

## How Many Residents Does it Take to Create New Functionally Diverse Downtowns - How to Think About Allocating Scarce Resources to Get There?

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### The Challenge<sup>1</sup>

The recent strong impact of remote work in our large downtowns on how many office workers show up in their workplaces has sparked calls for the central business districts within them to be made far more multifunctional. Housing, in particular, has been highlighted as the function most in need of buttressing. On one hand the housing is seen as a possible replacement for unwanted office spaces, and a way to save outdated buildings while recapturing lost real estate capital values and rental and tax revenues. However, the main focus in this essay will be on another reason to increase downtown housing offered by advocates of greater downtown multifunctionality: the ability of more housing to improve and strengthen how our downtowns function. The inherent aim is to make our downtowns more magnetic places for people to live, relax, play, and connect. It is an objective consistent with strongly improving the balance between a downtown's Central Social Functions and its Central Business Functions.<sup>2</sup> When both are strong we have our strongest and most magnetic downtowns.

The owners of downtown office buildings are doing what is economically rational for them to do, to try to regain market share and recapture value. That's fine, especially since academics are foreseeing a destruction of \$413 billion in office values nationally in the near future.<sup>3</sup> Downtown managers and city governments have different objectives. Most importantly, they have responsibilities for the well-being of our entire downtown. They are the ones whose job it is to think strategically and propose needed interventions and incentives that may vary across the geographies of the downtown. Since resources for adding housing are bound to be limited, it is imperative that they have a well-grounded strategy to guide housing growth. Their attention needs to focus on downtown housing in a manner that goes well beyond just the conversion of outmoded office buildings, and to push the interests and concerns of the whole downtown community to the forefront, not just those of troubled property owners. The discussion below

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<sup>1</sup> I want to thank Mark Waterhouse for his great editing of this article, and to Paul Levy, Richard Florida, and Andy Manshel for their very helpful comments on an earlier draft.

<sup>2</sup> For more about downtown Central Social Functions and Central Business Functions see: <https://www.ndavidmilder.com/2021/12/a-search-for-a-clearer-and-more-useful-vocabulary-for-talking-about-and-analyzing-downtowns>

<sup>3</sup> Gupta, Arpit and Mittal, Vrinda and Van Nieuwerburgh, Stijn, Work From Home and the Office Real Estate Apocalypse (November 26, 2022). Available at SSRN: <https://ssrn.com/abstract=4124698> or <http://dx.doi.org/10.2139/ssrn.4124698>

covers a number of analytical points and research findings that should help them formulate the needed well-targeted strategies.

An interesting question that currently is getting too little attention is how these two reasons for more downtown housing are related: will the conversion of outmoded downtown office buildings to residential uses necessarily make their surrounding areas better places to live and play? How many new units are needed to significantly lift downtown foot traffic and shopper spending, while reducing visitor fear of crime? Does it make a difference where the new housing is located within a downtown?

**Table 1. Top Building Types Converted Nationally to Apartments in 2020-2021**

| Percent | Building Type   |
|---------|-----------------|
| 40%     | Office building |
| 16%     | Factory         |
| 13%     | Hotel           |
| 9%      | Warehouse       |
| 5%      | Healthcare Bldg |
| 3%      | School          |
| 2%      | Religious       |

Source: RentCafe analysis of Yardi Matrix data  
<https://www.rentcafe.com/blog/rental-market/market-snapshots/adaptive-reuse-apartments/>

Those critical strategic questions about housing are further complicated by the fact that estimates by real estate experts do not indicate that vast amounts of office space will be converted to residential uses. For Manhattan these estimates range from 8% to about 14% if new regulatory improvements and appropriate financial incentives are added. Furthermore, nationally, most of the buildings recently converted to residential uses were not offices, but had a variety of other uses such as factories, hotels, and even schools and

religious – see Table 1. Also, many large downtowns are seeing new housing built in them or on their periphery, and it is often occurring in mixed use multi-building developments, such as Manhattan’s Hudson Yards, and increasingly in new structures that have housing mixed with various combinations of hotel, office, retail, entertainment and personal services spaces, such as the Waterline in downtown Austin. *When we think about new housing for our downtowns we need to also think of development paths other than the conversion of outmoded office buildings.*

