MINORITY BUSINESS DEVELOPMENT AGENCY
U.S. DEPARTMENT OF COMMERCE

Calculating Parity of Minority Business Enterprises and the Expansion of the U.S. Economy

Introduction

How much would the U.S. economy gain if minority business enterprises (MBEs) did not face hurdles due to their race and ethnicity? The Minority Business Development Agency (MBDA) first tackled this significant question approximately twenty years ago and proposed the concept of parity as an approach to answering it.

How was parity previously calculated?

Using an easy-to-understand calculation, MBDA concluded that parity would be accomplished when a minority group's share of an economic measure was equivalent to that racial or ethnic group's share of U.S. adult population. For MBDA, that translated into three economic output measurements: the share of minority-owned firms, share of gross receipts, and share of employment equal to the percentage of the minority population 18 years old and older. Adult minority population was chosen rather than all minority population with the assumption that most U.S. classifiable businesses are owned by adults. Parity assumed the expansion and not reapportionment of the U.S. economy.

For example, in 2017, 36% of the adult population were minorities[1] and in that same year, about 63 million people were employed by all U.S classifiable businesses (CB); with MBEs employing about 9 million (14%), and non-MBEs employing the remaining 54 million (86%). Under the original parity model, and using these data points, one can quantify how much the U.S economy could grow by tapping into MBEs' potential. MBDA calculated that MBEs would employ 36% of 63 million, or 23 million workers which is 14 million more than the 9 million employed. Therefore, it was asserted that *the U.S. economy was missing out on the employment of 14 million more workers.*

$$36\%\ of\ 63\ M = \ employees\ of\ CBs * \frac{minority\ adult\ population}{total\ adult\ population}$$

[1] African Americans, Hispanic Americans, Asian Americans, Native Hawaiian and Pacific Islander Americans, Native Americans, and Alaska Natives.

How is the prior parity model less than perfect?

However, the initial parity calculation contains two concerning features.

1. The formula did not yield mathematical parity. The calculation implicitly assumed the number of non-MBEs, their receipts and employees stayed the same.[2] In the example above, under parity non-MBEs would employ 54 million workers and MBEs have 23 million employees so that in total, CBs employed 77 million people.

However, if the total number of people employed grows to 77 million because MBEs reach parity, there needs to be a subsequent realization that the 23 million now employed by MBEs is still less than 36% of the total 77 million (23 million is about 30% of 77 million) required to maintain parity. The resulting ratio of non-MBE to total CB employment is 70% (54 million ÷ 77 million). Hence, under parity, non-MBEs remain over-represented (at 70% instead of 64% — their share of adult population) and MBEs remain under-represented (at 30% instead of 36%).

2. The calculation implicitly assumes that parity is achieved when MBEs perform as well as the average CB. Although the formula does not mention average performance of a CB — only "share of adult population" — it will be shown below that the calculation implicitly assumes that parity is achieved when MBEs perform as well as the average CB. This average performance is a midpoint between the performance of MBEs and non-MBEs. Using this model, MBEs' performance is still different from the performance of non-MBEs. This model predicts growth "moving towards equilibrium", but it still does not fully reflect growth based on "overcoming barriers" because it is somewhere in the midst of the journey to its true equality destination — where no firm faces barriers (so all perform just as well as non-MBEs do). So, under prior parity methodology, MBEs' growth projections are still less than the performance of non-MBEs.

The second feature of the initial parity calculation occurs in the following way as explained with the formula:

$$36\%\ of\ 63\ M = \ employees\ of\ CBs * \frac{minority\ adult\ population}{total\ adult\ population}$$

[2] If non-MBE shrank to accommodate MBEs growth and keep total values constant, the whole point of the calculation — predicting growth — would be contradicted.

If you multiply a number by 1, the number will stay the same. So, multiply both the right-hand and left-hand side by 1 = number of CBs/number of CBs, where CBs = # MBEs + # non-MBEs.

$$\mathbf{1} * 36\%\ of\ 63\ M = \frac{\#\ of\ CBs}{\#\ of\ CBs} * employees\ of\ CBs * \frac{minority\ adult\ population}{total\ adult\ population}$$

Now rearrange the terms on the right-hand side and realize that:

$$36\%\ of\ 63\ M = \frac{employees\ of\ CBs}{\#\ of\ CBs} \quad \frac{\#\ of\ CBs}{total\ adult\ population} \quad minority\ adult\ population$$

This is the ***average number of employees across all CBs***, **11.5 workers**, which is between the value for MBEs (8.8 workers)

This is the **number of CBs per adult across *all* CBs**, **0.022** (22 businesses per 1,000 adults), which is between the value for MBEs (0.011)

Two key points emerge from this formula (reading the right-hand side of the equation from right to left):

a. it multiplies the number of adult minority population, about 90 million, by 0.022 and results in about **2 million MBEs under parity** — however, mathematically more "parity MBEs" are implied if we multiplied 90 million by 0.028 — the level of non-MBEs

b. it then multiplies **2 million MBEs** by 11.5 workers per firm to arrive at 23 million — there would be more parity employees if we multiplied parity MBEs by 12.1 — the average employment level of non-MBEs

A new parity model to predict growth potential

The preceding two concerns of the initial parity model can be eliminated with a calculation that is just as easy to describe and perform; and which also succeeds in producing growth-oriented parity levels:

> **"Parity would be reached when MBEs match non-MBE performance in terms of the number of *firms per adult population*, *dollar receipts per firm*, and number of *paid employees per firm*."**

For example, in 2017 non-MBE performance was 0.028 businesses per adult, and each business had 12.1 employees. When applied to about 90 million adult minority population under the new parity calculation, MBEs would employ 90 million * 0.028 * 12.1 = about 30 million workers, many more than the 23 million under the previous parity formula. And with the new formula, the MBEs' share of total employment, 30 million out of 84 million (recall non-MBEs still have 54 million), is 36%, thus matching the minority share of the adult population.

What are the benefits of the new parity calculation?

To illustrate the difference between the initial parity model and the new one, let's look at an example, say, Asian MBEs — for which the initial model yield no-growth parity level in terms of employees. For example, in 2017 about 6.6% of the adult population were Asians. With 6.6% of 63 million workers employed at CBs, Asian MBEs would have employed about 4.2 million workers under previous parity calculations. But in 2017 Asian MBEs actually employed 4.7 million workers, implying that Asian MBEs exceeded parity for this economic measurement.

Applying the new parity formula to 16.7 million adult Asian Americans in 2017, Asian MBEs would employ 16.7 million * 0.028 * 12.1 = about 5.7 million workers, which is more than the 4.7 million they actually employed in 2017. Therefore, Asian MBEs are implied to grow by about 1 million under the new parity formula.

Conclusion

Under the initial parity formula, the share of non-MBEs is too large as a percent of CB employment while the ratio of MBEs is too low as a percentage of CB employment. The picture of their respective relative shares in CB employment is skewed toward non-MBEs and implies MBE firms are much fewer in number than their share of the population suggests. The new parity calculation leads to estimates of MBE firms' that are better aligned with race and ethnicity populations and hence are improved measures of the disparities between MBE and non-MBE firms' economic progress. With this in mind, MBDA asserts that parity would be reached when MBEs performance match non-MBE performance in terms of the number of firms per adult population, dollar receipts per firm, and number of paid employees per firm. Parity assumes the expansion, and not the reapportionment, of the U.S. economy.

Written by in-house staff economist, Office of Policy Analysis and Development, Minority Business Development Agency August, 2021