathways including alternative instruction, routed through existing infrastructure (TIE for educator-facing delivery, ConnectSD for connectivity, the optional CS standards adopted in April 2025 for content alignment), funded in the pattern South Dakota's legislature has already demonstrated for literacy. The Dependency Paradox documented in Paper II is a risk of unstructured access without scaffolding, regardless of delivery channel. A lean, modular approach is compatible with structured scaffolding; the two are independent design choices, not a tradeoff. South Dakota's task is to design the scaffolding once and make it available everywhere students already are, including the growing alternative-instruction population, rather than building a structure that assumes a shrinking traditional-classroom-only population.

IX. The Nine Nations: Sovereignty, Infrastructure, and Self-Determination

South Dakota is home to nine federally recognized Tribal nations: the Cheyenne River Sioux Tribe, the Crow Creek Sioux Tribe, the Flandreau Santee Sioux Tribe, the Lower Brule Sioux Tribe, the Oglala Sioux Tribe, the Rosebud Sioux Tribe, the Sisseton-Wahpeton Oyate, the Standing Rock Sioux Tribe, and the Yankton Sioux Tribe. Each is a distinct sovereign nation with its own government, land base, and educational institutions, including Tribally-controlled colleges and Bureau of Indian Education schools operating under federal rather than state jurisdiction. Statewide aggregate figures, including the Readiness Stack Index in Section III, do not and cannot represent the distinct circumstances of each of these nine nations individually. This section exists because that distinction matters and should not be flattened into a single statewide number.

