Estimating state and local revenue impacts from meeting Phase 1 space needs for HQ2 if (Pittsburgh had won)

Part II. Corporate Income Taxes – Appendix

Center for Economic Development
Summer 2019

Appendix: A selection of tax incentives for large economic deals in PA - past and present

Our analysis omitted the possibility of tax breaks on the state's corporate income tax, since none were offered in Pittsburgh's bid. However, the state has certainly offered breaks on corporate income taxes, among other incentives, to Amazon and other firms for high profile economic development deals in the past. We briefly describe five such cases here.

Case 1: Shell cracker plant (2012)

A well-known example of such a deal includes the state package of incentives offered to Shell in 2012 to build a multi-billion dollar ethane cracker plant in Pennsylvania.

This package included a variety of incentives, the centerpiece of which was the Pennsylvania Resource Manufacturing Tax Credit, or PRM credit. The language of the legislation that enabled the PRM program appeared to be specifically designed for the PRM credit to be available for the use of Shell, and presumably, any other firm that happened to make a capital investment of at least $1B, hired a lot of construction workers, and purchased a lot of ethane from Pennsylvania (or elsewhere). Per the state's Tax Compendium:

> *The PRM tax credit is available to business entities purchasing ethane for use in manufacturing ethylene at a facility in the Commonwealth that has made a capital investment of at least $1 billion and created at least 2,500 full-time equivalent jobs during the construction phase. The PRM tax credit is equal to $0.05 per gallon of ethane purchased ($2.10/barrel) for the period from January 1, 2017 to December 31, 2042.*[1]

Although the numbers have bounced around since, it has been reported that state legislators originally estimated that the total value of the tax credits for Shell would amount to $1.6B over 25 years, a figure in turn based on an average of $66M in credits a year.[2] If these numbers refer to the "face value" of the tax credits expected to be earned on an annual basis (rather than their redeemed value), this would appear to imply that the plant was initially expected to purchase over 30M barrels of ethane annually.[3]

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[1] Tax Compendium: February 2019, p. 29.

[2] "Pennsylvania tax incentive plan played major role in luring Shell cracker plant", Brad Bumstead, Pittsburgh Tribune, June 7 2016, link: https://archive.triblive.com/business/local-stories/pennsylvania-tax-incentive-plan-played-major-role-in-luring-shell-cracker-plant/, accessed 7/13/2019.

[3] While it is not clear from available news reports, we assume that the $66M value figure reportedly floated by state legislators was based on the face value of the tax credits earned, not their market value if and when they are sold to third parties. If the figure instead represents (in whole or in part) the market value of tax credits sold to third parties, who would only pay less than the face value of the credit to purchase it, then this implies that the actual amount of barrel purchased consumed would be even greater. For the record, news one report quoted state representative Jim Christiana as saying that the Shell plant was expected to purchase 100,000 barrels a day, implying 36.5M barrels a year. Source: "Shell officially starts construction on $6 billion ethane cracker plant", Jared Stonesifer, Beaver County Times, November 8 2017, link:

Once earned and approved, Shell can use the PRM credits to offset up to 20% of its liability for a variety of state taxes, including but not limited to the corporate income tax, or sell the credits to buyers who can then in turn use them to offset up to 50% of their own liabilities for the same.[4] A close read of the legislation suggests that the original recipient must first use the credits to pay down 20% of its state tax obligations first before it can sell them to a third party.[5] The credit must be applied to taxes owed in the calendar year the ethane was purchased, and cannot be carried back or forward.[6] The PRM credit was created as part of ACT 85-2012, the same piece of legislation which moved the state to SSF.

As of the summer of 2019, the plant is still under construction, and currently expected to employ 600 permanent workers once it becomes operational in 2021.[7] Originally reported to involve a capital investment of $2B, more recently reported estimates of the plant's final cost have reached $6B.[8] While construction is in full swing and reported to peak in 2019, since the plant is not yet in operation, it is not clear that any ethane has been purchased.[9] Thus it is not obvious whether Shell is earning the tax credits yet.

Nor is it clear that that Shell will need any, at least for its own state tax liabilities, for the first 15 years of operations. State legislators also took steps to qualify the Shell project for the benefits of the Commonwealth's Keystone Opportunity Zone (KOZ) program, a location specific tax incentive. As described by the state Tax Compendium:

> *The Keystone Opportunity Zone (KOZ) program was established in 1999 to spur the development of underutilized or deteriorated properties across the Commonwealth. In defined, parcel-specific areas, the program allows businesses and residents to receive tax relief from various local and state taxes. By waiving these taxes for a series of years, the program hopes to stimulate development of the selected sites.* [10]

State taxes waived for firms and residents in the KOZ include corporate and personal income taxes, among others.[11] Businesses operating in the zone are also

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https://www.timesonline.com/news/20171108/shell-officially-starts-construction-on-6-billion-ethane-cracker-plant, accessed 7/13/2019.

