



THE SOUTH JERSEY ECONOMIC REVIEW

Summer 2014

About the SJER

The SJER is part of a broader and ongoing Stockton College initiative whose aim is to provide the region's stakeholders and policy-makers timely, high-quality research products and technical assistance that focus on the region's economy, its development, and its residents' well-being. The SJER is produced and distributed exclusively as an electronic journal. If you would like to be electronically notified of future releases of the Review, send an email to sjer@stockton.edu with the subject line "sjer".



In This Issue

Current Situation..	1
Modeling the Effects of Casino Industry "Right-Sizing" on AC's Economy	4
The Right Amount of Right-Sizing	8
Leaving Las Vegas Behind (as a Development Model)	9
Policy Responses	10

AS RIGHT-SIZING IN THE GAMING INDUSTRY ACCELERATES, DARK DAYS LIE AHEAD FOR AC'S ECONOMY

It is now clear that the city that was once "Always Turned On" will have far fewer casino lights illuminated over the coming years. Indeed, 2014 will go down in Atlantic City's history as one of the worst economic years on record. While Atlantic City economy's brightest days may yet lie ahead of it, the next few years will be very rocky ones and extend the pain already caused by the Great Recession and its aftermath. The question of whether those "few" years turn out to be just one or two or instead several (say, five-plus

years) will in part turn on how policymakers respond to the current situation.

This edition of the Review develops four gaming industry "right-sizing" scenarios and models their macro-level effects on Atlantic City's economy. Box 1 provides summary information yielded by these scenarios. (See pps. 4-5) As shown, total employment losses range from a minimum of 6,300 to a maximum of 14,300, while total earnings losses range from \$158 million to \$376 million.

Box 1: The Effects of Gaming Industry Right-Sizing on Atlantic City's Economy

Summary Information Only

Scenario	Casino Closings	No. Closings	Total Losses	
			Employment	Earnings
1	Atlantic Club; Showboat; Trump Plaza	3	6,328	\$158 mil
2	Scenario 1 + one large casino	4	9,578	\$259 mil
3	Scenario 2 + one small casino	5	11,918	\$317 mil
4	Scenario 3 + one small casino	6	14,258	\$376 mil

This edition of the Review considers two additional issues—both important in the context of Atlantic City's future. First, I explain why Las Vegas and its diversified tourism and hospitality sector is a poor model upon which to base Atlantic City's future redevelopment. Second, I present a brief list of possible policy responses that policymakers should consider as they: 1) prepare for the jobs crisis that seems likely to cascade across the local economy this fall and then 2) eventually turn their attention to the question of Atlantic City's longer-term redevelopment.

CURRENT SITUATION

After several years of struggling to beat back the effects of heightened regional gaming competition, the process of gaming industry right-sizing in Atlantic City is finally now well underway. Parent corporation managers have begun in earnest to right-size their local gaming operations—a process that mandates reduced gaming industry supply vis-à-vis the significantly reduced demand for AC gaming

product that has developed in the wake of regional industry expansion over the past decade.

This right-sizing process which began in January with the closing of the Atlantic Club will continue given recent announcements that Caesars will shutter the Showboat casino at summer's end, and that Trump Plaza is slated to close soon thereafter. Whereas the first closure of the year cost the local economy approximately 1,600 jobs, Showboat will eliminate roughly 2,000 while Trump Plaza will eliminate about 1,000 more. Moreover, Revel's recent bankruptcy filing (its second in two years) seems to suggest that is too could close before 2014 is over. Revel has notified its approximately 3,100 employees that it could close as soon as Aug. 18 if efforts to sell the property fail.

While the gaming industry's right-sizing will eventually yield more profitable gaming halls—which *in those specific and narrow*

continued on page 2

CURRENT SITUATION

continued from page 1

economic terms represents a “good” long-run development for the greater Atlantic City economy—it will push the local and regional economy to the brink over the near-term. As I explain more fully below (see p. 4), the industry’s right-sizing will not only increase unemployment among gaming industry workers, but also have significant adverse multiplier effects on the regional economy. What’s more, the potential for a northern-New Jersey casino operation post-2016 (which recent reports seem to suggest is fast-becoming a likely possibility) only further complicates the metropolitan area economy’s long-term outlook. The uncertainty surrounding such a northern prospect will undermine Atlantic City’s short-term health as well because it is likely to deter private sector investment until a final decision by state lawmakers has been reached.

All of this suggests that there is an urgent need for collective strategic thinking about the regional economy’s longer-term development. Above all, such thinking must consider the efficacy of continuing to pour (what most, though not all, consider to be) public monies into the local gaming and hospitality sector. New regional market realities in these industries must be recognized and accepted. Subsidies and publicly-backed finance directed at this sector cannot be sustained indefinitely. In short, private sector managers in the gaming and hospitality industry must be allowed to weigh *market* risks and rewards—ones free of the distortions such subsidies and financial arrangements tend to generate. Only then will private sector agents bear the total risks associated with their investment decisions. Continued efforts to stave off these larger market forces (however well-intentioned and ostensibly laudable) will involve opportunity costs in long-run development terms. Public monies directed at one industry or sector can generally be directed elsewhere, e.g., toward programs and initiatives that help increase the viability of businesses and industries whose long-run growth prospects are brighter. Such viability, it should be noted, is often heavily dependent upon a highly-skilled workforce (whether it is locally nurtured or imported).

Efforts to reshape Atlantic City’s future economic development over the coming

years must also confront what Edward Glaeser refers to as the “folly of building-centric urban renewal”. In short, this means coming to grips with the idea that, “cities aren’t structures; cities are people.” He writes:

Too many officials in troubled cities wrongly imagine that they can lead their city back to its former glories with some massive construction project—a new stadium or light rail system, a convention center, or a housing project. With very few exceptions, no public policy can stem the tidal forces of urban change . . . Shiny new real estate may dress up a declining city, but it doesn’t solve its underlying problems. The hallmark of declining cities is that they have too much housing and infrastructure relative to the strength of their economies. With all that supply of structure and so little demand, it makes no sense to use public money to build more supply.¹

The import of Glaeser’s remark cannot be overstated. Local redevelopment efforts must begin to focus on strengthening and broadening the metropolitan area’s economic base. More polish, security, cleanliness, ground-breakings, and ribbon cuttings won’t accomplish this goal. Diversifying the local economy *beyond* gaming and hospitality,

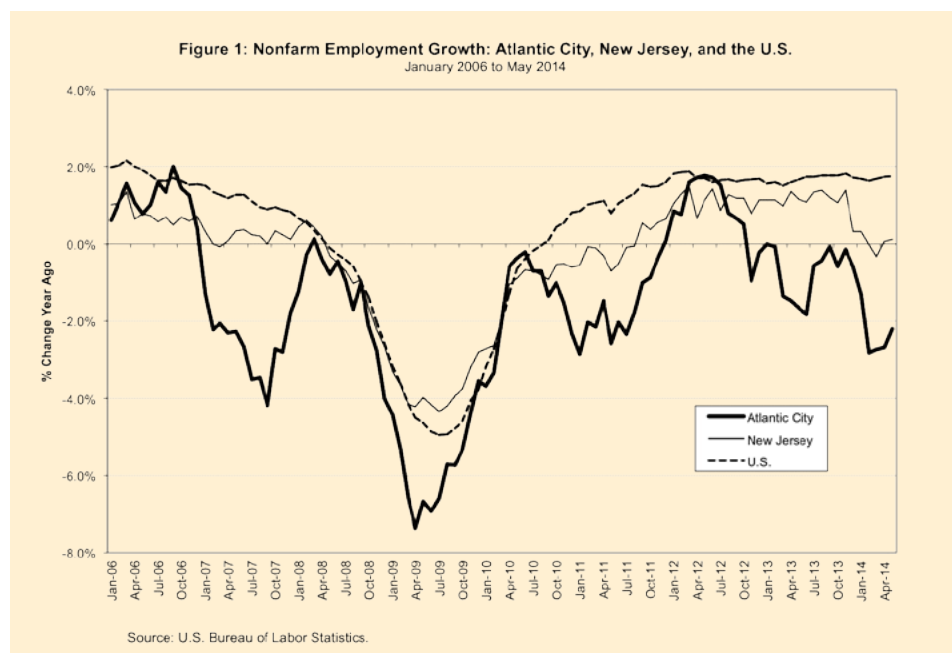
recruiting successful businesses from outside the local economy, nurturing the growth of existing local businesses (especially those with export potential), and helping the unemployed acquire new skills, retrain, and/or providing them relocation assistance (should they voluntarily seek it)—all these activities should become constituent parts of redevelopment efforts in the years ahead.

