Coordinator: Welcome and thank you for standing by. At this time all participants are in a listen mode only until the answer and question of today’s session. At that time if you would like to ask a question, please press star 1.

Today’s conference is being recorded. And if you have any objections please disconnect at this time. I would like to now turn the call over to Earlene Dowell. You may begin.

Earlene Dowell: Thank you, Zee. And thank you to Greg Pewett from the US Census Bureau for hosting our Webinar today. On behalf of the US Census Bureau and a partnership with the Council for Community and Economic Research and the Labor Market Information Institute, welcome to our September LED Webinar.

It is with great pleasure that I introduce Ms. (Shirin Arslan) as she presents “DC Startup Scene Part 2 Opportunity Costs.” This Webinar describes how Ms. (Arslan) uses the LEHD quarterly workforce indicators to examine the startup pay gaps in six industries across DC and the Metro region and comparing them against the gaps found for San Francisco, Boston and Seattle.
(Shirin Arslan) is a researcher and analyst who specializes in gender analysis and economics. Her research areas include labor market practices and policies, economic regulations, human rights conditions and digital inequalities. Ms. (Arslan) holds a Master’s Degree in Economics from American University where she currently manages the program on gender analysis and economic at the Department of Economics. With that I turn it over to Ms. (Arslan).

(Shirin Arslan): Thank you, Earlene. Good afternoon everyone. I am (Shirin Arslan) and as Earlene mentioned earlier I am the Program Manager for American University’s Program on Gender Analysis in Economics and a research fellow at the DC Policy Center.

I’d like to first thank the US Census Bureau, the local employment dynamics partnership, the Council for Community and Economic Research and the Labor Market Information Institute for having me today. I’m excited to share one of my recent works for the DC Policy Center Review entitled DC Startup Scene Part 2 which explores startup pay gaps in six sectors, industry sectors in DC and the metro region comparing them against gaps found for San Francisco, Boston and Seattle.

As the title of this Webinar indicates this is the second part of my research on DC Startup Landscape. Part 1 of the research offers the background on startup activities in DC using startup establishment rates, startup employment rates and startup employment gains across industry sectors.

I found that on average startups in certain sectors such as accommodations and food, retail and wholesale trades were making relatively faster gains in employment compared to more established firms in these sectors. However startups in some of DC’s strongest industries, like, professional, scientific and
technical services, education services, and healthcare and social assistance had employment rates half that of the national average for startups.

So in Part 2 I dig deeper by examining one of the potential barriers that may be in the way of startup employment gains. And this would be the startup pay gap which measures the gap in wages offered by startup firms--firms that are less than one year old--, and established firms--those that are 11 years old or older. And the links to both of the articles are listed on this slide if you want to find them.

So I’d like to begin by highlighting some of the key takeaways from Part 1 of the research to offer a background. So on the surface the DC Startup Scene appears to be more lively than ever before. The city has received numerous accolades from the likes of the Washington Post and WAMU, (unintelligible) to the Entrepreneur Magazine for fostering a vibrant startup ecosystem that is both supportive and diverse.

This is true to some extent. As shown in this figure in recent years DC has kept up startup establishment rates higher than the national average. The figure on this slide shows the startup establishment rates for Washington DC and the US national average for years 2013 to 2017 and the data is from the Business Employment Dynamics of the Bureau of Labor Statistics.

The startup establishment rate is the percentage of private sector establishment births. Establishment birth is defined by the BLS as the moment when a business establishment hires at least one employee for the first time. In 2016 on average 4 out of every 100 private sector establishments in the District in DC were startup firms less than a year old with at least one employee compared to the national average of 3 out of 100.
So while establishment births can tell us about the number of entrepreneurial endeavors taken, they reveal little about the employment impact of startups. So I looked into startup employment rates for the last several years. Startup employment rate is calculated as the percentage of total employment gains by businesses that are one year or younger. This figures on this slide illustrates the annual startup employment rate for the district. And here you can see that in 2017, 6 out of every 100 employments gained were by startups one year old or younger.

Similar to startup establishment rates shown in the previous slide, DC startup employment rate has remained above the national average since 2013. Going back however we see that DC startup activity is driven by a handful of industries. Drawing on data from the BLS Business Employment Dynamics, this figure illustrates jobs created in the district by NAICS sector in an average quarter in 2016 ordered by the total number of jobs created and organized by Firm age.

