STOCKTON UNIVERSITY | WILLIAM J. HUGHES CENTER FOR PUBLIC POLICY

THE SOUTH JERSEY ECONOMIC REVIEW

About the SJER

Since its inception more than ten years ago, the South Jersey Economic Review has been committed to providing the region's stakeholders and policymakers timely, high-quality research that focuses on the Southern New Jersey regional economy. Over the course of its history, the Review has provided in-depth analyses of the regional economy's health care, construction, retail trade, and gaming industries. It has also explored key trends in the region's labor force, demographics, and wages. Economic diversification has also been a key focus of the SJER. The SJER is published bi-annually under the aegis of Stockton University's William J. Hughes Center for Public Policy.

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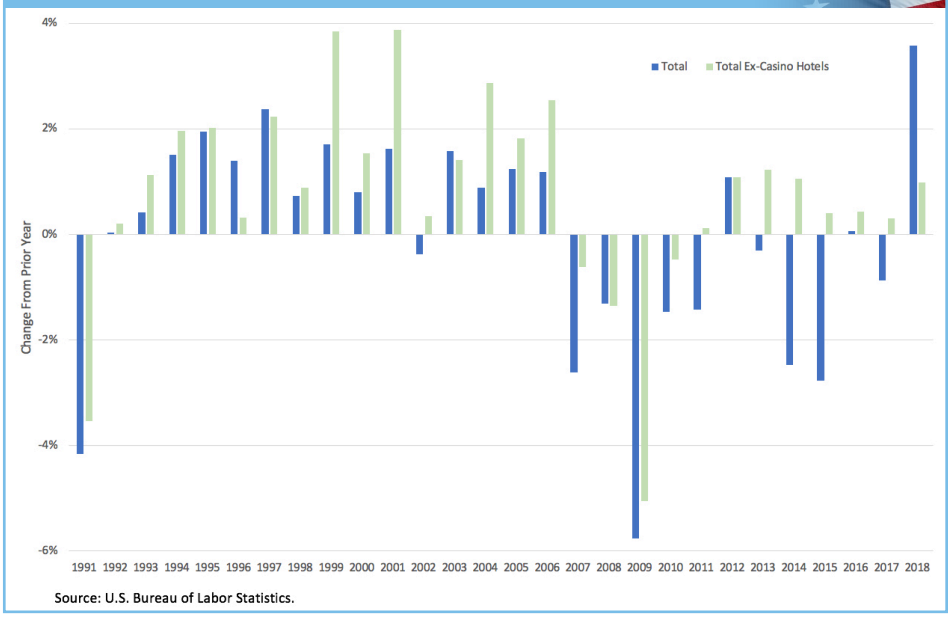
ATLANTIC CITY'S ECONOMY

Buoyed by the opening of two new casino hotels last summer—Hard Rock and Ocean Resort—Atlantic City's economy added 4,600 jobs in 2018, an increase of 3.6 percent. Last year's rate of job growth in Atlantic City was its best since the late 1980s, a period that saw robust job creation tied to that decade's second wave of casino building. Employment in the metropolitan area's casino hotels increased by 3,500 (+17.8 percent) last year.[1] The increase was the gaming sector's largest (in absolute terms) since 1990—the year the Taj Mahal opened its doors.

While non-gaming related job growth was more modest last year it was relatively broad-based. Total employment excluding the gaming sector increased by 1,100—a 1 percent increase. (Table 1) The acceleration in regional homebuilding (see discussion below), in tandem with other major construction projects over the past year (especially the AC Devco Gateway Project that includes Stockton University's Atlantic City campus), led to an increase in construction employment in the metropolitan area last year, as construction payrolls expanded by nearly 700—a 12.7 percent increase. Education and health services employment rose by 800, a 3.8 percent increase. Professional and business services employment increased by 500 jobs, a 4.6 percent increase. Additional gains occurred in restaurants and bars (up 1.8 percent) and state government (up 2.6 percent). Even the metropolitan area's small manufacturing sector recorded job gains, as employment rose 5.4 percent (+116 jobs). The only industries that experienced job losses in 2018 were retail and wholesale trade, and federal and local government. Combined, these four industries' job losses totaled 233.

Figure 1: Annual Employment Growth in Atlantic City.
Total and Total Excluding Casino Hotels 1991 to 2018



Source: U.S. Bureau of Labor Statistics.

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Table 1: Atlantic City Establishment (Payroll) Employment by Industry *(2014–2018)*

Industry/Sector	Employment (thousands)					Absolute Change from Prior Year				Percent Change from Prior Year			
	2014	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Total	133.1	129.4	129.5	128.4	133.0	-3.7	0.1	-1.1	4.6	-2.8%	0.1%	-0.9%	3.6%
Total Ex-Casino Hotels	107.4	107.8	108.3	108.6	109.7	0.4	0.5	0.3	1.1	0.4%	0.4%	0.3%	1.0%
Private	109.9	106.8	107.5	106.6	111.2	-3.2	0.7	-0.9	4.7	-2.9%	0.7%	-0.9%	4.4%
Construction	4.8	5.5	5.6	5.4	6.1	0.7	0.1	-0.2	0.7	13.5%	1.8%	-3.7%	12.7%
Manufacturing	2.1	2.1	2.1	2.18	2.29	0.0	0.0	0.1	0.1	2.0%	1.6%	2.4%	5.4%
Wholesale Trade	2.6	2.8	2.8	2.8	2.8	0.2	0.0	0.0	-0.02	6.0%	0.9%	-0.6%	-0.6%
Retail Trade	16.0	16.1	16.0	16.0	16.0	0.1	-0.1	0.0	-0.03	0.7%	-0.7%	0.3%	-0.2%
Transportation, Warehousing, and Utilities	3.0	2.9	3.0	3.0	3.1	-0.1	0.0	0.0	0.1	-2.2%	0.6%	1.7%	1.7%
Information	0.8	0.8	0.8	0.8	0.7	0.0	0.0	0.0	0.0	-3.0%	-2.1%	-5.3%	-6.7%
Financial Actvities	3.9	3.8	3.9	3.8	3.8	-0.1	0.1	-0.1	0.0	-1.7%	2.0%	-1.7%	-0.9%
Professional and Business Services	9.6	10.0	10.2	10.4	10.9	0.4	0.2	0.2	0.5	4.6%	1.7%	2.0%	4.6%
Education and Health Services	19.0	19.6	20.3	20.7	21.5	0.7	0.7	0.4	0.8	3.6%	3.4%	1.9%	3.8%
Hospitals	6.0	5.9	5.9	5.9	5.9	-0.1	0.0	0.0	0.0	-1.5%	0.0%	-0.1%	0.0%
Leisure & Hospitality	42.3	37.6	37.4	36.0	38.7	-4.6	-0.3	-1.4	2.7	-11.0%	-0.7%	-3.7%	7.5%
Accommodation and Food Services	40.4	35.9	35.5	34.2	37.3	-4.6	-0.4	-1.3	3.2	-11.3%	-1.1%	-3.7%	9.2%
Accommodation	27.6	23.9	23.8	22.3	25.2	-3.8	-0.1	-1.5	3.0	-13.6%	-0.4%	-6.4%	13.2%
Casino Hotels	25.7	21.6	21.2	19.8	23.3	-4.1	-0.4	-1.5	3.5	-16.0%	-1.8%	-6.9%	17.8%
Restaurants & Bars	12.8	12.0	11.7	11.9	12.1	-0.8	-0.3	0.2	0.2	-6.2%	-2.5%	1.6%	1.8%
Other Services	6.0	5.5	5.5	5.6	5.6	-0.5	0.0	0.1	0.0	-7.8%	0.3%	1.1%	-0.1%
Government	23.2	22.7	22.0	21.8	21.7	-0.5	-0.6	-0.2	-0.1	-2.3%	-2.8%	-0.9%	-0.3%
Federal Government	2.6	2.6	2.6	2.6	2.6	0.0	0.0	0.0	-0.06	0.0%	0.0%	0.6%	-2.2%
State Government	4.1	4.1	4.1	4.1	4.2	0.0	-0.1	0.0	0.1	1.0%	-1.8%	0.6%	2.6%
Local Government	16.5	15.9	15.4	15.1	15.0	-0.6	-0.6	-0.2	-0.13	-3.4%	-3.6%	-1.6%	-0.8%