**The Arguments That More Housing Makes Our Downtowns Stronger**

More multifunctionality – that includes more housing -- can make our downtowns economically stronger and more resistant to future crises. This strategic reasoning is similar to that for making our personal investment portfolios more diversified. Strengthening downtown multifunctionality has two quantitative dimensions to analyze: the number of functions present and their relative strengths. Multifunctionality may be seen as stronger when there are more significant functions and the strengths of those functions approach equality. However, regarding their number, a function probably needs to have some level of measurable economic strength to have any analytical salience. Notably, while the importance of downtown multifunctionality has often been mentioned, systematic research on it appears to be absent.<sup>4</sup>

<sup>4</sup> Re the importance of multifunctionality, see for example: Michael A. Burayidi. DOWNTOWN REVITALIZATION IN SMALL AND MIDSIZED CITIES. PAS REPORT 390. American Planning Association. 2018, <https://www.planning.org/publications/report/9142015/>

One reason might be that a suitable measure of such multifunctionality has been difficult to find. However, political scientists studying political fragmentation have come up with a number of measures that could be easily adapted to measure downtown multifunctionality.<sup>5</sup> However, it is not clear that downtown multifunctional fragmentation in which functions hold equal shares would be an optimal system, just as American political scientists long saw two party systems as being stronger and more stable than multiparty systems. I mention this to reflect how strongly I feel serious research on downtown multifunctionalism is badly needed. However, in this essay only two downtown functions will be looked at as independent explanatory variables: the number of jobs and the number of residents, with the simple measure of *jobs per resident* indicating their relative strengths to each other.<sup>6</sup>

As the analysis below will demonstrate, this notion of a function's relative strength is an important one and has more statistical explanatory power than just looking at a function's strength by itself. Its importance is relevant to any downtown or Main Street district where their level of multifunctionality can have a strong influence on their competitive strengths and magnetism. Many of them may not have the functional imbalance caused by the huge clusters of office space found in our large cities, but the imbalance might be caused by tourism, personal service operations, or an overly large retail niche. Many of the analytical tools used in the analysis below to look at the residential and jobs functions can be adapted to analyze these other functions.

Housing can help maintain adequate activation of our downtowns by assuring steady significant flows of pedestrian and customer traffic for merchants. Downtown office worker pedestrian traffic per 1,000 SF of space is about twice that of downtown residents, and dense clusters of them can mean they dominate who is walking along downtown streets during morning and evening rush hours, and at lunchtimes.<sup>7</sup> However, the rest of the daytime, during the evenings, and on weekends their presence on downtown sidewalks may be meager. Consequently, it should not be surprising that large remote work-induced drops in pedestrian traffic occurred during the pandemic in districts where there are large clusters of office workers whose numbers are far larger than those of downtown residents. In contrast, downtown residents normally are more inclined to generate pedestrian trips during evenings and on weekends. During the pandemic they often still left their homes to get groceries, meds, and other household essentials, as well as to walk along local streets and in nearby parks for exercise and to reduce cabin fever. They also returned quickly to nearby eateries and shops that were open when their Covid related fears abated.

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<sup>5</sup> See: [https://en.wikipedia.org/wiki/Political\\_fragmentation](https://en.wikipedia.org/wiki/Political_fragmentation); also Milder, N. D. (1974). "Definitions and Measures of the Degree of Macro-Level Party Competition in Multiparty Systems." *Comparative Political Studies*, 6(4), 431–456. <https://doi.org/10.1177/001041407400600402>. My measure looks at how much a multiparty system approximates the most competitive two party system.

<sup>6</sup> I would have liked to also look at tourism, but I could not find easily accessible salient data at an affordable cost.

<sup>7</sup> Estimate made based on findings in Chapter 2 of: Boris Pushkarev and Jeffrey Zupan, *Urban Space for Pedestrians: A Report of the Regional Plan Association*. MIT Press, Cambridge, MA. 1975. Retrieved from: <https://s3.us-east-1.amazonaws.com/rpa-org/pdfs/RPA-Urban-Space-for-Pedestrians.pdf>

