

"Quarters, Semesters, Trimesters, and Terms, Oh My:" Defining college schedules and the impact scheduling changes have on students in the U.S.



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Executive Summary

Problem Statement

Many colleges and universities have shifted to or are considering switching to a semester system. Yet, despite being a significant concern for institutions, educators, and policymakers¹, more research is needed to examine the impact scheduling changes have on student enrollment, success, persistence, and credit momentum, for which non-completion is of particular concern among community colleges².

Objective

College schedules have undergone numerous transformations, with institutions characterizing schedules by quarters, semesters, trimesters, terms, and accelerated courses. However, scheduling characterizations are frequently used interchangeably and lack clear definitions. It is essential to clarify and clearly define the various course schedules. More importantly, there is a pressing need to identify supporting evidence for the rationale behind scheduling changes and understand the potential impact changes have on institutions, faculty, and students. This undertaking is crucial to gaining a deeper understanding of the academic landscape for traditional and nontraditional students, with the ultimate goal of fostering equitable opportunities and enabling both institution and student success.

Definitions

Institutions sometimes reference the Federal Student Aid handbooks when defining and determining course schedules³. College schedules arrange classes, courses, or academic activities within a given timeframe/session. For simplicity, schedules can be categorized into two primary systems: the semester and quarter.

Semester system	Quarter system
<ul style="list-style-type: none">● Tri- three “traditional” sessions● Two 15-week trimester/semesters⁷, including a 12-week summer session⁷● 5 courses x 2 semesters, 10 courses a year, 3-credit-hour courses per semester⁷	<ul style="list-style-type: none">● Quarter- four “nontraditional” sessions● Three 10-week terms/quarters, including a 10-week summer session⁷● 4 courses x 3 quarters, 12 courses a year, 4-5-credit-hour courses per quarter⁷

Variations

Some community colleges are implementing versions of the quarter system while maintaining their

semester system, allowing the institution to stay in sync with partnering four-year schools¹². For instance, these colleges cut their 15-week semesters in half, creating two accelerated 6-8-week “mini-semesters”¹². Where students take two courses per week instead of 4-5 classes per week in a given semester. This hyper-focused course setting allows greater flexibility for students with work/family obligations. Community colleges have found success with this accelerated schedule, especially among nontraditional students¹². For which:

- **40 to 43%** of all college students start out at a community college^{2,7}.
- **41%** of the postsecondary student body are nontraditional students¹¹.
- **29%** of community college students are parents¹².
- **67%** of community college students are employed¹².

The University of Oregon also incorporates a hybrid-like system where its Law School uses a semester system while the rest of the school uses a quarter system¹³. Another variation of a traditional schedule is that universities in California predominantly use 16-18-week semesters⁷.

Key Findings

Considering the limited research on this topic and the methodological limitations found, the following findings are detailed summaries of individual cases or studies. The number/percentage of schools on quarter and semester systems are documented below and only reflect four-year institutions. Notably, the number of four-year institutions on a semester system increased by 8% from 1991-2010⁷. The documented prevalence of semester systems being employed by community colleges is unknown.

Prevalence

“Nationwide, most colleges and universities use the semester system.”⁴

- **87%** of universities operated on a semester calendar in 1991, increasing to **95%** by 2010⁷
- **95%** of 4-year institutions use a semester system as of 2019⁷
- **40** universities in the US are on a quarter system; 75% of these universities are on the West Coast¹⁴

Who Makes the Decision to Change a College’s Schedule?

The decision to change a college schedule from quarters to semesters or semesters to quarters is multifaceted. However, we know that state chancellors of higher education sign for the immediate effect of schedule changes within colleges and universities^{3,6}. Notably, Eric D. Fingerhut, the Chancellor of the Ohio Board of Regents, exercised this authority on March 18, 2010. He signed for the transition of all Ohio colleges and universities to be on a semester system by Fall 2012, effective immediately^{3,6}. Seventeen colleges and universities were forced to make this transition on their own^{3,6}.

