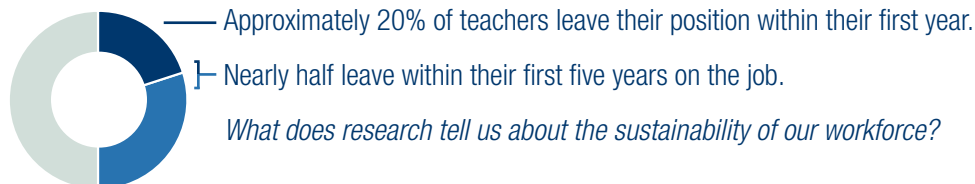


Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Alabama and Escambia County Schools

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	750,923	4,065
Total number of teachers	1,297,538	42,022	268
% Inexperienced ¹	18.2%	10.2%	14.3%
% Uncertified	8.2%	7.7%	10.6%
% Teaching out of field	11.9%	12.2%	29.0%
Teacher attrition rate	18.8%	--	--
Total number of prep program completers	52,963	2,155	--
% Prep program completers from traditional pathways	62%	79%	--
% Prep program completers from non-traditional pathways	38%	21%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

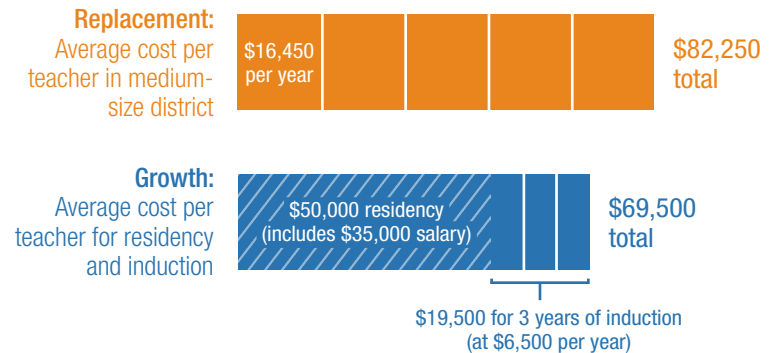
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

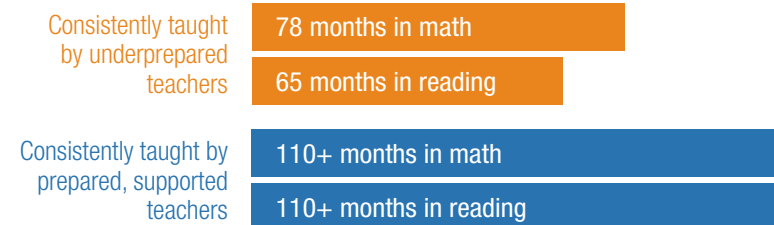
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

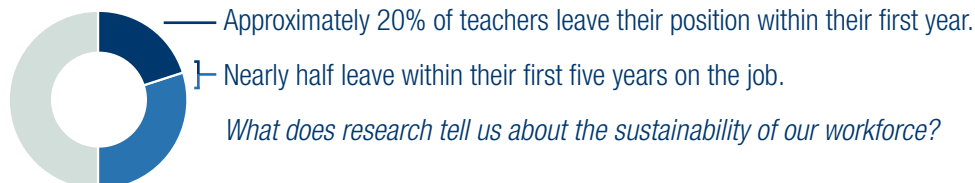
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Arkansas and Jessieville School District

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	493,130	806
Total number of teachers	1,297,538	38,815	58
% Inexperienced ¹	18.2%	18.6%	12.1%
% Uncertified	8.2%	10.4%	5.2%
% Teaching out of field	11.9%	4.7%	6.9%
Teacher attrition rate	18.8%	25.6%	--
Total number of prep program completers	52,963	1,948	--
% Prep program completers from traditional pathways	62%	61%	--
% Prep program completers from non-traditional pathways	38%	39%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

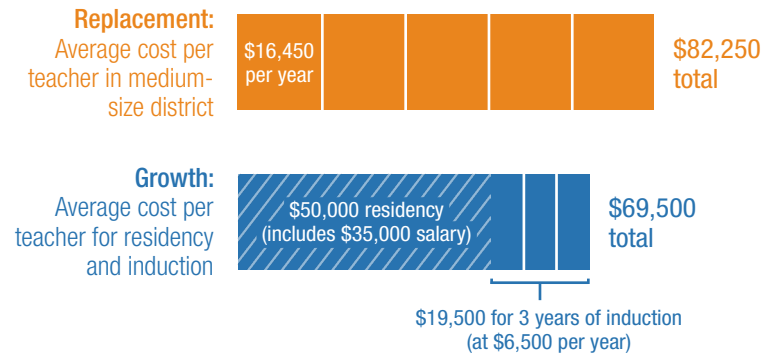
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

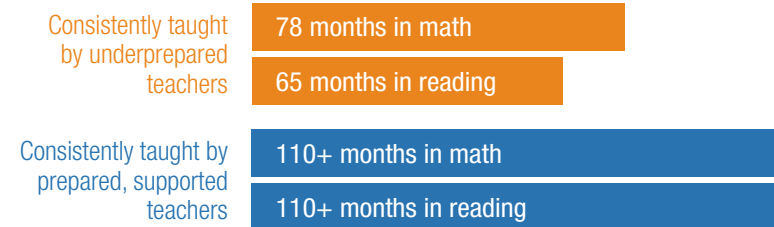
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

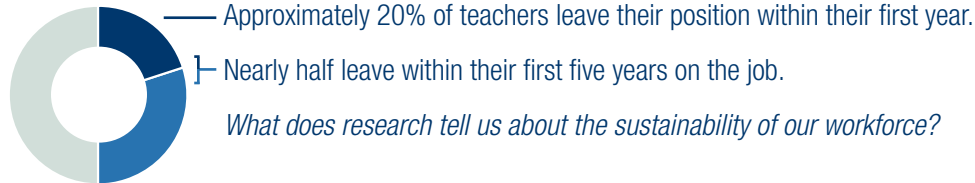
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Delaware and Capital School District

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	141,465	6,396
Total number of teachers	1,297,538	9,991	446
% Inexperienced ¹	18.2%	17.9%	28.0%
% Uncertified	8.2%	2.5%	4.3%
% Teaching out of field	11.9%	40.7%	41.8%
Teacher attrition rate ²	18.8%	18.0% overall	27.5% overall
Total number of prep program completers	52,963	494	--
% Prep program completers from traditional pathways	62%	78%	--
% Prep program completers from non-traditional pathways	38%	22%	--

¹ *Inexperienced* — Regionally defined as teachers with 3 years of experience or less. Delaware defines this as 4 years of experience or less.

