



CRC Webinar

# Michigan's Leaky Teacher Pipeline

## Examining Trends in Teacher Demand and Supply

Webinar – February 22, 2018  
Craig Thiel, Research Director

# Citizens Research Council

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- Statewide
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- Promotes sound policy for state and local governments through factual research – accurate, independent and objective
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- *[www.crcmich.org](http://www.crcmich.org)*

# Craig Thiel, Research Director



- Work Experience
  - 2006 - present: CRC
  - 1997 – 2006: House and Senate Fiscal
  - 1995 - 1997: Secretary of State
- Policy Background
  - State budget and taxation
  - K-12 education
  - Transportation
  - Inter-governmental relations
- Education
  - MPA, Wayne State University
  - BA, Kalamazoo College

# Overview of Webinar

- Snapshot of current teacher workforce
- Statewide trends in teacher demand
- Statewide trends in teacher supply
- What can we say about teacher shortages
- Policy considerations

# Context for CRC Report

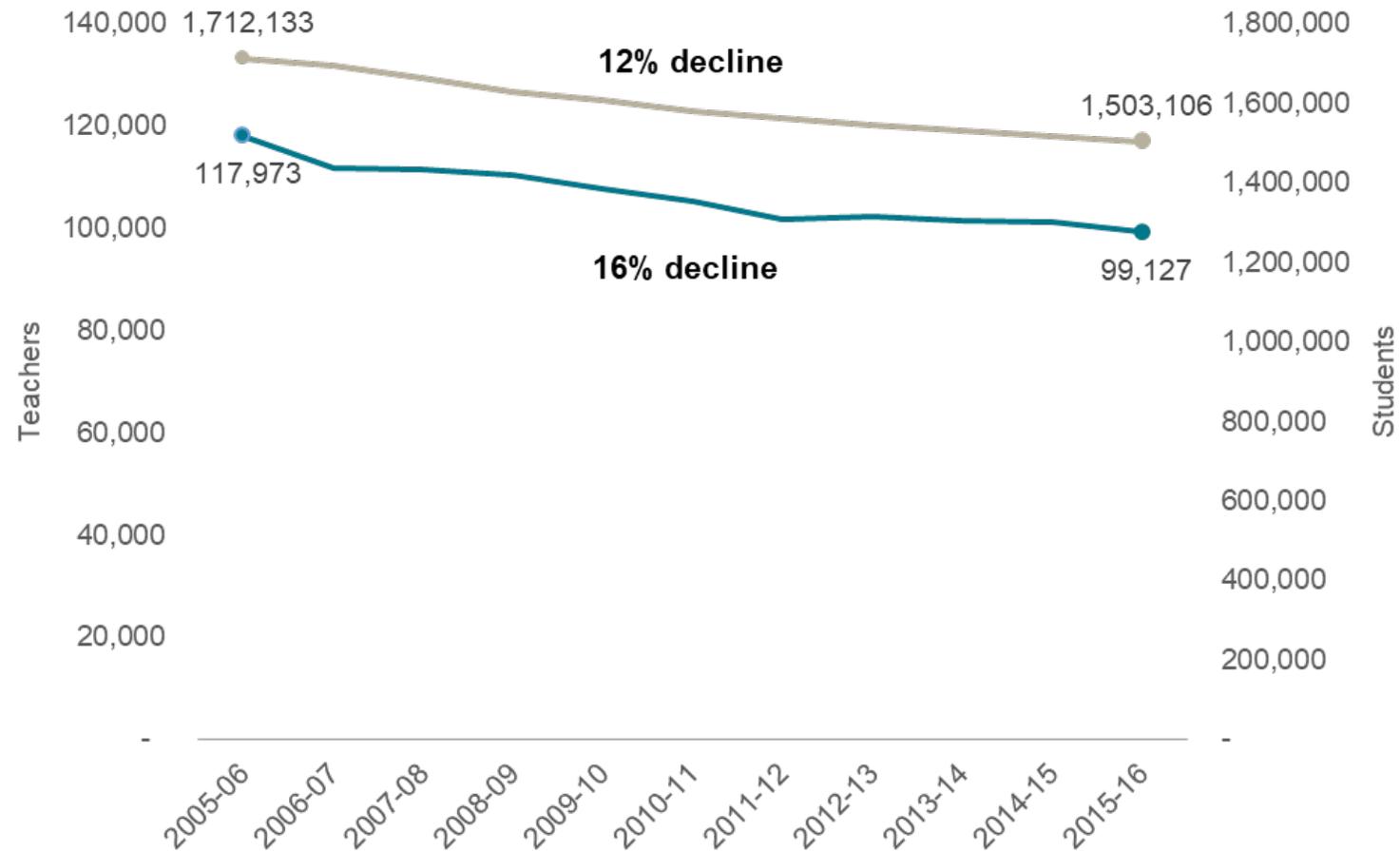
- Why this report and why now?
- Motivation - local experiences across the state and throughout the year
- Can we find systematic evidence to support local experiences
- Hope – deep dive into district-level and regional supply and demand factors
- Limitations – publicly available data

