

This tool is intended to help teacher preparation program leaders facilitate conversations about data use, creating a common language within organizations and calibrating understanding across team members.

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Deans for Impact Data Diagnostic Tool

Purpose of the diagnostic tool

This tool outlines a developmental journey of a teacher preparation program to become more data-informed. Using this tool provides a structured method to review and describe a program's current use of data, where its areas of strength are, and where areas for growth exist. It illustrates what effective data use for continuous program improvement could look like, providing a roadmap for programs looking to improve their use of data. Because teacher preparation programs are different and operate in different contexts, the development of a program's capacity to use data will not look the same in every place, nor follow this outline perfectly, nor should it. This tool is not intended to suggest that there is a single way to approach data use for continuous improvement within teacher preparation programs, but rather to help deconstruct a complex process into specific checkpoints that our work with teacher preparation programs suggest are important in developing a program's capacity to use data for continuous program improvement.

The tool is divided into four focus sections that our work with teacher preparation programs across the country suggest are important for creating the conditions to use data for continuous program improvement:

- developing shared understanding
- collecting, organizing, and analyzing data
- organizing people to learn
- using data for program improvement

The tool is intended to help teacher preparation program leaders facilitate conversations about data use, creating a common language within organizations and calibrating understanding across team members. This tool is NOT intended for evaluative purposes.

A. ESTABLISHING AN INQUIRY ORIENTATION TOWARDS THE PRACTICE OF DATA USE

<u>Not Yet Started</u>	<u>Emerging</u>	<u>Developing</u>	<u>Sustaining</u>
<ul style="list-style-type: none"> ■ The majority of program personnel view formal data use activities as something they have to do for compliance purposes (e.g., state reporting requirements, accreditation). ■ The majority of program personnel do not consistently engage with and use data to inform program improvement. ■ Program leadership does not prioritize or model the use of data for program improvement. 	<ul style="list-style-type: none"> ■ Some program personnel view formal data use activities as valuable for informing program improvement. ■ Some program personnel engage with and use data to inform program improvement though these efforts are often isolated and inconsistent. ■ Program leadership sometimes prioritizes or models the use of data for program improvement but it is inconsistent or infrequent. 	<ul style="list-style-type: none"> ■ Most program personnel view formal data use activities as valuable for informing program improvement. ■ Most program personnel engage with and use data to inform program improvement and these efforts occur somewhat regularly. ■ Program leadership often prioritizes or models the use of data for continuous program improvement. ■ Data use activities to inform program improvement sometimes encourage collaboration across different program personnel. 	<ul style="list-style-type: none"> ■ Most program personnel view formal data use activities as valuable for informing program improvement. ■ Most program personnel engage with and use data to inform program improvement and these efforts occur regularly. ■ Program leadership consistently prioritizes and models the use of data for continuous program improvement. ■ Data use activities to inform program improvement consistently encourage collaboration across different program personnel.

EVIDENCE

B. COMMON UNDERSTANDING AND INTERPRETATION OF TEACHER PREPARATION COMPETENCIES

Not Yet Started

- Coursework faculty, supervisors, mentor teachers, and school district partners each have their own understanding of competencies important for beginning teachers based on their individual values, beliefs, and priorities.
- Candidates each have their own understanding of competencies important for beginning teachers and the level of mastery expected.

Emerging

- There is agreement among and between some coursework faculty, supervisors, mentor teachers, and school district partners on important competencies for beginning teachers, but there may be disagreement about the level of mastery expected for beginning teachers and/or what these competencies look like in practice.
- These important competencies and the level of mastery expected for beginning teachers are communicated to candidates, but may only be communicated a few times.

Developing

- There is agreement among and between most coursework faculty, supervisors, mentor teachers, and school district partners on important competencies for beginning teachers, but there may be disagreement about the level of mastery expected for beginning teachers and/or what these competencies look like in practice.
- These important competencies and the level of mastery expected for beginning teachers are communicated consistently to candidates.

Sustaining

- There is agreement among and between coursework faculty, supervisors, mentor teachers, and school district partners on important competencies for beginning teachers, the level of mastery expected for beginning teachers, and what these competencies look like in practice. The competencies and level of mastery expected are regularly revisited.
- These important competencies and the level of mastery expected for beginning teachers are known and can be articulated by all candidates.