[4] Tax Compendium: February 2019, p. 29.

[5] This requirement is implied by the following sentence in "Section 1704-G. Use of tax credits", as follows.
"Initial use.--Prior to sale or assignment of a tax credit under section 1706-G, a qualified taxpayer must first use a tax credit against the qualified tax liability incurred in the taxable year for which the tax credit was approved." The legislation also indicates that initial recipients who opt to sell or assign tax credits also appear obligated to offer them first to upstream or downstream petrochemical companies for a period of thirty days. Act 2012-85, "Article XVII-G Resource Manufacturing Tax Credit", §1704-G and §1706-G link: https://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2012&sessInd=0&act=85, accessed 7/6/2019

[6] Ibid.

[7] "Shell Appalachia cracker plant construction continues in 2019 with hopes for positive local economic impact", R Brock Pronko, January 18 2009, Pennsylvania Business Central, link: https://www.pabusinesscentral.com/articles/shell-appalachia-cracker-plant-construction-continues-in-2019-with-hopes-for-positive-local-economic-impact/, accessed 7/6/2019.

[8] Stonesifer.

[9] No annual report on the PRM credit is available publicly yet from the state.

[10] Tax Compendium: February 2019, p. 24.

[11] Ibid.

exempt from paying state sales and use taxes on items purchased for consumption in the zone (including materials purchased for construction).[12] Businesses and residents in the zone are also exempt from paying property, earned income, and other local taxes.[13]

The KOZ program is administered by the Pennsylvania Department of Economic and Community Development (DCED) via twelve regional KOZ "zones" across the state, with over 2,000 parcels under the program.[14] These regions in turn are dividable into up to 12 subzones, including the more recently established Keystone Expansion subzones (KOEZs), and Keystone Improvement Opportunity subzones (KOIZs), which offer similar benefits.[15,16]

The plant site in Monaca PA was not originally encompassed within a KOZ. However, Act 16-2012 enabled the geographical expansion of existing zones in the program to additional parcels, if the expansion was expected to "increase job creation or capital investment".[17] The existing KOZ boundary was then changed to encompass the project site.[18]

Under the KOZ program, it has been reported that Shell will be effectively exempt from the corporate income tax for 15 years after the start of operations.[19] How the KOZ and PRM benefits will interact around Shell's corporate income tax liability has not been clearly reported, but one plausible scenario would be that the KOZ would effectively zero out its liability for fifteen years, enabling Shell to ignore paying down 20% of its liability (since it would have none) before offering the entire amount of tax credits it earns each year for sale to third parties.

While the KOZ also zeroed out Shell's local tax liability, it has been reported that Shell agreed to a PILOT (payment in lieu of taxes) proposal that would obligate it to pay 110 percent (!) of the annual property taxes paid by the previous occupant of the industrial site (Horsehead Corporation) before the company moved in, for 22 years.[20] The same report indicates that moving forward, the PILOT will result in $302,000 for the Central Valley school district and $44,000 to Potter Township.[21]

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[12] Ibid.
[13] Ibid.
[14] Both the parcel figure and the number of regions is implied by this web page: https://dced.pa.gov/business-assistance/keystone-opportunity-zones/#KOZLocations, accessed 7/13/2019.
[15] Keystone Opportunity Zone: Program Guidelines 2019, Pennsylvania Department of Economic and Community Development, February 2019, link: https://dced.pa.gov/download/koz-guidelines/?wpdmdl=88675
[16] An Evaluation of the Keystone Opportunity Zone and Keystone Opportunity Expansion Zone Programs in Rural Pennsylvania, Paula Hobiak and Damian Carabello, The Center for Rural Pennsylvania, July 2008, link: https://www.rural.palegislature.us/documents/reports/KOZ2008.pdf, accessed 8/17/2019.
[17] Tax Compendium: February 2019, p. 24.
[18] "Shell cracks Pennsylvania's tax code", Good Jobs First, (web article undated), link: https://www.goodjobsfirst.org/shell-cracks-pennsylvania%E2%80%99s-tax-code, accessed 7/13/2019.
[19] "Tax breaks given to Shell Chemicals 'essential' in attracting company to Beaver County", Jared Stonesifer, Beaver County Times, June 19 2016, link: https://www.timesonline.com/3dbf0f76-3498-11e6-8839-5711e9702cd9.html, accessed 7/12/2019.
[20] Ibid.
[21] Ibid.