# Michigan Teacher Workforce

- Shrinking since the mid-2000s, a response to declining statewide student enrollment
  - 98,481 teachers in 2016-17 – 31% of public school workforce
- Demographically less diverse than student population, civil workforce, and general population
  - Noticeable reductions in racial diversity along teacher pipeline
- Slightly older – growing “middle-age” cohort
  - These teachers represent nearly one-third of current workforce
  - Represents sizeable supply challenge as this group exits

# Michigan Teacher Workforce

## *Shrinking with student enrollment*

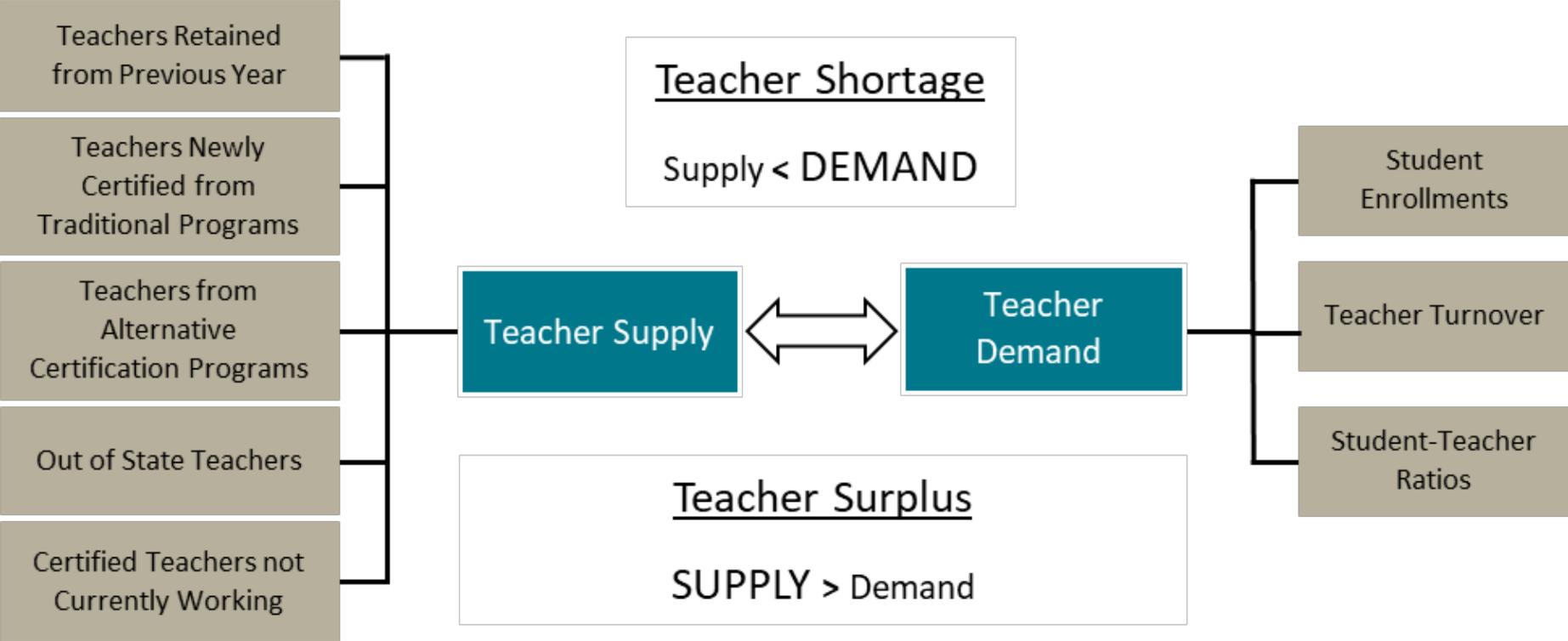


