The Labor Market Return to Reversing High School Dropout

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DROPPING OUT OF HIGH SCHOOL

THE PROBLEM

There are 18.5M adults without a high school credential.

Those with HS diploma earn 77% more than people without a diploma or GED.

Only 53% have jobs and their average annual wage is $16,000.
### DROPPING OUT OF HIGH SCHOOL

#### THE PROBLEM

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- Fund GED test prep programs.
- 22 states offer no path to diploma and 9 have adopted option since 2010.
DROPPING OUT OF HIGH SCHOOL

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THE COMMON POLICY RESPONSE

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22 states offer no path to diploma and 9 have adopted option since 2010.

An adult high school where graduates earn a traditional high school diploma.

Accelerated curriculum
Flexible schedules
Free childcare
Transportation assistance
Life coaches
Dual credits and certificates
WHAT IS THE RETURN TO A DIPLOMA FOR ADULT LEARNERS?

Graduated: N=1,371

Enrolled only: N=4,756

Did not enroll: N=3,338

Link @ExcelCenter graduates to earnings data @IndianaMPH
WHAT IS THE RETURN TO A DIPLOMA FOR ADULT LEARNERS?

Look at how earnings change before and after application.
WHAT IS THE RETURN TO A DIPLOMA FOR ADULT LEARNERS?

Compared to other applicants who did not graduate but had similar pre-application trends.
WHAT IS THE RETURN TO A DIPLOMA FOR ADULT LEARNERS?

After falling behind in first year, earnings increase more quickly for graduates.

Graduated: N=1,371
Exited: N=4,756
Did not enroll: N=3,338
DATA

All Excel Center applicants (2013–2016)

TEC Analysis sample
- Graduates: N = 1,371
- Exited: N = 4,756
- Did not enroll: N = 3,338

All GED/HSE takers in IN during the period
IDENTIFICATION STRATEGY

TWO APPROACHES TO ADDRESS SELECTION CONCERNS

Main approach: difference-in-differences
Compare changes in earnings of graduates and non-graduating applicants, before and after application

1) Bounding with positively selected non-graduates
Leave Excel Center because they got a job

2) Placement in remedial coursework as instrument
Determined at enrollment, not related to subsequent shocks
Non-remedial ~15pp more likely to graduate
TIMING OF TEC ENROLLMENT

SHARE ENROLLED IN TEC

Nearly 60 percent enroll in TEC during the first term after application.

Drop in enrollment for graduates after 5 terms (1 school year).

Non-graduates are about 20 pp less likely to be enrolled during first 2 years after application.

Most graduates finish within 2 years.
**SUBSTITUTION IN EDUCATIONAL CREDENTIAL**

**SHARE PASSING THE GED**

Uncommon for TEC applicants to receive full high school diploma from other sources (only 2 in IN)

Some applicants do pursue the GED (or High School Equivalency test)

Roughly 10 percent of comparison group receive GED within 5 years

![Graph showing graduation, exit, and non-enrollment data over time.](image-url)
LARGE INCREASE IN EARNINGS AMONG GRADUATES

EVENT STUDY FIGURE

Similar pre-trends between graduates and non-graduates

Decline in earnings while enrolled in school

Earnings of graduates increased more than $900 relative to applicants who did not enroll in 5th year after application: a 39% increase

Small increase for enrolled, but not graduating students
HETEROGENEITY

NO LARGE DIFFERENCES ACROSS SUBGROUPS

Graduated vs Exited (Year 5)
SHIFT IN INDUSTRY OF EMPLOYMENT

EMPLOYMENT BY INDUSTRY, YEAR 5

Increase in quarterly employment rates 5 years after application (6.8 pp)

Driven by shift toward Retail Trade, Education, Healthcare employment

Decline in work at Hotels and Restaurants
Observe a large increase in obtaining postsecondary certificates and certifications.

Data on all GED-takers in IN

Estimate industry distribution of workers with different certificates

Graduates experience an increase in certificate-predicted employment in health industry.
IMPROVING LIVES OF ADULT HIGH SCHOOL LEARNERS

OUR CONTRIBUTION

Labor Market Returns to HS Diploma
- Adult learners
- Traditional students (Angrist and Kreuger, 1991; Oreopoulos, 2006, Clark and Martorell, 2014)
- Estimate return to GED in Indiana
- Return smaller than diploma (Heckman, et al., 2011; Murnane et al., 2000; Jepsen et al., 2016)

Later-life Interventions Can Have High Returns
- Disappointing return to training programs and GED
- Graduation unresponsive to returns to skill (Goldin and Katz, 2009; Murnane, 2013)
- Comprehensive supports in successful anti-poverty programs
  - Neighborhoods (Bergman et al., 2020)
  - Community college (Weiss et al., 2019; Azurdia and Galkin, 2020; Evans et al., 2017)
  - Self-sufficiency (Evans et al., 2020)
THANK YOU

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Paper available at:

bit.ly/LEO_TEC