EVIDENCE

C. OBSERVATIONS TO INFORM COMMON UNDERSTANDING

Not Yet Started

- Program leadership does not communicate to program personnel that observations of candidates are an important way to develop and sustain common understanding and interpretation of effective candidate practice across faculty and staff.
- Program personnel that teach coursework focus on candidate performance solely in the courses that they teach.

Emerging

- Program leadership team communicates to program personnel that observation of candidate practice is an important way to develop and sustain common understanding and interpretation of effective candidate practice.
- Few program personnel outside of those responsible for directly supervising student teaching observe candidate practice either in classroom settings or by reviewing video.

Developing

- Program leadership team communicates to program personnel that observation of candidate practice is an important way to develop and sustain common understanding and interpretation of effective candidate practice.
- Some program personnel outside of those responsible for directly supervising student teaching observe candidate practice either in classroom settings or by reviewing video.

Sustaining

- Program leadership team communicates to program personnel that observation of candidate practice is an important way to develop and sustain common understanding and interpretation of effective candidate practice.
- Most program personnel outside of those responsible for directly supervising student teaching observe candidate practice either in classroom settings or by reviewing video.

EVIDENCE

D. STRUCTURES TO ENSURE COMMON UNDERSTANDING IN PRACTICE

Not Yet Started	Emerging	Developing	Sustaining
<ul style="list-style-type: none"> Teacher educators use various rubrics to measure candidate instructional skill across the program. Teacher educators do not discuss expectations for candidates and trends in candidate performance. 	<ul style="list-style-type: none"> A common rubric to measure candidate instructional skill is used, but may not reflect the agreed-upon competencies. Teacher educators rarely discuss expectations for candidates and trends in candidate performance. When conversations do occur, they may focus on logistics or on issues of particular candidates. 	<ul style="list-style-type: none"> A common rubric to measure candidate instructional skill is used, and the rubric reflects the agreed-upon competencies. Teacher educators regularly discuss expectations for candidates and trends in candidate performance, but this happens informally. Program leadership makes time to develop and sustain common understanding and interpretation of teacher preparation competencies between coursework faculty, supervisors, mentor teachers, and school district partners, though this is inconsistent or infrequent. 	<ul style="list-style-type: none"> A common rubric to measure candidate instructional skill is used, and the rubric reflects the agreed-upon competencies. The common rubric is used consistently by all who support candidates in the field. There are formal structures in place for teacher educators to regularly discuss expectations for candidates and trends in candidate performance. Program leadership consistently makes time to develop and sustain common understanding and interpretation of teacher preparation competencies between coursework faculty, supervisors, mentor teachers, and school district partners.

EVIDENCE

A. DATA COLLECTED STRATEGICALLY

<u>Not Yet Started</u>	<u>Emerging</u>	<u>Developing</u>	<u>Sustaining</u>
<ul style="list-style-type: none"> Only those responsible for data collection know the data collection procedures and these may vary year to year. Data may be collected due to historical needs (e.g., previous research, grant-funded activities, etc.), rather than the current needs of the program. Program is primarily collecting data for compliance purposes such as accreditation, program approval, or mandated federal, state, or institutional reporting. 	<ul style="list-style-type: none"> Some of the program's data collection procedures are standardized and well-documented, mapping out what data is being collected, by whom, and when. Rationale for collection of each data source has not been clearly articulated. Program is collecting data to answer ad hoc questions only. 	<ul style="list-style-type: none"> Program's data collection procedures are standardized and well-documented, mapping out what data is being collected, by whom, and when. Rationale for collection of each data source has been clearly articulated. Program is collecting data aligned to defined inquiry questions. 	<ul style="list-style-type: none"> Program's data collection procedures are standardized and well-documented, mapping out what data is being collected, by whom, and when, and are routinely revisited. Rationale for collection of each data source has been clearly articulated, and is routinely revisited. Program is collecting data aligned to defined inquiry questions, and these inquiry questions and the aligned data are routinely revisited.