Source: Center for Educational Performance and Information

# Why Shortages Matter

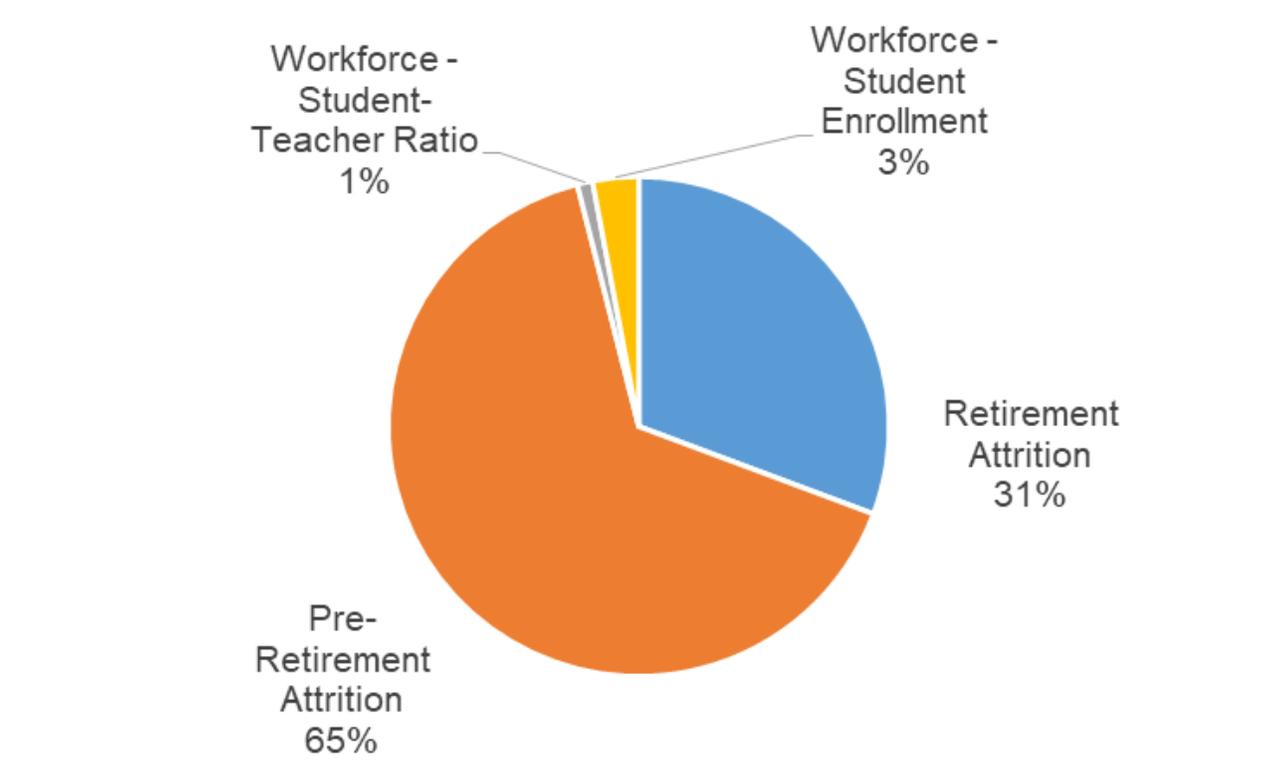
- More than just a headache for HR department
- Michigan K-12 academic standing at bottom of states and falling
- When faced with shortages, districts and schools respond by
  - Canceling academic offerings
  - Increasing student-teacher ratios
  - Increasing the use of long-term substitutes
  - Hiring under-prepared teachers
- Disrupts student-teacher relationships and school culture
- All of these adversely impact student achievement