Source: U.S. Bureau of Labor Statistics.

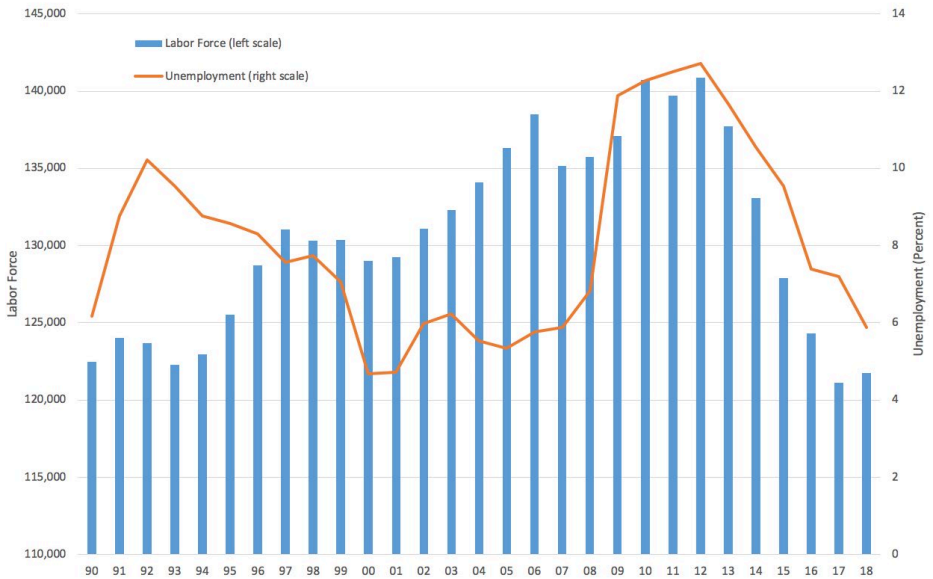
Reflecting last year's solid job growth, the metropolitan area's unemployment rate fell to 5.9 percent from 7.2 percent in 2017. Importantly, last year's decline in the unemployment rate came despite a modest increase in the local labor force of 0.5 percent. In fact, last year's increase in the local labor force was the first since 2012. Reflecting the aftermath of the Great Recession and the deep and protracted retrenchment in the local gaming sector, the local economy's labor force declined by nearly 20,000 (-14 percent) between 2012 and 2017.

Housing Market

As Figure 3 shows, single-family home prices in the metropolitan area declined by 36 percent between mid-2006 and early 2017. The decline in single-family home prices in Atlantic City was among the largest and most protracted in the nation. Home prices began to stabilize in early 2017. Since then, prices have increased by approximately 7 percent.

The effect of the collapse in home prices is visible in Figure 4, which shows permit activity for single-family homebuilding in the metropolitan area. Single-family homebuilding in Atlantic City declined significantly beginning in 2006 in tandem with the national housing market downturn.

Figure 2: Atlantic City Unemployment Rate and Labor Force
1990 to 2018



Source: U.S. Bureau of Labor Statistics.

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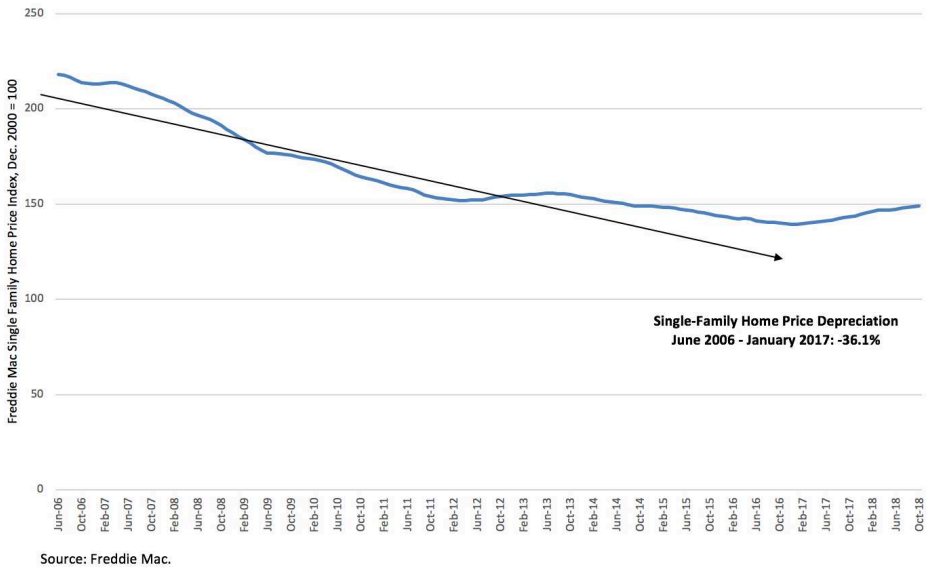
Activity remained largely dormant until mid-2015. Homebuilding began to recover thereafter before slowing markedly again in late 2016 and early 2017. Since early 2017, permit activity has slowly gathered pace. In October 2018, the six-month moving average of permits (which captures the number of single-family units authorized by permits pulled by homebuilders) climbed to 104—a level last seen in early 2007.