In addition to the PRM and KOZ incentives, Shell also received a Pennsylvania First state grant of $10M over two years to defray site development and infrastructure costs.[22]

Case 2: Luzerne County expansion (2008)

Governor Ed Rendell's administration reportedly offered Amazon a $1.25M grant in exchange for $20M in investment and 1,200 more jobs at one of its first warehouses in the state, in Luzerne County.[23] According to the DCED, the terms of the grant, in both investment and jobs, were satisfied.[24]

Case 3: The use tax "deal" (2011)

It may or may not have been a formal economic development deal in the traditional sense, but a crucial event for Amazon was the state's closing of the use tax loophole for Amazon purchases. Up until this point, the Commonwealth had effectively allowed Amazon to avoid collecting the state's sales and use tax of 6% from its PA customers, which left the reporting of such purchases up to the consumer, something the state had only loosely enforced previously.

Governor Tom Corbett's administration opted to close this loophole in late 2011, requiring that Amazon collect state use taxes on all purchases from Pennsylvania residents. At the time, the state estimated that Amazon owed $380M in uncollected use taxes for 2011 alone. Amazon reportedly eventually agreed to begin collecting the state's use tax in September of 2012.[25] The same report implied that the state eventually agreed to avoid collecting all previous back taxes from Amazon or its customers, and noted that since the "deal", Amazon had more than doubled the number of fulfillment centers in the state.[26]

This initial policy change closed the loophole for e-commerce transactions between PA residents and Amazon itself. However, it did not address the collection of use taxes on transactions with third party vendors using the Amazon Marketplace platform. Five years later a subsequent law (the Marketplace Sales Act) passed in October of 2017 did address the issue, and in March of 2018 Amazon announced that it would begin collecting use taxes on *all* shipments to Pennsylvania.[27]

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[22] Bumstead, Pittsburgh Tribune Review. See also: https://dced.pa.gov/programs/pennsylvania-first-program-pa-first/, accessed 7/18/2019. See Case 4 for more on the Pennsylvania First grant program.

[23] "Amazon plans thousands more jobs", Joseph N. DiStefano, The Philadelphia Inquirer, August 28 2016, link: https://www.mcall.com/news/breaking/mc-amazon-plans-thousands-more-pa-jobs-20160828-story.html, accessed 7/18/2019. The $1.25M grant is also noted here: https://subsidytracker.goodjobsfirst.org/ and here: http://www.dced.state.pa.us/investmenttracker/default.aspx. We were unable to find a clear program name or date associated with this grant, but in DCED's Investment Tracker it is listed as an "oppgrant" for Luzerne County and also as a "statewide" related grant. This likely means the funds were from the state Opportunity Grant Program. Our best guess is that this grant was delivered between the third quarter of 2008, when Amazon opened its first fulfillment center in Luzerne County, and 2011, the last year of Rendell's term.

[24] Belko, Feb 2 2018.

[25] Distefano

[26] Distefano

[27] "Amazon will start collecting sales tax for shipments to Pennsylvania as states seek to recoup billions", Ari Levy, www.cnbc.com, March 2 2018, link: https://www.cnbc.com/2018/03/02/amazon-to-start-collecting-sales-tax-for-shipments-to-pennsylvania.html, accessed 8/2/2019. See also: "Pennsylvania Revenue chief explains the state's new online sales tax law", Steve Esack, mcall.com, March 7 2018, link: https://www.mcall.com/news/pennsylvania/mc-nws-pennsylvania-online-sales-amazon-20180307-story.html, accessed 8/2/2019.

Amazon has yet to collect *local* use or sales taxes in Allegheny County or Philadelphia. The additional 1% sales tax in Allegheny County funds the Regional Asset District program, which in turn offers capital and operating support to county cultural institutions, municipal governments, and public transit.[28,29]

Putting the 2011 loophole closure in context, Pennsylvania appeared to join a procession of other states (kicked off by Texas in 2010) noted by Good Jobs First which closed sales and use tax loopholes to reclaim revenues for state budgets.[30] Many of these same states subsequently offered Amazon significant economic development subsidies to locate or expand facilities (particularly for its fulfillment and distribution network) within their borders.

Case 4: The "statewide expansion" deal

On that note, in July of 2016, Governor Tom Wolf offered Amazon $22.5M in grants, tax credits, and training funding in exchange for the creation of 5,000 new full-time jobs and $150M in capital investment statewide within three years. The terms of the offer also required Amazon to separately maintain its current jobs within the state for four years.[31] Soon after the deal was announced, one news report estimated that Amazon employed at least 8,200 people in the state, and that it would therefore need to increase this number to 13,200 by 2019 in order for Amazon to earn the subsidies.[32]

The deal consisted of three incentives.