# Educator Labor Market



# Components of Teacher Demand

*Teacher attrition main driver*



Source: Learning Policy Institute

# Teacher Attrition

## *Those leaving at higher rates*

- Research shows those teachers exiting at higher rates
  - Early career professionals
  - Math and science instructors
  - Special education and English-learner teachers
  - Teachers in high-poverty and high-minority schools
  - Teachers of color
  - Teachers trained by alternative certification programs
- Dissatisfaction primary reason for teacher attrition

# Teacher Turnover

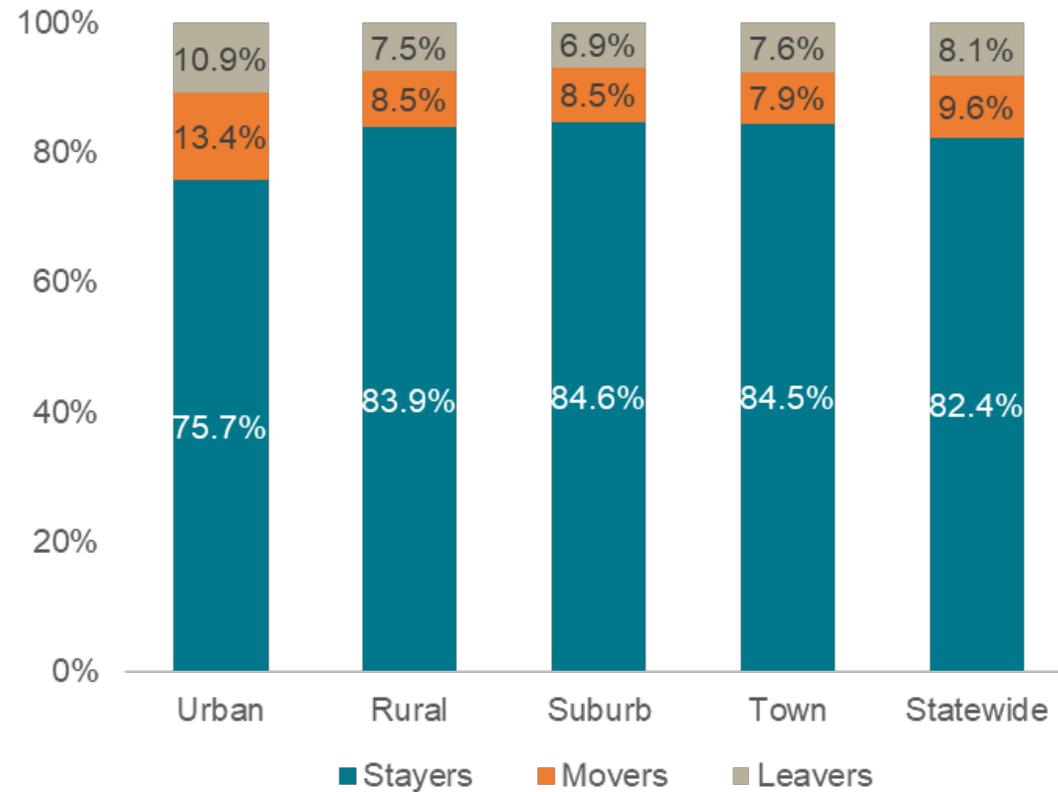
*Michigan's rate higher than U.S. and growing*



Source: Michigan Department of Education

# Teacher Turnover

*Equity concerns with high rates in urban schools*



Source: Michigan Department of Education

# Teacher Turnover

*More variation across schools*

## By Geographic Location

- Regional variation (prosperity regions)
  - Metro Detroit region with highest rate – 20%
  - Majority of city school districts
  - High concentration of low-income and minority students
  - Teacher mobility primary driver