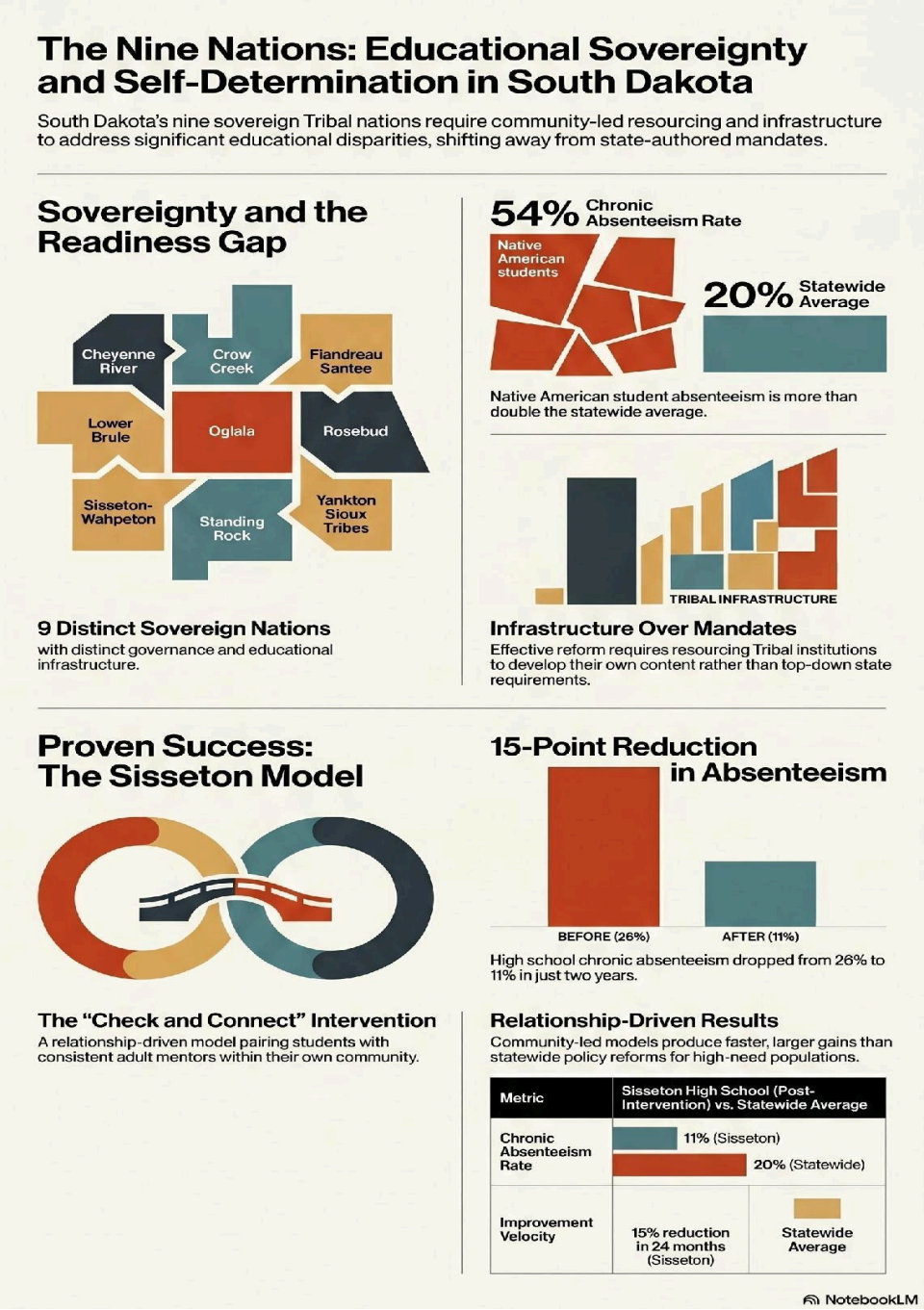

Figure 4. The Nine Nations: Educational Sovereignty and Self-Determination in South Dakota. OCF / NotebookLM, 2026

A. The Documented Disparity

South Dakota's statewide chronic absenteeism rate was 20% in 2024-25. Native American student chronic absenteeism in South Dakota was reported at 51% in 2023-24 and 54% in 2022-23, more than double the statewide rate in both years, and earlier DOE data showed the Native rate rising from 31% to 54% between 2018-19 and 2022-23, a steeper increase than the statewide trend over the same period. This is the same pattern Paper II documented in

Nebraska, where Black student absenteeism (43%) ran nearly three times the white student rate (15%), and it is consistent with the Rural Amplification Effect documented across this series: the populations facing the steepest compounding of all six original variables are concentrated in specific communities that statewide averages obscure rather than reveal.

B. A Working Intervention: Sisseton's Check and Connect Program

The Sisseton school district, serving a community with a significant Sisseton-Wahpeton Oyate population, implemented the "Check and Connect" mentor-based intervention, a relationship-driven program pairing students with consistent adult mentors and combining an attendance awareness campaign for students and families. The result, documented by South Dakota Searchlight: high school chronic absenteeism in Sisseton fell from 26% in 2021-22 to 11% in 2023-24, a 15-percentage-point reduction in two years, taking the district from above the statewide average to well below it.

This is the single largest two-year improvement on any attendance metric documented anywhere in this three-paper series, in any of the eight jurisdictions examined. It did not require a state board vote, a multi-year standards revision, or new infrastructure. It required a mentor-based program, implemented at the district level, in a community where relationship-based intervention models map onto existing social structures. The lesson is not that this specific program would work identically elsewhere. The lesson is that community-based, relationship-driven interventions, designed and led at the community level, are demonstrably capable of producing results at a speed and scale that statewide policy reforms, however well-designed, cannot match for the populations facing the steepest compounding.

C. Infrastructure and Self-Determination, Not Infrastructure Instead of Self-Determination

The Oceti Sakowin Essential Understandings (OSEU), a set of standards introducing Native American culture, history, and the Lakota, Dakota, and Nakota languages into South Dakota's curriculum, were revised and approved alongside the literacy and CS standards on April 14, 2025, with availability for classroom use beginning fall 2026. Use of OSEU remains optional; a state survey found 62% of teachers reporting use of the standards, though the survey was voluntary and response rates were partial. Legislative efforts to require OSEU statewide have been introduced and have not passed.

The 2025 revision process drew documented criticism from Tribal community members and organizations, including concerns that the Dakota and Nakota tribes were underrepresented in the revised standards relative to the Lakota, and that the revision process did not include the level of formal, reciprocal Tribal consultation that the standards' subject matter would warrant. This criticism is not incidental to this paper's argument. It is direct evidence for it. The appropriate response to a state-level curriculum framework about nine sovereign nations being developed without adequate consultation from those nations is not a better state-level consultation process. It is resourcing the nations' own educational institutions, Tribal colleges, Tribally-controlled schools, and BIE schools where Tribal governments have a formal role, to

develop and deliver this content themselves, with the state's role being funding and infrastructure rather than content authorship.