EVIDENCE

B. HIGH-QUALITY DATA FROM MULTIPLE SOURCES

<u>Not Yet Started</u>	<u>Emerging</u>	<u>Developing</u>	<u>Sustaining</u>
<ul style="list-style-type: none"> Program collects information for program monitoring using internally developed tools that may not have evidence of validity or reliability. Program does not train and calibrate observers of candidate performance to ensure reliability and validity of observer scores and/or does not use multiple observers/observations. 	<ul style="list-style-type: none"> Program collects and uses few sources of high quality data, relying on data of inconsistent quality to monitor ongoing performance. Program trains, but does not calibrate observers of candidate performance to ensure reliability and validity of observer scores, and/or does not use multiple observers/observations. 	<ul style="list-style-type: none"> Program collects and uses multiple sources of data, including measures of program impact, most of which are high quality, to monitor ongoing performance. Program trains and occasionally calibrates observers of candidate performance to ensure reliability and validity of observer scores and uses multiple observers/ observations, but this happens only informally. 	<ul style="list-style-type: none"> Program collects and uses multiple sources of high-quality data including measures of program impact to monitor ongoing performance. Program regularly trains and calibrates observers of candidate performance through formal structures to ensure reliability and validity of observer scores and uses multiple observers/observations.

EVIDENCE

C. DEDICATED PERSONNEL TIME TO COLLECT, ORGANIZE, AND ANALYZE DATA

<u>Not Yet Started</u>	<u>Emerging</u>	<u>Developing</u>	<u>Sustaining</u>
<ul style="list-style-type: none"> ■ Programs rely solely on program personnel with other competing commitments to oversee the collection, organization, and analysis of data. 	<ul style="list-style-type: none"> ■ Program leadership has invested in dedicated personnel time to oversee the collection, organization, and analysis of data, but this may not be sufficient to meet the needs of the organization. ■ Due to limited capacity, individuals responsible for overseeing data collection and analysis are primarily reactive in ensuring data systems and reports are responsive to changing program needs over time. ■ Individuals responsible for overseeing data collection and analysis rarely have capacity to support program personnel with understanding, interpreting, and making use of available data for program improvement. 	<ul style="list-style-type: none"> ■ Program leadership has invested sufficiently in dedicated personnel time to oversee the collection, organization, and analysis of data. ■ Individuals responsible for overseeing data collection and analysis sometimes have the capacity to be proactive in ensuring data systems and reports are responsive to changing program needs over time. ■ Individuals responsible for overseeing data collection and analysis sometimes have the capacity to support program personnel with understanding, interpreting, and making use of available data for program improvement. 	<ul style="list-style-type: none"> ■ Program leadership has invested sufficiently in dedicated personnel time to oversee the collection, organization, and analysis of data. ■ Individuals responsible for overseeing data collection and analysis regularly have the capacity to be proactive about ensuring data systems and reports are responsive to changing program needs over time. ■ Individuals responsible for overseeing data collection and analysis consistently have the capacity to support program personnel with understanding, interpreting, and making use of available data for program improvement.

EVIDENCE

D. DATA AVAILABLE AND ACCESSIBLE TO MANAGE PROGRAMS*

Not Yet Started

- Program data reside mostly on paper or on individual spreadsheets.
- Only a few people are responsible for data collection and have access to these data.

Emerging

- Some data is housed centrally, but much of the data resides in disparate systems and is rarely linked together.
- Access to program data are granted to some individuals, but not in a timely manner.

Developing

- Data reside in a few different places, but can be linked by systems or staff members.
- Data systems provide appropriate access to program data to program personnel. Program data are generally available in a timely manner.

Sustaining

- Majority of program data are collected, stored, and reported through a centralized system.
- Data systems consistently provide appropriate access to program data to program personnel. Program data are available in real time, with tools to easily disaggregate and manipulate data.

* Informed by Strategic Data Project "The Strategic Use of Data Rubric"

EVIDENCE

E. DATA PRESENTED EFFECTIVELY

Not Yet Started

- Program data are not displayed or presented publicly.

Emerging

- Program data are displayed in ways that are visually over-complicated or incomplete, making the work of interpreting the data onerous for program personnel.
- Data presentation does not include preliminary disaggregation and analysis, making it difficult to identify trends and areas for improvement.

Developing

- Program data are sometimes displayed in ways that are visually effective, making the work of interpreting the data more manageable for program personnel.
- Data presentation sometimes includes preliminary disaggregation and analysis, making it easy to identify trends and areas for improvement.