² Delaware distills teacher attrition data by experience level. The statewide attrition rate was 24.8% among early-career teachers and 16.4% among experienced teachers with 5 years of experience or more. The districtwide attrition rate was 39.6% among early-career teachers and 24.7% among experienced teachers.

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

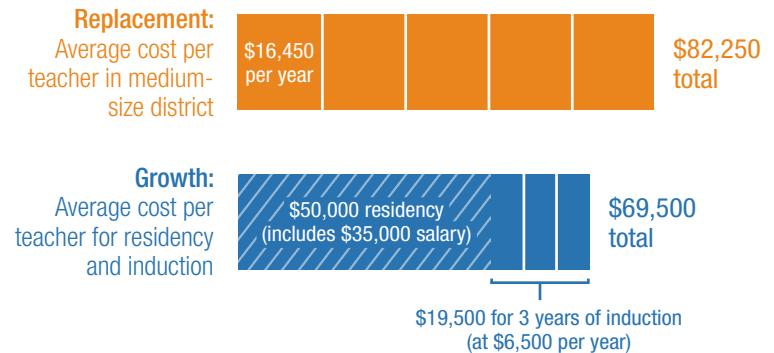
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

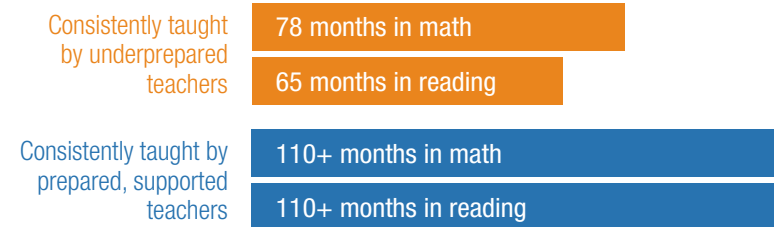
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

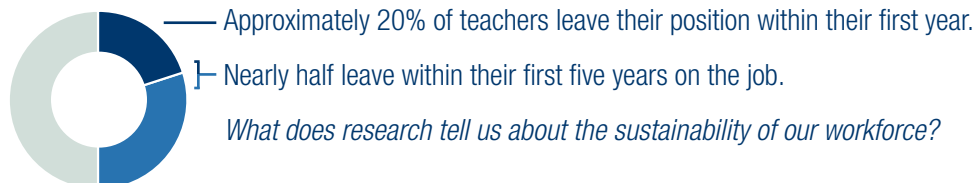
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Florida and Leon County School District

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	2,870,527	32,212
Total number of teachers	1,297,538	156,787	2,318
% Inexperienced ¹	18.2%	30.2%	29.1%
% Uncertified	8.2%	14.2%	14.0%
% Teaching out of field	11.9%	9.3%	11.5%
Teacher attrition rate	18.8%	--	--
Total number of prep program completers	52,963	4,327	--
% Prep program completers from traditional pathways	62%	57%	--
% Prep program completers from non-traditional pathways	38%	43%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

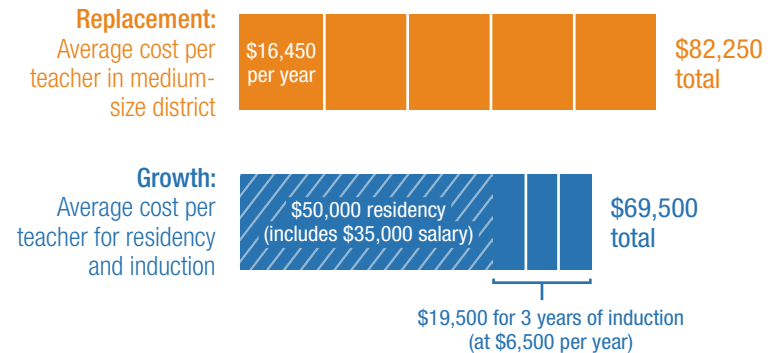
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

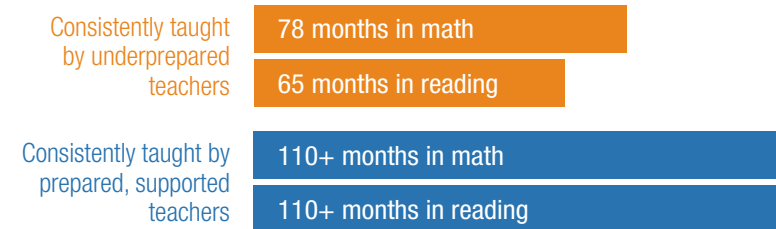
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

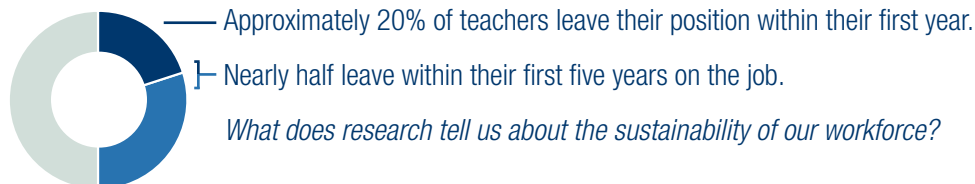
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Georgia and Atlanta Public Schools