By the Numbers

In May, nonfarm employment in the Atlantic City metropolitan area was contracting at a 2.2% rate year-on-year. Employment at the state and national levels was growing at year-on-year rates of 0.1% and 1.7% respectively. (Figure 1) Atlantic City’s year-on-year job decline of 3,000 in May was the fourth-largest among all U.S. metropolitan areas. Remarkably, Atlantic City has not recorded a single month of year-on-year job growth since October 2012.

Meanwhile, the metropolitan area’s unemployment rate stood at 11% in May—significantly above the state’s 6.8% and the nation’s 6.3%. While the unemployment rate has consistently declined since peaking at 14% in November 2012 (though it did rise briefly in March and April of this year following the Atlantic Club’s closure), this reflects a

continued on page 3



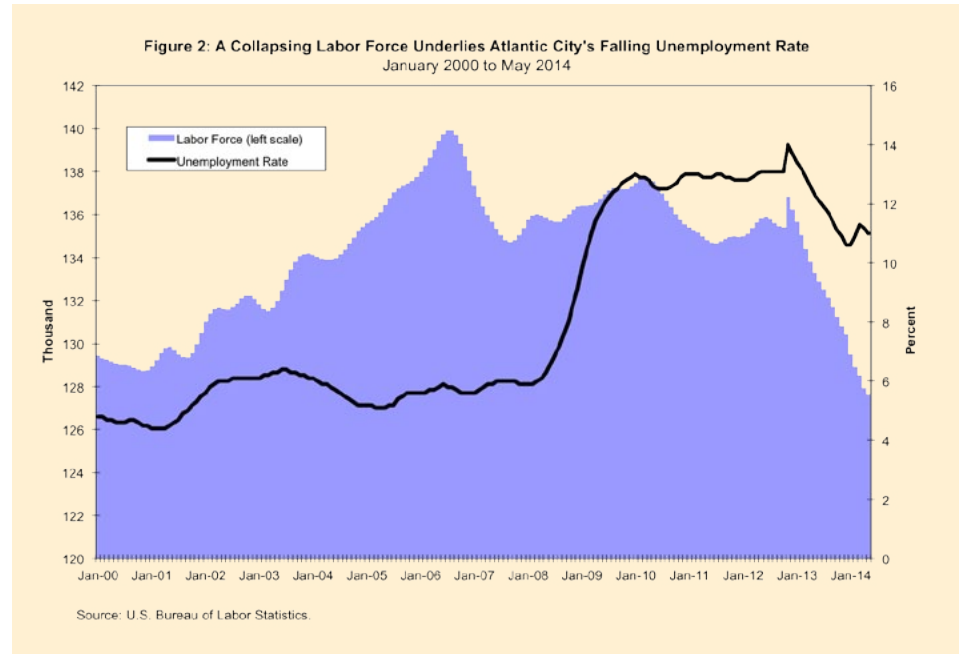
BY THE NUMBERS

continued from page 2

significant decrease in the metropolitan area's labor force—not strong job growth. (Figure 2) Since November 2012, Atlantic City's labor force has declined by a whopping 9,200 or 6.7%. Over the same period, the total number of unemployed individuals in the metropolitan area declined by 5,100 or 27%. In May, 14,057 individuals were officially unemployed in Atlantic City.

The steep decline in the labor force reflects not only a rising pool of discouraged workers (which are not officially counted as unemployed), but also out-migration. Indeed, recently-released county population estimates indicate that 5,675 persons migrated out of Atlantic County between 2010 and 2013. This outflow was offset, however, by natural increase (+3,000), and international emigration into the county of +4,080. If the flow of international emigrants slows (which seems likely given the continued poor economic environment), the county will begin to record population losses if the flow of domestic out-migration continues apace or accelerates over the coming years.

As Table 1 shows, in the January-May period of this year, total nonfarm employment in the metropolitan area was off 3,100 from a year earlier. Unsurprisingly, employment in the accommodations industry (which includes the hotel casinos) was down 4,000 year-on-year. Importantly, the jobs lost via the Atlantic Club's closure in January represent only 1,600



of these job losses—a clear indication that the industry's remaining operators continue to trim payroll. Besides accommodations, year-on-year job losses were also recorded in construction, manufacturing, and government. Combined these three industries' employment fell by 1,100 (-3.6%).

The metropolitan area also saw several industries record job gains in the January-May period of this year. Both restaurants/bars and

retail trade registered year-on-year job gains of roughly 800. Professional and business services saw employment increase by 300, while transportation and public utilities gained 200 jobs. Smaller gains were also recorded in education/health services and other services. Collectively, these industries recorded total job gains of 2,300 in the January-May period which helped offset the loss of 5,400 jobs in the industries mentioned above.

Table 1: Industry Employment Trends in Atlantic City

Industry	Average Employment (000s)			Change on prior period (000s)		% Change from prior period	
	Jan-May 2012	Jan-May 2013	Jan-May 2014	Jan-May 2013	Jan-May 2014	Jan-May 2013	Jan-May 2014
Total Nonfarm	134.0	132.7	129.6	-1.2	-3.1	-0.9%	-2.4%
Total Private	110.9	109.5	106.9	-1.4	-2.6	-1.3%	-2.4%
Leisure and Hospitality	45.7	45.0	41.4	-0.8	-3.5	-1.7%	-7.9%
Accommodation and Food Services	44.2	43.5	40.4	-0.7	-3.1	-1.7%	-7.2%
Accommodation	33.0	31.6	27.6	-1.4	-4.0	-4.2%	-12.5%
Casino Hotels	31.3	30.0	26.4	-1.3	-3.6	-4.2%	-11.9%
Food Service and Drinking Places	11.3	11.9	12.7	0.6	0.8	5.7%	6.9%
Construction	4.9	4.6	4.1	-0.3	-0.5	-6.9%	-10.4%
Manufacturing	2.2	2.1	2.0	-0.1	-0.1	-2.8%	-3.8%
Wholesale Trade	2.9	2.5	2.5	-0.4	0.0	-13.8%	0.0%
Retail Trade	15.0	15.1	15.9	0.2	0.8	1.1%	5.2%
Transportation and Utilities	2.9	2.8	3.0	-0.1	0.2	-2.1%	6.4%
Information	0.8	0.8	0.8	0.0	0.0	0.0%	0.0%
Financial Activities	3.9	3.9	3.9	0.0	0.0	-0.5%	0.0%
Professional and Business Services	9.1	9.1	9.4	-0.1	0.3	-0.7%	3.7%
Education and Health Services	18.9	18.6	18.7	-0.3	0.1	-1.7%	0.3%
Hospitals	6.4	6.1	6.1	-0.3	0.0	-5.0%	-0.3%
Other Services	4.5	5.0	5.1	0.5	0.1	10.2%	2.8%
Government	23.1	23.3	22.7	0.2	-0.5	0.8%	-2.2%
Federal Government	2.7	2.7	2.6	-0.1	-0.1	-2.2%	-2.3%
State Government	4.1	4.4	4.2	0.4	-0.2	8.8%	-4.5%
Local Government	16.3	16.2	15.9	-0.1	-0.3	-0.7%	-1.6%

Source: U.S. Bureau of Labor Statistics

Table 2: Modeling the Effects of Gaming Industry Right-Sizing on Atlantic City's Economy

Atlantic City Economy
Atlantic City Gaming Industry

Total Payroll Employment 4q 2013: 132,500
Industry Employment 4q 2013: 32,427

Total covered wages 2013: \$5.3 billion
Industry Payroll 4q 2013: \$774,578,000

Scenario #1: Baseline	Lost Jobs	% Industry Employees	Lost Payroll	% Industry Payroll
Atlantic Club	1,663	5.1%	\$38,874,000	5.0%
Showboat	2,159	6.7%	\$48,518,000	6.3%
Trump Plaza	1,046	3.2%	\$25,311,000	3.3%
Total:	4,868	15.0%	\$112,703,000	14.6%
<i>Hotels casino employment/payroll would decline to approximately (based on 4th quarter 2013 baseline figures above)</i>	27,559	-15.0%	\$663,875,000	-14.6
Additional lost jobs and earnings via multiplier	1,460		\$45,081,200	
Total lost jobs and earnings	6,328		\$157,784,200	
<i>As share of metro area's 4q 2013 employment and 2013 total wages</i>	4.8%		3.0%	