Atlantic City Gaming

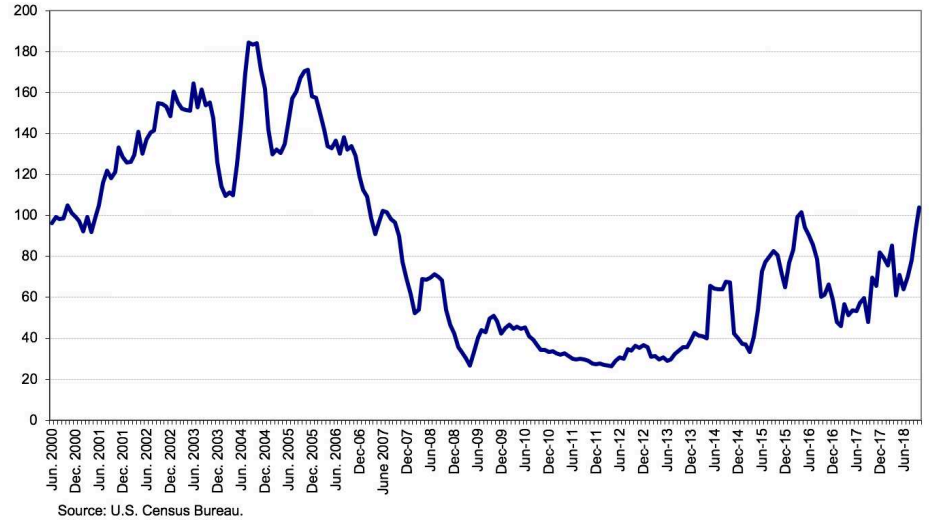
One key question that will hang over the Atlantic City metropolitan area economy as 2019 unfolds is whether the momentum the local gaming sector gained via the two new casino openings in 2018 can be sustained. While last summer's casino openings added jobs to the local economy, they also added significant new inventory (e.g., the industry's hotel room inventory increased by 28.5 percent) and competition to the local market. In addition to these openings and their localized effects on gaming operators and the industry's total employment, another key consideration regards the longer-run implications of sports wagering and internet casino gambling on Atlantic City's gaming sector. In the special feature that follows, long-time gaming industry analyst and former adjunct instructor at Stockton University, Anthony Marino, assesses the economic potential these newest forms of gaming hold for Atlantic City's gaming industry.

Figure 3: Freddie Mac Single Family Home Prices Index
Atlantic City Metropolitan Area June 2006 to October 2018



Source: Freddie Mac.

Figure 4: Single Family Housing Permits in Atlantic County
Units Authorized June 2000 to October 2018 6-Month Moving Average



Source: U.S. Census Bureau.

Anthony Marino, M.A.

Anthony Marino was Deputy Executive Director of the Atlantic City Expressway at the start of the resort's casino era. He is now retired from SJTA and from Stockton University where he was an Adjunct Professor.

The Atlantic City casino industry changed significantly in the second half of 2018. In late June, the simultaneous opening of two new casinos and the advent of legal sports wagering operations sparked a surge in employment numbers, visitor trips to the resort, and gaming revenues.

Brick and mortar casino gambling revenues for all of 2018 increased to $2.511 billion dollars from the 2017 level of $2.413 billion. Sports wagering, which commenced in mid-June, added another $50.2 million dollars to total gaming revenue while the industry's third revenue producing component, internet casino gambling, won $298.7 million dollars. Thus, full year gaming win in 2018 totaled $2.860 billion dollars, a robust +7.5% increase over 2017 revenues of $2.659 billion dollars. (See Table 2)

Internet gambling and sports wagering revenue trends merit close scrutiny for two reasons: they supplement brick and mortar gambling but may reduce future visitation to Atlantic City, thereby threatening traditional brick and mortar gaming and non-gaming revenues. Table 2 includes completed data from 2006, 2012, 2017, and data currently available

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Table 2: Selected Atlantic City Gaming Sector Indicators: 2006, 2012, 2017 and 2018

Indicators as of December 31 each year	2006	2012	2017	2018
Number of Licensed Casinos	12	12	7	9
Visitor-Trips to Atlantic City	34.5 million	29.3 million	24.1 million	N/A
Number of Casino Employees	42,456	34,726	22,178	27,927
Total Casino Gross Gaming Win	$5.167 billion	$3.051 billion	$2.659 billion	$2.860 billion
Brick and Mortar Win	$5.167 billion	$3.051 billion	$2.413 billion	$2.511 billion
Internet Gambling Win	$0	$0	$245.6 million	$298.7 million
Sports Wagering Win	$0	$0	$0	$50.2 million
Total Revenue (Gaming and Non-Gaming)	**$6.529 billion**	**$4.294 billion**	**$3.542 billion**	**N/A**
Gaming to Non-Gaming Revenue Ratio	79/21%	71/29%	76/24%	N/A
Gross Operating Profit	$1.381 billion	$360.7 million	$723.3 million	N/A
Gross Operating Profit per Employee	$32,528	$10,387	$32,613	N/A

Sources: New Jersey Division of Gaming monthly casino reports and New Jersey Casino Control Commission annual reports.
Final 2018 casino financial statements not available at time of publication.

for 2018 to suggest how both internal and external competition have affected land-based casino revenue and casino employee numbers in the last 12 years.

The rapid rise of internet casino gambling. The New Jersey Legislature and state gambling regulators fast-tracked the introduction of internet gambling ahead of most nearby east coast states. It became available in November 2013 and generated nearly $8.4 million dollars in gaming win by year's end.

Internet gambling came too late to save four of the then 12 casinos from closing during 2014. Nonetheless, internet revenues were $122.9 million dollars that year. In 2015, internet gambling increased 21.2%, to $148.9 million compared to 2014; it jumped another 32.1% in 2016 to $196.7 million dollars, and again by 24.9% in 2017 to $245.6 million dollars. As shown in Table 2, in 2018, internet gambling win reached $298.7 million dollars.

Will sports wagering follow a similar growth pattern? Total New Jersey sports wagering handle (amount bet, not amount won), including both Atlantic City casino and two racetrack sports, books totaled $1.247 billion dollars (in just six months) in 2018. But two of the nine casinos did not operate sports books in 2018, and others initiated activities late in the year.