Though residential buildings generate fewer walking trips than office buildings, their aggregate number can still be sufficient to make a downtown area feel active and interesting. Since 1995 in Lower Manhattan, for example, about 20 million square feet of office space has been converted into approximately 17,000 homes.<sup>8</sup> The residents of those homes average a total of an estimated 166,000 one way downtown pedestrian trips each weekday.<sup>9</sup> That translates into about 43 million weekday trips annually. Moreover, while many of our large downtowns can have several thousand pedestrians per hour on their sidewalks, pedestrian traffic on the major streets in many suburban downtowns and on urban downtown side streets is far lower, yet it still can generate an image of being active and interesting places. Unfortunately, no research has shown quantitatively what precise level of pedestrian traffic is needed to generate such an image of activation, nor about what difference who the pedestrians are might have on such an image. In any case, based on the above discussion, *one might reasonably argue that very large numbers of downtown residents may not be needed to make the parts of the district in which they walk appear activated. You just need a sufficient number of them.*

When it comes to impacting downtown storefront merchants, office workers and residents differ quite markedly in their individual spending power, what they buy, and the timing of their shopping. *Their relative strengths strongly influence how a downtown's storefront business mix is structured.* The Lower Manhattan business district will be used to demonstrate these differences. It has an estimated 340,173 jobs and 99,615 residents, in about 45,912 households.<sup>10</sup> Many estimates of downtown office worker spending are based on updating the findings of a study published by the ICSC back in 2004 into current dollars. In 2022, that would produce an estimate that each downtown office worker has the potential of spending \$11,128 within their district. However, that is an estimate that some experienced downtown retail analysts question. As Mike Berne has noted: "... I have long felt that the impact of office workers on retail spend is grossly overstated." His reasoning is based on his knowledge of when and what they shop for: "The workday does not allow for many opportunities for serious shopping. Rather, their expenditures tend to be concentrated in food and beverage, mostly of the quick-service variety, as well as select conveniences like pharmacies, barber shops, dental clinics, etc....They account for much of the retail mix — but they are generally not going to give rise to a larger destination. That is far more likely to come with a sizable numbers of captive

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<sup>8</sup> Office Adaptive Reuse Task Force. "New York City Office Adaptive Reuse Study." January 2023. P.14.

<https://www.nyc.gov/assets/planning/download/pdf/plans-studies/office-reuse-task-force/office-adaptive-reuse-study.pdf>

<sup>9</sup> Estimate made based on findings in Chapter 2 of Boris Pushkarev and Jeffrey Zupan, see footnote 2 above.

<sup>10</sup> The data on jobs and residents are from "Making New York Work for Everyone Action Plan."

<https://newnypanel.com/#:~:text=Over%20the%20next%20six%20months,Work%20for%20Everyone%20Action%20Plan>. The estimate on the number of households is mine, made using the Action Plan's data with data published by the Alliance for Downtown NY, see footnote 6.

visitors and/or an underserved residential trade area.”<sup>11</sup> It also should be noted that many corporations have a policy of trying to capture as much of their office workers’ time within their buildings as they can, so they offer cafeterias with discounted food, and free coffee and soft drinks, etc.

Importantly, office workers are not the major patrons of the large numbers of upscale retailers that are to be found in our largest downtowns, e.g., in Manhattan, Chicago, Philadelphia, Boston. Affluent foreign tourists and affluent residents within about a 12 to 15 minute travel shed are the market segments targeted by these retailers.

For want of a more reliable number, the \$11,128 estimate is being used here to generate an estimate of the total expenditure potential of Lower Manhattan’s 340,173 office workers at \$3,785,445,144, while acknowledging that it is very probably way too high.

The 99,615 residents in Lower Manhattan have household incomes that place them in the top income quintile. Their household expenditures that can potentially be captured by local merchants, based on 2021 BLS consumer expenditure data for that quintile, totals about \$40,688/yr. That covers a wide variety of items, many of which are home oriented such as food and household operations, furnishings and equipment, and housekeeping supplies. It also includes food away from home and entertainment, categories in which households in the top quintile strongly dominate. For all the households in Lower Manhattan, the total expenditure potential for the items listed in Table 2 is over \$1.86 billion. *While there are 3.41 jobs per resident, the potential spending power of the residents is about 49% of the office workers’.*

**Table 2. Potential Resident Annual Spend in Lower Manhattan.**

| Amount          | Items                               |
|-----------------|-------------------------------------|
| \$8,127         | Food at home                        |
| \$5,846         | Food away from home                 |
| \$1,229         | Alcoholic beverages                 |
| 3,305           | Apparel                             |
| \$3,314         | Household operations                |
| \$1,304         | Housekeeping supplies               |
| \$5,260         | Household furnishings and equipment |
| \$2,046         | Medical services                    |
| \$720           | Drugs                               |
| \$274           | Medical Supplies                    |
| \$7,886         | Entertainment                       |
| \$1,377         | Personal care products and services |
| \$40,688        | Total Per Household                 |
| \$1,868,067,456 | Total for 45,912 HHs                |