Scenario #2	Lost Jobs	% Industry Employees	Lost Payroll	% Industry Payroll
Atlantic Club	1,663	5.1%	\$38,874,000	5.0%
Showboat	2,159	6.7%	\$48,518,000	6.3%
Trump Plaza	1,046	3.2%	\$25,311,000	3.3%
One "large" casino	2,500	7.7%	\$72,110,000	9.3%
Total:	7,368	22.7%	\$184,813,000	23.9%
<i>Hotels casino employment/payroll would decline to approximately (based on 4th quarter 2013 baseline figures above)</i>	25,059	-22.7%	\$589,765,000	-23.9
Additional lost jobs and earnings via multiplier	2,210		\$73,925,200	
Total lost jobs and earnings	9,578		\$258,738,200	
<i>As share of metro area's 4q 2013 employment and 2013 total wages</i>	7.2%		4.8%	

MODELING THE EFFECTS OF CASINO INDUSTRY "RIGHT-SIZING" ON AC'S ECONOMY

The analysis that follows develops four right-sizing scenarios and models their macro-level effects on Atlantic City's economy. These scenarios frame the potential employment, wage, and unemployment consequences as well as the larger multiplier effects of the industry's consolidation on the local economy. As is always the case with industry expansion, reduced casino industry output and the employment and earnings losses associated with it will have broader multiplier effects as the lost incomes experienced by casino and hospitality employees will serve to reduce the incomes of other local and regional economic agents from whom they would have bought had they not experienced job and income losses. These multiplier effects also take into account the lost business that local and regional casino industry vendors will experience in the aftermath of casino closings.

I stress that these scenarios do *not* provide insight into questions concerning which casinos (beyond those that have already made public announcements) might scale back their operations or close over the near term. Nor do they quantify the impact of several

additional issues that will become important over the near-term as the industry's right-sizing process plays out, e.g., vacant property concerns. Their aim is instead very narrow: to provide policymakers a baseline sense of the probable macro-level implications that could eventually flow from casino industry right-sizing. This type of information should prove useful to policymakers charged with crafting responses to Atlantic City's economic situation.

Scenario 1: Baseline

Scenario 1 provides the baseline case because it models the effects of three casino closings (one that has already happened (Atlantic Club) and two (Showboat and Trump Plaza) that are imminent based on operators' public announcements as of the Review's publication. In other words, Scenario 1 provides estimates of the *minimum* amount of economic duress the metropolitan area economy will endure over the coming months. As Table 2 details, these closings will reduce total employment in the casino industry by 15% (to 27,559 from a fourth-quarter 2013 level of 32,427). The nearly 4,900 jobs that will be lost as a

result of these closings constitute 3.7% of the metropolitan area's total fourth-quarter 2013 nonfarm employment base.

The lost wage income associated with these jobs will total approximately \$113 million (and thus the gaming industry's payroll will shrink by 14.6% from its fourth-quarter 2013 level of \$775 million). This lost wage income is equal to 2.1% of the \$5.3 billion worth of wages earned in the metropolitan area last year.

As noted, these lost casino jobs and wage earnings will have additional adverse multiplier effects. As casino industry output shrinks, every 1,000 lost casino jobs will imperil approximately 300 additional jobs throughout the local economy owing to the industry's employment multiplier.² Alternatively, every \$1 million in lost casino industry wage earnings will result in additional earnings losses across the local economy of approximately \$400,000.

In the context of Scenario 1, these multipliers imply that these three casino closings will

continued on page 5

Table 2: Modeling the Effects of Gaming Industry Right-Sizing on Atlantic City's Economy cont'd

Scenario #3	Lost Jobs	% Industry Employees	Lost Payroll	% Industry Payroll
Atlantic Club	1,663	5.1%	\$38,874,000	5.0%
Showboat	2,159	6.7%	\$48,518,000	6.3%
Trump Plaza	1,046	3.2%	\$25,311,000	3.3%
One “large” casino	2,500	7.7%	\$72,110,000	9.3%
One “small” casino	1,800	5.6%	\$41,901,000	5.4%
Total:	9,168	28.3%	\$226,714,000	29.3%
<i>Hotels casino employment/payroll would decline to approximately (based on 4th quarter 2013 baseline figures above)</i>	23,259	-28.3%	\$547,864,000	-29.3
Additional lost jobs and earnings via multiplier	2,750		\$90,685,600	
Total lost jobs and earnings	11,918		\$317,399,600	
<i>As share of metro area's 4q 2013 employment and 2013 total wages</i>	9.0%		5.9%	

Scenario #4	Lost Jobs	% Industry Employees	Lost Payroll	% Industry Payroll
Atlantic Club	1,663	5.1%	\$38,874,000	5.0%
Showboat	2,159	6.7%	\$48,518,000	6.3%
Trump Plaza	1,046	3.2%	\$25,311,000	3.3%
One “large” casino	2,500	7.7%	\$72,110,000	9.3%
Two “small” casinos	3,600	11.1	\$82,802,000	10.8%
Total:	10,968	33.8%	\$268,615,000	34.7%
<i>Hotels casino employment/payroll would decline to approximately (based on 4th quarter 2013 baseline figures above)</i>	21,459	-28.3%	\$505,963,000	-34.7
Additional lost jobs and earnings via multiplier	3,290		\$107,446,000	
Total lost jobs and earnings	14,258		\$376,061,000	
<i>As share of metro area's 4q 2013 employment and 2013 total wages</i>	10.8%		7.0%	

eventually result in a total employment decline of approximately 6,300 (4,900 casino jobs plus an additional 1,400 jobs spread across other industries in the local economy). Such job losses will represent 4.8% of the metropolitan area's employment base. The total earnings loss will equal roughly \$158 million (\$113 million in casino earnings plus additional earnings of \$45 million). This reduction in wage earnings will represent 3% of the metro area's total 2013 annual wage base.

To put this total employment loss in perspective, consider the fact that the two largest annual employment declines ever recorded by Atlantic City were -5,700 (during the 1991 national recession) and -8,500 (in 2009 amid the Great Recession). Those two losses represented employment declines of 4.2% and 5.7%, respectively. Of course, job growth in the non-gaming portion of the local economy may help cushion some of these gaming-industry job losses. But, non-gaming job growth averaged just 1.8% (1,700 jobs)

per annum between 1992 and 2006.³ The implication is that even given decent non-gaming job growth the local economy will suffer a very significant employment loss. Meanwhile, the total earnings loss cited above would represent the largest annual wage loss ever recorded by the metropolitan area outside 2009 when wage earnings declined by a whopping 6.9% (\$402 million).

Some sense of the short and medium-term unemployment and labor force effects of the casino closings involved in Scenario 1 can be gleaned by studying trends since Atlantic Club's closing in January as well as the Sands closure in November 2006. Figures 3a-c compare trends in the labor force, number of unemployed individuals, and casino industry employment post these two historic closures. Figure 4a shows that both closures prompted swift and significant reductions in the labor force. By the fourth month following each closure, Atlantic City's labor force had declined by 2.1% (approximately 2,800 individuals in each case). Whereas the Sands closure cost

the metropolitan area economy roughly 1,900 jobs, the Atlantic Club cost it around 1,600. The difference between the labor force decline and the number of lost casino jobs in each case reflects not only some of the multiplier effects discussed above but also broader labor market forces affecting other industries' employment. Finally, it should be noted that in the ensuing twelve months following Sands' closure the local labor force continued to decline—by November 2007 it had fallen by 3%. This labor force reduction served to check the unemployment rate which rose only modestly (from 5.6% to 5.9%) in the twelve months after the closure.