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	1,750,972	55,277
Total number of teachers	1,297,538	121,301	3,863
% Inexperienced ¹	18.2%	24.0%	43.0%
% Uncertified	8.2%	8.0%	11.0%
% Teaching out of field	11.9%	11.0%	21.0%
Teacher attrition rate	18.8%	10.8%	27.0%
Total number of prep program completers	52,963	4,221	--
% Prep program completers from traditional pathways	62%	82%	--
% Prep program completers from non-traditional pathways	38%	18%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

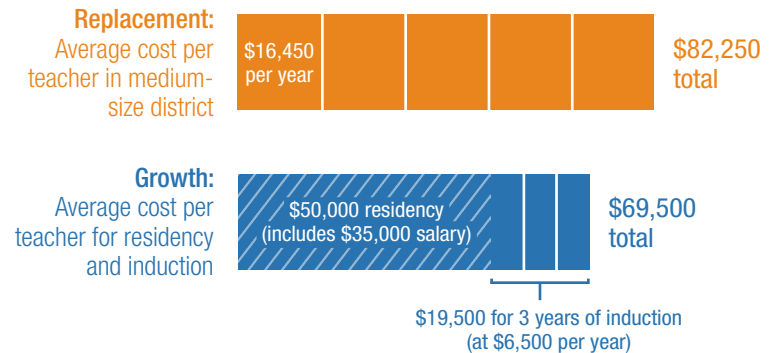
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

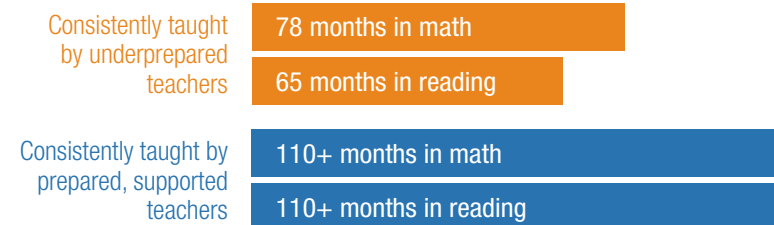
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

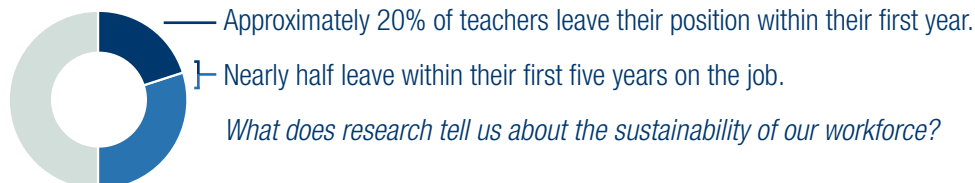
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Kentucky and Franklin County Schools

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	660,029	5,847
Total number of teachers	1,297,538	43,023	415
% Inexperienced ¹	18.2%	21.0%	27.1%
% Uncertified	8.2%	2.7%	2.4%
% Teaching out of field	11.9%	4.5%	0.0%
Teacher attrition rate	18.8%	24.9%	34.9%
Total number of prep program completers	52,963	2,770	--
% Prep program completers from traditional pathways	62%	59%	--
% Prep program completers from non-traditional pathways	38%	41%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

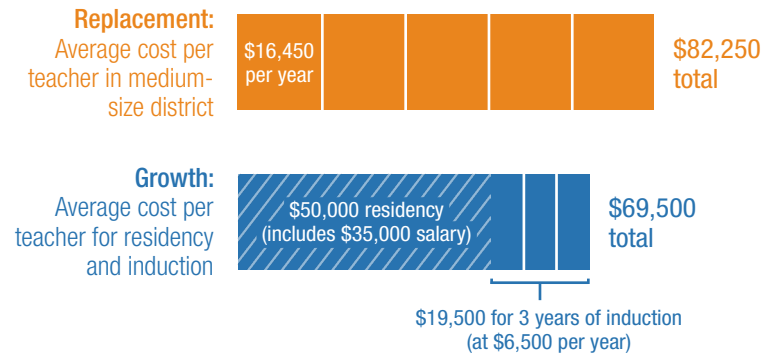
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

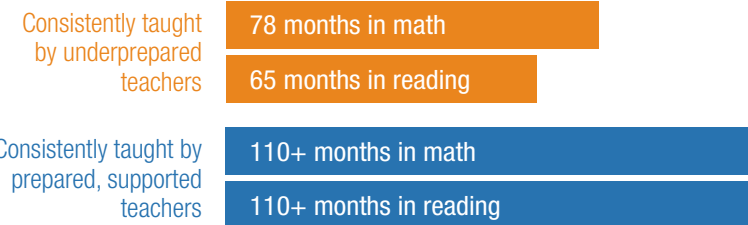
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

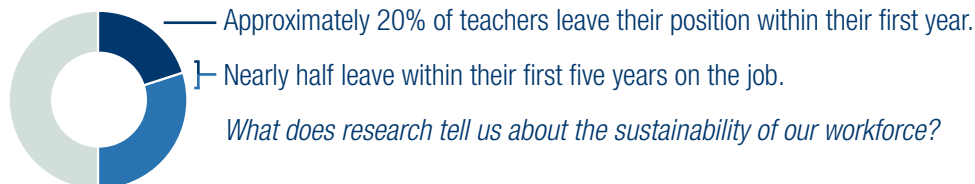
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Louisiana and Central Community School System

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	718,145	4,839
Total number of teachers	1,297,538	41,110	277
% Inexperienced ¹	18.2%	16.0%	12.0%
% Uncertified	8.2%	4.0%	1.0%
% Teaching out of field	11.9%	16.0%	14.0%
Teacher attrition rate	18.8%	15.0%	--
Total number of prep program completers	52,963	1,813	--
% Prep program completers from traditional pathways	62%	37%	--
% Prep program completers from non-traditional pathways	38%	63%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

