COVID-19 and Early-Career Labor-Market Outcomes for Postsecondary Graduates: Evidence from Texas Administrative Data

2026 PSEO Coalition Showcase: Advancing Research and Practice with PSEO Data

August 18, 2026

Arien Telles, Ph.D. | Joe Green, Ph.D.

Why This Study Matters?

Purpose:

Understand whether entering the labor market during COVID-19 permanently changed early-career outcomes for postsecondary graduates.

Specifically, we wanted to know whether COVID-19 affected:

- Earnings
- Employment stability
- Industry placement
- Field-of-study alignment
- Geographic mobility

The transition from college to career is one of the most important moments in a student's life. COVID-19 created a natural experiment to understand how large economic shocks affect that transition.

COVID-19 changed the labor market overnight.

Research Questions

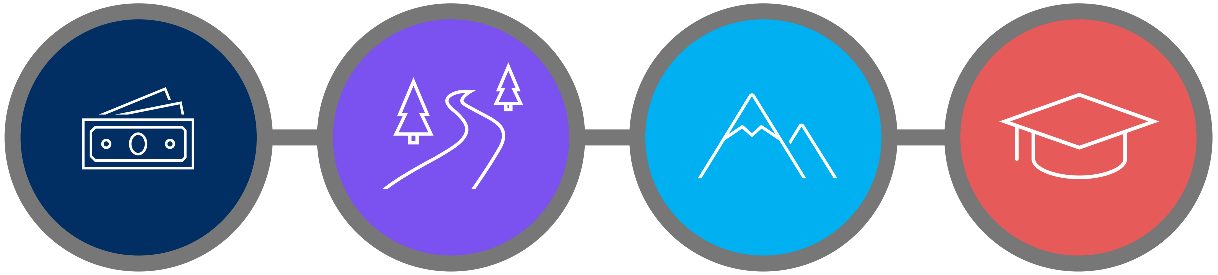
RQ1: How did COVID-19 affect graduate earnings?

RQ2: Did graduates experience different employment and career pathways?

- Employment stability
- Industry placement
- Field alignment

RQ3: Did COVID-19 change graduate mobility?

RQ4: Did effects differ by degree level?



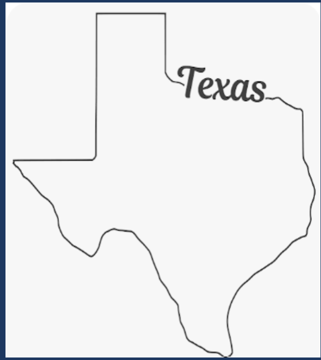
How We Leveraged PSEO Coalition Data

The value of PSEO is that it lets us move beyond self-reported employment and directly observe actual labor-market outcomes using administrative wage records.

Why PSEO Coalition?

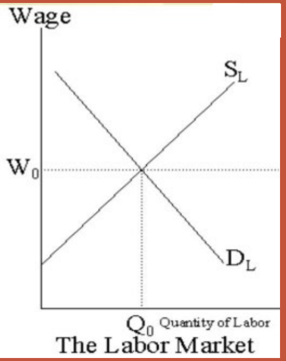
Traditional surveys only provide snapshots.

PSEO links **Postsecondary completion records**, **Unemployment Insurance wage records**, and **Actual employment outcomes** with high connectivity in the state of Texas.



Texas Administrative Data

The data covered 2018-2024, which allowed measurement prior to COVID-19, during COVID-19, and post-recovery.
Measured: Earnings | Employment | Industry | Field of Study | Geographic Mobility
Across: Degree level | Major | Institution | Graduation cohort



What PSEO Coalition Enabled

- Compare three labor-market periods (pre-COVID-19, disruption, recovery)
- Observe real employment outcomes, not survey responses
- Measure earnings, employment, mobility, and field alignment
- Estimate the causal impact of labor-market entry timing
- Generate evidence to inform higher education and workforce policy

PSEO COALITION

37+ Participating States

1000+ Institutions Represented

VISION

The PSEO Coalition supports the growth, sustainability, and use of data to demonstrate how higher education can positively impact a person's life.

MISSION

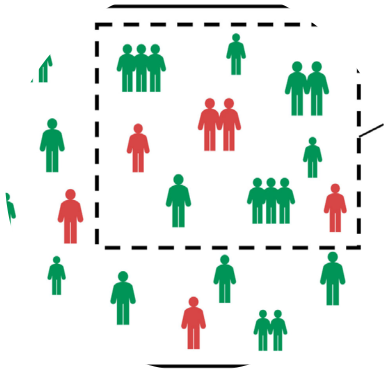
The PSEO Coalition empowers informed decisions through comprehensive, collaborative, and sustainable integration of nationwide postsecondary graduate outcomes data, driving strategic enhancements across educational and employment landscapes.