This is the same infrastructure-first logic that runs through this entire paper, applied to the population for whom it matters most. ConnectSD's broadband investment and any future technology-integration funding reach Tribal land communities as infrastructure, regardless of who designs the curriculum that runs on it. The Sisseton Check and Connect program demonstrates that community-led, community-designed interventions outperform statewide programs for exactly this population. The combination, state-funded infrastructure paired with Tribally-led content and program design, respects the sovereignty of all nine nations individually rather than treating "Tribal education" as a single category to be addressed once, and it is consistent with the documented evidence of what has actually worked in South Dakota to date.

> *The 2025 standards revision drew criticism for inadequate Tribal consultation. That criticism is the argument. Nine sovereign nations do not need a better state curriculum committee. They need the infrastructure and the resourcing to do this themselves, the way Sisseton already has.*

X. Synthesis: The Leapfrog Window

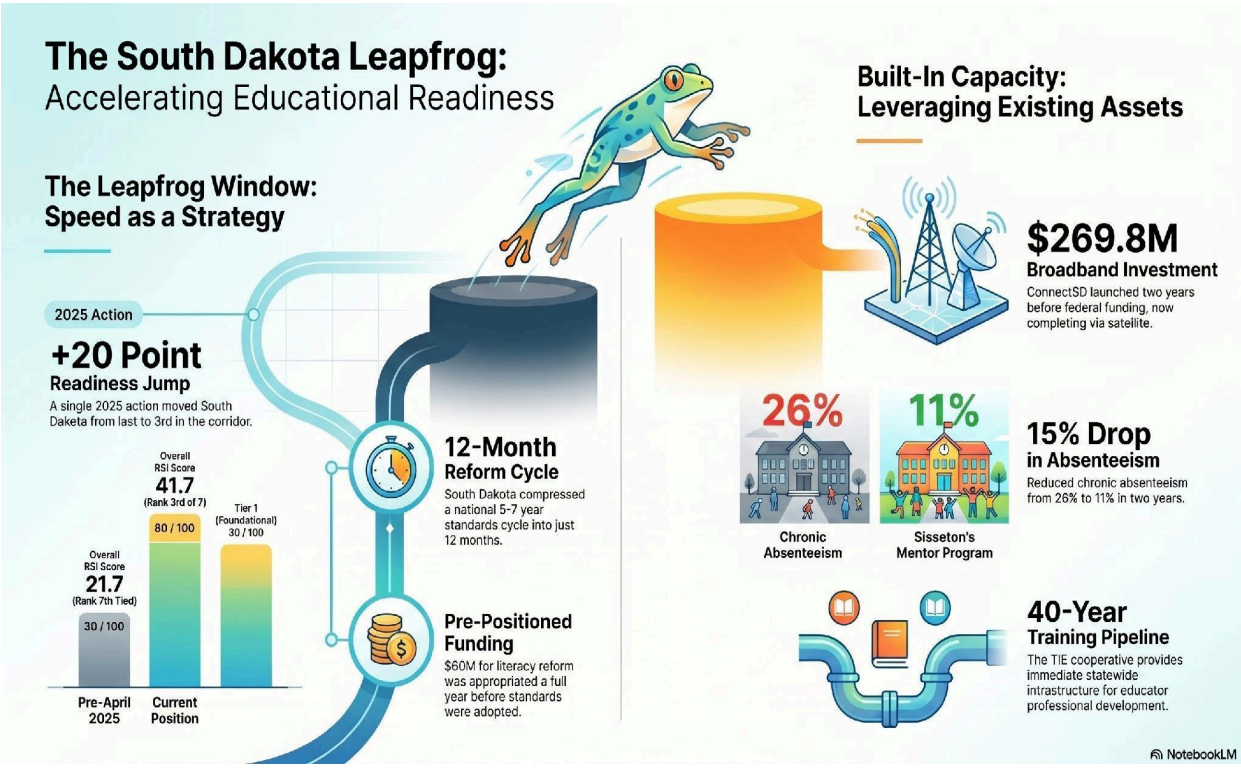

Figure 5. The South Dakota Leapfrog: Accelerating Educational Readiness. OCF / NotebookLM, 2026

The preceding sections establish three things. South Dakota's current Readiness Stack position (Table 1) is third of seven in the corridor, an honest mix of a strong Tier 1 position, a Tier 2 position tied with the corridor's other affordability-constrained states, and a Tier 3 position reflecting recent but partial guidance. South Dakota's trajectory (Table 2 versus Table 1) shows a 20-point RSI gain from a single documented action. And South Dakota's existing infrastructure, ConnectSD, TIE, the optional CS standards, the OSEU framework, the homeschool sector, and community-led models like Sisseton's, provides delivery channels for further gains that do not require building anything new.