## By School Type

- Regardless of school locale, higher rates in charter schools
  - Urban – traditional districts (20%) and charter schools (37%)
  - Metro Detroit prosperity region – traditional districts (17%) and charter schools (64%)
  - Mirrors national trends

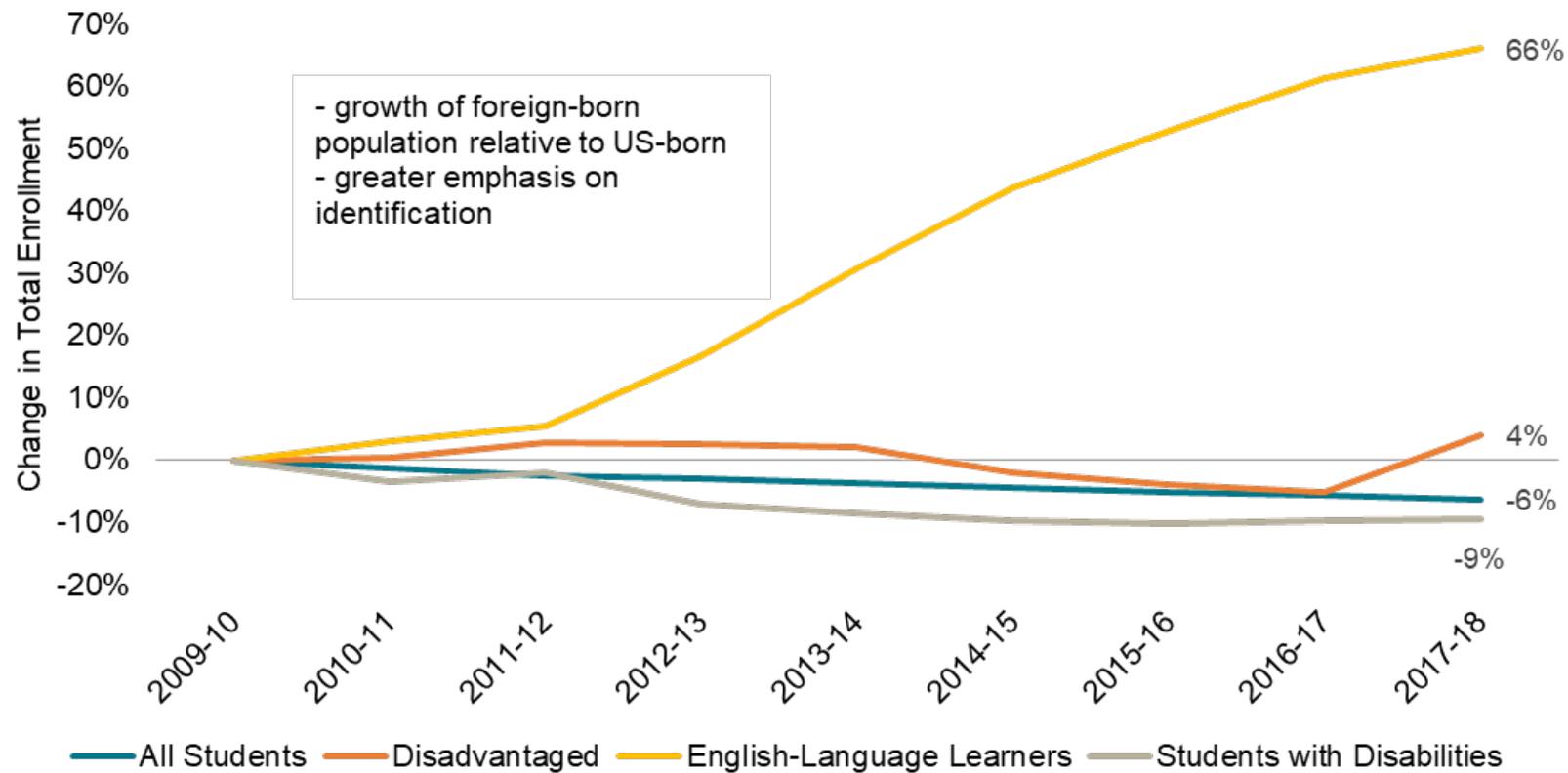
# Are Michigan Teacher Reforms to Blame?