Based in 2022 BLS data  
<https://www.bls.gov/cex/tables/calendar-year/mean-item-share-average-standard-error/cu-income-quintiles-before-taxes-2021.pdf>

Reduce levels of visitor fears of becoming a crime victim. For several decades, starting in the mid-1990s, our major downtowns had been characterized by relatively low levels of fear among downtown workers, residents and visitors. The pandemic and it’s impacts has changed all that. Heightening fear levels were emerging prior to the pandemic as a result of more visible homelessness and drug use and sale, as well as the broader issues of urban riots, mass shootings, and debates about police behaviors and defunding across the nation. The pandemic,

<sup>11</sup> Quoted from: Michael J. Berne and N. David Milder. “Whether And How Retail Will Drive The Recoveries In Our Large Downtowns?” The Downtown Curmudgeon vs The Retail Contrarian. *The ADRR*, Vol 3, December 16, 2022. <https://theadrr.com/past-issues>

however, seemed to bring the influences of all of these factors together because it established the existence of a large lack of normalcy and the deterioration of public order. Feelings about a health threat could quickly align with feelings about being safe on city streets and in its transit systems. In this regard, the incredible decline in downtown pedestrian traffic and the closure of so many storefront businesses were probably even more powerful signs of public disorder and abnormality than the rising number of homeless and drug use and sale.

Of course, many highly regarded urbanists such Jane Jacobs and George Kelling have argued, in one form or another, that on sidewalks activated with sufficient numbers of perceived to be non-threatening pedestrians, people will tend to feel safer. Moreover, this also has become a widely accepted truth among downtown managers. The return of significant pedestrian traffic to our downtown streets not only makes them appear more active and energized, as noted above, but also safer.

Also, as noted above, it is a shame that we do not have any research that established a reasonable quantitative relationship between the number of people walking along a street and their fear levels, as well as the influence of who the pedestrians are.

Just Creating More Downtown Housing Units Alone Is Unlikely to Create Such Desirable Impacts. While many of the above arguments do present viable potential positive impacts resulting from more downtown units being created, the analysis below on foot traffic and consumer spending will show that the causal paths can be far from simple, and often are dependent on factors that are situational, not structural. *As a result, where and when and how many units are added can make a world of difference. Moreover, in some situations, regarding some types of impacts, the number of needed new units/residents are well beyond what can be viably created.*

### **Testing the Arguments: The Impacts of Residents and Jobs on the Recovery of 14 Business Districts in New York City.**

Recently a panel of urban experts, convened by New York's Governor Kathy Hochul and New York City's Mayor Eric Adams, issued a commendable action plan for the recovery of NYC's business districts, MAKING NEW YORK WORK FOR EVERYONE. It teed up some key strategic questions and provided some very useful data. The analysis below builds on that to offer a framework for developing and refining strategies. While the report uses the term business district as its geographical unit of analysis, implicit in its category of Other Downtowns is that it considers nine of the 14 districts as existing downtowns, and the Emerging Employment Hubs as the equivalents of emerging downtowns.

That action plan contained very interesting data in Figures 5, 8 and 9 related to analyzing how the number of residents and jobs in a downtown have impacted the return of foot traffic and spending for retail, restaurants and bars, and entertainment, though that would require the