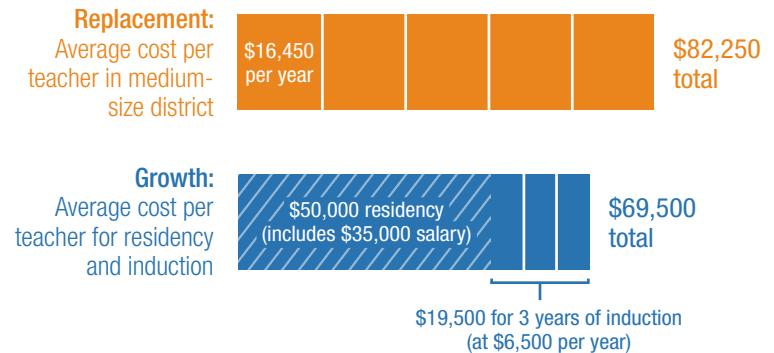
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

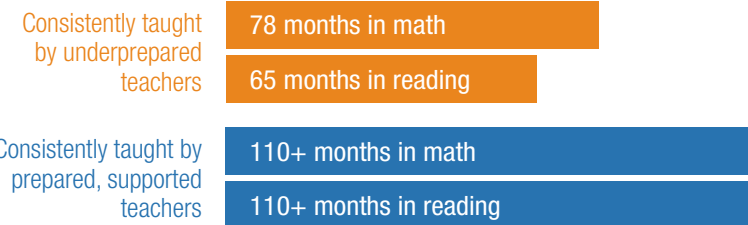
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

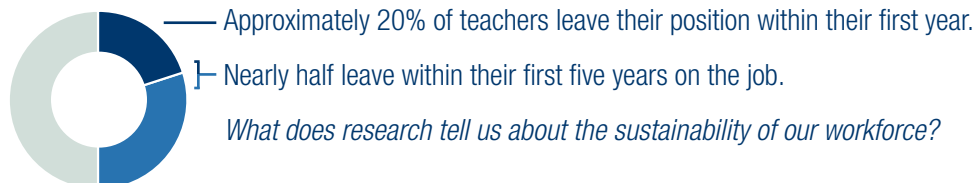
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Maryland and Baltimore County Public Schools

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	889,960	111,083
Total number of teachers	1,297,538	62,236	9,834
% Inexperienced ¹	18.2%	16.6%	22.0%
% Uncertified	8.2%	8.2%	12.4%
% Teaching out of field	11.9%	11.9%	14.9%
Teacher attrition rate	18.8%	14.5%	13.8%
Total number of prep program completers	52,963	1,768	--
% Prep program completers from traditional pathways	62%	89%	--
% Prep program completers from non-traditional pathways	38%	11%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

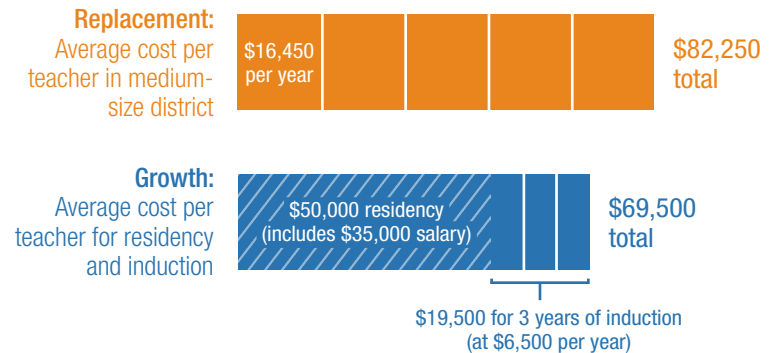
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

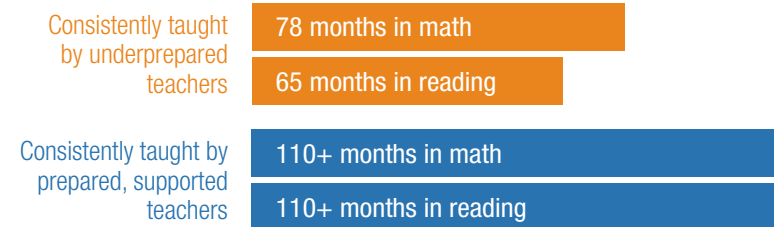
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

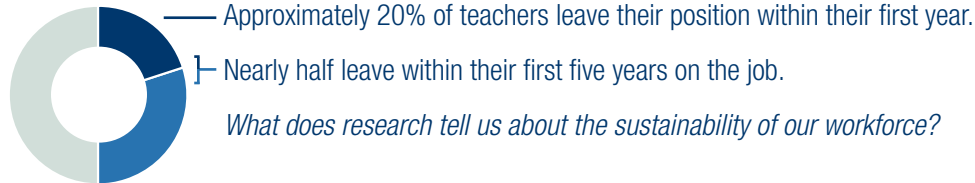
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Mississippi and Jackson Public School District

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	440,285	18,710
Total number of teachers	1,297,538	33,768	1,356
% Inexperienced ¹	18.2%	25.2%	35.9%
% Uncertified	8.2%	4.7%	14.9%
% Teaching out of field	11.9%	3.3%	2.9%
Teacher attrition rate	18.8%	23.3%	--
Total number of prep program completers	52,963	2,332	--
% Prep program completers from traditional pathways	62%	53%	--
% Prep program completers from non-traditional pathways	38%	47%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