Table 3 presents this synthesis as a sequencing table: the status quo trajectory for each remaining gap, and what changes if South Dakota applies the same mechanism documented in Sections IV through IX. These are not point predictions. Where this series' corpus documents an effect size for a specific mechanism, that effect size is cited; where it does not, the table describes direction and the existing channel through which a change would travel, honestly distinguishing demonstrated mechanism from projected outcome.

Readiness Gap	Status Quo Trajectory	If Sequenced Through Existing Infrastructure
Tier 1: Literacy outcomes	Transition year underway (2025-26); first aligned assessment spring 2027	Minnesota's documented SoR-driven improvement is the comparison case; South Dakota used the same mechanism with funding pre-positioned
Tier 3: CS graduation requirement	0 of 7 corridor states require CS for graduation; optional standards adopted April 2025	Code.org/CSforAll documents CS access increases only where graduation requirements exist; a single-session bill is the demonstrated mechanism type
Tier 3: Teacher technology training	Training Index 30 ("thin"), consistent with corridor	TIE's 40-year statewide PD pipeline (TIE26, April 2026) is existing delivery infrastructure; new content can route through it without new infrastructure
Tier 2: Broadband affordability	BEAD allocation (6,992 SD locations) finalized late 2025; construction pending	ConnectSD's satellite pivot (Jan 2026) is a documented technology-neutral completion strategy already in motion for the hardest locations
Tribal land Tier 1: Native attendance	Native absenteeism 51-54% vs. 20% statewide (2022-24)	Sisseton's Check and Connect (26% to 11% in two years) is a documented, working, community-led model available for resourcing elsewhere
Tribal land Tier 3: OSEU adoption	62% voluntary teacher adoption; revised standards available fall 2026; no statewide requirement	Infrastructure-and-resourcing approach (Section IX.C) addresses the documented consultation gap directly, by design rather than mandate

Table 3. Sequencing table: documented status quo trajectory versus the existing-infrastructure pathway for each remaining Readiness Stack gap. Effect sizes cited where documented in this series' corpus; otherwise, direction and channel only.

The throughline across all six rows of Table 3 is the same: in every case, the channel through which a future gain would travel already exists in South Dakota, has been demonstrated to work (for literacy, for broadband, for Sisseton's attendance program), and does not require new institutions. What remains, in each case, is a decision: a graduation requirement, a content

routing decision for TIE's existing pipeline, a resourcing decision for Tribal-led programs. These are the kinds of decisions South Dakota's governance structure, documented in Section VII, is built to make quickly once the decision itself is made.

The window framing is deliberate and should not be read as guaranteed or permanent. Other corridor states are not standing still; Colorado's roadmap and North Dakota's standards-AI connection both predate this paper and represent their own states' mechanisms in motion. The advantage this paper documents is South Dakota's demonstrated speed of execution once a decision is made, not a permanent structural lead. A window, by definition, is a period during which an opportunity is available on more favorable terms than it will be later. South Dakota's task, if it chooses to use this paper, is to make the decisions in Table 3 while the demonstrated capacity to execute them quickly remains a comparative advantage rather than simply a description of how South Dakota happened to do one thing in 2025.

Implications

For Policymakers

The single highest-leverage action available, based on the documented mechanism in Code.org/CSforAll's national finding and South Dakota's own April 2025 demonstration, is a computer science graduation requirement. South Dakota has the optional standards already adopted, a legislative session structure documented in Section VII as well-suited to narrow, well-evidenced bills, and a recent precedent for pre-funding implementation ahead of a formal requirement. The mechanism that moved Tier 1 by 20 points in one meeting is available, unused, for Tier 3.

Beyond the graduation requirement, the highest-value policy action is a routing decision rather than a new program: directing technology-integration professional development content through TIE's existing 40-year conference and training pipeline, rather than standing up a parallel structure. The infrastructure question is already solved; what remains is a content and funding decision of the same kind the legislature has already executed successfully for literacy.

For Funders and Intermediaries

South Dakota's documented strengths and gaps point toward a specific funding posture: resource the channels that already work, rather than building new ones. ConnectSD demonstrates that infrastructure funding paired with a technology-neutral completion strategy reaches remote locations faster than fiber-only approaches. TIE demonstrates that a single statewide professional development infrastructure can carry new content without new institutional overhead. Sisseton's Check and Connect program demonstrates that community-led, relationship-based interventions produce the largest documented attendance gains anywhere in this series, at a fraction of the scale and cost of statewide reforms. Funders seeking the highest return per dollar in South Dakota's K-12 system should look first at scaling

what Sisseton has already proven, in the communities facing the steepest compounding documented in Section IX, before funding new pilot programs elsewhere.