Study Design

Measured how the timing of labor-market entry influenced graduate outcomes.

Timeline

- 2018-2019 Pre-COVID-19
- 2020-2021 Disruption
- 2022-2024 Recovery



Outcomes

- Earnings
- Employment
- Industry
- Mobility

Controlled Variables

- Cohorts
- Degree level
- Field of study
- Institution type

Analysis

- Regression models with Degree & Field controls
- Field-of-study fixed effects

SCHOLARSHIP AMERICA

Major Findings

Using Texas PSEO administrative data, we identified four measurable ways COVID-19 reshaped graduates' transition from college to the workforce.

1

Earnings Penalty
Graduates entering the labor market during COVID earned 2.2% less one year after graduation.

One year after graduation Recovery graduates:
-5.8%
relative to pre-COVID-19 graduates.

2

Employment Stability
Employment stability declined during the disruption period.

Graduates experienced **weaker** employment during the disruption period.

3

Career Alignment
Field-of-study mismatch increased as graduates accepted jobs outside their intended careers.

4

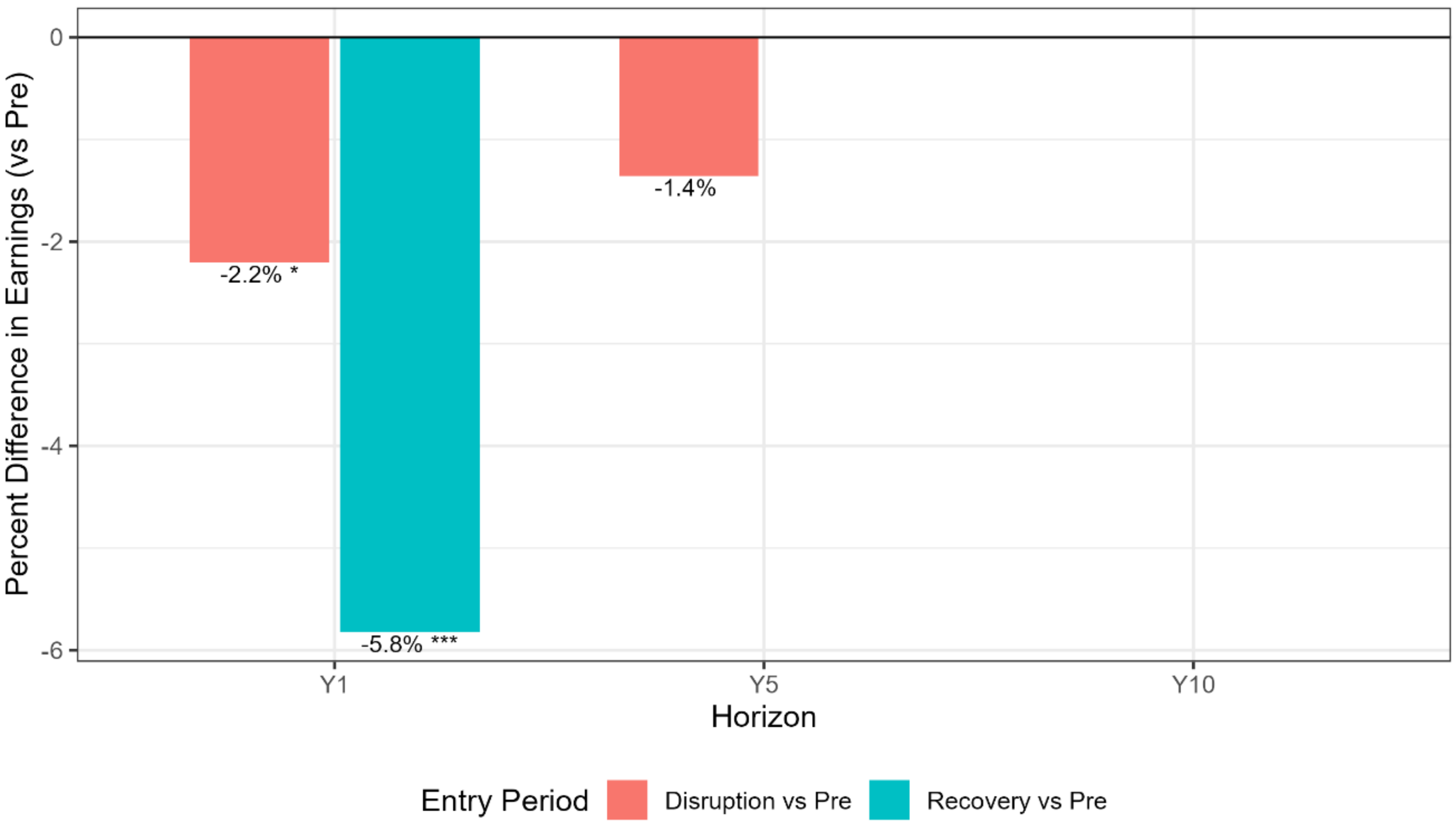
Geographic Mobility
Interstate mobility declined during the pandemic.