The Hard Rock casino will open its sports book in early 2019 while Caesars casino in the resort apparently plans to continue sending its customers to its next-door neighbor's jointly owned sports book at Bally's. All three Atlantic City casinos owned by Caesars Entertainment (Caesars, Bally's, and Harrah's), as well as the Borgata, owned by MGM, have company managed sports book operations. The other five casinos partner with independent sports wagering companies such as William Hill, DraftKings, and FanDuel, to manage their sports books.

Future of sports wagering and internet casino gambling competition. These experienced, deep pocket international sports betting and online gambling companies will advertise heavily in 2019 in both the New York City and Philadelphia markets to attract new customers for both internet casino gambling and sports wagering in New Jersey. But their message is also intended for potential New York and Pennsylvania casino customers.

As of early January, five nearby Pennsylvania casinos directly across the Delaware River from New Jersey—Harrah's, SugarHouse, Valley Forge, Parx, and Sands Bethlehem—have initiated sports books, while the massive Stadium Casino in Philadelphia, scheduled to open in 2020, has already applied for a license. As Pennsylvania casinos ramp up both online gambling and sports wagering activities, many Pennsylvania residents that crossed into New Jersey to gamble in 2018 may remain this year in their home state to participate in both on-site and online wagering.

Pennsylvania land-based casinos opened in 2006. It is no coincidence, as shown in Table 2, that 2006 was the peak year of New Jersey casino gaming revenue. In the 12 years since, Atlantic City gross gaming revenue decreased from $5.2 billion dollars to $2.7 billion in 2017 before the increase last year to $2.9 billion. Future competition from Pennsylvania casinos, as in the past, this time for sports wagering and internet gambling customers, may siphon business from Atlantic City casinos.

Currently, two other nearby states that also provide strong competition to New Jersey's casino patron base, New York and Maryland, are less likely to give New Jersey sports wagering or internet gambling competition this year. But by 2020 they are certain to have passed the requisite legislation to be able to offer both new alternatives to their already large land-based casino customer bases.

Economic impact on South Jersey. In the last 30 years, the Atlantic City casino industry became the region's primary employer. As nearby state competition accelerated after 2006, falling visitor numbers and casino closings adversely impacted gaming revenue and casino employee numbers in Atlantic City. By 2017, a downsized Atlantic City gaming industry seemed to be on the rebound as accelerating internet gambling revenues, heightened cost controls, and less local competition boosted Gross Operating Profits. Available 2018 revenue data show that two new casinos, the commencement of sports wagering, and the continuing increases

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in online gambling generated significant upward momentum in total industry gross gaming revenues. However, data also show brick and mortar gaming revenues declined at six of the seven former operators in the second half of last year. Upsizing from seven to nine operators increased city-wide visits but apparently not enough to benefit all casinos. Complete 2018 annual financial reports for individual casinos are due in March. Those reports will provide additional insight into the impact of yet unreported costs on Net Revenues, Gross Operating Profits, and Net Income.

Questions not yet answered. Internet gambling and online sports wagering offer gaming operators the opportunity to reduce personnel and other costs associated with brick and mortar gambling. Online gambling may reduce staffing levels and render less critical the number of food, beverage, and retail outlets, even hotel rooms in generating gaming revenue. Promotional allowances and costs, plus room and food comps deployed to attract visits to land-based facilities to "incentivize" gambling, may not be as necessary in the future, thereby increasing profit margins for gaming operators.

An early sign of this possible long-term trend is that the two smallest Atlantic City casinos (on the basis of rooms and non-gaming amenities) have done extremely well in recent years. Both the Golden Nugget and Resorts plunged early into internet gambling and sports wagering. In 2018, Golden Nugget racked up a $104.8-million-dollar win from internet gambling, nearly doubling runner-up Borgata's amount of $54.1 million, while capturing 35 percent of the resort's total internet market. Resorts Digital accounted for $30.4 of Atlantic City's $50.2 million sports wagering revenue, a 61 percent market share.

Some assume the addition of on-site sports books ensures more visits to Atlantic City. Perhaps they did in 2018 while still a novelty. But more than $35 million dollars of Atlantic City's sports wagering win last year was actually bet online rather than at on-site kiosks or teller windows. The percentage of online wagers is likely to grow to perhaps 75 percent or more in the next two years as players adapt to mobile app wagering.

The benefits of boosting revenues while reducing costs through online betting and sports wagering might be counterbalanced by their potential adverse impact on visitation to the resort, thereby depressing brick and mortar gambling and non-gaming revenues not only in casinos but at all city tourism venues. Moreover, a recent Department of Justice interpretive statement of the federal Wire Act threatens a government move to declare illegal any payments across state lines of gambling bets even if made legally within New Jersey or other states.

Certainly 2018 was an excellent year for the region's tourism economy. Final data, however, will likely show that many of the nine casinos experienced decreased gross operating profits. If accelerating movement towards online sports wagering, internet gambling, and fierce external competition result in less future visitation, individual casino decreases in brick and mortar revenues, and falling employment levels, the current tourism industry boom may be short-lived.

The Ocean City metropolitan area—which is coincident with Cape May County—saw its best job growth since 2004 last year. Total employment in the metropolitan area economy increased by 1,400 jobs—a 3.2 percent increase. Importantly, last year's job growth in Cape May occurred outside its key leisure and hospitality sector, which

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experienced a job decline of 700 (-5.4 percent). Thus, employment in non-leisure and hospitality sectors increased by 2,100 (+6.6 percent). While payroll data limitations preclude full identification of the industries that experienced job growth last year, alternative data sources (first quarter data from the U.S. Bureau of Labor Statistics' Quarterly Census of Employment and Wages, which is based on administrative data from the state's unemployment system) suggests that much of it occurred in professional and business services, education and health services, and local government.

Last year's job growth—which pushed total establishment employment to 45,000—allowed total employment in the metropolitan area to finally surpass its pre-Great Recession 2005 cyclical peak of 44,600. Between 2005 and 2011, the metropolitan area lost 3,800 jobs (-9 percent). Since bottoming out in 2011, employment has risen by 4,300 (+10 percent).

Reflecting last year's job growth, Ocean City's unemployment rate fell to 8.5 percent last year from 9.2 percent the prior year. Importantly, last year's decline in the unemployment rate (unlike the prior year's) came despite an increase in the local labor force which grew a modest 0.8 percent (+394 participants).

Despite the overall job decline in Cape May's leisure and hospitality sector in 2018, hotel/motel sales tax data suggest that last summer's shore season was solid. During the summer months, sales tax collections in Cape May County were up 4.7% year-on-year (compared to rates of growth of 2.4% in 2017 and 3.4% in 2016). Sales tax collections were up 3.3% year-on-year thru September 2018 (compared to rates of growth of 2.9% in 2017 and 2.7% in 2016). Toll transactions through the Egg Harbor Toll Plaza also indicate that last year's summer shore season was good. Total toll transactions last summer were up 4.6% year-on-year (compared to growth of 2.7% in 2017, and a decline of 2.4% in 2016).