The homeschool and alternative-instruction sector, growing at the fastest rate in the nation, represents an underserved channel for any technology-literacy content funders wish to see reach South Dakota students. Modular, self-paced content designed for this population reaches a meaningfully different and growing share of South Dakota's K-12 population than classroom-based programming alone.

For South Dakota's Nine Tribal Nations and Their Partners

This paper does not presume to make recommendations to sovereign nations about their own educational priorities. What this paper documents, for the benefit of each nation's own decision-making, is threefold: the statewide OSEU framework exists, is voluntary, and is widely but partially adopted; the 2025 revision process drew documented consultation concerns that each nation may wish to weigh in deciding how to engage with the framework going forward; and the Sisseton Check and Connect program is a documented, working model that other nations and districts may find relevant to their own attendance and engagement priorities, available for adaptation on each community's own terms. Where state or federal infrastructure funding, including ConnectSD's continuing broadband work and any future technology-integration funding, reaches Tribal lands, this paper's broader argument is that such funding should be paired with Tribally-led decisions about content and delivery, consistent with the demonstrated effectiveness of community-led models documented in Section IX.

What South Dakota Has to Build On

This section inventories the documented assets this paper has identified, each verified independently for this paper, none of which require new institutions to use.

1. A literacy reform with funding already in motion.

Science of Reading-aligned standards adopted unanimously April 14, 2025, with $6 million in state funding appropriated a year earlier and a $54 million federal grant for five-year implementation. Transition year 2025-26, full implementation 2026-27, assessment spring 2027.

2. Optional computer science standards, adopted the same day.

The foundation for a future graduation requirement already exists and has been through the state standards review process. What remains is the requirement itself, a single-session policy action of the kind South Dakota's legislature is structurally suited to handle.

3. ConnectSD: a self-funded, technology-neutral broadband program in its seventh year.

$269.8 million across 104 projects since 2019, predating federal BEAD funding by two years, now completing remaining connections via satellite as of January 2026.

4. TIE: forty years of statewide professional development infrastructure.

South Dakota's largest educator conference and training pipeline, with a documented history of carrying new instructional priorities, from early classroom computing to customized learning models to Indigenous education resources. New content routes through existing infrastructure.

5. A legislature built for narrow, fast action.

A 40-day (odd years) / 35-day session limit, two readings per chamber, every bill guaranteed a hearing, and a demonstrated willingness to fund outcomes ahead of formal adoption. The mechanism that produced the Tier 1 gain in Section III is reusable.

6. The nation's fastest-growing homeschool and alternative-instruction sector.

143% growth over a decade, 12,433 students and rising, representing both a population that flexible technology-integration pathways would reach by default and a documented preference for non-centralized instructional models that policy design should work with rather than against.

7. A working model for the hardest gap: Sisseton's Check and Connect program.

A 15-percentage-point reduction in high school chronic absenteeism in two years, the largest documented two-year attendance gain anywhere in this series, achieved through a community-based mentor program rather than a statewide reform.

8. The Oceti Sakowin Essential Understandings, available statewide fall 2026.

A curriculum framework covering nine sovereign nations' history, culture, and languages, with documented voluntary adoption by a majority of surveyed teachers, and a documented consultation gap that points directly toward the infrastructure-and-self-determination model described in Section IX.

The Bottom Line

Paper I documented a national K-12 preparation gap that is structural and predates COVID-19. Paper II documented that the Northern Great Plains and Mountain West corridor experiences that gap with greater intensity, and found South Dakota tied for last in the corridor on the variable that mattered most, with no documented reform mechanism in motion.

This paper documents what happened next. On April 14, 2025, in a single meeting, South Dakota's Board of Education Standards adopted the reform that Paper II identified as the one with documented results elsewhere in the corridor, backed by funding the legislature had appropriated a year earlier. Computed against the same index and the same corridor, that single action is worth 20 points, third of seven, ahead of North Dakota and within striking distance of Colorado.