continued on page 6

MODELING THE EFFECTS OF “RIGHT-SIZING”...
continued from page 5

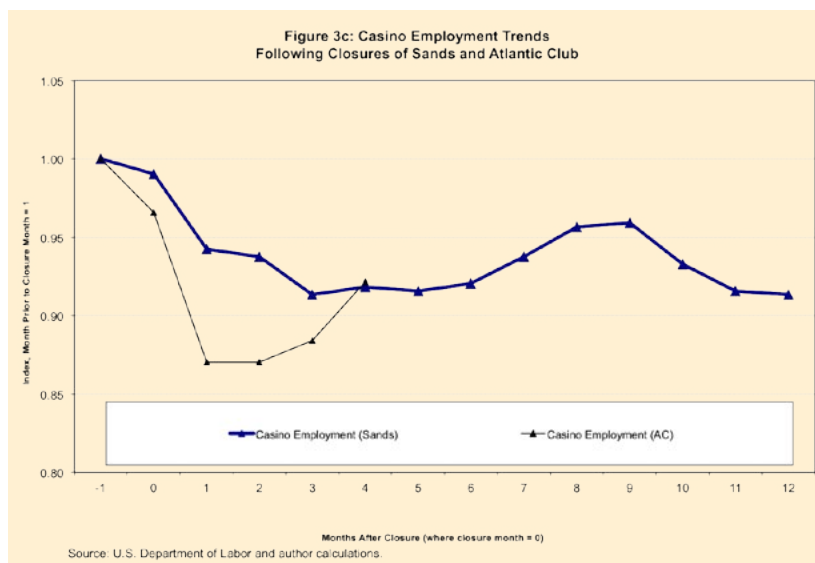
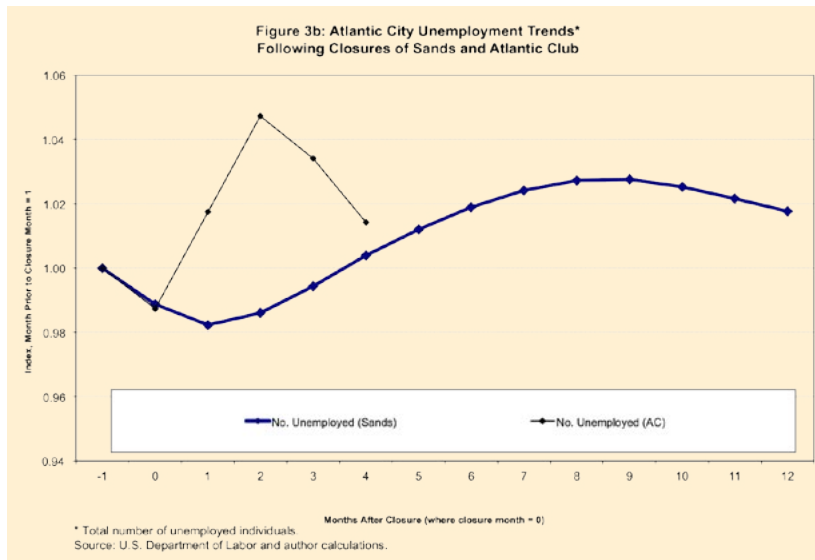
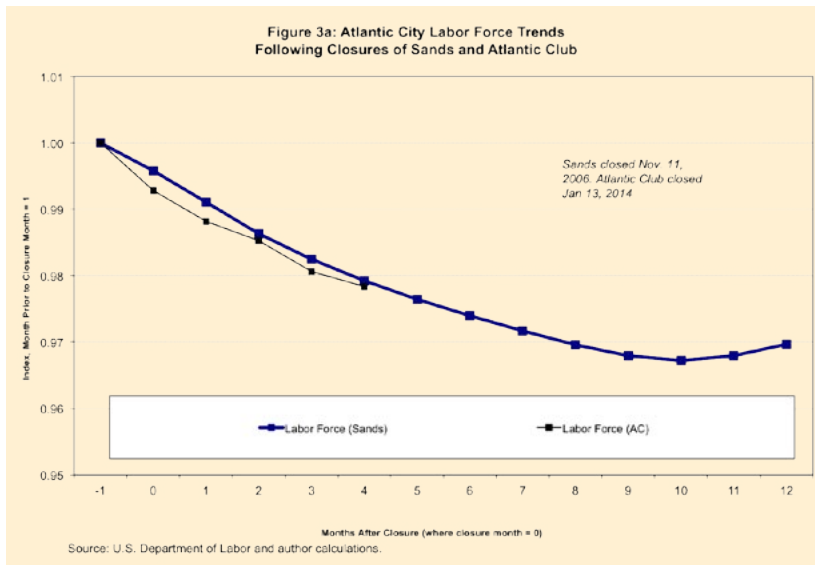


Figure 3b shows post-closure trends in the number of unemployed individuals in Atlantic City. Perhaps unsurprisingly, the Atlantic Club’s rather sudden closure prompted a larger increase (though one that was surprisingly modest given the number of jobs lost) in the number of unemployed individuals in the months that immediately followed the closing than was the case with Sands’ closing. That said it appears that the local labor market has digested a good portion of the Atlantic Club shock as the number of unemployed has declined in recent months, suggesting that the longer-term trend is more likely to mirror the Sands’ trend.⁴ Figure 4b makes clear that twelve months after Sands’ closure, the number of unemployed individuals in the metro area remained 2% higher than in the month prior to closure.

Finally, Figure 3c shows the post-closure trends in casino hotels employment. Between October 2006 (the month prior to Sands’ closure) and March 2007 (four months after closure), casino employment declined by 3,400 (8.2%). Sands accounted for 1,900 of these losses with the balance reflecting other gaming operators’ efforts to trim payroll as gross gaming revenue began to decline in early 2007. (Eventually, 2007 would prove a watershed as it represented the first year that the industry recorded a decline in gross gaming revenue.) After registering a short-lived post-Sands recovery, casino employment eventually stabilized at 38,000 by late 2007—roughly 91% of its pre-Sands’ closure level.

Since the Atlantic Club’s closing this past January, industry employment has unsurprisingly swooned. Compared to December 2013 (the full final month prior to closure), casino employment had declined by 7.8% (2,300 jobs) through May. Thus, as with Sands’, the job losses associated with the Club’s closing (approximately 1,600) added to the woes already stemming from other operators’ payroll parings.

Based on trends from Sands’ closure (which, admittedly, is probably not a particularly relevant example but nevertheless provides somewhere to begin) as well as the first few months post Atlantic Club’s closing, it seems conceivable that by fall 2015—roughly one year after Showboat and Trump Plaza are scheduled to close—the metropolitan area’s labor force will have declined by 10% (nearly 13,000) from its fourth-quarter 2013 level. The labor force’s short- vs. long-term responsiveness to casinos closings in conjunction with the pace of non-gaming job growth over the next year or so (which based on current trends seems likely to prove anemic) will largely drive changes in the metro area’s headline unemployment rate.⁵

My own sense is that the short-term labor force response through the remainder of 2014 is likely to be *larger* than in the Sands’ case because of widespread recognition by laid-off casino employees that they will be extremely unlikely to be rehired in Atlantic City gaming halls given the

continued on page 7

MODELING THE EFFECTS OF "RIGHT-SIZING"...
continued from page 6

current business environment. Thus, I think a 5% decline in the labor force (roughly -6,500) by year's end is quite likely with the balance of the decline playing out during 2015. This would imply that the unemployment rate will increase about 1 to 1.5 percentage points by year's end before beginning to slowly decline in 2015.⁶

Alternatively, should the initial labor force response prove rather weak (say, decline only 2%), the unemployment rate would increase by considerably more—perhaps as much as 3 percentage points over a period of a few months. Put otherwise, the smaller the decline in the labor force over the near-term and the lower the rate of non-gaming job growth the higher the unemployment rate will climb over the near-term.

Beside vacant casino hotel towers (which are problematic for a host of reasons), other potentially significant real estate effects will flow from a large sudden decline in the labor force—more specifically, one that results due to out-migration by jobless gaming industry workers.⁷ Given the current environment, such a large out-migration (say, condensed into a period of a few months over the course of the coming winter) certainly seems within the realm of possibilities—especially for those who rent and are therefore more footloose than homeowners.⁸ Should the out-migration flow accelerate over the coming year, rents would be expected to fall. While 35% of homes in the metropolitan area (Atlantic County) are renter-occupied (as is the case statewide), 67% are renter-occupied in the City of Atlantic City (where approximately 25% of all gaming industry workers live). Should home-owning jobless casino workers be unable to quickly find reemployment the single-family home market—which has not yet still fully recovered from the national housing crisis and Great Recession—will also be put under pressure.

Scenario 2

Scenario 2 adds the closure of one "large" casino to the three assumed under Scenario 1. As Table 2 indicates, this additional closure would increase the total gaming industry job loss to nearly 7,400 (implying an expected job loss from this large casino closing of around 2,500). Casino employment would fall to approximately 25,000 (at which point the industry's employment base will have declined by nearly 23%). The total payroll loss in the industry would total \$185 million (at

which point the industry's earnings base will have declined by 24%).