**Table 3. Foot Traffic Recovery 2020-2022 : Average Weekday Walking Trips Within /Into 14 Business Districts in NYC.**

| BUSINESS DISTRICTS  | % Change From. Jan-Sept '19 |             |             | Number of Jobs   | Resident Population | Jobs Per /Resident |
|---|-----------------------------|-------------|-------------|------------------|---------------------|--------------------|
|   | 2020                        | 2021        | 2022        |                  |                     |                    |
| <b>CORE EMPLOYMENT HUBS</b>   |                             |             |             |                  |                     |                    |
| Midtown   | -23%                        | -25%        | -23%        | 894,659          | 170,978             | 5.2                |
| Midtown South   | -9%                         | -4%         | -6%         | 693,134          | 411,857             | 1.7                |
| Lower Manhattan   | -23%                        | -23%        | -18%        | 340,173          | 99,615              | 3.4                |
| Downtown Brooklyn   | -12%                        | -8%         | -8%         | 112,137          | 64,012              | 1.8                |
| LIC   | -7%                         | -3%         | 5%          | 72,518           | 40,885              | 1.8                |
| <b>Overall Core Employment Hubs</b>   | <b>-16%</b>                 | <b>-14%</b> | <b>-14%</b> | <b>2,112,621</b> | <b>787,347</b>      | <b>2.7</b>         |
| <b>OTHER DOWNTOWNS</b>  |                             |             |             |                  |                     |                    |
| Flushing  | -11%                        | -2%         | 3%          | 45,732           | 92,571              | 0.5                |
| Bronx Hub   | 8%                          | 20%         | 14%         | 35,095           | 69,859              | 0.5                |
| 125th Street  | 4%                          | 11%         | 3%          | 25,612           | 67,663              | 0.4                |
| Jamaica   | -8%                         | -1%         | 3%          | 28,867           | 71,156              | 0.4                |
| <b>Overall Other Downtowns</b>  | <b>-1%</b>                  | <b>7%</b>   | <b>6%</b>   | <b>135,306</b>   | <b>301,249</b>      | <b>0.4</b>         |
| <b>EMERGING EMPLOYMENT HUBS</b>   |                             |             |             |                  |                     |                    |
| Forest Hills  | 0%                          | 11%         | 16%         | 14,901           | 13,512              | 1.1                |
| DUMBO   | -8%                         | -5%         | -6%         | 10,420           | 5,975               | 1.7                |
| Fordham Plaza   | -7%                         | 5%          | 4%          | 13,092           | 31,212              | 0.4                |
| Broadway Junction   | 8%                          | 14%         | 13%         | 9,927            | 18,835              | 0.5                |
| St. George / Stapleton  | -12%                        | -8%         | -6%         | 8,608            | 17,866              | 0.5                |
| <b>Overall Emerging Employment Hubs</b>   | <b>-5%</b>                  | <b>4%</b>   | <b>4%</b>   | <b>56,948</b>    | <b>87,400</b>       | <b>0.7</b>         |
| All of the data in this table is either taken directly or computed from Figures 5 and 9 in MAKING NEW YORK WORK FOR EVERYONE DECEMBER 2022. <a href="https://edc.nyc/sites/default/files/2022-12/New-NY-Action-Plan-Making_New_York_Work_for_Everyone.pdf">https://edc.nyc/sites/default/files/2022-12/New-NY-Action-Plan-Making_New_York_Work_for_Everyone.pdf</a> |                             |             |             |                  |                     |                    |

creation of new tables. The discussion here covers a secondary analysis of the data gathered for the panel's report and creates those new tables.

The first column in the Table 3 is taken directly from Figure 5 in the report and lists the 14 business districts by type: Core Employment Hubs; Other Downtowns, and Emerging Employment Centers. Columns two to four list the percentage change in foot traffic from 2019 in

2020, 2021 and 2022. Columns five and six lists the number of jobs and residents in each district, and is taken from Figure 5 in the report. Column 7 has been computed by this author from data on the number of jobs and residents and presents the number of jobs per resident. This simple measure shows the relative strength of the residents to the job holders in these downtowns. Importantly, high jobs/resident ratios indicate a large potential for the impacts of

remote work being strongly felt. There are relatively few residents to offset them. There is a significant built-in correlation between the numbers of residents and jobs and the number jobs per resident since the former is used to compute the latter. The Core Employment Hubs account for 49% of all the jobs in NYC; 54% of the jobs are

**Table 4. The Correlations Between Jobs, Jobs per Resident, and Resident Population With Foot Traffic and Consumer Spend Recovery in 14 NYC**

| CONSUMER BEHAVIORS   | Jobs Per /Resident | Resident Population | Number of Jobs |
|--|--------------------|---------------------|----------------|
| <u>Foot Traffic Recovery in</u>  |                    |                     |                |
| 2020   | -0.723             | -0.282              | -0.592         |
| 2022   | -0.788             | -0.379              | -0.492         |
| <u>Consumer Spend Recovery in 2022 for</u>   |                    |                     |                |
| Retail   | -0.491             | -0.287              | -0.451         |
| Restaurant/Bar   | -0.293             | 0.048               | -0.204         |
| Entertainment  | -0.315             | 0.014               | -0.155         |
| *The numbers in the cells were generated in Excel by the Pearson correlation coefficient, r. |                    |                     |                |

spread across all 14 of the districts analyzed.