Sustaining

- Program data are consistently displayed in ways that are visually effective, making the work of interpreting the data more manageable for program personnel.
- Data presentation consistently includes preliminary disaggregation and analysis, making it easy to identify trends and areas for improvement.

EVIDENCE

A. DEFINED ROLES AND EXPECTATIONS FOR DATA USE

<u>Not Yet Started</u>	<u>Emerging</u>	<u>Developing</u>	<u>Sustaining</u>
<ul style="list-style-type: none"> ■ The use of data is viewed as the purview of only a few individuals in the program. ■ Program leadership has not explicitly prioritized using data for program improvement. 	<ul style="list-style-type: none"> ■ There are clear definitions for roles and expectations in using data for program improvement, but these may be limited to a few program personnel who have primary responsibility for this work. There is little clarity around roles and expectations for how others across roles and levels should use data for program improvement. ■ Program leadership makes clear that using data for program improvement is a priority, but has not made tradeoffs to free up program personnel time to learn from data. 	<ul style="list-style-type: none"> ■ There are clear definitions for roles and expectations in using data for program improvement across a range of program personnel and across a range of levels of the institution, but they may not be incorporated into job descriptions. ■ Program leadership makes clear that using data for program improvement is a priority, and makes explicit the tradeoffs that have been made to free up program personnel time to learn from data. ■ The work of using data for program improvement is occasionally rewarded and recognized. 	<ul style="list-style-type: none"> ■ There are clear definitions for roles and expectations in using data for program improvement across a range of program personnel and across a range of levels of the institution, and they are incorporated into job descriptions. These roles and expectations are regularly revisited. ■ Program leadership makes clear that using data for program improvement is a priority, and makes explicit the tradeoffs that have been made to free up program personnel time to learn from data. ■ The work of using data for program improvement is consistently recognized and discussed in meetings with all program personnel. ■ Program leadership consistently rewards those using data for program improvement via resource allocation and through performance and promotion procedures.

EVIDENCE

B. PROTECTED TIME PROVIDED TO COLLABORATIVELY REVIEW DATA AND WORK ON PROGRAM IMPROVEMENT

<u>Not Yet Started</u>	<u>Emerging</u>	<u>Developing</u>	<u>Sustaining</u>
<ul style="list-style-type: none"> Faculty meetings primarily focus on administrative topics. 	<ul style="list-style-type: none"> Program personnel have occasional, scheduled time to review program data and discuss program improvement. This time often gets used for other purposes. 	<ul style="list-style-type: none"> Program personnel have regular, scheduled time to review program data and discuss program improvement. This time sometimes gets used for other purposes, but is largely focused on reviewing data for program improvement. 	<ul style="list-style-type: none"> Program personnel have regular, scheduled time to review program data and discuss program improvement in program and course-alike teams, including discussion of specific courses, assignments, and assessments. This time is protected by program leadership from other uses and leaders make clear this is a priority by attending meetings to discuss data and work on program improvement.

EVIDENCE

C. PLANNED AND STRUCTURED COLLABORATIVE REVIEWS

Not Yet Started

- Meetings to discuss program data are held, but there is no clear ownership for the agenda and process.

Emerging

- Meetings to discuss program data are not carefully planned, with weak facilitation.
- Discussion protocols and norms are not consistently used when looking at data collectively.

Developing

- Meetings to discuss program data sometimes have clear purpose, well-planned agenda, and strong facilitation.
- Discussion protocols and norms are established and sometimes used when looking at data to encourage collaborative investigation, to reduce power dynamics among program personnel and ensure the expertise of each participant is respected, to focus on evidence, and ensure an articulation of next steps based on data.
- Program leadership occasionally models how to build trust and draw on the expertise of all program personnel, how to focus on data and evidence to support claims, and how to move past reflection based on data to think about action steps.

Sustaining

- Meetings to discuss program data consistently have clear purpose, well-planned agenda, and strong facilitation.
- Discussion protocols and norms are established and consistently used when looking at data to encourage collaborative investigation, to reduce power dynamics among program personnel and ensure the expertise of each participant is respected, to focus on evidence, and ensure an articulation of next steps based on data. Protocols and norms are regularly revisited and revised.
- Program leadership consistently models how to build trust and draw on the expertise of all program personnel, how to focus on data and evidence to support claims, and how to move past reflection based on data to think about action steps.