The honest accounting matters as much as the headline. South Dakota's Tier 2 and Tier 3 positions remain where Paper II found them: a real broadband affordability gap, no CS graduation requirement, thin teacher technology training. This paper does not claim those gaps closed. What it claims, and documents, is that the mechanism available to close them, identify the reform with the strongest evidence, fund it through a session built for narrow action, route

delivery through infrastructure that already exists, has just been used successfully, on the record, for the gap that mattered most.

South Dakota has a 40-year-old professional development cooperative, a seven-year-old self-funded broadband program now finishing via satellite, the nation's fastest-growing alternative-instruction sector, and a literacy reform that closed a documented gap in the time between two papers in this series. It also has nine sovereign nations whose students face attendance disparities more than double the state average, and at least one community, Sisseton, that has already shown what closing that kind of gap looks like when the people closest to it design the intervention.

> *The window does not stay open because South Dakota is small. It stays open because South Dakota keeps proving, action by action, that small means it can move. The next decision is a decision. The capacity to execute it quickly is no longer a theory.*

This is the third paper in a three-part series. The first established that the gap is real and national. The second established that the gap compounds regionally and introduced a way to measure it. This one found South Dakota already moving, measured how far, and mapped where the same motion goes next.

Sources Cited

Citation Key	Full Reference
OCF LBtB, 2026	Stratmeyer, A.I. Left Before the Bell: A National Meta-Analysis of K-12 Education in the Age of Automation (v1.0). Observable Compute Foundation. 2026. observablecompute.org
OCF WaU, 2026	Stratmeyer, A.I. Wired and Unprepared: A Regional Meta-Analysis of K-12 Technology Integration in the Northern Great Plains and Mountain West (v1.2). Observable Compute Foundation. 2026. observablecompute.org
SD Searchlight, Apr 2025	South Dakota Education Board Approves English Language Arts Literacy Standards, Science of Reading Method. South Dakota Searchlight. April 14, 2025. southdakotasearchlight.com
SD Searchlight, Dec 2024	Phonics-Based 'Science of Reading' on Track for South Dakota Implementation. South Dakota Searchlight. December 19, 2024. southdakotasearchlight.com
SD Searchlight, Jan 2024	One in Five SD Students Is Chronically Absent. The State Is Awarding Millions to Address It. South Dakota Searchlight. January 5, 2024. southdakotasearchlight.com
SD DOE ELA Standards, 2025	South Dakota English Language Arts Standards, Adopted April 14, 2025. South Dakota Department of Education. doe.sd.gov
SD DOE OSEU, 2025	Oceti Sakowin Essential Understandings and Standards, Adopted April 14, 2025. South Dakota Department of Education. doe.sd.gov
SD DOE OSEU Revision Process	Review: Oceti Sakowin Essential Understandings and Standards Revision Process. South Dakota Department of Education. doe.sd.gov
Lakota Times, 2024	Proposed Changes to Indigenous Standards. Lakota Times. August 2024. lakotatimes.com
Lumos Learning, 2025	South Dakota 2025-26 ELA Standards: Literacy Growth and Assessment Alignment. Lumos Learning. June 2025. lumoslearning.com
Dakota News Now, Oct 2025	SD Department of Education Releases 2024-25 Report Card. Dakota News Now. October 24, 2025. dakotanewsnow.com
Dakota News Now, Oct 2024	Dept. of Education Releases Annual Report Card for South Dakota Schools. Dakota News Now. October 18, 2024. dakotanewsnow.com
SDPB, Oct 2025	Despite Progress, Department of Education Sees Challenges in 2025 Report Card. South Dakota Public Broadcasting. October 26, 2025. sdpb.org
MyKXLG, Aug 2025	Chronic Absenteeism Remains Elevated in South Dakota as RAND Flags National Surge. mykxlg.com. August 20, 2025.
The Daily Republic, 2024	Rural Broadband Project in South Dakota Receives Its Final Allotment of $27 Million. The Daily Republic. August 2024. (via AOL)
KOTA TV, Jan 2026	South Dakota Looks to Space for Final Stretch of High-Speed Internet Access Initiative. KOTA TV. January 14, 2026. kotatv.com
Brander Group, Nov 2025	BEAD Broadband Status: Awards by State, October 2025. Brander Group. November 3, 2025. brandergroup.net
KELO, May 2025	$5 Million for Rural Broadband Internet Cut in SD. KELOLAND. May 20, 2025. keloland.com
SD News Watch, Dec 2025	Has SD Seen the Largest Homeschool Growth of Any State? South Dakota News Watch. December 4, 2025. sdnewswatch.org