The first was $15M in tax credits under the state's broad based program to incentivize job creation, the Job Creation Tax Credits program or JCTC (formerly known as the New Jobs Tax Credit program).[33] This program provides a $1,000 per job tax credit to create new jobs within the state within three years. The tax credit may be used against corporate income tax liability, along with liability for several other state taxes. To qualify, the employer must create at least 25 new full-time jobs -- or expand full-time employment by 20% -- within three years. New jobs must pay wages (excluding benefits) of at least 150% of Federal minimum wage.[34] This

[28] "Many Localities Are Unprepared to Collect Taxes on Online Purchases: Amazon.com and other E-Retailers Receive Tax Advantage Over Local Businesses", Institute on Taxation and Economic Policy, March 26 2018, link: https://itep.org/many-localities-are-unprepared-to-collect-taxes-on-online-purchases-amazon-com-and-other-e-retailers-receive-tax-advantage-over-local-businesses/, accessed 8/2/2019.
[29] For more on RAD see https://www.radworkshere.org/.
[30] "Will Amazon Fool Us Twice? Why State and Local Governments Should Stop Subsidizing the Online Giant's Growing Distribution Network", Thomas Cafcas and Greg LeRoy, Good Jobs First, August 2016. Link: http://www.goodjobsfirst.org/sites/default/files/docs/pdf/amazon-subsidies.pdf, accessed 8/2/2019.
[31] "Governor Wolf Announces 5,000 New, Full-Time Jobs with Statewide Amazon Expansion", Press Release, Governor Tom Wolf, July 21 2016, link: https://www.governor.pa.gov/newsroom/governor-wolf-announces-5000-new-full-time-jobs-with-statewide-amazon-expansion/, accessed 7/18/2019.
[32] DiStefano.
[33] "Pennsylvania New Jobs Tax Credit: An Evaluation of Program Performance", Pennsylvania Independent Fiscal Office, January 2019, link: http://www.ifo.state.pa.us/download.cfm?file=/Resources/Documents/TC_2019_New_Jobs_Tax_Credit_Report.pdf, accessed 8/2/2019.
[34] "Job Creation Tax Credit: Program Guidelines", Pennsylvania Department of Community and Economic Development, January 2018, p 1., link: https://dced.pa.gov/download/job-creation-tax-credits-jctc-program-guidelines/?wpdmdl=82274, accessed 8/3/2019.

has been unchanged at $7.25/hr since 2009, so the minimum wage rate for jobs to qualify under the program is $10.88/hr. To qualify the firm must also "maintain operations" in the state for five years.[35]

Once the state verifies that the jobs created meet the program's standards, firms earn the tax credits and have 5-6 years to use them against state tax liability. Although they may be carried forward during this period, the credits cannot be carried back, sold, or transferred to a non-affiliated business. Nor are they refundable for cash (if the recipient has no applicable state tax liability).[36]

If the business is found to have failed to create the necessary jobs within three years, or fails to maintain operations (presumably within five years), then the state may rescind tax credits, unless it determines the program requirements were not met for "circumstances beyond the firm's control."[37]

In late 2018, Amazon committed to paying its U.S. workers $15 an hour.[38] Given that such wages would more than qualify for the credit, its strong financial position, and the heretofore rapid expansion of its fulfillment center network (both nationwide and within PA), it seems plausible for Amazon to attain the terms of its 2016 "commitment" by 2019, if it chose to do so.

One thing that the guidelines do not make especially clear is whether tax credits are created for each single job created, or each "job-year" for which the newly created job exists within the three-year window. Based on the text of the guidelines, our best guess is that credits are normally awarded for each job created, rather than for each job-year. Guidelines require that a business establish a base employment figure at the start date of the project, which is to be the average of its current level

[35] Whereas the guidelines appear to clearly specify what a failure to generate the promised new jobs within the three-year deadline would constitute, the circumstances that would trigger penalty for failing to "maintain operations" over five years is not as clear. The key sentence is: "A business which received Job Creation Tax Credits and fails to maintain operations related to the JCTC project for a period of five years from the start date shall be required to refund to the [C]ommonwealth the total amount of the credits utilized." ("Job Creation Tax Credit: Program Guidelines", p 5.). As stated, the sentence does not specify whether or not "maintaining operations" actually refers to a specific employment level. For example, if job creation goals were achieved by year 3, but automation reduced the workforce in year four, and operations/output "continued" at the site, would this trigger the five-year penalty? Additionally, the guidelines do not appear to preclude the operation from moving elsewhere in the state once jobs are created, as long as operations are "maintained" within the Commonwealth itself. However, the IFO evaluation of the program notes that that recipients must "maintain substantially the same level of operations for a period of five years" (p 7.). This at least hints that the level of employment may need to be approximately the same once job creation goals are achieved. Another issue: while the guidelines do not appear to preclude an in-state move once job creation goals are achieved, they do note that except under "special circumstances", businesses that have recently lost or cut jobs elsewhere in the state may not count increased jobs at the project site as "new". To summarize our best interpretation of the above, a business cannot normally move across the state and earn tax credits on "new jobs" in its new location. But it may be able to keep the credits if it elects to move *after* generating the jobs, as long as it stays within the Commonwealth. The guidelines do not appear to *require* businesses to pay benefits, make any capital investments, or adapt leading technologies to be eligible for the grant. However private investment and the use of leading technologies are listed as evaluative criteria for approval. ("Job Creation Tax Credit: Program Guidelines", p 2.)