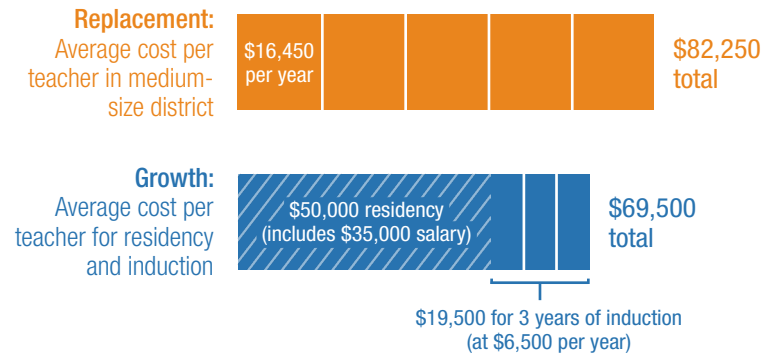
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

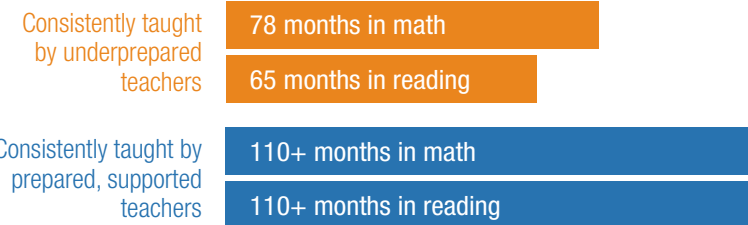
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

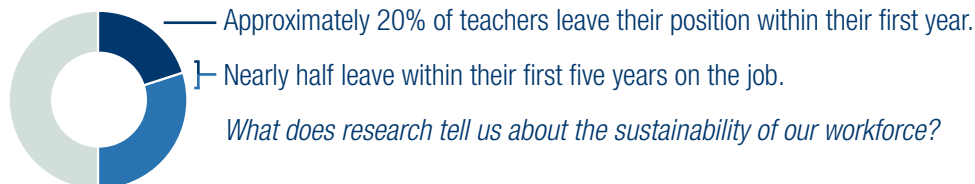
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: North Carolina and Chapel-Hill Carrboro City Schools

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	1,541,722	11,371
Total number of teachers	1,297,538	99,980	809
% Inexperienced ¹	18.2%	15.1%	9.1%
% Uncertified	8.2%	5.9%	3.8%
% Teaching out of field	11.9%	--	--
Teacher attrition rate ²	18.8%	11.5% overall	11.0% overall
Total number of prep program completers	52,963	4,369	--
% Prep program completers from traditional pathways	62%	66%	--
% Prep program completers from non-traditional pathways	38%	34%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

² North Carolina distills teacher attrition data by experience level. The statewide attrition rate was 15.1% among early-career teachers and 11.0% among experienced teachers.

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

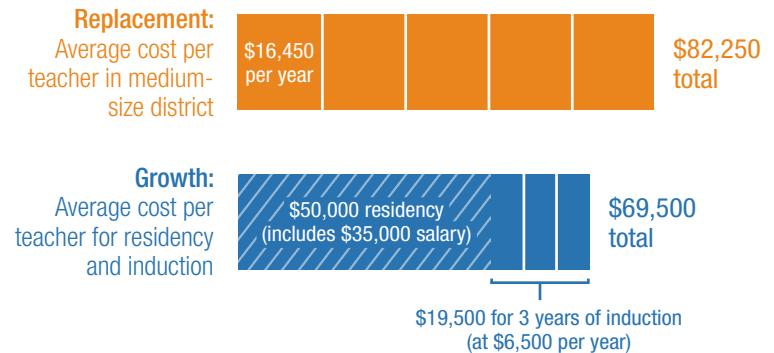
According to economist and Hoover Institution Fellow Eric Hanushek, "In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year."

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

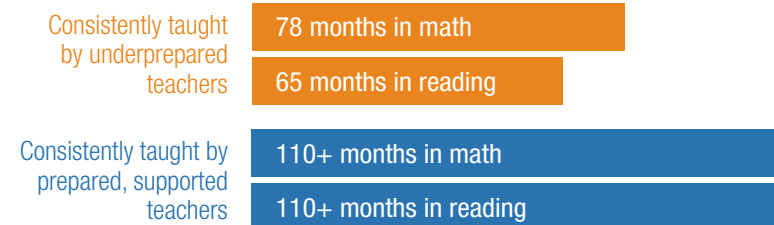
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

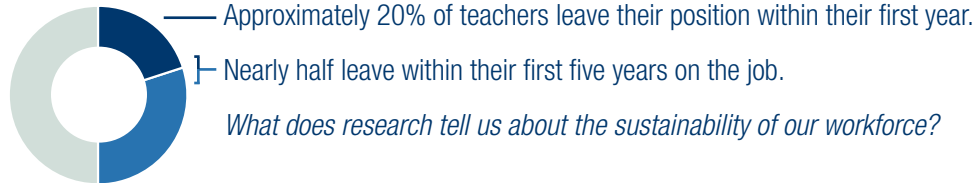
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Oklahoma and Deer Creek School District

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	701,301	7,636
Total number of teachers	1,297,538	42,124	373
% Inexperienced ¹	18.2%	20.7%	10.8%
% Uncertified	8.2%	3.3%	6.0%
% Teaching out of field	11.9%	18.4%	14.8%
Teacher attrition rate	18.8%	24.0%	20.0%*
Total number of prep program completers	52,963	1,037	--
% Prep program completers from traditional pathways	62%	100%	--
% Prep program completers from non-traditional pathways	38%	0%	--