*What accounts for the higher rates?*

- Michigan has been at center of educator labor market reforms since 2010's Race to the Top
  - What role has state policy played?
- A 2017 Michigan State University study focuses on 2011 teacher evaluation and tenure policies
  - Isolate effects of Michigan reforms on teacher exit rates
  - Conclusion: reforms not responsible for observed increase in rates
  - Exception: exits increased in hard-to-staff schools
- However, similar state reforms have shown to decrease the supply of *new* teachers entering pipeline

# High-Need Student Populations

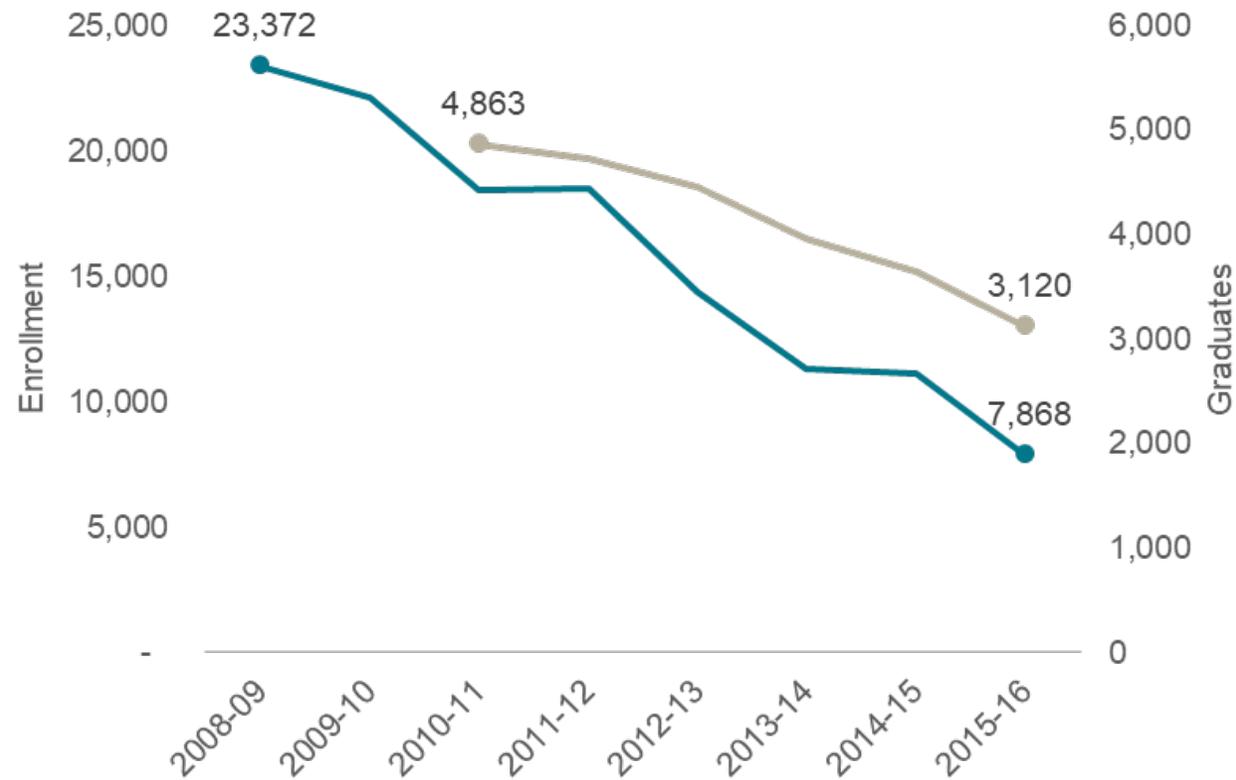
## *Explosive growth in English-Language Learners*