Single-family home prices in Ocean City rose 3.6 percent in 2018, according to Freddie Mac's single-family home price index. Between 2006 and 2014, single-family home prices in the metropolitan area declined by 22 percent. Since bottoming out, home prices have climbed 10.7 percent.

Looking ahead, Ocean City's economic fortunes in 2019 will be heavily dependent upon healthy consumers and the national interest rate climate. More than one-third of the metropolitan area's real GDP is tied to real estate and rental/leasing activity, compared to a U.S. metropolitan area benchmark of 14 percent. This figure not only reflects summer shore vacation rentals, but equally, second/vacation home buying. The latter tends to be rather

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interest-rate sensitive. In addition to real estate, 11 percent of Ocean City's real GDP is tied to the leisure and hospitality industry (compared to 4 percent nationally), while another 8.5 percent is tied to retail trade activity (compared to a national benchmark of 6 percent). Thus, all told, well over half of the metropolitan area's annual economic output is tied to highly discretionary consumer spending on entertainment, vacationing, real-estate investing and transactions.

Such statistics underscore the importance of consumers and interest rates for Ocean City's economy. Should consumers elect to dial back their spending in 2019 amid increasing worries over the state of the national economy, or were the Fed to continue to move more aggressively on the interest rate front than its most recent public remarks suggest it might, Ocean City's economy will likely see a slowdown in 2019. In fact, despite steady growth in consumer spending over the past few years at the national level, wage growth has been more modest. Last year's robust consumer credit growth reflects this dynamic.

Equally, while Cape May's economy is not driven by the greater Atlantic City economy, it remains true that it benefits from its northern neighbor's tourism traffic. Thus, another wildcard for Cape May in 2019 will be the health of Atlantic City's economy—especially its gaming sector.

Stockton's Long-Run Impact on Atlantic City's Economy

Among the most important developments that will play a role in shaping Atlantic City's economic fortunes over the coming decades is the opening last fall of Stockton University Atlantic City in the city's historic Chelsea neighborhood. Stockton's arrival (or, more accurately, return) to Atlantic City has understandably generated significant hope in Atlantic City. After years of significant economic dislocation and distress tied to the aftermath of the national housing crisis and Great Recession, and a deep localized casino-industry retrenchment, the university's new campus should make important contributions to the local economy in the years ahead.

How significant will Stockton's impact on the seaside resort's longer-term economic fortunes be? To shed some light on this question, I analyze three communities that experienced new university/college openings within the recent past: Nevada State College (NSC) in Henderson in 2002; the University of California Merced in 2005; and, Georgia Gwinnett College (GGC) in Lawrenceville in 2006. The history and details underlying each institution's opening were of course unique. And, their respective trajectories since opening have also been different. Thus, drawing out generalizations that might be used to forecast Stockton's longer-term impact on the City of Atlantic City is difficult. Perhaps most importantly, these three openings created new institutions of higher education. While Stockton Atlantic City required extensive public and private coordination and construction (just as these three institutions did), it did not birth a new institution of higher education. Thus, the analysis developed here is perhaps best interpreted as providing a framework upon which additional assessments and projections about Stockton's long-run impact on the City of Atlantic City can be grafted. Before discussing these three openings, I briefly outline the impacts that universities and colleges often have on their surrounding communities and local economies. Broadly speaking, such institutions' operations—as opposed to their physical construction, which positively affects things like construction employment in the short-run—generate several distinct (and, often overlapping) economic effects on their surrounding communities.

Procurement. Owing to their size and scale, higher educational institutions' procurement expenditures can represent significant sources of demand for a wide range of products and services. From paper, light bulbs and paint, to catering and waste management services, furniture, and landscaping, a modern institution of higher education, like any other large business, requires a dizzying and significant number of inputs. The greater the extent to which such inputs are purchased locally, the larger economic impact procurement will have on a local economy, its businesses, and their payrolls. Indeed, there are a host of examples from around the country of universities and colleges intentionally designing their procurement processes in ways meant to maximize local impact. Such practices are often central to these institutions' status as anchor institutions.

Foot-traffic. To the extent that university and college campuses lay in close physical proximity to their host communities' central business districts, their foot-traffic (by students, staff, faculty, guests, and others) can translate into vital support for local (often small) businesses. Such traffic can be especially important if it enhances demand for businesses that traditionally rely heavily upon day-time and/or work-week traffic, e.g., restaurants' and convenience stores' morning and lunch-time rushes. University populations can often extend the usual 9-5 work week for many businesses located near a campus.

Real Estate. In the absence of an adequate supply of on-campus housing for students, universities and colleges can also significantly impact local real estate markets—especially the multi-family (apartment) market. Indeed, a decision to rely upon private sector provisioning of apartments and housing options for students and faculty can have a significant impact on the development of local real estate. This impact on real estate is independent of (though often closely tied to) universities' and colleges' own demand for real estate.

Educational Attainment. Institutions of higher education can (perhaps most obviously) often raise the educational attainment of their local population. While several factors influence the significance of this impact—especially the post-graduation residency decisions of graduates—many institutions of higher education's student bodies (especially public ones) are drawn from their surrounding communities.

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Community Engagement. Many universities and colleges engage in extensive community engagement-related work. Internships, volunteerism, service-learning, experiential education, and community partnerships provide significant benefits to institutions of higher education and their host communities. While the ability to place an economic value on such engagement is often difficult (owing to its non-market status), there is little doubt that the value of such activities may be significant.

Diversification and Commercial Development. Universities and colleges can play an important role in diversifying a local economy. Such diversification has two dimensions. First, significant institutional growth over the long-run—which, above all, means growing enrollment, faculty, and staff, and procurement expenditures—can foster greater demand for a host of goods and services across a range of industries, including, among others, retail and wholesale trade, professional and business services, financial activities, leisure and hospitality, and other services. Such increases in demand can quickly mushroom in cases where an anchor educational institution serves as a magnet for the establishment of new businesses, business relocations (say, to a university district), or branch openings of existing businesses. Broadly speaking, the extent of this type of industrial diversification will hinge upon the relationship between the educational institution's size and its host community's economy. Most obviously, such diversification might be expected to be rather significant given a large educational institution and a relatively small local economy. It may be far less significant in the opposite case.