¹ *Inexperienced* — Teachers with 3 years of experience or less

* Denotes data from 2023-24 school year, 2022-23 data unavailable

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

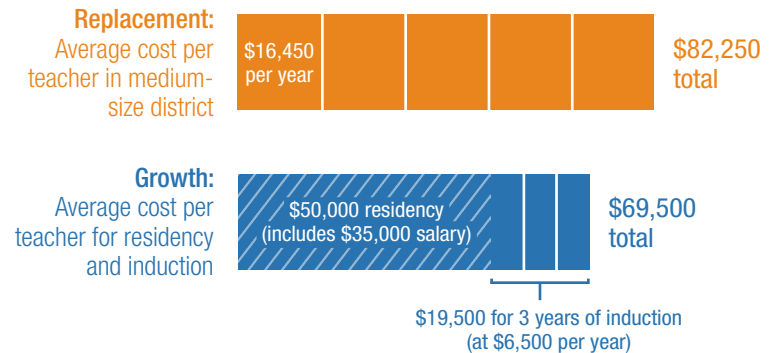
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

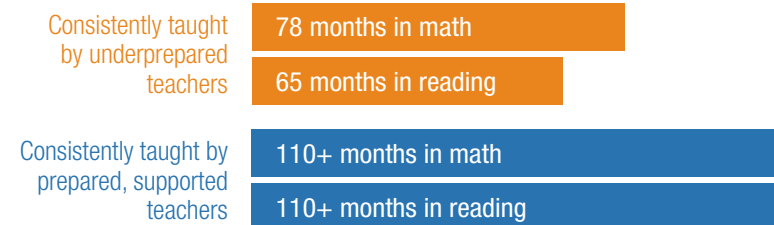
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

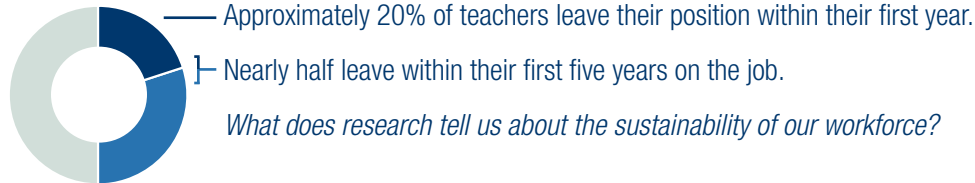
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: South Carolina and Richland School District Two 2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	789,231	28,510
Total number of teachers	1,297,538	55,947	1,771
% Inexperienced ¹	18.2%	16.3%	18.2%
% Uncertified	8.2%	--	--
% Teaching out of field	11.9%	15.9%	8.3%
Teacher attrition rate	18.8%	20.2%	18.8%
Total number of prep program completers	52,963	2,095	--
% Prep program completers from traditional pathways	62%	81%	--
% Prep program completers from non-traditional pathways	38%	19%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

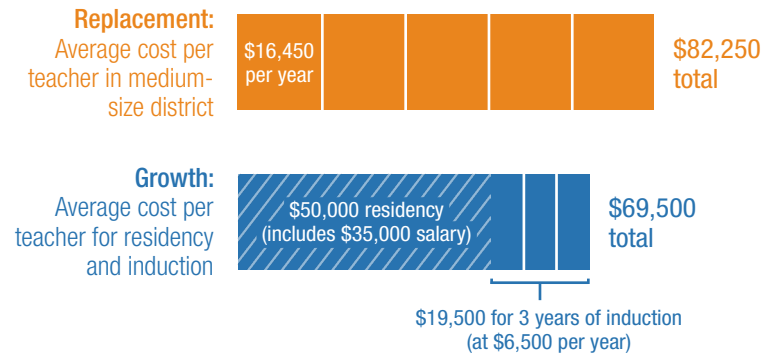
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

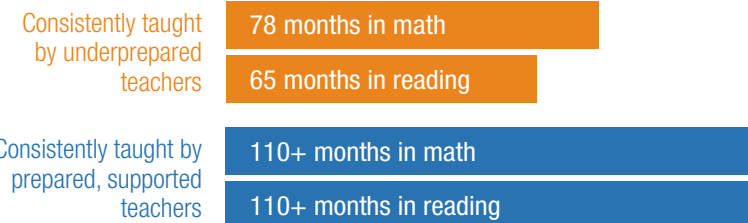
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

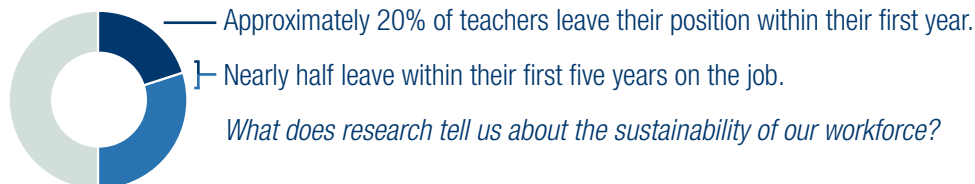
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Tennessee and Williamson County School District

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	1,006,752	41,504
Total number of teachers	1,297,538	65,781	2,828
% Inexperienced ¹	18.2%	18.3%	21.6%
% Uncertified	8.2%	4.0%	0.0%
% Teaching out of field	11.9%	0.5%	0.2%
Teacher attrition rate	18.8%	12.8%	14.0%
Total number of prep program completers	52,963	2,833	--
% Prep program completers from traditional pathways	62%	66%	--
% Prep program completers from non-traditional pathways	38%	34%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

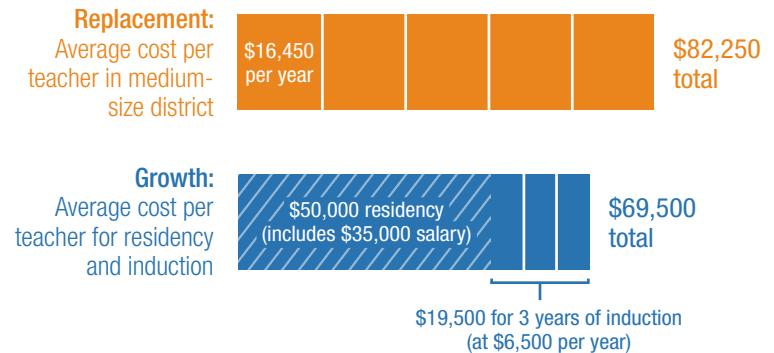
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