[36] "Pennsylvania New Jobs Tax Credit: An Evaluation of Program Performance", p 20.

[37] Ibid., p 7.

[38] Amazon Press release: "Amazon Raises Minimum Wage to $15 for All U.S. Employees, Including Full-Time, Part-Time, Temporary, and Seasonal Workers", October 2 2018, link: https://press.aboutamazon.com/news-releases/news-release-details/amazon-raises-minimum-wage-15-all-us-employees-including-full.

of employment as of the date, and the last three years of employment levels at that date. From there, job "creation" is established as follows.[39]

> *To determine job creation, DCED reviews the employment affidavit filed by the business for the four calendar quarters of year one, commencing with the start date. The average employment by quarter in year one is compared with the base employment to determine the number of jobs for which tax credits may be claimed. In year two, DCED will review the employment affidavit filed by the business for the four calendar quarters of year two. The average employment level of the four quarters in year two will be compared with the average employment level of year one to determine the number of jobs for which tax credits may be claimed. In year three, we will review the affidavit filed by the business for the four calendar quarters of year three. The average employment level of the four quarters in year three will be compared with the average employment level of year two to determine the number of jobs for which tax credits may be claimed.*[40]

Assuming tax credits are earned per created job, rather than job year, then the $15M tax credit figure does not, at first read, appear to align with current JCTC guidelines. Since each job created would earn a $1,000 tax credit, and Amazon was expected to create 5,000 new jobs to earn the benefits of the package deal, this would suggest that if it reached this benchmark within three years, it would only have earned $5M, not $15M in credits.

One possible interpretation of this discrepancy is that Pennsylvania was prepared to reward Amazon for adding *15,000* jobs within three years. Another is that the state was prepared to reward Amazon on a job-year, rather than one-time job creation basis, over the three-year window. One other possible explanation is that in this specific case, the state was prepared to reward $3,000 in credits per job.

Given these possible interpretations, another issue is how easily the state might have accommodated a successful deal budgetarily. The IFO report notes that the state has made only $10.1M in JCTC tax credits available for per year from the fiscal years 2013-2014 to 2017-2018.[41] In 2017-2018, $7.7M tax credits were awarded. In addition to the $10.1M in tax credits made available for that year, $2.4M in additional credits were available due to recapture (from being rescinded, never used within required time frame, etc.).[42]

JCTC guidelines also call for a minimum of 25% of all tax credits available to be awarded each year to small businesses (with 100 or fewer employees). The IFO report notes that over the same timeframe, 55% of credits were awarded to small businesses, far more than the required rate of 25%.[43]

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[39] "Job Creation Tax Credit: Program Guidelines", p. 3.
[40] Ibid.
[41] "Pennsylvania New Jobs Tax Credit: An Evaluation of Program Performance", p 20.
[42] Ibid. p 10.
[43] Ibid. p 9.

Thus, the more maximal interpretations of the state-wide tax credit deal appear to require a larger inventory of JCTC tax credits than the state routinely makes available each year. Another consideration is that if $15M in tax credits were earned in a short period of time, the percentage of smaller businesses receiving the credit (currently 55%) might have been crowded out, or at least down to the legislatively required 25% of recipients.

As the IFO report notes, three-quarters of all JCTC awards are granted by the Governor's Action Team (GAT), wherein (as in the Amazon case), the JCTC credits may be part of a larger economic development package.[44] We assume that such development packages may provide incentives under conditions which vary somewhat from standard program guidelines. This is implied by the terms of the 2016 deal, which indicated that Amazon agreed to maintain new and retain its current positions "statewide" for an *additional* four years, a requirement that appears to differ from JCTC guidelines.[45]

The second component of the deal included a $5M grant under the state's Pennsylvania First (PA First) program, which offers grants, loans, and loan guarantees for projects promising substantial economic impact, including job creation or retention, and capital investment.[46] According to the program's website, funds can be used for:

> *Machinery/equipment; [j]ob training; [i]nfrastructure; [l]and and building improvements; [e]nvironmental assessment/remediation; [a]cquisition of land, buildings, right-of-ways; working capital; site preparation; demolition; and clearance.*[47]

The program is available to both private businesses, municipalities, and certain public authorities. According to grant guidelines, businesses receiving the grant must achieve one of the following within three years of receiving funds:

> *(1) create or retain a minimum of 100 full-time jobs at the project site;*
>
> *(2) increase their full-time employment within the [C]ommonwealth by at least 20%;*
>
> *(3) provide a substantial number of new full-time employment opportunities within a high-growth industry; or*
>
> *(4) create or retain fewer than 100 full-time jobs at project sites that are located in counties or communities suffering from high unemployment. Businesses must also maintain the jobs retained and created for an additional two years.*[48]

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[44] Ibid. p 18.
[45] "Governor Wolf Announces 5,000 New, Full-Time Jobs with Statewide Amazon Expansion"
[46] PA First webpage. Link: https://dced.pa.gov/programs/pennsylvania-first-program-pa-first/, accessed 8/4/2019.
[47] Ibid.
[48] "Pennsylvania First: Program Guidelines", Pennsylvania Department of Economic and Community Development, May 2018, p 1., link: https://dced.pa.gov/download/pa-first-guidelines/?wpdmdl=84679, accessed 8/4/2019.

Other important guidelines for the program include: (1) that each program appropriation must leverage at least ten dollars in private investment for every $1 of program assistance awarded; (2) that the base pay of an employer hired or retained by the business in order to meet an employment requirements must be 150% of federal minimum wage (i.e. $10.88 an hour); and (3) recipient business must commit to operating at the approved project site for a minimum of 8 years.[49]

Presumably, had it elected to do so, Amazon could have easily achieved one or more of the four employment related objectives the program requires within three years (for example, it would be hard to not classify Amazon as a "high growth industry").

Per the guidelines, every grant dollar appropriated and distributed by PA First to Amazon would need to leverage ten or more dollars in private investment, presumably from Amazon (or a third party, as Amazon leases far more warehouse space than it owns). For a grant of $5M, this would suggest a required private investment of $50M.

This is not necessarily a high bar if Amazon was expected to build (or lease) a new facility. One recent construction industry article pegged the cost of a new 825K sq. ft. fulfillment center in Alabama at $325M. The facility was expected to employ 1,500 workers and an unreported number of robots.[50] On the other end of the scale, the estimated capital cost required for Amazon to purchase and rehabilitate a building into 60K sq. ft. delivery center in Oklahoma was reported to be $4M.[51] But this size is not typical. According to one industry observer, at least 11 out of 14 the fulfillment network facilities (including distribution and sortation centers) that Amazon currently maintains in Pennsylvania, are 400K sq. ft or larger.[52]

Another question is what qualifies as "private investment". For example, would any of the appropriate uses of the grant funds also qualify as "private investment" (including for example, job training)? Or, as the guidelines note elsewhere in the text, would it be limited to "capital investment"?

> *Private investment means any new capital investment to be made as part of a new location or expansion at a [C]ommonwealth site (the "project site") by a business.*[53]

We inquired with DCED on this issue, and they clarified that "typically these are capital improvement costs (construction, equipment purchase, acquisition of land) associated with a business expansion or relocation".[54]

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[49] Ibid., pp. 2-3.

[50] "Amazon breaks ground on $325M Alabama fulfillment center", Kim Slowey, October 5 2018, www.constructiondive.com, link: https://www.constructiondive.com/news/amazon-breaks-ground-on-325m-alabama-fulfillment-center/538879/, accessed 8/4/2019. Also: "Amazon kicks off construction of Alabama fulfillment center", madeinalabama.com, October 2 2018, link: http://www.madeinalabama.com/2018/10/amazon-kicks-off-construction-of-first-alabama-fulfillment-center/, accessed 8/4/2019.

[51] "Amazon to open 60,000 square foot Oklahoma warehouse", Joshua Lott, Bloomberg News, Transport Topics, July 26 2018, link: https://www.ttnews.com/articles/amazon-open-60000-square-foot-oklahoma-warehouse, Accessed 8/4/2019.

[52] See: http://www.mwpvl.com/html/amazon_com.html., accessed 8/4/2019.

[53] "Pennsylvania First: Program Guidelines", p 2.

[54] E-mail exchange with DCED personnel, 8/5/2019.

As was true with the tax credits, we note that the terms of the deal Amazon was reportedly offered deviate somewhat from the PA First program's guidelines. For example, the guidelines require that each dollar provided leverage $10 in private investment. To "earn" a $5M grant then, a project would only have to draw $50M in private investment. The bar may have been set higher for Amazon, in that the Governor's press release reported that Amazon committed to investing "at least" $150M in order to receive the grant.[55] It is not clear whether Amazon would still earn any portion of the grant with at least $50M in capital investment, but we assume this would be so.