In addition, state legislatures hold the power to determine tuition rates and resource allocation, which consequently influences a school’s decisions regarding scheduling adjustments⁵. Ultimately, the decision-making process involves various stakeholders, including state leaders, university presidents, deans, provosts, department heads, faculty, and advisory committees like the Summer School Advisory Committee and Curriculum Committees^{3,5,6}.

“The transition [from quarters to semesters] process was a huge undertaking requiring numerous committees and subcommittees at OSU [Ohio]... Officials from all 17 institutions met several times to share information.”⁴

Why might a school choose to make a scheduling change? The following sequence lists the rationale found among studies and news articles on why 17 institutions in Ohio were mandated to switch from a quarter to a semester system. However, future research should invest in recovering and coding the Faculty Council and the Ohio Board of Regents meeting minutes to identify what information was shared amongst committee members that led to the following rationales:

Semester System Rationale

Transfers To improve credit transfers. Credits transfer better when schools are all on the same system, and with the majority of schools operating on a semester system, there is a push for schools to switch from quarters to semesters^{4, 6}. Quarter credits are converted to semester credits by multiplying by two-thirds. For example, 180 quarter units equal 120 semester units¹⁴.

Synchrony Wanting entire state University Systems on a common academic calendar^{4,6}. Or state-level mandates for all schools to convert to a semester system⁷.

Financial State leaders and higher education chancellors claim an economic benefit for institutions, yet empirical evidence on the financial benefit is lacking^{4,6}. Conversely, it costs millions of dollars to switch from one system to another^{4,7}.

Summer internships Semesters offer earlier school end dates, which could provide more summer internship opportunities for students⁷.

Contrary to the rationale mentioned above previously used to influence changes to a semester system, evidence suggests this shift may negatively impact students, with nontraditional students disproportionately affected^{7,9,12}. Remarkably, all 17 Ohio schools mandated to be on a semester system transitioned from a quarter system at roughly the same time, offering the unique opportunity to examine how this transition affected students⁷. Bostwick et al. (2022) opportunistically took advantage of Ohio’s state-wide shift to a semester system by causally examining how switching from a quarter to a semester system affected students^{7,9}. Even outside Ohio, Trident Technical College in South Carolina also found that changing to a semester schedule negatively impacts students¹². The results are as follows:

The Effects of Switching to a Semester System

- The **semester calendar itself negatively impacts graduation rates**, with on-time graduation rates decreasing by 3.7 percentage points among four-year institutions⁷.
- Students at four-year institutions on a semester calendar are more likely to **earn a GPA below 2.0**⁷.
- Students at four-year institutions are less likely to enroll in the recommended number of credits per year⁷.
- Students are delaying the timing of major choice at universities⁷.
- No compelling evidence exists that switching to a semester schedule improves summer internship opportunities⁷.
- Students experience a loss of momentum toward degree completion¹².
- After Trident Technical College abandoned the quarter system in favor of the semester system in 1992, **“course pass rates fell from 77% in 1991 to an all-time low of 62% in 2014**, the college’s president

concluded that ‘the shorter the term, the more successful the student.’ In response, the president introduced seven-week compressed mini-semesters in 2014¹².”

Unfortunately for researchers, unlike the mandated shift in Ohio, there is no monumental shift among colleges or universities transitioning to a quarters system, and therefore, a similar causal analysis is not readily available. However, as mentioned above, after Trident Technical College transitioned to a semester system, they saw immediate adverse effects among students¹². Trident Technical College was forced to switch back to an accelerated format because the school’s course passage rates fell by so much on a semester system. These transitions made by Trident Technical College from a quarter to a semester and then back to a quarter system provide unique insight into how successful accelerated formats are among students. In addition, Trident Technical College is not alone in its findings. Similar community colleges nationwide are finding the same successes with the quarter system. There is mounting evidence supporting that students have greater success on a quarter system, score better in accelerated courses than semester-length courses, and that institutions see significant increases in enrollment and graduation rates^{7,9,12}. Notable findings include:

The Effects of Switching to a Quarter System

- After Trident Technical College switched from a semester back to a quarter system, they saw a 12% increase in student course success rates, over a 6% decrease in withdrawal, and graduation rate increased by eight percentage points in 2017⁸.
- Odessa College saw a 13% increase in enrollment, a 26% increase in First-Time In College (FTIC) enrollment, and their **graduation rate doubled to 42%** in 2020⁸.
- Amarillo College saw a 10% increase in full-time enrollment and a success rate increase for African-American and Hispanic students⁸.
- Increased student success in accelerated courses remains for various modalities and disciplines^{8,9}.