Here we get a better idea of the sectors where startups are creating the highest proportion of jobs such as accommodations and food services as well as sectors in which new jobs are mostly created by established firms such as information, and educational services. The sectors topping this list such as professional, scientific, and technical services, and accommodation and food services, and other services, reflect some of DC’s key sectors with the highest shares of employment.

And we see that the strongest sectors in DC are not necessarily the ones in which startups are making the most gains. For instance as this figure shows only 7% of all jobs created in the professional scientific and technical services sector -- one of our strongest sectors by overall employment – were created by startup firms compared to the national average of about 13%. In fact in 2016
DC startups other than those in accommodations and food, retail trade, and arts, and finance sectors created lower shares of jobs compared to the national average in their respective sectors.

And startups within some of DC’s strongest industries such as professional, scientific and technical services, educational services and healthcare and social assistance had employment rates half that of the national average for startups. Similarly, DC startups in sectors such as administrative support waste management and remediation services also created smaller proportions of jobs relative to the national average.

So why is it that startups in some of our strongest industries are lagging behind? I dig deeper by examining one potential barrier that may be in the way namely the difference in wages offered by startup firms less than one year old and established firms that are 11 years or older. And to do this I used the US Census Bureau’s 2016 Quarterly Workforce Indicators to calculate the startup pay gap which captures the gap between the average monthly salaries paid at startups and established firms and calculated as one minus the ratio of average monthly earnings paid at startups and established firms.

And again, startups being firms that are less than one year old and established firms being those that are 11 years or older. And I calculate this for different industries based on NAICS codes, for DC, San Francisco, Boston and Seattle. And as you will see later on in the seminar or the Webinar, I also look at startup pay gaps across different age groups of workers. Selected age groups include early career workers, those aged 25 to 34, peak career workers 35 to 44, and mid-career workers, those who are 45 years to 54 years old.

And taken together this will show which industry sectors appear to have the best average returns for workers to shift from established companies to
startups in DC and how that compares with other startup hubs such as San Francisco, Boston and Seattle.

So why startup pay gap? Startup pay gap can shed light on the opportunity cost workers face when choosing to work for a startup rather than an established firm. (unintelligible)…larger gaps signaling higher levels of wages foregone, (unintelligible) such choices are made. However, it’s worth noting that the salaries foregone when workers choose to work for a startup rather than in established firms is only one dimension of the overall opportunity cost. And that it may even be associated with considerable payoffs if or when the startup eventually becomes successful.

And as I mentioned earlier I used the data from the Quarterly Workforce Indicators to calculate the startup pay gap. I used the QWI Explorer which is the tool – a Web-based analysis tool – that enables comprehensive access to the full depth of the Quarterly Workforce Indicator’s dataset. QWI Explorer makes the entire QWI dataset available for visualization and line charts, bar charts and thematic maps. I also used the LED extraction tool which enables streamlined access to raw public use data produced through the local employment dynamics partnership.

Average monthly earnings by firm and worker’s age were reported in the US Census Bureau’s Center for Economic Studies, via Quarterly Workforce Indicators. And I used the dataset for 2016. And I used the data for different industries based on (NAICS) codes to calculate the startup pay gap. And first I looked at the startup pay gaps found across industries in DC and the Washington metro region. And to do this I compared the average monthly earnings paid by startups and their established counterparts across (NAICS) industries in DC and the broader metro area.
And the next two charts this one and the next slide will illustrate startup pay gaps across selected (NAICS) sectors in the district and the metropolitan level. And the startup pay gap is wider in the metro area than in the district in six sectors. These being Health Care and Social Assistance, construction, administrative services, finance and insurance, educational services, and management of companies and enterprises.

And what’s interesting is that both in DC and across the DC metro area startup workers in healthcare and social assistance faced the lowest pay gap compared to startup workers in other sectors at 0.05 in DC. So this means in this sector in the healthcare sector, startup employees earned 95% of the wages earned by employees at established firms in the sector.

This signals not only strong demand for qualified workers by startups within the healthcare sector but also their funding capacity to do so. And services provided in the sector are typically delivered by professionally trained health practitioners and social workers with requisite expertise.

On the other hand startup pay gaps are wider in DC than on the metro level. And while a majority of the (NAICS) sectors examined was the largest differences observed in information and retail trade sectors followed by real estates and rental or leasing sectors. In both DC and the broader metro area the relative gaps between average pay at startups and the average pay at established firms are highest in industries, like, manufacturing, management of companies and enterprises and wholesale trade.