Multiplier effects increase the total employment and earnings losses to nearly 9,600 (7,400 casino jobs and roughly 2,200 additional non-gaming jobs) and \$259 million (\$185 via lost casino jobs and an additional \$74 million in other parts of the local economy) respectively. All told, this implies that the metropolitan area economy's employment base would shrink 7.2% from its fourth-quarter 2013 level, while wage earnings would decline by 4.8% from their 2013 level.

As explained under Scenario 1 above, the unemployment and labor force implications that would flow from these casino closings would largely depend upon the responsiveness of the labor force as well as the pace of non-gaming job growth. The smaller the decline in the labor force and the lower the rate of non-gaming job growth the more the unemployment rate will rise.

Scenario 3

Scenario 3 adds the closure of one "small" casino to the four assumed under Scenario 2. Based on May 2014 employment figures reported to the Division of Gaming Enforcement, I assume such a closure would result in approximately 1,800 casino job losses. Under this scenario, nearly 9,200 casino jobs would be lost with a total of 11,900 jobs lost across the entire metropolitan area economy (once multiplier effects are included). As

Table 2 indicates, the closure of the casinos assumed under Scenario 3 would result in a gaming industry employment decline of 28% and a total employment loss of 9%. Meanwhile, gaming industry earnings would decline by 29%, while total earnings across the metro area would be reduced by nearly 6% or \$317 million.

Scenario 4

The final scenario adds one more "small" casino closing to the mix. Thus, all told, it assumes that (eventually) six casinos will be closed via the right-sizing process. As shown, this would yield a gaming industry employment loss of 34% (or nearly 11,000 jobs). Multiplier effects would boost the metropolitan area economy's total job loss to nearly 14,300 (a 10.8% decline). Meanwhile, the gaming industry's payroll would decline by 35% (\$269 million), while total metro earnings would (with multiplier effects) shrink by \$376 million (-7%).



THE RIGHT AMOUNT OF RIGHT-SIZING

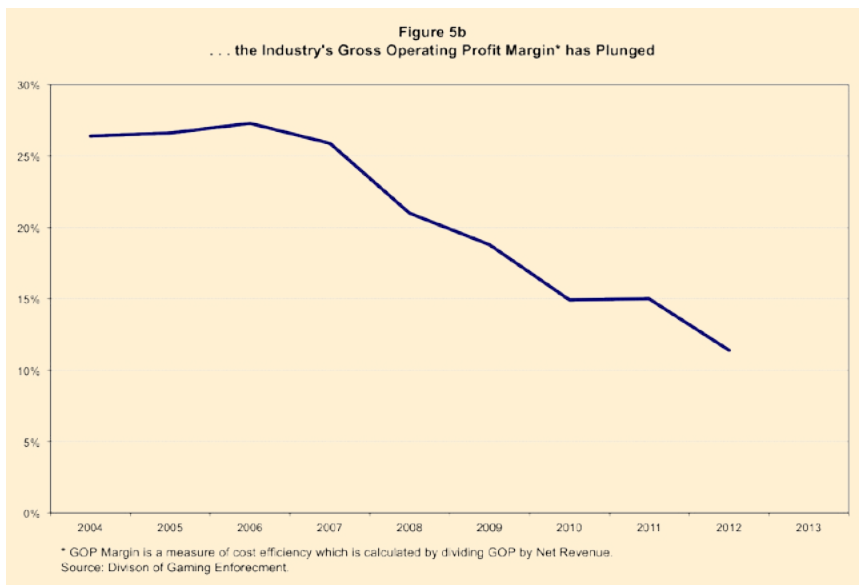
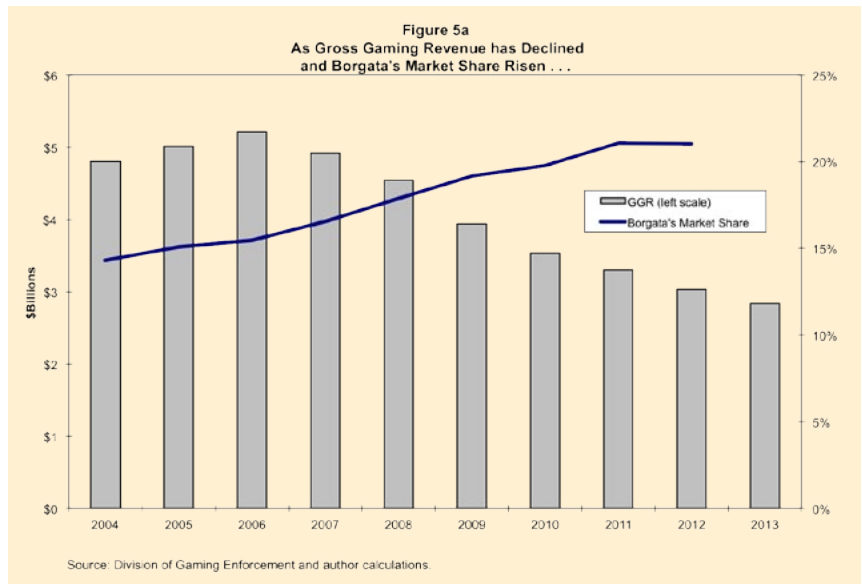
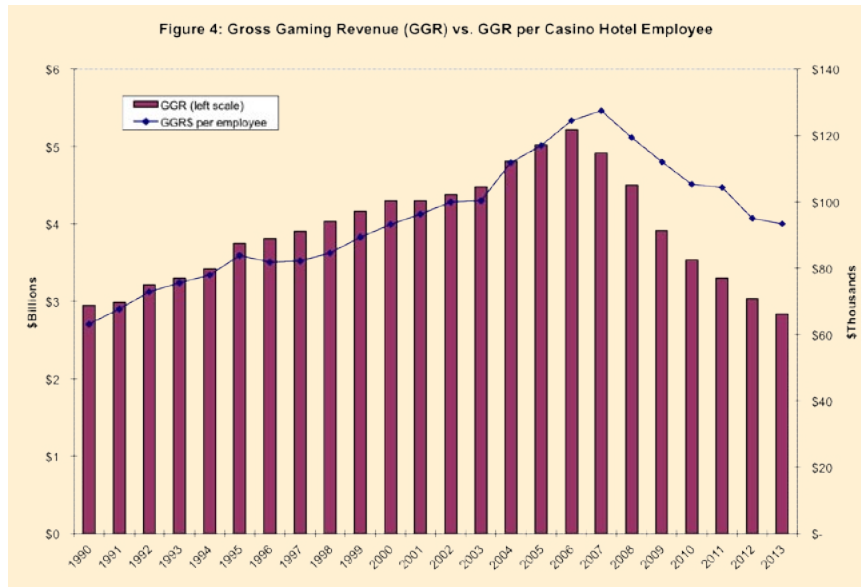
The scenarios above beg the question of *how much* right-sizing in the local gaming industry is required. While this question will eventually be answered via the independent decisions of gaming operators, the near-term trend (say, over the coming eighteen months) in the industry's gross gaming revenue will undoubtedly figure prominently in the calculations that underlie those decisions. While it's true that Atlantic City's remaining casino operators will continue to diversify and expand their entertainment portfolios—which implies that gaming revenue will become increasingly less important than it historically has been to bottom line profitability—basic facts can not be glossed over: casinos need gaming patrons. In the event that non-gaming forms of entertainment become the primary driver of gaming operators' profits in the years ahead, additional industry consolidation would likely be required as significant expensive casino floor space would become superfluous. Moreover, such a scenario would beg the question of why *gaming* companies should provide the bulk of non-gaming entertainment commodities to the regional economy, i.e., why not other (say, national and more diversified) entertainment businesses?

One approach to the question of the right amount of industry right-sizing is to consider the long-term trend in gross gaming revenue (GGR) per employee. (Figure 4) Between 1990 and 2003 (the year prior to Borgata's first complete calendar year), GGR grew (in nominal terms) 3.3% per annum, while GGR per employee averaged \$83,482 for the industry as a whole. As Figure 4 makes clear, GGR per employee began to skyrocket in 2004—partly in response to Borgata's opening and partly owing to the buoyant credit-driven national economic expansion. In 2004, GGR per employee in the industry jumped 11.5% to \$111,784 and then continued to increase eventually reaching \$127,482 in 2007.⁹ Since that peak, GGR per employee has steadily declined. Last year, it stood at \$93,358—well above the industry's 1990-2003 pre-Borgata average.