Source: Center for Educational Performance and Information

# Shrinking Supply of New Teachers

*Enrollment down 66% since 2008-09*



Source: U.S. Department of Education

# Reasons Behind Shrinking Supply

*No single cause, multiple factors at work*

- Michigan not unique, part of a national trend
- Overall decline in Michigan post-secondary enrollment (8 percent over similar period)
  - Number of high school graduates is down
  - Rising cost of college
- High school graduates' interest in teaching profession waning
  - Perceptions of profession – lack of autonomy and low wages
- Signaling from teacher labor market reforms and other messages
- Current tight labor market and low unemployment

# Production in Identified Shortage Areas

## *More than meets the eye*

- High schools are likely the ones most impacted
  - Michigan continues to over-produce K-8 teachers
- Within STEM areas
  - Larger declines in biology, physics, and chemistry
  - Smaller declines in math and general science
- What classrooms will these individuals work in, if at all?
- Michigan's recent focus on early childhood

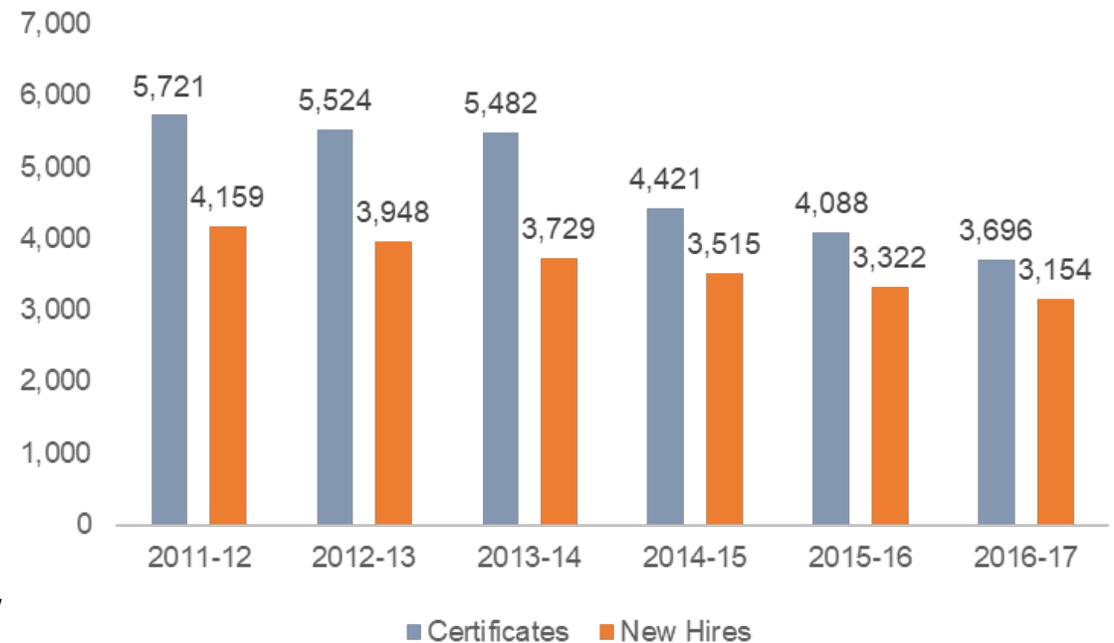
Year	Total* Endorsements	STEM	Special Education	Early Childhood	Bilingual
2011-12	8,027	1,885	833	514	162
2012-13	7,703	1,795	775	508	153
2013-14	6,005	1,501	650	355	131
2014-15	5,342	1,311	593	292	159
2015-16	4,480	1,152	556	265	141
<b>% Change</b>	<b>(44%)</b>	<b>(39%)</b>	<b>(33%)</b>	<b>(48%)</b>	<b>(12%)</b>