Key Takeaway:
COVID-19 affected more than earnings, it changed how graduates entered the workforce through employment stability, career alignment, and geographic mobility.

Earnings Penalty

Graduates entering during COVID-19 experienced an immediate earnings penalty. Encouragingly, by the five-year mark, those differences largely disappear, suggesting resilience and partial recovery.

Estimated Earnings Penalty by Labor-Market Entry Period



SCHOLARSHIP AMERICA

Why This Matters

These findings demonstrate that economic shocks influence not only graduate earnings, but also how institutions, policymakers, and employers should interpret and support early-career success.

For Higher Education

Labor-market outcomes reflect both institutional quality and broader economic conditions.

Universities should interpret graduate earnings alongside labor-market conditions and use employment, career alignment, and mobility data to continuously improve academic programs and career services.

For Policymakers

Short-term graduate outcomes should be evaluated within their broader economic context.

Performance metrics and accountability systems should recognize that major economic disruptions can temporarily influence graduate outcomes without reflecting institutional effectiveness or educational quality.

For Students/Learners

Early career setbacks do not necessarily define long-term success.

Although graduates entering during the pandemic experienced lower earnings and greater employment disruption, many outcomes improve over time, highlighting the importance of persistence, career support, and continued workforce development.

For Researchers

Administrative data provides a more accurate view of workforce transitions than traditional surveys.

PSEO Coalition enables longitudinal analyses of earnings, employment, field-of-study alignment, and mobility, creating new opportunities to evaluate postsecondary outcomes and workforce policies using real-world administrative evidence.

Key Takeaway:
Graduate success should be evaluated through both institutional performance and the economic conditions graduates face when entering the workforce.

Pre-Print in R&R

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=6842997

SSRN

Product & Services Subscribe Submit a paper Browse Blog Contact

This is a preprint article, it offers immediate access but has not been peer reviewed.

Download This Paper | Open PDF in Browser | Add Paper to My Library | Share:

COVID-19 and Early-Career Labor-Market Outcomes for Postsecondary Graduates: Evidence from Texas Administrative Data

51 Pages • Posted: 28 May 2026

Joseph Green
affiliation not provided to SSRN

Arien Telles
affiliation not provided to SSRN

Abstract

The COVID-19 pandemic generated an unprecedented disruption to the U.S. labor market, raising important questions about how macroeconomic shocks affect the transition from postsecondary education to employment. This study examines how the pandemic influenced early-career labor-market outcomes for postsecondary graduates using restricted-access administrative data from the Postsecondary Employment Outcomes (PSEO) dataset for the state of Texas. These data link institutional completion records to unemployment insurance wage records, enabling observation of graduate earnings, employment stability, industry placement, field-of-study alignment, and geographic mobility across pre-pandemic, disruption, and recovery cohorts.,Using cohort-level regression models with degree-level controls and field-of-study fixed effects, the analysis estimates how labor-market entry during the COVID-19 disruption affected graduate outcomes relative to pre-pandemic cohorts. Results indicate that graduates entering the labor market during the disruption experienced statistically significant short-term earnings penalties, earning approximately 2.2 percent less one year after graduation compared with pre-pandemic cohorts. Graduates entering during the early recovery period exhibited even larger short-term earnings gaps. In addition, disruption-period graduates demonstrated lower employment stability, increased field-of-study mismatch, and reduced interstate mobility. However, earnings differences diminish at longer horizons, suggesting partial recovery as workers accumulate labor-market experience. The findings highlight how large macroeconomic shocks can temporarily alter early-career labor-market trajectories and reshape the transition from postsecondary education to employment.

Future Plans

This study provides a foundation for a broader research agenda using PSEO Coalition administrative data to better understand graduate success, institutional effectiveness, and workforce resilience.

Expand the Research: Compare graduate outcomes across additional PSEO Coalition states to understand regional labor-market differences.

Extend the Time Horizon: Track graduates 10+ years after completion to evaluate long-term earnings, career progression, and workforce mobility.

Deepen Equity Analyses: examine outcomes by major, race/ethnicity, institution type, and geographical conditions (rural/urban)

Inform Policy: Identify which institutions, academic programs, and graduates are most resilient during future economic disruptions.

Predict Future Outcomes: Develop predictive labor-market models that forecast graduate outcomes under future economic conditions using PSEO Coalition administrative data.

Key Takeaways:

- COVID reduced short-term earnings
- Employment became less stable
- Field-of-study mismatch increased
- Geographic mobility declined
- Most earnings effects diminish over time

Administrative data like PSEO Coalition allows us to move beyond anecdotal evidence and better understand how economic shocks reshape the transition from education to employment.

Thank You!