Put otherwise, the *industry's* GGR (\$2.8 billion last year) and employment base (30,400 in 2013) appear sustainable in the sense that (based on historical trends) they could provide the industry an acceptable profit margin (as they ostensibly did in the past). The implication that would seem to follow is that the closings assumed under Scenario 1 should prove enough to stabilize the industry.¹⁰ Unfortunately, this conclusion can't be drawn because the GGR/employee proxy is too crude a metric because it does not take into account existing market shares within Atlantic City nor individual operator's debt and capital structures. Both of these issues considerably complicate the question at hand.

Figures 5a and 5b speak directly to the market-share issue. In particular, Figure 5a shows that while the industry's gaming revenue has declined sharply from its 2006 peak of \$5.2 billion, industry-leader Borgata has managed to capture an ever-increasing share of the market. This intra-AC market-share issue (which has been somewhat neglected owing to the attention focused on heightened regional gaming competition) has only served to increase the intense pressure placed on most other AC operators' profit margins. (Figure 5b) I estimate that the three closures assumed under

continued on page 9



Scenario 1 will reduce the industry's gaming revenues by approximately 9-10% (roughly \$270 million) for the year—independent of any purely additional business cycle and/or competition-related declines. Should Scenario 2 come to fruition (with the additional closure it assumes occurring a few months before year's end), the revenue decline will likely be in the 12-13% range (around \$350 million). Either of these scenarios will reduce GGR to around \$2.4 to \$2.5 billion. In light of broader regional gaming industry developments (Pennsylvania gaming revenues declined last year after seven years of solid growth), as well as national economic conditions (which do not appear particularly robust at present), my own sense is that gaming revenues in Atlantic City have not yet stabilized suggesting that even without any closures gaming revenue would likely continue to drift lower over the next few years. An eventual bottoming out of GGR near the \$2 billion range seems possible depending upon national business cycle conditions and gaming industry dynamics outside Atlantic City. Based on longer-term industry trends, this would imply that the casino gaming industry workforce in Atlantic City could eventually stabilize somewhere in the 18,000 to 20,000 range.

LEAVING LAS VEGAS BEHIND (AS A DEVELOPMENT MODEL)

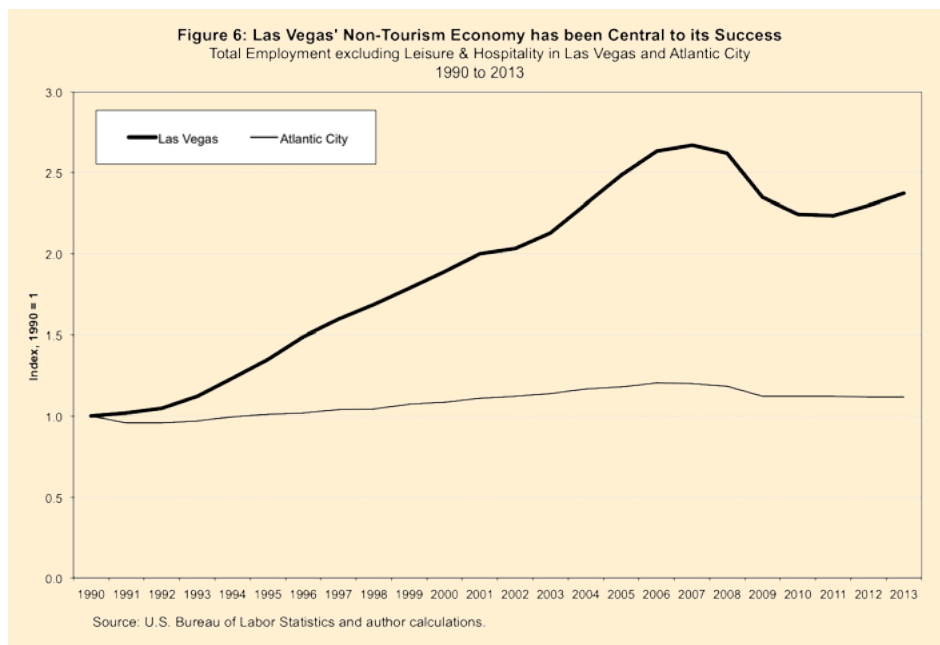
Since Atlantic City's gaming industry troubles began several years ago, considerable attention has been directed toward Las Vegas

which despite its near national-worst housing crisis and meltdown saw its gaming industry and broader economy muddle through the Great Recession and eventually emerge in far better shape than Atlantic City's. In particular, many have cited Las Vegas' more diversified tourism and hospitality portfolio as a key to its success (especially since it too has had to grapple with increased gaming competition). Nearly two-thirds of every dollar now spent in Las Vegas is shelled out on non-gaming related goods and services. Last year, non-gaming revenue in Atlantic City accounted for just 30% of the industry's revenue. As soon as Atlantic City broadens and deepens its own non-gaming entertainment portfolio, so the thinking goes, it too will successfully leave behind its gaming-centered economy and transition to a more diversified and ostensibly healthier leisure and hospitality model. A hard analytical look at Las Vegas' phenomenal economic performance over the past two decades (outside the Great Recession years of course) suggests, however, that there was much more to its success than a diversified hospitality and tourism economy.

While gaming and the broader leisure and hospitality (L&H) sector were undeniably important to Las Vegas' wild economic success over the past two decades (L&H employment still accounts for 31% of its total employment base compared to 34% for Atlantic City), it is also clear that a host of other factors underlay that success. Perhaps most importantly, Las Vegas' location along/near major north-

south and east-west interstates (I-15 and I-40 respectively) provide it easy links to Greater Los Angeles and Phoenix. Both are but four hour drives away (drive times that in the western United States are considered short). This strategic location not only provided Las Vegas' gaming industry access to millions of consumers and vacationers (the Grand Canyon which boasts some 4.6 million visitors annually is also a short four hour drive), but also served to induce significant population growth over the past two decades. In-migrants from California who were eager to trade high living and home costs for significantly lower ones were a key part of Las Vegas' late-twentieth century rise. Those low living and home costs were of course reflective of an abundance of relatively cheap desert land. Between 1980 and 2006 (the last year before the onset of the Great Recession), Las Vegas recorded blistering average annual population growth of 5.3%, which took its population to 1.8 million from 470,000. Atlantic City's total population gain over the same period equaled 77,000 (1.3% annually). Consider that between 1990 and 2006 some 340,000 new single-family home building permits were issued in Clark County.

Las Vegas' incredible population growth fueled robust employment growth which in turn only served to fuel more population growth in a virtuous growth cycle. The result of the sheer volume of people that settled in Las Vegas over the past two decades—which is ultimately what sets it apart from Atlantic City and thereby makes most comparisons between the two economies rather facile—is shown in Figure 6 which depicts the respective trends in employment growth outside each metro area's leisure and hospitality sector since 1990. While Atlantic City's non-L&H jobs base increased 12% between 1990 and 2013, Las Vegas' more than doubled. And, it should also be noted that whereas gaming employment in Atlantic City has been in decline since 1990, it doubled in Las Vegas between 1990 and 2006. The point here should not be misconstrued: gaming has been and remains important to both metro area economies. But, the historic circumstances that fueled Las Vegas' remarkable late twentieth century growth and development were unique and largely undermine the basic idea that it provides an appropriate model for Atlantic City's future economic redevelopment. Absent the ability to replicate Las Vegas-like population growth, redevelopment programs in Atlantic City based solely on a deeper and more diversified entertainment portfolio are likely to prove disappointing over the long-run.



continued on page 10

One final thought exercise might help further underscore the point that a considerable gulf separates Las Vegas and Atlantic City. One way to compare the different roles that gaming plays in each metro area's economy is to consider their respective gaming revenues per capita. Las Vegas' Strip took in \$6.5 billion in gaming revenue in 2013 compared to \$2.8 billion in Atlantic City. Remarkably, however, those figures equal \$3,249 and \$10,166, respectively, on a per capita basis! Think about it this way. If every single dollar of gaming revenue spent in each metropolitan area last year were a non-local one, then gaming effectively provided each citizen of each metro area those dollar amounts. In other words, whereas per capita gaming revenue accounted for just 9% of total per capita income in Las Vegas (\$36,676 in 2013), they accounted for a whopping 24% in Atlantic City (\$42,099).