Source: Michigan Department of Education

# What About a Statewide Shortage?

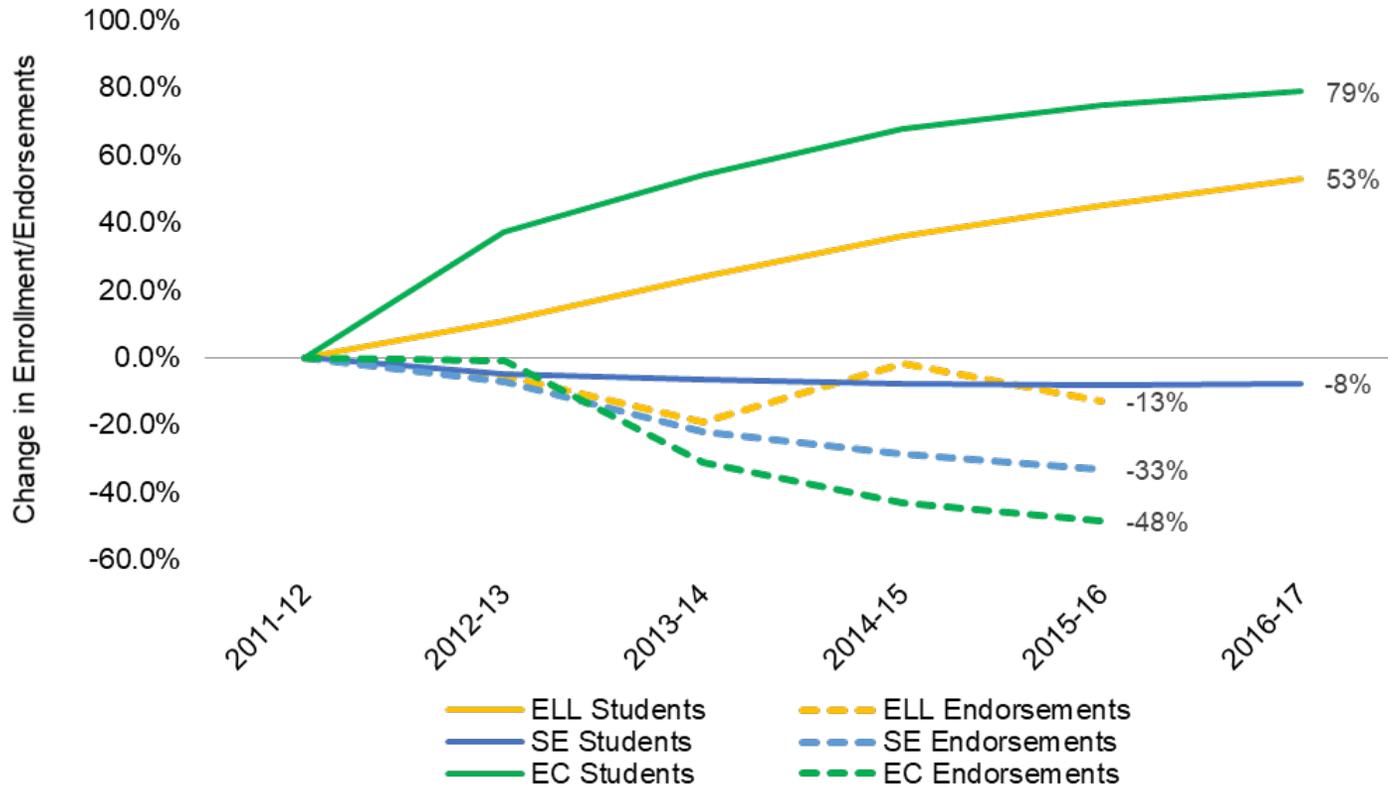
*Nothing definitive, but there are leading indicators*

- Lack of district- and school-level data makes shortage assessment a challenge
- Indicator – growing demand for long-term substitute teachers
- Indicator – shortage by field
- Indicator - convergence of new supply and demand (chart)



Source: Michigan Department of Education

# A Closer Look at Shortage Areas



Source: Michigan Department of Education

# Tackling High Turnover Rates

- Successful strategies focus on compensation, preparation and support, and school organizational issues
- Compensation
  - Michigan has high average teacher salaries, but starting salaries are below the U.S. average
  - Look at differential pay and incentives for hard-to-staff classrooms
- Preparation and Support
  - Target early career professionals
  - Look at teacher residency model and “grow your own”
- School Organizational and Leadership Matters

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