The second diversification dimension relates to the research and development activities of higher educational institutions. There is a long and well-documented history of such institutional activities that have spawned entirely new products and industries. Perhaps the most famous example is Stanford University's role in the development of its renowned Industrial Park in the 1950s. The Park served as an early home to Hewlett-Packard, Eastman Kodak, General Electric, and Lockheed, among others. This history, of course, radically transformed the greater Bay Area economy.

Unfortunately, data limitations at the municipal level preclude the development of an analysis of each of these impacts for the three campus openings highlighted here. For example, while real estate data are widely available for metropolitan areas, they tend to be rather limited at the municipal level. Equally, the broader impact of universities' and colleges' community engagement work, as noted, is often difficult to quantify. At the same time, city-based data can be leveraged to get some sense of how these three institutions of higher education have affected their local host communities and economies along many of these other impact dimensions.

As Table 3 shows, the City of Merced's population totaled 65,000 in 2005. By 2017, it had grown 27 percent to 83,000. Over the same period, UC Merced's enrollment grew from 875 to 7,400. Thus, by 2017, the university's enrollment was equal to nearly 9 percent of the City of Merced's population. Nearly all the university's students live on campus and are therefore (owing to U.S. Census Bureau population estimation protocols) counted as residents of the city. Henderson's population grew from 175,000 in 2000 to 302,000 by 2017—a rather remarkable 72.5 percent increase that reflects its proximity to Las Vegas, which has consistently been among the fastest-growing metropolitan areas in the U.S. for several decades. Over the same period, NSC's enrollment climbed from 177 to 4,200. Thus, by 2017, the college's enrollment was equal to 1.4 percent of the city's population. However, because NSC has yet to develop on-campus housing, it is impossible (as in the UC Merced case) to determine the relationship between its enrollment and the city's population. Lawrenceville's population increased to nearly 30,000 in 2017 from 26,900 in 2006.

University of California, Merced

Lying 115 miles east of San Jose, the City of Merced is the county seat of Merced County, which comprises the Merced, CA metropolitan statistical area. Merced, along with its neighboring metropolitan areas, Fresno and Modesto, lies along the north-south State Route 99 corridor that winds its way through the greater San Joaquin Valley. Merced lies 40 miles southeast of Modesto, and 57 miles northwest of Fresno. The 815-acre campus lies adjacent to Yosemite Lake approximately 8 miles northeast of downtown Merced. UC Merced welcomed its first undergraduate class in the fall of 2005. Enrollment has grown from an inaugural undergraduate class of 875 to nearly 7,400 students today (including nearly 600 graduate students). Approximately 72 percent of UC Merced's first-year students are first-generation college students. The campus' faculty and administration total more than 1,500. Academic programs include engineering, natural sciences, social sciences, and the humanities and arts.

Nevada State College (NSC)

Located in the southern foothills of Henderson, NV (13 miles southeast of downtown Las Vegas), Nevada State opened its doors in the fall of 2002 as the state's first state college. Today, its 509-acre campus (which lies six miles southeast of downtown Henderson) enrolls approximately 4,200 undergraduates (compared to an inaugural class of 177). Sixty-one percent of students are first-generation college students. Faculty and staff number 175. The college offers a range of degrees across its schools of education, nursing, and liberal arts and sciences.

Georgia Gwinnett College (GGC)

Georgia Gwinnett College is located in Lawrenceville, GA which lies 30 miles northeast of downtown Atlanta. GGC opened its doors on August 18, 2006, as the first four-year public institution created in Georgia in more than 100 years. Today, the college's 260-acrea campus, which lies seven miles northwest of downtown Lawrenceville, enrolls more than 12,000 undergraduate students (compared to an inaugural class of 118). Forty percent of students are first-generation college students. The college offers degrees in business, education, health sciences, liberal arts, sciences and technology.

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GGC's enrollment grew from 118 to 12,000 during the same period. Like NSC, GGC has limited on-campus housing as only 8.3 percent of its students live on campus. By 2017, GGC's enrollment was equal to 40 percent of Lawrenceville's population.

The enrollment statistics for the three universities and their relationship to their host cities' populations provide a benchmark for considering the relationship between Stockton Atlantic City and the City of Atlantic City's population. In 2017, the city's population totaled 39,000, while Stockton Atlantic City housed just over 500 students in the fall of 2018. Thus, the university's AC-based student population was equal to 1.2 percent of the city's population—roughly on par with UC Merced's inaugural rate of 1.3 percent.

Drawing out the economic implications of these enrollment and population statistics for these institutions' host cities is complicated. The first issue regards students' living arrangements. As noted, in the UC Merced case, nearly all students live on campus, whereas in the NSC and GGC cases, very few do. Thus, in the latter two cases, students' off-campus housing needs have generated demand for local apartments and thus benefited apartment owners and developers. The residential facility at Stockton Atlantic City is thus currently more in line with the UC Merced case. At the same time, if Stockton's AC-based student population were to grow over the coming decade(s), the private sector could be relied upon to meet some (perhaps all) of the demand for student housing.[2]

The second issue regards these institutions' campuses' physical locations vis-à-vis their host cities' downtown business districts. As noted, all three campuses highlighted here lie several miles from their respective host downtown districts. This likely limits the "foot-traffic impact" they have on their local communities' central business districts. Stockton Atlantic City is unique in this sense as it lies within the City's downtown business district. Thus, it might be expected that Stockton's foot-traffic impact on the local

Table 3: Selected Indicators for Merced, CA (UC Merced), Henderson, NV (Neveda State College), and Lawrenceville, GA (Georgia Gwinnett College)