KOTA TV, Dec 2025	Homeschooling in South Dakota Trending Upward and May Not Be Slowing Down. KOTA TV. December 30, 2025. kotatv.com
KELOLAND, Feb 2026	Homeschooling Numbers Are on the Rise in SD. KELOLAND. February 11, 2026. keloland.com
BHSSC TIE, 2026	Technology and Innovation in Education (TIE). Black Hills Special Services Cooperative. 2026. bhssc.org
TIE26, 2026	TIE26: 40th Anniversary Conference, April 20-21, 2026. Compass Partners in Learning. compass.bhssc.org
KELOLAND, 2026	S.D. Legislative Session. KELOLAND. 2026. keloland.com
SD Sec. of State	Summary: Legislative Branch. South Dakota Secretary of State. sdsos.gov
SD State Authority	South Dakota State Legislature: Senate, House, and Lawmaking Process. South Dakota State Authority. 2026. southdakotastateauthority.com
SD LRC	South Dakota Legislative Research Council. (Wikipedia, citing Ballotpedia)
SD Blue Book, 2025	Legislative Manual South Dakota 2025. South Dakota Secretary of State. sdsos.gov
SD News Watch, Jan 2026	Fact Brief: Does SD Have One of the Shortest Legislative Sessions? South Dakota News Watch. January 2026. sdnewswatch.org
BroadbandNow, 2025	Rural States Struggling with Affordable Broadband Access: Five States Exceed 20% Affordability Gap. BroadbandNow. March 2026.
Code.org / CSforAll, 2025	2025 State of AI and CS Education. Code.org Advocacy Coalition and CSforAll. December 2025. advocacy.code.org
JHU Homeschool Hub, 2026	Homeschool Growth: 2024-2025. Johns Hopkins Institute for Education Policy. January 2026. education.jhu.edu

Model Reference Appendix

Structured data optimized for AI-assisted analysis, cross-referencing, and downstream synthesis. Schema: ocf_schema_v1.