Foot traffic recovery in 2022, compared to 2019, was lowest in the Core Employment Group - 14% - that also averaged the most residents, 157,469 and the most jobs 422,524. Although these 14 districts are few in number, they can be treated as a finite population rather than a sample, so a Pearson correlation analysis was done on them. The results, at a minimum, have

useful heuristic value revealing underlying associations, though caution is also in order because of the potential undue influence of outliers.

As can be seen in Table 4, it showed a negative  $-.379$  relationship between 2022 foot traffic recovery and the downtown resident population, while the correlation with the number of jobs was stronger, if also negative, at  $-.492$ . The influence of low office worker RTO (return to office) rates is obvious. The strongest correlations, however, are between foot traffic recoveries in 2020 and 2021 with the jobs per resident measure  $-.723$  and  $-.788$ . *These results suggest that increasing the number of residents alone may not always be a key factor in bringing back or generating foot traffic. Lots of residents often are in downtowns with lots of jobs, and lots of remote workers. It is the workers who are mostly staying away. Consequently, the impact of an increase in housing will depend on the relative strengths of the jobs and the residents, with the potential of an increase in housing being meaningfully impactful either when it is very large or when there is greater parity in the strengths of the jobs and residents.*

Foot traffic recovery was the lowest in the two largest business districts, Midtown  $-23\%$  and Lower Manhattan  $-18\%$ . They also have the highest ratios of jobs per residents,  $5.2$  and  $3.4$  respectively. Together with the strong negative Pearson correlations found among all 14 districts of  $-.723$  and  $-.788$  between jobs per resident and foot traffic recovery in 2020 and 2022, these findings indicate that this measure of the relative strength of the residential and working populations probably has considerable explanatory power.

The Core Employment Hubs average a higher jobs per resident ratio of  $2.7$  than the Other Downtowns at  $0.4$ , and Emerging Employment Hubs at  $0.6$ , and the worst foot traffic recovery rate,  $-14\%$ , compared to  $6\%$  (a  $20\%$  difference) for the Other Downtowns and  $4\%$  (an  $18\%$  difference) for the Emerging Employment Hubs.

In seven of the 14 business districts the ratios of jobs per resident are below  $1.0$ . In other words, they have more residents than jobs. Their foot traffic recovery rate for 2022 is a positive  $4.8\%$ . The recovery rate for the seven districts with ratios above  $1.0$  is a negative  $-6.0\%$ .

The above findings support the argument that *it is the strength of residential uses relative to that of office and other uses, rather than the absolute number of residential units, that has critical impacts on how our downtowns will operate.*



**Table 5. Consumer Spend Recovery by Category in 2022 in 14 NYC Business Districts: % change in daily avg for Jan-Sept '22 vs. Jan-Sept '19**

| BUSINESS DISTRICTS                      | Retail 2022 | Restaurant / bar 2022 | Entertainment 2022 | Number of Jobs   | Resident Population | Jobs Per /Resident |
|---|-------------|-----------------------|--------------------|------------------|---------------------|--------------------|
| <b>CORE EMPLOYMENT HUBS</b>             |             |                       |                    |                  |                     |                    |
| Midtown                                 | -9%         | -35%                  | 1%                 | 894,659          | 170,978             | 5.2                |
| Midtown South                           | 13%         | -9%                   | 21%                | 693,134          | 411,857             | 1.7                |
| Lower Manhattan                         | -1%         | -36%                  | -17%               | 340,173          | 99,615              | 3.4                |
| Downtown Brooklyn                       | 20%         | -7%                   | 20%                | 112,137          | 64,012              | 1.8                |
| LIC                                     | 35%         | -9%                   | -1%                | 72,518           | 40,885              | 1.8                |
| <b>Overall Core Employment Hubs</b>     | <b>15%</b>  | <b>-23%</b>           | <b>6%</b>          | <b>2,112,621</b> | <b>787,347</b>      | <b>2.7</b>         |
| <b>OTHER DOWNTOWNS</b>                  |             |                       |                    |                  |                     |                    |
| Flushing                                | 11%         | 5%                    | 101%               | 45,732           | 92,571              | 0.5                |
| Bronx Hub                               | 59%         | -33%                  | 39%                | 35,095           | 69,859              | 0.5                |
| 125th Street                            | -4%         | -41%                  | -27%               | 25,612           | 67,663              | 0.4                |
| Jamaica                                 | 21%         | -2%                   | 11%                | 28,867           | 71,156              | 0.4                |
| <b>Overall Other Downtowns</b>          | <b>22%</b>  | <b>-17%</b>           | <b>19%</b>         | <b>135,306</b>   | <b>301,249</b>      | <b>0.4</b>         |
| <b>EMERGING EMPLOYMENT HUBS</b>         |             |                       |                    |                  |                     |                    |
| Forest Hills                            | 19%         | -9%                   | 68%                | 14,901           | 13,512              | 1.1                |
| DUMBO                                   | 17%         | -18%                  | -30%               | 10,420           | 5,975               | 1.7                |
| Fordham Plaza                           | 68%         | -26%                  | 88%                | 13,092           | 31,212              | 0.4                |
| Broadway Junction                       | 55%         | 0%                    | -10%               | 9,927            | 18,835              | 0.5                |
| St. George / Stapleton                  | 2%          | -37%                  | -4%                | 8,608            | 17,866              | 0.5                |
| <b>Overall Emerging Employment Hubs</b> | <b>44%</b>  | <b>-20%</b>           | <b>15%</b>         | <b>56,948</b>    | <b>87,400</b>       | <b>0.7</b>         |