Finally, the package also offered $2.25 million in WEDnetPA funding for employee training.[56] In essence this program conforms to what is commonly known as a "customized job training" program. It provides subsidies to firms to support training for new or existing employees through the Workforce and Economic Development Network of Pennsylvania (WEDnetPA), a consortium of participating community colleges, universities, and other providers of job training.[57]

The program can provide up to $450 per employee per year for "Essential Skills Training" or $850 per employee per year for "Advanced Technology Training". To be eligible for training, participating employees must be full-time and eligible for benefits, must be resident and employed within PA, and must earn wage rates of at least 150% of federal minimum wage (again $10.88/hr). Firm level participation in the program is limited to two years in a row, or three out of five years. On-the-job training is not covered by the program, although a limited in-house training option is available to small or mid-sized companies.[58] Under the guidelines, training can be provided by a WEDnetPA partner institution, the firm's own staff, or a third party.

As with the other incentives, it appears that program guidelines were flexed somewhat for the Amazon deal. The guidelines state that the limit on subsidized training funds for any single corporation (as defined by a federal employee identification number or FEIN) cannot exceed a total cap of $75,000 a year for ES training, and $50,000 a year for AS training. [59] Given that the maximal number of years a company can participate in a five year period appears to be 2 or 3 years, if one assumes that all fulfillment centers in the state fall under the same FEIN, this suggests a maximum cap of $375K in funding for a three year window, whereas the deal offers $2.25M. Alternatively, the deal might have instead been offered to multiple firms affiliated with Amazon, each with their own FEIN.

With all this said, it is not clear whether Amazon ever achieved any of the goals or commitments indicated under the press release. For example, as of February 2018,

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[55] "Governor Wolf Announces 5,000 New, Full-Time Jobs with Statewide Amazon Expansion"
[56] Ibid.
[57] WEDnetPA FY2018-2019 Company Guidelines, DCED, revised 4/16/2018, p. 3, link: https://dced.pa.gov/download/wednet-company-guidelines/?wpdmdl=58765, accessed 8/9/2019. Provided details of the program are based on this document.
[58] Ibid. p. 18.
[59] Ibid. p. 9.

one report noted that a DCED representative admitted that Amazon had yet to request the release of *any* of the "funds" under the deal.[60] However, it is not clear whether their use of the term "funds" also referred to the JCTC tax credits, as opposed to just the grant or training subsidies. Assuming the date of the Governor's press release (July 21, 2016) was at or near the starting gun for Amazon to create those 5,000 new jobs, the three-year window to do so may have already closed.

For the record, as of 8/5/2019, the only investment linked to Amazon under DCED's Investment Tracker website is the original is the $1.25M grant offered by the Rendell Administration in 2008 to Amazon for an expansion in Luzerne County.[61] No other investments are listed. Text on the webpage for the site indicates that the data on the site is limited to "…information on executed contracts for a grant, loan or tax credit filed through DCED…".[62] If the website is up to date, then Amazon would appear to have yet to earn incentives under the deal yet.

Case 5: The Allegheny County Fulfillment Center Deal (2019)

On July 30, 2019 Governor Wolf's office issued a press release announcing the groundbreaking of a new 1M sq. ft. non-sortable fulfillment center near the Pittsburgh International Airport in Findlay Township.[63] The operation is expected to create 800 new full-time jobs with a starting wage of $15/hr. The press release notes that Amazon has committed to investing $30M into the project. The same press release also noted that Amazon currently employs "nearly" 10,000 full-time employees across the state.

Assuming this is correct, it would seem to confirm that Amazon did not in fact create all 5,000 new jobs across the state it committed to under the 2016 deal.

The only incentive mentioned by the press release for the Allegheny County deal was "$1.6 million in Job Creation Tax Credits to be distributed after the creation of new jobs".[64] The release also notes that the deal was coordinated via the Governor's Action Team. Once again, the deal appears to deviate from JCTC guidelines in order to award $2,000 in tax credits per job created. One report indicated that the site may be up in running by the holidays in 2020.[65] Interestingly, work on the project site apparently dates back to July 2016, along with local speculation that the site was intended for Amazon.[66] While near the airport, the project site is separate

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[60] Mark Belko, February 2 2018.
[61] Link: http://www.dced.state.pa.us/investmenttracker/default.aspx, accessed 8/5/2019.
[62] Link: https://dced.pa.gov/programs-funding/investment-tracker/, accessed 8/5/2019.
[63] "Governor Wolf: Amazon Expansion to Bring 800 Jobs to Allegheny County ", Press Release, Governor Tom Wolf, July 30 2019, link: https://www.governor.pa.gov/newsroom/governor-wolf-amazon-expansion-to-bring-800-jobs-to-allegheny-county/.
[64] Ibid.
[65] "Gov. Wolf: Amazon To Build Facility In Findlay Twp., Bring 800 Jobs To Allegheny Co.", KDKA website, July 30 2019, link: https://pittsburgh.cbslocal.com/2019/07/30/allegheny-county-findlay-township-amazon-fulfillment-center/.
[66] "Could it be Amazon?", Jeff Burd, Build Pittsburgh (blog), July 20 2016, link: https://buildingpittsburgh.com/2016/07/20/could-it-be-amazon/, accessed 8/5/2016.

from the airport location offered in Pittsburgh's bid for Amazon's HQ2 second headquarters, which was on airport owned land.[67]

With the addition of this facility, Amazon will soon maintain a tech hub, a sortation center (in the neighborhood of Fairywood)[68], a distribution center (in Allepo, PA) and a large-scale fulfillment center in Allegheny County. No announcement has been made regarding whether Amazon will start collecting Allegheny County's 1% sales tax from transactions with county residents.