I also examined how these startup pay gaps compare with those in comparable cities, like, San Francisco, Boston and Seattle which are jurisdictions that have similar workforce compositions and income population trends. Once again I used the QWI Explorer tool to calculate the startup pay gap which measures
the difference between average monthly salaries paid at startups and established firms.

Here I focus on six selected industries including healthcare and social assistance, education services, professional, scientific and technical services, retail trade, wholesale trade and Accommodations and Food Services. As this graph illustrates the startup pay gap in the healthcare sector was much larger in San Francisco, Boston and Seattle compared with DC which has a 0.05 gap. And as mentioned earlier both in the district and across the metro area startup workers in this sector face the narrowest pay gap compared to startup workers in other sectors earning 95% of the wages earned by employees at established firms.

On the other hand startup workers in DC faced wider pay gaps in professional services, accommodation and food services, wholesale sectors and – than compared to their counterparts in San Francisco, Boston and Seattle. And here Seattle startups took the lead in the professional services and accommodation sectors with startup pay gaps averaging 0.07 and 0.11 respectively.

Startup pay gap in retail was narrowest in Boston -- meaning that in fact it’s negative 0.09 -- meaning that startup employees in Boston on average earned 109% of the wages earned by employees at established firms. So, like, a reverse startup gap as well.

Next, I breakdown the startup pay gap analysis to focus on three groups of workers, early career workers, those aged 25 to 34, peak career workers, those aged 35 to 44, and mid-career workers, those aged 45 to 54. For early career workers we see a negative startup pay gap value of -0.03 in DCs healthcare and social assistance sector indicating that on average early career workers
aged 25 to 34 were paid 3% more at startups than at established firms. And that’s significantly better than their counterparts in Boston and Seattle but trailing behind just a little bit by those in San Francisco.

Similarly early career workers in DCs education sector faced a startup pay gap of -0.01 which is smaller than the pay gap or which is smaller than the startup pay gap observed in Boston and Seattle but larger than that observed in San Francisco.

So relative to those in San Francisco, Boston and Seattle DCs early career workers faced larger startup pay gaps in professional services, accommodations and food, and wholesale trade sectors. And Seattle takes the lead once again in offering the most comparable startup pay for early career workers in professional services, while San Francisco startups in both accommodations and food services and wholesale sectors offered average wages on par with established firms.

Moving onto peak career workers. Peak career workers are those aged 35 to 44 and this is an age when that is most commonly associated with entrepreneurship. And for this group startup pay gaps are narrower in DC than in San Francisco, Boston and Seattle in two sectors. Those being healthcare and social assistance and educational services.

In 2016 peak career workers in DC’s healthcare and social assistance startups earned average salary 144% of those received by their counterparts in established firms. Again we have a diverse startup pay gap here where workers at startups earn more on average than workers in established firms in the sector.
And DC’s education startups also outperformed their peers in San Francisco, Boston and Seattle in paying comparable wages. So 96% of the wages paid at established firms. So they’re peak career workers. Compared to other cities peak career workers in DC faced relatively wider pay gaps in professional services, accommodation and food, and wholesale trade sectors. However, the startup pay gap in professional services sector is slightly narrower for this group than their early career counterparts. So, then for workers who are aged 25 to 34.

Mid-career workers. So compared to the other two groups of workers -- their younger counterparts – DC’s mid-career workers faced the lowest startup pay gap in the professional and scientific services sector at 0.11. In fact the startup pay gap in this sector progressively narrows as we move up worker’s age in DC. So we had a startup pay gap of 0.27 for early career workers, 0.23 for peak career workers and 0.11 here for mid-career workers.

On the other hand as we move from peak career workers to mid-career workers in healthcare and social assistance, the startup pay gap widens or the negative pay gap narrows with the latter group facing higher pay gaps than their peak career workers. So in other words for startup workers in the healthcare and social assistance sector peak career workers are significantly better off than the two other groups of workers.

Nonetheless mid-career workers in DC’s healthcare startups on average earned 137% of the wages offered by established firms in this sector. Whereas their counterparts in San Francisco, Boston and Seattle earned much less. So to wrap up I found that healthcare startups in DC have the lowest pay gap or the lowest startup pay gap both across sectors and across cities for the cities I examined.
Based on this analysis it appears that DC workers in the healthcare and social assistance sector faced the lowest opportunity costs at least in terms of average monthly salary when switching from an established firm to a startup within the same sector. For peak career workers the switch to startups could actually result in a significantly higher monthly salary on average as we saw in the previous two slides with the negative startup pay gap value.