POLICY RESPONSES

Before turning to the important question of Atlantic City's redevelopment, some brief comments regarding the near-term horizon seem warranted. The most pressing concern this fall will be a jobs crisis as it appears (as the Review went to print) that approximately 4,900 casino workers (at a minimum) will find themselves jobless this fall. Local policymakers and others must ensure that every jobless worker has the necessary information and capacity (e.g., transportation assistance) to access *existing* government programs and resources (unemployment insurance, health insurance, rental/mortgage assistance, retraining, food stamps, dislocation assistance, etc.) available in mass layoff situations. Ensuring that all local and regional State Department of Labor One-Stop Career Centers are adequately staffed and capable of offering extended hours seem obvious checklist items given the deluge of workers they are likely to encounter. And, while websites like CareerOneStop.org (sponsored by the U.S. Department of Labor, Employment and Training Administration) have several relevant online resources for the unemployed, the separate issue of workers' internet access should be explored not assumed. Those that don't have access should be provided it somehow. Ensuring that all relevant agencies' resources and existing programs' benefits are maximized may require the establishment of a (temporary) centralized coordinating center (if nothing currently existing provides adequate space). If nothing else, such a center might—say via a hotline number—provide callers with information about one-stop centers and other support programs.

Longer-term, Atlantic City's economy must be redeveloped. Such redevelopment will not be easy nor will it be accomplished quickly. *While successful redevelopment will hinge upon a*

number of factors (not all of which policymakers can control), finding ways to promote and nurture diversification of the local economy (beyond leisure and hospitality) and enhance the education and skill set of the regional workforce should be central components of any program. Because prior editions of the Review (Winter 2014) provide detailed analysis of the role that diversification and education play in metro area economic success, what follows is a brief list of possible responses that should be considered in pursuit of the overarching redevelopment goals of diversification and educational and skill set enhancement. Needless to say, the three items enumerated and discussed below hardly comprise what will eventually become vitally important to a successful redevelopment program—namely, a comprehensive plan well-insulated from political cycles and guided by strong leadership and vision.

1) Facilitate near-term job growth in existing local and regional medium-sized businesses—especially those with “free” export potential

Hold a well-advertised South Jersey Firm Expansion and Growth Symposium that targets medium-sized local and regional businesses (those with 20 to 250 employees) located in the three southern counties that have an interest in growth/expansion that will require job growth.¹¹

Jointly sponsored by appropriate local, regional, and state government agencies and other stake-holding entities, such a symposium should be designed *exclusively* for targeted business owners and managers. The purpose should be twofold: 1) to provide business owners/managers a forum in which they can explain to relevant policymakers and others the specific type of growth constraints they face, e.g., finance, workforce skills, technology, red-tape, marketing, and 2) policymakers and other relevant participants would connect owners/managers with existing programs and resources that would help them circumvent their constraints. In the event it was discovered that no resources and/or programs exist to address certain issues, then such resources and/or programs could be designed and/or created quickly.

County Business Pattern data for 2012 (the most recent year available) indicate that there were a total of 1,491 business establishments across the three southern counties that had total employment of between 20-249. At a minimum, these establishments employed 53,200 in 2012. If retail trade establishments as well as all leisure and hospitality sector establishments are excluded, these figures decline to 839 and 31,010.¹²

continued on page 11

Table 3: Number of establishments by employment-size class: Atlantic, Cape May, and Cumberland County

Industry	No. of Establishments by Employment Size Class			Total Establishments (this industry)
	20-49	50-99	100-249	100-249
Agriculture, Forestry, Fishing and Hunting	4	0	1	5
Mining, Quarrying, and Oil and Gas Extraction	4	0	0	4
Utilities	6	5	3	14
Construction	56	17	6	79
Manufacturing	39	26	22	87
Wholesale Trade	43	21	12	76
Retail Trade	227	53	39	319
Transportation and Warehousing	25	12	8	45
Information	20	7	2	29
Finance and Insurance	28	9	5	42
Real Estate and Rental and Leasing	8	3	2	13
Professional, Scientific, and Technical Services	48	6	8	62
Management of Companies and Enterprises	11	1	0	12
Administrative and Support and Waste Management and Remediation Services	36	14	7	57
Educational Services	20	8	0	28
Health Care and Social Assistance	153	47	30	230
Arts, Entertainment, and Recreation	28	6	4	38
Accommodation and Food Services	197	78	20	295
Other Services (except Public Administration)	47	5	4	56
Total Establishments (this employment size class)	1,000	318	173	1,491
<i>Excluding Retail trade and Leisure & Hospitality</i>	<i>548</i>	<i>181</i>	<i>110</i>	<i>839</i>

Source: U.S. Census Bureau

Firms and businesses with “free” export potential should be of major interest to redevelopment officials at the symposium. As explained in prior editions of the Review, Atlantic City’s export base must be diversified. **Redevelopment efforts should aim to support and grow existing local and regional businesses that sell products beyond the local and regional economy.** Aiding the growth of the local economy’s “free-export” base is important because it will reduce customer acquisition costs and help reduce the economy’s dependence on visitorship. The distinction between free and location-specific “exports” is important. Atlantic City’s leisure and hospitality sector (which includes its casinos) represents a location-specific export as sales require visitorship (consumption) to (in) Atlantic City. (gaming of course transforms some of AC’s gaming products into free exports.) The same is also true of the regional economy’s healthcare and higher education exports, viz., consumption of such exports is generally tied to location. The upshot is that such exports are vulnerable to convenience competition. Absent substantial quality differentials (say in gaming products, healthcare, or higher education) convenience (time) is generally important to consumers’ buying decisions.

In contrast, sales of free exports do not require visitation or location-specific consumption. Among others, the region’s free export base *already* includes: wine, several fruit and agricultural products, glass manufactured products, boats/yachts and related technologies, and other light manufacturing products.¹³

Finding ways to help support the expansion and growth of these types of businesses and firms *now* would be a relatively low-cost means of diversifying the local/regional economy and most importantly generating job growth quickly.

2) Facilitate job growth from outside via regionalized, coordinated recruitment of businesses seeking to expand or relocate

In conjunction with relevant agencies, establish a regionalized and coordinated Southern New Jersey Business Relocation and Expansion Acquisition Committee. This committee’s primary mission would be to work with relevant public and private sector partners to aggressively seek out and recruit businesses and firms—preferably ones with proven track records—interested in expanding and/or relocating beyond their

existing home bases.¹⁴ Again, recruitment efforts should give high priority to firms and businesses with free export potential. Whereas the first goal above is aimed at generating job growth immediately (within the time period of a few months), this second goal would aim at fostering medium-term job growth (say over the next 2-4 years).

3) Consider the establishment of a South Jersey Innovation District

Because The Brookings Institution has been at the forefront of discovering, discussing, documenting, and analyzing innovation districts over the past few years, what follows are several direct passages culled from its recently-released report, *The Rise of Innovation Districts: A New Geography of Innovation in America*.¹⁵

What are innovation districts?

Brookings defines them as: geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators, and accelerators. They are also physically compact, transit-accessible, and technically-wired and offer mixed-use housing, office, and retail . . . Innovations districts constitute the ultimate mash up of entrepreneurs and educational institutions, start-ups and schools, mixed-use development and medical innovations, bike-sharing and bankable investments—all connected by transit, powered by clean energy, wired for digital technology, and fueled by caffeine.

Why are these districts interesting and different?

Brookings writes:

- As the United States slowly emerges from the Great Recession, a remarkable shift is occurring in the spatial geography of innovation. For the past 50 years, the landscape of innovation has been dominated by places like Silicon Valley—suburban corridors of spatially isolated corporate campuses, accessible only by car, with little emphasis on the quality of life or on integrating work, housing, and recreation. A new complementary urban model is now emerging, giving rise to what we and others are calling “innovation districts.”
- Innovation districts represent a radical departure from traditional economic development. Unlike customary urban revitalization efforts that have

emphasized the commercial aspects of development (e.g., housing, retail, sports stadiums), innovation districts help their city or metropolis move up the value chain of global competitiveness by growing the firms, networks, and traded sectors that drive broad-based prosperity. Instead of building isolated science parks, innovation districts focus extensively on creating a dynamic physical realm that strengthens proximity and knowledge spillovers.

- Rather than focus on discrete industries, innovation districts represent an intentional effort to create new products, technologies and market solutions through the convergence of disparate sectors and specializations (e.g., information technology and bioscience, energy, or education).
- Unlike convention centers or suburban malls, innovation districts are not cookie cutter developments; rather, they leverage distinct economic strengths in each metropolitan area. Districts vary not only by type but also size . . . They have different avenues for growth . . . Further, they vary in their urban form and density, the historical presence of transit . . . the presence of housing and retail, and the extent of collaboration with local schools and community organizations . . . This intense variation in innovation districts requires practitioners to assess assets and liabilities with clear-eyed objectivity, so that growth strategies can be realistic and customized.