Requiem for a Tax Credit

In January 2019, Pennsylvania's Independent Fiscal Office released the previously cited evaluation of the Job Creation Tax Credit program. The evaluation was generally critical of the program, and it found, among other things that: the value of the credit ($1,000/job) was too small to incentivize job creation, given that this amount represented no more than 3.4% of the total cost of adding an additional full-time employee ($29,400), with the minimum amount of wages required for the program (this cost includes an assumed 30% charge for benefits).[69] The report also relied on a review of economic development literature to conclude that roughly 95% of the jobs created by the program would likely have been created without the program, thus only 5% of the jobs reported under the program would be attributable to it. Based mainly on that assumption, the IFO found that the program has a net negative economic impact on the state.

On June 28, 2019 Governor Wolf signed the 2019/2020 budget bill. One casualty of the bill was the "New Jobs Tax Credit" program.[70] This is the old name for the Job Creation Tax Credit program (JCTC). The language of the bill suggests that no further credits will be issued by the program after June 30, 2020.

If this change applies to credits the state hoped to issue to Amazon under the JCTC program for the Allegheny County deal, and Amazon achieves its job creation goals at the site near the end of the three year window, the DCED may have to rely on its inventory of rescinded or unallocated credits to fulfill its part of the bargain.

[67] We believe the development site for the fulfillment center is shown here: http://www.chapmanprop.com/files/CW_2013.pdf, whereas the Site@PIT can be found here on page 48: https://www.alleghenyconference.org/wp-content/uploads/2018/11/AmazonHQ2PittsburghProposal.pdf. Both links accessed 8/5/2019.

[68] "Amazon inks deal to occupy 70,000-square-foot distribution warehouse in Aleppo", Pittsburgh Post-Gazette, Mark Belko, May 30 2018, link: https://www.post-gazette.com/business/development/2018/05/30/Amazon-deal-70000-square-foot-distribution-warehouse-Aleppo/stories/201805300357, accessed 8/9/2019.

[69] This figure represented the minimum wage of $10.88 for a job to qualify under the program, and a 30% charge for benefits.

[70] Ibid. p 8.

About Heinz College

The Heinz College of Information Systems and Public Policy at Carnegie Mellon University was established in 1968 and renamed in 1992 in honor of the late U.S. Senator from Pennsylvania, John Heinz III. Heinz College improves the ability of the public, private and nonprofit sectors to address important problems and issues facing society. The College is home to two internationally recognized graduate-level institutions at Carnegie Mellon University: the School of Information Systems and Management and the School of Public Policy and Management. This unique colocation combined with its expertise in analytics set Heinz College apart in the areas of cybersecurity, health care, the future of work, smart cities, and arts & entertainment. In 2016, INFORMS named Heinz College the #1 academic program for Analytics Education.

About the CED

The Center for Economic Development at the College exists to help local institutions and the public understand the economic and community development challenges facing the Pittsburgh region and the Commonwealth of Pennsylvania. Since its inception under the College in 1987, the Center has followed an interdisciplinary approach to conduct research in in economic, workforce, and community development. Through objective research and technical tools, the Center helps clients manage change through policy, strategy, and programming. Our toolkit includes economic, demographic, geographic, and institutional data analysis, economic and statistical modeling, survey design and analysis, performance measurement, program design and evaluation, and policy research. Since 2008, with the assistance of its EDO partners and C-level Executive Fellows, the CED has also provided a steady pipeline of academic, extracurricular, and experiential learning opportunities for master's students at the College interested in economic and community development in the U.S. context. For more information, please visit www.heinz.cmu.edu and www.cmu.edu/ced.

About this report

The conclusions and opinions of this report are the authors alone. This report does not represent the conclusions, views, or official positions of Carnegie Mellon University or any of its corporate officers.

General caveats

This appendix provides our best interpretation of the facts and implications surrounding several major economic development deals and incentive programs in the Commonwealth of Pennsylvania. Our findings and interpretation are based on news reports, published state guidelines, state law, and state reports concerning the deals and programs. We make no claim that our conclusions about the deals and programs are fully accurate. Nothing in this report should be construed or used as advice on how to apply to or derive benefits from state incentive programs.