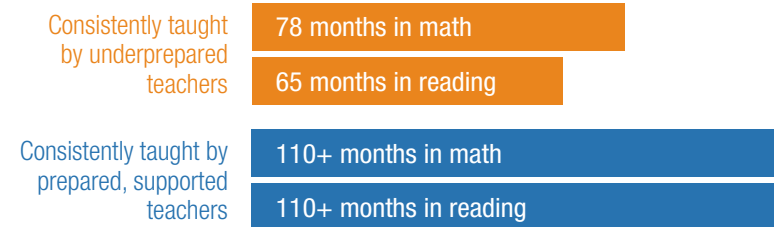
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

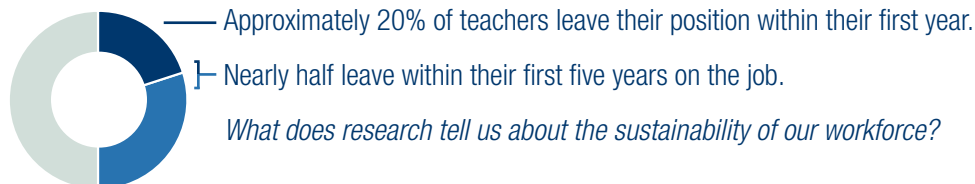
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Texas and Lake Travis Independent School District 2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	5,519,599	11,399
Total number of teachers	1,297,538	373,332	685
% Inexperienced ¹	18.2%	16.2%	36.3%
% Uncertified	8.2%	31.6%	7.0%*
% Teaching out of field	11.9%	11.8%	--
Teacher attrition rate	18.8%	21.4%	22.0%
Total number of prep program completers	52,963	16,894	--
% Prep program completers from traditional pathways	62%	46%	--
% Prep program completers from non-traditional pathways	38%	54%	--

¹ *Inexperienced* — Regionally defined as teachers with 3 years of experience or less. Texas defines this as 5 years of experience or less.

* Denotes data from 2023-24 school year, 2022-23 data unavailable

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

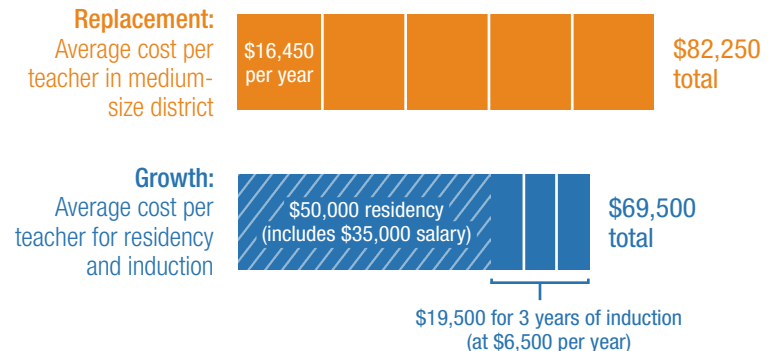
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

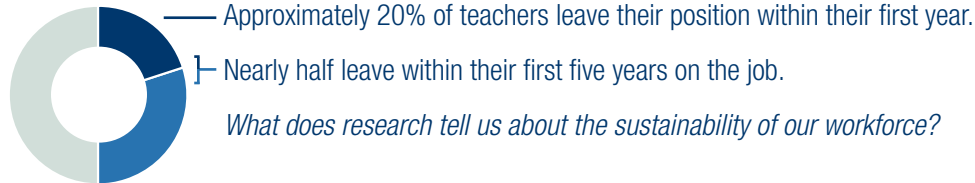
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: Virginia and Henrico County Public Schools

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	1,260,351	50,389
Total number of teachers	1,297,538	92,651	3,450
% Inexperienced ¹	18.2%	5.2%	2.2%
% Uncertified	8.2%	8.6%	9.7%
% Teaching out of field	11.9%	6.4%	4.0%
Teacher attrition rate	18.8%	3.9%	--
Total number of prep program completers	52,963	3,135	--
% Prep program completers from traditional pathways	62%	92%	--
% Prep program completers from non-traditional pathways	38%	8%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

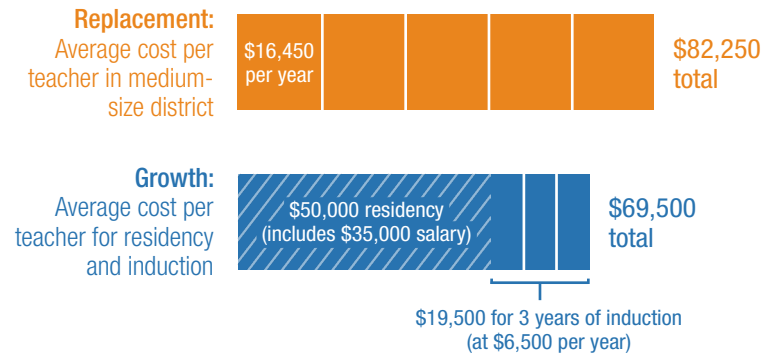
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

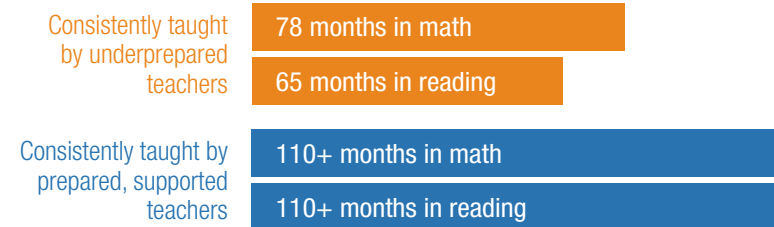
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

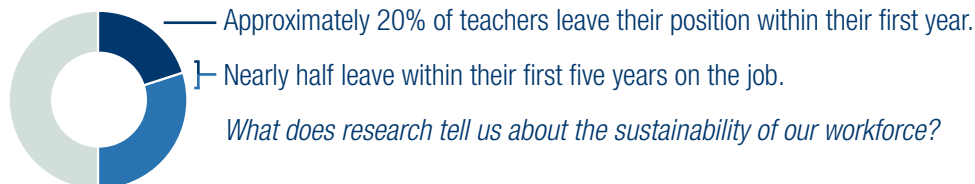
Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.