But the same cannot be said for peak career workers in healthcare and social assistance sectors. Sectors across other cities that (unintelligible) including San Francisco, Boston and Seattle. And in those cities actually switching from an established firm to a startup in the healthcare sector can lead to a salary cut of 36, 33 to 56% on average.

On the other hand workers in sectors such as professional, scientific and technical services accommodation and food services and wholesale trades in DC could (unintelligible) some much higher opportunity costs in terms of average monthly salaries when leaving their job at an established firm to join a startup. And again it’s worth noting that (unintelligible) salaries foregone when workers choose to work for a startup rather than an established firm captured here using the startup pay gap (unintelligible) only one dimension of the overall opportunity cost.

Many other factors may play into the opportunity costs for these workers, you know, things, like, time and employment benefits. And also especially the prospect of the startups that they joined becoming successful eventually. And with that I will wrap up my presentation and open the floor for any questions.

Coordinator: Thank you. At this time we will now begin the answer and question session today. If you would like to ask a question please record your first and last
name clearly when prompted. Your name is required to introduce your question.

If you have a question that you need to withdraw please press star 2. Again if you would like to ask a question please press star 1. One moment please.

Earlene Dowell: Okay well, this is Earlene and I have a question for (Shirin). It's interesting that the startup pay gap is higher in DC compared to other cities for the accommodation and food services sector. And yet DC startups in this sector are doing better than their startup counterparts in other sectors. Why might this be the case?

(Shirin Arslan): Thanks, Earlene. So that’s a great question. Yes, so in 2016 startups in DC within the accommodation and food services sector actually created nearly a quarter of all the new jobs created within the sector. And typically firms within the sector provide customers with lodging and/or meals, snacks and beverage services. So they include hotels and full service restaurants or food trucks or bars and catering companies.

Several factors may be driving up startup success in this sector despite the large startup pay gap for workers. For starters the continued increase of tourists visiting the district may have fueled the overall growth in this sector in recent years. So in 2016 DC received 22 million visitors compared to 2012 when it received about 18 million visitors. And in 2016 alone tourists spent over $7 billion during their visits in the city. Sixty-three percent of which was spent on lodging and food and beverage services.

Moreover the district in DC, the DC has created an environment that’s especially welcoming to food and hospitality entrepreneurs who benefit from a multitude of food focused accelerators and incubators such as mess hall,
union kitchens, (eats) place and so on. And, you know, these accelerators and incubators are dedicated to identifying burdens including regulatory burdens on the local food business and entrepreneurs. So those may be some of the reasons why, you know, startups and the sector are seeing a lot of success despite the continuous or despite the startup pay gap being higher than other cities.

Earlene Dowell: Thank you. That was really interesting.

(Shirin Arslan): Great.

Coordinator: Again as a reminder if you would like to ask a question, please press Star 1, record your first name. One moment please. I’m currently showing we have no questions in the queue at this time.

Earlene Dowell: This is Earlene again. I have another question. So what are some possible reasons for the high startup pay gap and/or low startup pay employment rates in DC’s professional, scientific and technical services sector?

(Shirin Arslan): Thanks, Earlene. So the professional, scientific and technical services sector in DC is, you know, is one of our strongest industries in the city. And one reason for the lack of startup gains or startup success in this sector could be market concentration where the majority of the market is locked up by a small number of firms.

For instance, between 2014 and 2015 job postings for the sector grew at a faster rate than any other sector in the region. However nearly 30% of the growth in job postings were driven by just 10 employers within the sector all of which are well known federal contractors such as Deloitte, Booth Allen and Hamilton. So that could be one of the reasons. Market concentration and the
market being dominated by these big players and not leaving much room for entrepreneurial ambitions in the sector.

Earlene Dowell: Thank you.

(Shirin Arslan): You’re welcome.

Coordinator: Again as a reminder please press star 1 on your phone and record your name if you have a question. One moment please. I show no question in line.

Earlene Dowell: Okay well, I would like to thank Ms. (Arslan) for this informative and extremely interesting presentation. And thank you to our audience for joining us today. Stay tuned for more information on the October LED Webinar and thank you so much. And we hope you enjoy the rest of your day.

Coordinator: That concludes today’s conference. Thank you for participating, you may disconnect at this time. Speakers, please stand by for your post conference, thank you.