It isn’t always clear what proof is used to rationalize why schools change their schedule because this information is shared in committee meetings and other collaborative settings^{3,4,6}. Researchers must spend more time examining the information shared in political settings regarding higher education^{3,4,6}. However, after seeing a 15% decrease in course pass rates on a semester system, Trident Technical College used this as evidence to support a change back to a quarter system. Other reasons found that were used to transition from a semester to a quarter system among schools include:

Quarter System Rationale

Financial Utilizing year-round operations generate revenue and cost containment by boosting overall enrollment and generating more graduates⁵.

Academic performance Students perform better in compressed/accelerated courses, i.e., on the quarters systems^{5,9,12}.

Accessibility/Course flexibility Quarters increase the number and variety of courses offered, have more chances to enroll/re-enroll, provide students with more opportunities to meet new teachers, have later start times, and provide substantially more flexibility for working students or students taking care of family^{2,7,8,9,12}.

Methodology

To provide the definitions and critical findings present, a comprehensive overview of existing research findings, methods, and theories regarding college schedules was gathered from studies published after 2000. Information was sourced from academic journal articles, dissertations, reports, handbooks, manuals, and relevant news articles using library databases, Google Scholar, and expert-recommended bibliographies.

Evidence

Empirical findings often used strong, quasi-experimental designs examining the effects of college schedules^{2,7,8}. Limitations include conducting analyses within a given school, state, or region; using outdated data; small sample sizes; and self-selection bias^{4,7,8,9}. For example, researchers habitually compared student outcomes in accelerated courses to those in traditional semester-length ones, where those students chose to be in accelerated or traditional courses¹⁰. This is known as self-selection bias and could affect results due to a significant difference in students who take accelerated courses versus traditional ones¹⁰. These notable errors can make studies less reliable and limit the ability to apply findings more broadly. Overall, studies predominantly found non-significant or significantly positive differences in student outcomes among schools on a quarter system^{5,7,8,9}. These findings support the *guided pathways framework*, adopted at hundreds of institutions to get students to finish school in a reasonable amount of times⁸.

Implications

On average, students enrolled in a quarter system have greater success. Schools also experience increases in enrollment and graduation rates. However, the accelerated course schedule could challenge some students, particularly English learners. Even so, shorter-term students have fewer classes to focus on at a time, which could offset the challenges a fast-paced quarter system imposes. In addition, many students on a quarter system lose a term abroad because study abroad programs mainly use a semester calendar⁷. Students also face additional obstacles when transferring credits from a quarter to a semester system, often taking extra courses to fit the semester schedule⁴. Students enrolled in a semester system are more likely to experience significant decreases in on-time graduation and take longer to complete college, subsequently increasing their financial burden^{2,7,8,9}. While it remains unclear whether students are more inclined to withdraw, take breaks, or drop out of school on a semester versus a quarter system, it is evident that those who take breaks or drop out have greater opportunities to re-enroll in schools on a quarter system^{7,8,9}.

Conclusion

Adopting a specific college schedule profoundly impacts a student's academic success and overall college experience. While existing evidence favors the effectiveness of a quarter system in promoting student and institutional success, a notable gap exists regarding the rationale behind a school's preference for a semester system. To address this gap, additional research should examine what evidence is explicitly used to justify transitioning to a semester system. This investigation should aim to assess whether the decision to adopt a semester system aligns with students' best interests and success. Additionally, researchers need to address the measurement errors highlighted in this study by enhancing the robustness of their design and evaluation methods when creating and analyzing the effects scheduling changes have on students. Both the semester and quarter system have their strengths and weaknesses. It is essential for institutions to apply these suggestions and carefully consider the implications of changing their schedule and doing what is in

the best interest of their students. This summary underscores the importance of understanding how changes affect students' educational journeys and the need for ongoing research.

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Additional Resources

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