	UC Merced (2005) Merced, CA			Neveda State College (2002) Henderson, NV			Georgia Gwinnett College (2006) Lawrenceville, GA		
	2005	2017	% Change	2002	2017	% Change	2006	2017	% Change
University/College Enrollment	875	7,400		177	4,200		118	12,000	
City's Population	65,391	83,100	27.1%	175,381*	302,535	72.5%	26,878	29,873	11.1%
Enrollment relative to host city's population	1.3%	8.9%		0.1%	1.4%		0.4%	40.2%	
Employment Details**	**2004**	**2017**	**% Change**	**2005**	**2017**	**% Change**	**2005-2007**	**2017**	**% Change**
City's Civilian employed population 16 years and over	27,795	29,149	4.9%	118,448	143,812	21.4%	12,636	15,741	24.6%
Employment by industry									
Agriculture, forestry, fishing and hunting, and mining	1,460	1,554	6.4%	56	224	300%	67	0	-100.0%
Construction	2,192	2,223	1.4%	9,861	9,532	-3%	1,850	2,736	47.9%
Manufacturing	3,213	2,255	-29.8%	5,364	7,492	40%	1,397	2,343	67.7%
Wholesale trade	625	1,344	115.0%	4,322	4,081	-6%	839	237	-71.8%
Retail trade	3,679	2,976	-19.1%	13,953	17,484	25%	1,614	1,198	-25.8%
Transportation, warehousing, and utilities	966	1,725	78.6%	5,671	8,959	58%	784	782	-0.3%
Information	748	247	-67.0%	2,155	1,729	-20%	333	163	-51.1%
Finance and insurance, real estate, rental and leasing	1,155	1,164	0.8%	9,116	10,695	17%	841	849	1.0%
Professional, scientific, management, administration services	1,594	2,181	36.8%	12,208	17,954	47%	1,417	2,871	102.6%
Educational services, and health care and social assistance	7,973	7,837	-1.7%	16,645	25,950	56%	1,736	2,056	18.4%
Arts, entertainment, and recreation, accommods.,	1,699	1,359	-20.0%	28,753	28,355	-1%	813	1,451	78.5%
and food services Other services	1,085	1,596	47.1%	3,979	5,311	33%	607	551	-9.2%
Public administration	1,406	2,688	91.2%	6,365	6,046	-5%	338	504	49.1%
Educational attainment									
Share of host city's 18-24 Population with BA+	1.4%	7.7%	6.3 ppts.	6.3%***	7.7%	1.4 ppts.	6.8 (2009)	5.2%	-1.6 ppts.
Additional University/College Details (latest available)									
Faculty/Staff		1,537			175			698	
FT Enrollment		99%			41%			66%	
Residential Students		99%			0%			8.3%	
% Students from host city/county		26% (San Joaquin Valley)			N/A			75% (Gwinnett County, GA)	
First generation students (2016)		72%			61%			40%	
Avg. Net Price after Financial Aid (2016)		$12,805			$12,771			$12,384	
Salary and Benefits		$157 million (2015)			$18.7 million (2015)			$67.8 million (2015)	
Total Expenditures		N/A			$32.6 million (2015)			$122 million (2015)	

*** 2000 Data**
**** Year shown based on data availability.**
***** 2005 Data**
Sources: U.S. Census Bureau American Community Surveys (multiple years). Data USA: <https://datausa.io/about/>

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economy (or, surrounding neighborhood) might be more significant than in these other cases. If the volume of traffic on the AC campus grows—be it a result of additional AC-based Stockton students, course offerings, or, general university activities—this impact would be expected to increase.

Stockton Atlantic City has the capacity to seat 2,100 students in more than 100 classes each semester. If one assumes there are an additional 100 staff, faculty, and administrators that service these students we get 2,200 individuals engaging on the AC campus during an average academic week (if the campus is running at capacity). If the average individual spends $15 off-campus per week (e.g., dining off campus, patronizing local convenience/grocery/drugstores, etc.), we get $33,000 of Stockton AC-based campus "foot-traffic expenditures" weekly in the local AC economy. [3] Given an academic year of approximately 30 weeks, this translates into $990,000 worth of off-campus expenditures annually in the local economy. Contextualizing this is difficult owing to the dearth of current economic data for the City of Atlantic City (as opposed to the greater Atlantic City metropolitan area). Economic Census data for 2012 (the latest available for this U.S. Census Bureau quinquennial product) indicate that the combined annual sales for restaurants and bars, along with two retail segments likely to benefit from university foot-traffic (grocery and drug stores) totaled $376 million in the City of Atlantic City. The just-cited $990,000 worth of off-campus foot-traffic related expenditures tied to Stockton Atlantic City is equal to 0.3 percent of these sales.

Table 3 also provides industry-based employment details for the 16+ residential employed population for the cities of Merced, Henderson, and Lawrenceville. As shown, Merced's 16+ employed population increased 4.9 percent between 2005 and 2017, while Henderson's and Lawrenceville's increased 21.4 and 24.6 percent, respectively. The underlying industry-based employment detail provided in the table provides some (albeit rather imprecise) sense of how these universities/colleges have affected their host community economies' industrial structures. The most obvious example relates to public employment in Merced, which by virtue of UC Merced employees' status as state employees, increased by 91 percent. While Lawrenceville also saw a significant increase in public employment between 2006 and 2017 (a fact that likely reflects GGC's nearly 700 employees), Henderson experienced a decline in public employment. Parsing out these changes in each city's public employment since their respective university openings is, of course, complicated by the fact that these institutions' employees may or may not reside in their universities' host cities.

Beyond public employment, it is noteworthy that each host city saw rather significant gains in professional and business services employment. Merced and Henderson also recorded gains in other services, which include several industries, e.g., personal care services, repair and maintenance services, civic and social advocacy organizations, and private household services. And, while these same two cities recorded declines in leisure and hospitality employment, Lawrenceville experienced a sizable gain (a fact that may reflect the size of GGC's enrollment relative to Lawrenceville's total population). Additional scrutiny of the industry-based employment details underscores two broader points. First, while each host city's economy did experience some important industry-based employment changes between the time their respective university/college opened and 2017, no clear and consistent pattern of industrial change across the three cities is discernible.

On one hand, this is not surprising. Such industrial transformations (diversification) involve a complex array of factors. As noted, while new universities and colleges clearly can play important roles in such processes, they are hardly the only ones. Larger economic forces (ones that are often not local) also play a principal role in the industrial evolution of city economies. Indeed, as the industry-based employment detail in Table 3 shows, both Henderson and Lawrenceville recorded sizable gains in manufacturing employment. (Merced's manufacturing employment, meanwhile, declined rather significantly.) These gains were clearly not tied to NSC's or GGC's openings. Equally important, whereas a new large private commercial organization can often leverage significant financial resources (both from within and without) and inject them into a city economy upon arrival, public higher educational institutions (like the three examples here) are generally far more financially constrained. The upshot is that while it seems clear that Stockton Atlantic City will play some role in helping to diversify the local Atlantic City economy (both via its own existence in the city, as well as its ability to help support existing and new businesses—especially in its immediate neighborhood), it seems unlikely that it will radically reshape the city's industrial base over the long-run.

Additional insight into the potential impact a college or university can have on its host city's economy can also be had via consideration of its total expenditures. As shown in Table 3, total 2015 expenditures for NSC and GGC were $32.6 and $122 million. (While total expenditures for UC Merced were unavailable, I estimate, based on payroll data, that they totaled approximately $274 million in 2015.) The bulk of these expenditures were tied to payroll. UC Merced's payroll (salaries and benefits) in 2015 totaled $157 million, while NSC's and GGC's were $18.7 and $67.8 million, respectively. To get a ballpark sense of how large these expenditures were relative to each institution's host county's economy, I consider their size relative to total personal income which is available at the county level. (Such a metric is not available at the municipal level.) UC Merced's total expenditures in 2015 were equal to 2.6 percent of Merced County's total personal income.