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Introduces the Readiness Stack Index (RSI), a transparent composite score across the three
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a single April 2025 state board action (mandatory Science of Reading-aligned ELA standards
plus optional CS content standards) moved South Dakota's RSI from a tied-last position
(approximately 22) to third of seven (approximately 42), driven by Tier 1 reform.
Introduces the Leapfrog Window construct: South Dakota's small population, short
citizen-legislature sessions, and demonstrated reform velocity constitute documented
adaptive capacity. Names South Dakota's nine federally recognized Tribal nations
individually and documents both the Native student attendance disparity and a working
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policy. Evidenced empirically by South Dakota's April 2025 standards reform, which moved
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district-level implementation. Transition year is 2025-26, full implementation 2026-27,
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Content Standards ELA page",
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alone raises South Dakota's RSI to approximately 41.7, third of seven behind Minnesota and
Colorado.",
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      "claim": "ConnectSD, South Dakota's state-funded rural broadband program, began with
a $5 million legislative appropriation in 2019, predating federal BEAD funding by two
years, and has deployed $269.8 million across 104 projects as of 2024. As of January 2026,
the program's final unserved locations are being addressed via low Earth orbit satellite
connectivity.",
      "source": "The Daily Republic, August 2024; KOTA TV, January 2026",
      "confidence": 0.92,
      "population": "sd_rural_residents",
      "timeframe": "2019-2026"
    },
    {
      "id": "SF005",
      "claim": "South Dakota's homeschool and alternative-instruction enrollment grew 143%
between 2015-16 and 2023-24, the highest rate of any U.S. state, reaching 12,433 students
in 2024-25 out of approximately 150,000 total K-12 students, or roughly 8.3% of the
school-age population.",
      "source": "Johns Hopkins Institute for Education Policy via SD News Watch, December
2025; KELOLAND, February 2026",
      "confidence": 0.90,
      "population": "sd_k12_students",
      "timeframe": "2015-2025"
    },
    {
      "id": "SF006",
      "claim": "South Dakota's statewide chronic absenteeism rate was 20% in 2024-25,
below the seven-state corridor's typical range, while Native American student chronic
absenteeism reached 44.8% to 54% in the same period, more than double the statewide
rate.",
```

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      "source": "SD DOE Report Card 2024-25 via Dakota News Now, October 2025; SD News
Watch / Searchlight, 2024-2025",
      "confidence": 0.92,
      "population": "sd_k12_students",
      "timeframe": "2022-2025"
    },
    {
      "id": "SF007",
      "claim": "The Sisseton school district's 'Check and Connect' mentor-based
intervention reduced high school chronic absenteeism from 26% (2021-22) to 11% (2023-24),
a 15-point reduction in two years, in a district serving a significant Sisseton-Wahpeton
Oyate population.",
      "source": "South Dakota Searchlight, January 2024",
      "confidence": 0.85,
      "population": "sisseton_sd_students",
      "timeframe": "2021-2024"
    },
    {
      "id": "SF008",
      "claim": "South Dakota's legislature operates under a 40-day (odd years) / 35-day
(even years) constitutional session limit, requires only two readings per chamber (versus
three in many states), and guarantees every introduced bill a committee hearing. The 2024
session appropriated literacy implementation funding more than a year before the standards
it would fund were formally adopted.",
      "source": "SD Secretary of State; South Dakota State Authority; South Dakota
Legislative Research Council; South Dakota Searchlight, December 2024 and April 2025",
      "confidence": 0.90,
      "population": "sd_governance",
      "timeframe": "2024-2026"
    }
  ],
  "what_works": [
    "Pre-positioning implementation funding ahead of formal standards adoption (2024
session funded phonics training before April 2025 standards vote), eliminating the
unfunded-mandate lag",
    "Routing new technology-integration professional development through existing
statewide infrastructure (TIE cooperative, 40 years of operation) rather than building
parallel delivery systems",
    "Mentor-based, relationship-driven attendance interventions (Sisseton Check and
Connect) in communities with strong existing social networks, producing a 15-point
absenteeism reduction in two years",
    "Technology-neutral broadband completion strategy (ConnectSD's pivot to LEO satellite
for final-mile connections), avoiding multi-year fiber buildout timelines for the
hardest-to-reach locations"
  ],
  "what_frameworks_agree_on": [
    "South Dakota's Tier 1 position improved substantially and recently, via a documented
mechanism (Science of Reading reform) that the prior paper in this series identified as
the one that worked elsewhere",
    "South Dakota's Tier 2 and Tier 3 positions remain in the corridor's lower tier,
consistent with Papers I and II; the leapfrog argument is about trajectory and
demonstrated capacity, not current parity",
    "Smaller-population, short-session governance structures carry lower coordination
costs for narrow policy adoption, a documented feature of South Dakota's legislative
design and not unique to education policy",
    "Native American student outcomes in South Dakota diverge sharply from statewide
aggregates across multiple metrics, consistent with the Rural Amplification Effect
documented across the series",
    "Community-based, relationship-driven interventions (Sisseton) can produce attendance
gains at a scale and speed that broader systemic reforms cannot match, and merit
resourcing as a complement to statewide standards work"
  ],
  "causal_chains": {
    "leapfrog_mechanism": [
      "Small population and limited number of school districts reduce the number of
stakeholders required to coordinate on a policy change",
      "Short, constitutionally-limited legislative sessions with guaranteed bill hearings
and two-reading passage compress the time available for a proposal to become law,
rewarding narrow, well-prepared bills",
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      "Pre-positioning funding in an earlier session removes the unfunded-mandate
objection that typically slows standards adoption",
      "Result: a content standards revision that nationally takes 5-7 years (per SD's own
revision cycle documentation) moved from public draft to unanimous adoption in
approximately 12 months"
    ],
    "tier1_rsi_jump": [
      "Pre-2025: no Science of Reading-aligned mandate (Literacy Reform Index = 0),
absenteeism near corridor average (Absenteeism Index = 60), Tier 1 = 30",
      "April 2025: SoR-aligned standards adopted with dedicated funding (Literacy Reform
Index = 100), Tier 1 = 80",
      "Tier 1 change of +50 points drives overall RSI from approximately 21.7 to
approximately 41.7, a 20-point increase, third of seven in the corridor"
    ]
  },
  "series_context": {
    "education_paper_1": "Left Before the Bell: National K-12 meta-analysis (OCF, 2026)",
    "education_paper_2": "Wired and Unprepared: Northern Great Plains and Mountain West
regional analysis (OCF, 2026)",
    "education_paper_3": "Built for This: South Dakota adaptive capacity analysis (this
paper)",
    "prior_workforce_series": "OCF Workforce Readiness Trilogy: The Skills Gap Is Here
v5.1, Already Left Behind v1.0, Growing. And Not Ready. v3.0"
  }
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