EVIDENCE

D. EXTERNAL STAKEHOLDERS INVOLVED

Not Yet Started

- Program data is looked at internally.

Emerging

- Appropriate external stakeholders are occasionally provided data on the program, but not included in discussions to analyze or interpret the data.

Developing

- Appropriate external stakeholders are regularly provided data on the program, and included in collaborative discussions to analyze or interpret the data.
- Program leadership occasionally reminds program personnel of the importance of engaging external stakeholders in discussions of candidate data and models this behavior through conversations with external stakeholders grounded in data.

Sustaining

- Appropriate external stakeholders are regularly provided data on the program, and included in discussions to analyze or interpret the data. The purpose, structure, and content of these discussions are routinely revisited by the included stakeholders.
- Program leadership consistently reminds program personnel of the importance of engaging external stakeholders in discussions of candidate data and models this behavior through conversations with external stakeholders grounded in data.

EVIDENCE

A. MONITOR OVERALL PROGRAM PERFORMANCE

Not Yet Started	Emerging	Developing	Sustaining
<ul style="list-style-type: none"> There is no formal program evaluation or review process. 	<ul style="list-style-type: none"> Program review process is loosely defined. Evaluations of program performance lack clearly defined expectations and measurable outcomes. Reviews of program progress are conducted ad hoc. 	<ul style="list-style-type: none"> Program review process is clearly defined. Evaluations of program performance are based on clearly defined expectations and measurable outcomes. Reviews of program progress are conducted on a recurring basis, but this happens infrequently. 	<ul style="list-style-type: none"> Program review process is clearly defined and this process is routinely revisited. Evaluations of program performance are based on clearly defined expectations and measurable outcomes, and these expectations and outcomes are routinely revisited. Reviews of program progress are conducted on a regular and recurring basis.

EVIDENCE

B. REPEATED CYCLES FOR CONTINUOUS IMPROVEMENT

Not Yet Started	Emerging	Developing	Sustaining
<ul style="list-style-type: none"> ■ Focus areas for improvement are determined based on the opinions of individual program personnel or program leadership. ■ Interventions are undertaken on an ad hoc basis. ■ Goals for improvement are not set, and assessments to measure progress are not selected. ■ Results are not tracked or reviewed. 	<ul style="list-style-type: none"> ■ Data are looked at by select program personnel to identify areas of strengths and weaknesses in the program. Focus area(s) for improvement are selected, but few program personnel pay attention to the focus area(s). ■ Interventions are selected to address focus area(s) for improvement. ■ Goals for improvement are set but they are not aligned to focus area(s) for improvement, and assessments to measure progress are not selected. ■ Reviews of progress toward goals are conducted infrequently. ■ The improvement cycle (from data review, selection of focus areas and interventions, implementation and monitoring, and review of progress) happens occasionally. 	<ul style="list-style-type: none"> ■ Program data are looked at by designated teams to identify areas of strengths and weaknesses in the program. Focus area(s) for improvement are intentionally selected; some program personnel pay attention to the focus area(s). ■ Interventions are strategically selected to address focus area(s) for improvement. ■ Goals for improvement are set and they are aligned to focus area(s) for improvement; assessments to measure progress are selected, but not intentionally. ■ Reviews of progress towards goals are conducted regularly and consistently. ■ The improvement cycle (from data review, selection of focus areas and interventions, implementation and monitoring, and review of progress) happens regularly, with at least two improvement cycles occurring within an academic year. 	<ul style="list-style-type: none"> ■ Program data are reviewed by designated teams to identify areas of strengths and weaknesses in the program related to the focus area(s) for improvement. Focus area(s) for improvement are intentionally selected; all program personnel pay attention to the focus area(s). ■ Interventions are strategically selected based on data and research to address focus area(s) for improvement. ■ Goals for improvement are set and they are aligned to focus area(s) for improvement; assessments to measure progress are intentionally selected. ■ Reviews of progress towards goals are conducted regularly and consistently, and learnings are used to inform future improvement cycles. ■ This improvement cycle (data review, selection of focus areas and interventions, implementation and monitoring, and review of progress) happens regularly, with three or more improvement cycles occurring within a year. ■ The work is distributed across leaders at different levels, broadening the group of people involved in learning from data, and drawing on the interests and expertise of program personnel.

EVIDENCE

Appendix A.