As the Brookings report documents, many clearly-identifiable innovation districts have emerged in specific districts inside large cities, e.g., Boston’s South Waterfront, San Francisco’s Mission Bay, Philadelphia’s University City, Seattle’s South Lake Union, etc. Thus, an important and obvious question—as highlighted in the Las Vegas context—concerns the applicability and viability of innovation districts as a model for redevelopment in a place like South Jersey and/or Atlantic City. This is a valid concern.

Still, it seems possible—especially given the region’s portfolio of existing assets (many of which are at present poorly leveraged and/or linked) as well as innovation district’s inherent eclecticism—that such districts might be nurtured (on smaller scales of

continued on page 12

course) in smaller cities as long as there is vision, planning, cooperation, and leadership among key players. As Brookings notes, these include: local and regional governments, real estate developers, anchor companies, research, medical, and educational institutions, philanthropic investors, and incubators/accelerators.

There is an argument to be made that several of the best-performing metropolitan areas of the past two decades (metro areas comparably-sized to Atlantic City) owe at least part of their success to the types of collaboration, cooperation, and openness that are the hallmarks of big-city innovation districts. These metropolitan areas include: Lincoln, NE; Green Bay, WI; and Boulder, CO. All three of these metro areas boast key higher educational anchors—the University of Nebraska-Lincoln; the University of Wisconsin-Green Bay; and the University of Colorado—that have been leveraged in ways to help drive wider economic growth. To name but two well-known examples in this vein: UC Boulder is home to Colorado’s burgeoning photonics industry, while Lincoln (along with Omaha, Sioux Falls, and Des Moines) is part of the Midwest’s Silicon Prairie region—which boasts several well-known and respected IT oriented firms.

Each of these metropolitan areas had a 1990 population close to Atlantic City’s. By leveraging their respective economic assets, each metro area (from, it should be noted, very different geographic locales) experienced remarkable economic success over the past two decades. While their populations not only grew more than Atlantic City’s, so too did their employment bases: 38%, 43%, and 57%, respectively between 1990 and 2012. Over the same period, Atlantic City’s employment increased by 0.6%.

In addition to their core educational institutions and key corporate employers, each metro area’s economy is fairly well-diversified. (Table 4) While there are important differences across the metro areas (which reflect their unique economic assets), it is clear that each has a broad-based economy. For example, compare each metro area’s shares with those shown for the U.S. which represents a benchmark well-diversified economy. Atlantic City’s over-dependence on leisure and hospitality is obvious. And, it might be said, looking across the three other metro areas that Atlantic City’s historic gaming monopoly did come with a price: namely it hindered (most obviously) development of its

manufacturing, information, and professional and business services sectors. These three sectors’ obvious overlapping and interlocking relationships are (perhaps unsurprisingly) usually rather important to the innovation districts described above.

I stress these comments hardly represent a comprehensive redevelopment plan. Rather, my intent in setting them out is to make a very modest contribution to what will undoubtedly be a long slog into the future—one I believe can be bright for Atlantic City.

Table 4: Lincoln, Green Bay, and Boulder Boast Well-Diversified Economies

Share of Total Employment, 2013

Industry/Sector	Lincoln	Green Bay	Boulder	Atlantic City	U.S.
Construction, Mining, and Logging	4.1%	4.0%	2.6%	3.5%	4.9%
Manufacturing	7.5%	17.1%	9.9%	1.6%	8.8%
Wholesale Trade	2.2%	4.4%	3.2%	1.9%	4.2%
Retail Trade	10.5%	9.6%	9.4%	11.7%	11.1%
Transportation and Utilities	6.0%	4.7%	1.0%	2.1%	3.7%
Information	1.4%	1.1%	4.9%	0.6%	2.0%
Financial Activities	7.9%	8.0%	4.3%	3.0%	5.8%
Professional and Business Services	10.2%	11.5%	18.6%	6.9%	13.6%
Educational & Health Services	15.8%	13.5%	12.8%	13.7%	15.5%
Leisure and Hospitality	9.2%	9.2%	10.9%	34.5%	10.4%
Other Services	3.9%	4.5%	3.3%	3.8%	4.0%
Government	21.5%	12.4%	19.3%	16.8%	16.0%

Source: U.S. Bureau of Labor Statistics



Innovation districts represent a radical departure from traditional economic development. Unlike customary urban revitalization efforts that have emphasized the commercial aspects of development (e.g., housing, retail, sports stadiums), innovation districts help their city or metropolis move up the value chain of global competitiveness by growing the firms, networks, and traded sectors that drive broad-based prosperity.



All analysis in this issue by:

**Oliver D. Cooke, Ph.D., Associate Professor of Economics,
School of Social and Behavioral Sciences. The Richard Stockton College of New Jersey.
Please direct comments and questions to: oliver.cooke@stockton.edu.**

ENDNOTES:

¹ Edward Glaeser, *Triumph of the City*, (New York; Penguin, 2011) p.9

² RIMS II employment and earnings multipliers from the U.S. Bureau of Economic Analysis for the hotels and motels industry (which includes casino hotels) in Atlantic City are 1.3 and 1.4, respectively. These multipliers imply: 1) if the gaming industry's output increases so that its employment increases by 1,000, an additional 300 jobs will be generated, and 2) if the gaming industry's output increases so that its workers receive additional annual earnings of \$1 million, an additional \$400,000 of earnings will be generated in Atlantic City. While multipliers are often used in economic analysis to calculate total job and earnings gains that flow from a particular industry's expansion, they are equally applicable to contractions.

³ It is worth noting that the historic correlation between gaming and non-gaming job growth in Atlantic City is not (at 0.41) as high as might be expected. Thus, while local industries that provide goods and services to the gaming industry will experience job and earnings losses via the multiplier process, many others may not as they will be more (though perhaps not entirely) insulated. Still, to assume that the non-gaming portion of the local economy will suddenly experience robust job growth any time soon seems rather heroic. The pace of year-on-year job growth in the non-gaming portion of the economy was 0.4% through May.

⁴ Whether or not the noted decline in the number of unemployed is a function of former Atlantic Club employees finding new jobs (non-gaming jobs have been increasing very modestly year-on-year over the past few months) or alternatively of them choosing to leave the labor force is unknowable. Former Club employees that fall into the latter case may eventually (or perhaps already have) join(ed) the ranks of the discouraged and/or migrated.

⁵ See endnote 3.

⁶ This point underscores the problem with drawing inferences between unemployment rate trends and the health of local economies. Clearly, a declining unemployment rate (owing to a significant reduction in the labor force as workers migrate and/or become discouraged) would not indicate a robust local economy—instead the polar opposite.

⁷ A large labor force decline without out-migration is of course also possible. This would imply a significant increase in the pool of locally discouraged workers.

⁸ A related question is whether state and local policymakers should actively facilitate and/or outright subsidize such out-migration. Needless to say, this issue is complex.

⁹ Fourth-quarter 2013 payroll and employment data from financial filings to the Division of Gaming Enforcement indicate that average payroll per employee in the industry was approximately \$24,000. Unfortunately, access to similar reports from 2004 and 2007 could not be located. But, it seems likely that comparable figures for those years were less than \$24,000.

¹⁰ As shown in Table 2, Scenario 1 results in nearly 4,900 casino job losses and reduces the industry's employment base to 27,559. If one assumes that GGR declines by roughly 2% in 2014 (first-quarter figures show casino revenue down 1.8%), then GGR/employee will increase to approximately \$101,000 by this year's end—a healthy 8.1% increase on the 2013 figure. In other words, the casino closings under Scenario 1 will clearly increase the industry's health and/or most remaining operators' EBITDAs.

¹¹ The 20-249 target would help serve as an initial viability screen, i.e., given their existing payrolls such businesses seem likelier to be capable of and/or interested in expansion and growth than much smaller businesses.

¹² This implies that these businesses had average employment of around 37.

¹³ It might one day come to include aviation-related technology products and services as well as ones related to renewable energy and (as noted) igaming.

¹⁴ Unlike many existing economic development programs and resources which are passive in the sense that they wait for potential expanders and relocators to reach out, this committee would actively and aggressively pursue such firms (possibly with the help of a nationally-recognized site location consulting agency).

¹⁵ Bruce Katz and Julie Wagner, "The Rise of Innovation Districts: A New Geography of Innovation in America" Brookings Institution, Washington, D.C., May 2014