The comparable figures for NSC (Clark County, NV) and GGC (Gwinnett County, GA) were 0.03 percent and 0.33 percent. Thus, even though UC Merced's enrollment was considerably smaller than GGC's, its university status and extensive research operations considerably enhance its contribution to the greater Merced metropolitan area economy. (The NSC figure is difficult to interpret since its host county is Clark, which comprises the greater Las Vegas-Henderson metropolitan area.)

Stockton's expenditures in 2015 totaled approximately $217 million, while its payroll was $132.3 million. Thus, Stockton's expenditures were equal to 1.7 percent of Atlantic County's total personal income. These figures for Stockton (drawn from 2015) were of course tied to its main Galloway campus, i.e., operational outlays tied to the new AC campus are considerably smaller.

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Among the most interesting indicators shown in Table 3 is educational attainment. As shown, the increase in the share of the City of Merced's 18-24 age cohort that holds a BA degree or higher has risen significantly since UC Merced's opening. In 2005, just 1.4 percent of this cohort held a BA degree or higher. By 2017, this share had jumped to 7.7 percent. This share also increased in Henderson from 6.3 percent to 7.7 percent. And, while it declined in Lawrenceville by 1.6 percentage points, it increased to 10.5 percent (from 9.2 percent) in greater Gwinnett County, wherein Lawrenceville and GGC lay. The share of the City of Atlantic City's 18-24 age cohort that held a BA degree or higher was 3.5 percent in 2012-2017. (This share equaled 8.8 percent in Atlantic County, NJ.) Based on these data, it seems reasonable to expect that one of the Stockton AC campus's chief contributions to the local economy in the years ahead will be to increase the educational attainment of this age cohort in the City of Atlantic City.

What are the larger implications of the foregoing discussion and analysis? As noted, each of these institutions' openings and subsequent trajectories have been unique—just as Stockton Atlantic City's will be. This fact limits the ability to forecast Stockton's long-run impact on the City of Atlantic City. Nevertheless, the analysis here appears to provide at least two important take-homes. First, it seems clear that new colleges and universities can—via their procurement, foot-traffic, real estate needs, and community engagement—can play important roles in supporting their local host economies and communities. In additional to these direct impacts, their anchor status can also help stabilize their immediate neighborhoods and attract new businesses. Last fall's opening of AtlantiCare's first Atlantic City-based Urgent Care Center on the Stockton AC site is emblematic of this type of magnet effect.

At the same time, these three openings also make clear (given their multi-year histories) that such institutions will not quickly nor radically transform their local economies. In some sense, this should not be surprising. Despite their size and scale, such institutions remain relatively small in the context of their larger host local economies. For example, despite UC Merced's obvious heft as an anchor institution in the San Joaquin Valley, one that supports 7,400 students and nearly 1,500 staff, its total expenditures (as noted) account for just 2.6 percent of the Merced metropolitan area's total personal income.[4] Were Stockton Atlantic City (alone) to yield an equivalent impact, its expenditures would have to equal $327 million or 1.5 times its 2015 Galloway campus expenditures. Now, of course, once one considers the city level (as opposed to the metropolitan level), this changes somewhat. It remains true that the City of Atlantic City's economy accounts for the lion's share of the greater Atlantic City metropolitan area economy (largely owing to the casino industry). It is also true that Stockton Atlantic City's impact on the local city economy may be larger than these other institutions' due to the fact the it sits in the city's business district (unlike the three other campuses that lies several miles from their host cities' downtown areas).

Still, based on these three case studies, it seems far-fetched to imagine that Stockton Atlantic City will drive significant outperformance in the Atlantic City economy. Well over a decade has passed since UC Merced's opening. And, despite its heft as an anchor institution and obvious positive impact on the local economy, its presence in Merced has not been transformative in terms of generating extensive industrial diversification nor delivering significant economic outperformance to the greater Merced metropolitan area (nor even the City of Merced, whose 16+ employment base has grown just 5 percent since UC Merced opened its doors). The message here should not be misinterpreted. UC Merced, along with NSC and GGC have clearly had significant positive impacts on their host communities and their economies. Indeed, the relevant (though purely hypothetical) local economic development question is not whether these institutions have generated significant diversification or outperformance. Rather, it is what these communities' economic experiences would have been in the absence of these institutions.

Most importantly, and perhaps also least surprisingly, these institutions' largest contribution to their respective communities to date appears to have been their central roles in elevating the educational attainment of their communities' populations. Despite the understandable interest in Stockton's role in the economic revitalization of Atlantic City and its economy in the near-term, those contributions (whatever they may be) will, in the long-run, be dwarfed by the far more significant educational ones it delivers to those who walk through its doors.

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Endnotes

1. The employment statistics cited are annual establishment (payroll) employment figures from the U.S. Bureau of Labor Statistics (BLS). These employment statistics have historically differed somewhat from casino-reported employment figures released by the New Jersey Division of Gaming Enforcement. In addition to methodological differences across the two estimates, the casino-reported figures (which are often cited in the local press) include casino employees on leave, whereas employees on leave without pay are excluded from the BLS' estimates. Despite this difference (which elevates the casino-reported employment count above the BLS' estimate, both series indicate that the total number of casino hotel employees increased by 3,500 in 2018. Monthly casino-reported employment averaged 25,900 in 2018 vs. 22,400 in 2017. The comparable BLS' estimates are 23,300 and 19,800.

2. It should be noted that Stockton has made no public statements regarding its plans for enrollment nor additional housing development on/near the AC campus. This statement is purely a hypothetical one designed to contextualize the discussion.

3. While a Stockton AC-based residential student likely spends more than $15 per week in the local City of Atlantic City economy (College Board data indicate that the average four-year public college student spends approximately $70 per week exclusive of tuition, room, board, fees, books, transportation, etc.), many students who take classes on the AC campus live on/near the university's main campus in Galloway, which lies approximately 15 miles inland. Thus, many of these students may spend very little money in the city's economy. At the same time, some university academic programs have relocated faculty and staff to Stockton Atlantic City. These individuals likely spend more than students in an average week. Thus, the $15 figure is likely a conservative estimate.

4. The use of UC Merced in this context is based on its operational size relative to either NSC or GGC. In other words, despite its smaller enrollment vis-à-vis GGC, its operational budget is significantly larger. Using the largest institution (of the three cases) thus provides a benchmark for gauging how large the Stockton AC operation would need to be to generate a UC Merced-like impact.

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