Suggested use of the tool

- Share a copy of this tool with each individual you want to participate in the diagnostic process.
- Have each person read through the entire diagnostic tool below. In each row, highlight the Stage of Development (Not Yet Started, Emerging, Developing, Sustaining) that best describes the organization at this moment in time. They may choose to highlight words or phrases from more than one stage in a row. Use the Evidence box to record evidence and rationale.
- As a group, convene to share each person's diagnosis, discussing areas where people in the group marked different stages to understand different perspectives. Identify areas of strength, and areas for growth - particularly areas where the organization wants to make specific progress in the next 3-6 months.

Appendix B.

The development of the tool

As we have worked with leaders of educator-preparation programs, one question comes up again and again: "How does a program build the culture, process, systems and structures to make improvements to programs?"

We set out to investigate this question, visiting 17 programs across the country over the last two years, speaking with candidates, program leaders, faculty, staff, and district partners, and observing program work in action. At the same time, we examined existing research and tools, both within educator preparation and beyond. In particular, we learned from the work of Strategic Data Project, Datawise, and TPI-US. The site visits and our research surfaced several themes that seemed important to programs that had begun to see improvement in this area:

- developing shared understanding
- collecting, organizing, and analyzing data
- organizing people to learn
- using data for program improvement

We drafted this tool as a way to describe a continuum of organizational development around each of these themes. We have gotten feedback from 50+ program leaders who have engaged with this tool. This feedback was carefully considered and, when appropriate, incorporated into new iterations of the tool. We are continuing to refine the tool based on ongoing feedback from users.

Glossary of Terms

The data diagnostic tool assumes that those using the tool have shared understanding related to several key terms. Below we provide definitions for these terms based on insights generated from our work with educator-preparation programs across the country. Definitions for some of these terms may need to be refined to ensure they are relevant in your context -- those terms are denoted with an *.

- **Teacher educators*** – A teacher educator may be anyone within the program that has teaching or supervisory responsibilities for teacher candidates (e.g., coursework instructors, supervisors, cooperating teachers).
- **Inquiry question** – An inquiry question is the question that helps focus and guide improvement efforts, providing a lens for data collection, interpretation, and action. An inquiry question is: 1) focused on candidate learning, performance, and/or outcomes; 2) relevant and important to teacher education stakeholders; 3) answerable with programmatic data that can reasonably be collected; 4) defined by specific parameters (e.g., population, timeframe); 5) clearly defined using terms to ensure common understanding across teacher education stakeholders; 6) intended to shed light on an issue for which the answer is not already known.
- **High quality data** – High quality data are data generated using instruments and/or methods that are considered valid, reliable, and useful for the intended purpose.
- **Program impact measures*** – Program impact measures may include P-12 student learning outcomes, teacher evaluations, observations of teaching effectiveness, employer and completer satisfaction, and retention.
- **Program data** – Program data include relevant quantitative and qualitative data collected from current and former teacher candidates at enrollment, while progressing through the program, and following graduation from the program that may be used to better understand teacher candidate knowledge and skills or program performance for the purpose of informing continuous improvement. This might include data on teacher candidate academic performance (i.e., GPA, edTPA scores, licensure assessment scores) and demographics (i.e., gender, race/ethnicity, age), key program assessments, observations of student teaching, program impact measures or other relevant data sources.
- **Program improvement** – A continuous, ongoing effort to achieve measurable improvements in teacher candidate readiness and performance through systematic changes in program design, delivery, and content. This includes a continuous process of gathering program data, analyzing this information to identify areas of strength and areas for growth, making adjustments to generate improvements, and assessing the efficacy of those adjustments for improving teacher candidate readiness and program performance.
- **Program personnel** – Program personnel includes all faculty, program staff, teacher educators – including supervisors and program leadership.
- **Program leadership*** – Program leadership may include deans, associate/assistant deans, department chairs, program directors, directors of clinical and field experience, directors of data and assessment, and/or other faculty and staff involved in program leadership.
- **External stakeholders*** – External stakeholders may include school district partners, alumni, and other non-program personnel or organizations with whom the program has a relationship with related to the initial training and/or ongoing development of current and former teacher candidates.

References

While not an exhaustive list, these are the resources that most directly informed the development of the Deans for Impact Data Diagnostic Tool ©.

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