Beginning Teachers: Readiness, Retention and Outcomes



New research from SREB and Vanderbilt University found that a teacher's preparation pathway is a significant predictor of how likely they are to stay in the profession within their first five years.

Which early-career teachers are more likely to stay?

- Early-career teachers who complete traditional preparation routes (a bachelor's or master's degree in education) have the lowest risk of attrition.
- Early-career teachers who are more effective are more likely to stay.
- Those with higher starting salaries are more likely to stay.

Which early-career teachers are more likely to leave?

- Teachers in secondary schools have a greater risk of attrition compared to those in elementary schools.
- Teachers who work in lower performing schools, high poverty schools or schools with lower proportions of white students are more likely to leave compared to those who start their teaching careers in more affluent schools. Early-career teachers in these situations need more support.

Early-career teachers are overwhelmed — and without support, they will leave. Consistent, high-quality structures — such as relevant on-the-job practicum experiences and tailored induction programs — are needed to better support all incoming teachers throughout their preparation and early years of teaching. **Adequately preparing, supporting and valuing new teachers leads to higher retention, increased student learning and a stronger economy.**

Teacher Workforce Data Comparison: West Virginia and Kanawha County Schools

2022-23 School Year

	SREB Regional Average	State Average	District Average
Total number of students	19,785,616	251,224	23,876
Total number of teachers	1,297,538	18,670	873
% Inexperienced ¹	18.2%	19.8%	16.3%
% Uncertified	8.2%	8.4%	3.5%
% Teaching out of field	11.9%	--	--
Teacher attrition rate	18.8%	--	--
Total number of prep program completers	52,963	772	--
% Prep program completers from traditional pathways	62%	75%	--
% Prep program completers from non-traditional pathways	38%	25%	--

¹ *Inexperienced* – Teachers with 3 years of experience or less

Sources: National Center for Education Statistics, state report cards and teacher data files, U.S. Department of Education Title II reports

The Cost of Underprepared Teachers

What is the impact of underprepared teachers on students' learning?



Source: Kirksey, J., 2024

Students with uncertified novice teachers with no prior classroom experience lose about three months of learning in math and four months in reading. **The effects are cumulative:** Numerous years of inadequate instruction from uncertified and underprepared teachers eventually lead to years of compounded learning loss.

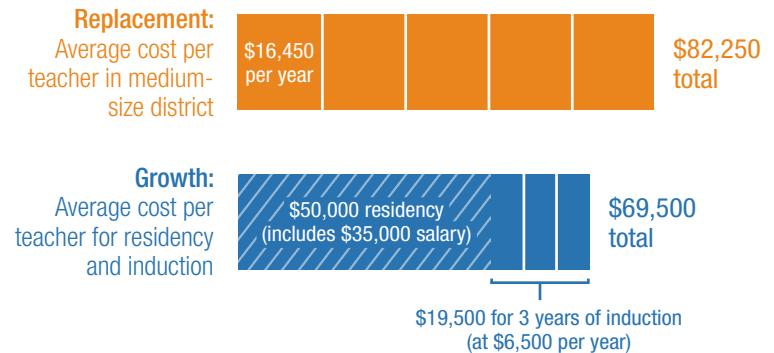
According to economist and Hoover Institution Fellow Eric Hanushek, “In a single academic year, a good teacher will get a gain of 1½ grade-level equivalents, while a bad teacher will get a gain equivalent to just half a year.”

What is the impact on students' future earnings and our economy?

Inadequate instruction results in lower earnings once students enter the workforce, subsequently lowering tax revenue and leading to economic loss.

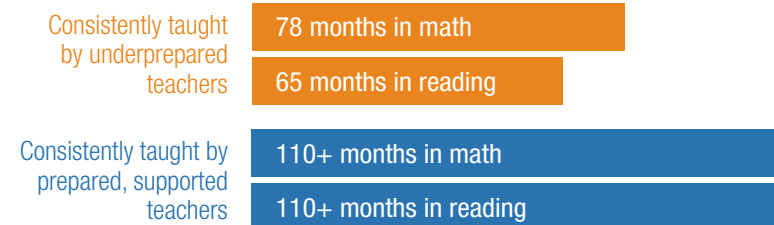
- If 10% of unprepared teachers were replaced with teachers from high-quality preparation programs, graduates would earn up to \$2,850 more each year. For example, the current 5.5 million public school students in Texas could earn up to **\$15.7 billion** more in the future if 10% of their unprepared teachers were fully prepared instead.
- In one school year, a teacher one standard deviation above average effectiveness generates marginal gains of over \$400,000 in students' future earnings for a class of 20.
- Supporting and growing (or replacing, when needed) the bottom 5%-8% of teachers to achieve average performance could move the U.S. near the top of international math and science rankings — a \$100 trillion value as of 2010.

Five-Year Novice Teacher Replacement vs. Growth Costs United States, 2024



Impact on Students: Unprepared Teachers vs. Prepared, Supported Teachers

Average compounded learning per K-12 graduate:



Each K-12 graduate who is taught by 10% more fully prepared teachers increases their lifetime earnings by an average of **\$120,551** — increasing the tax revenue base for communities and states.

It is critical for leaders to focus on long-term pipeline planning, new teacher support and uplifting the value of the profession — rather than quick fixes designed to temporarily bandage teacher shortages without addressing root problems.