All of the data in this table is either taken directly or computed from Figures 5 and 9 in MAKING NEW YORK WORK FOR EVERYONE DECEMBER 2022. [https://edc.nyc/sites/default/files/2022-12/New-NY-Action-Plan-Making\\_New\\_York\\_Work\\_for\\_Everyone.pdf](https://edc.nyc/sites/default/files/2022-12/New-NY-Action-Plan-Making_New_York_Work_for_Everyone.pdf)

Table 5 is constructed from similar data from the action plan as Table 3 but taken from its Figure 9 about the recovery of consumer spending for retail, restaurants and bars and entertainment in 2022. Those data appear in columns 2 to 4. One simple, yet important observation that is worthy of analytical attention is that spending in these three categories recovered at quite different rates, especially across business district types. *That should make housing advocates alert to the fact*

*that more units probably will have impacts of varying power as the objects of those impacts differ – e.g., the power of their impacts are likely to differ on retail, restaurants and entertainment.*

**Retail.** Retail spending in 11 of the 14 districts had returned to at least 2019 levels in 2022. Notably, several were doing much better than that with six districts having increases in the 20% to 68% range. Some of that recovery was probably due to inflation. Retail’s recovery stands in marked contrast to that of restaurants and bars; 12 of the 14 districts still had consumer spending in that category lagging 2019 levels, while seven districts lagged in the entertainment category.

Here again, the recovery of retail spending was weakest for districts in the Core Employment Hubs group, just 3%. This group again has the highest average population, 157,468, and the highest ratio of jobs per resident, 2.7 The Midtown District stands out as having the weakest retail spend recovery, -9%, while having the highest jobs per resident ratio. That means that the impact of remote workers is probably very strong on retail in this district. Recovery of consumer retail spending was substantially higher for the Other Downtowns group, 22%, and the highest, 44% , in the Emerging Employment Hubs group. Notably there was significant variation among the districts in each group, an indication that the causal factors are probably complex. For example, the three weakest retail recoveries occurred in districts (Midtown, Lower Manhattan and 125<sup>th</sup> St) that are substantially dependent on tourist spending. The Pearson correlation analysis helps clarify the underlying associations. It found a negative -0.287 correlation of retail spend with resident population size, a negative -.451 with the number of jobs, and a negative -0.491 with the ratio of jobs per resident. If we postulate that a variable is analytically important from a statistical perspective – this is different from statistical significance -- if it can explain at

least 10% of the variance, then the resident population's correlation with retail spend recovery is close to but shy of that threshold, while the ratio of jobs per resident correlation is well above it. However, that ratio's explanatory power is far greater for foot traffic recovery in 2022, 62%, than for retail spend, 24%.

Districts with jobs per resident ratios below 1.0 had a much stronger recovery of retail spend, 30%, than those with higher ratios, 13%. *In these districts more downtown housing is more likely to have positive impacts on retail spending. The office workers may have gone away, but the residents more likely stayed where they were, and relative to the office workers there were a lot of them. Moreover, residents are far more likely to have necessary retail purchases, such as food for the home.*

Restaurants and Bars. It is really important to first put these findings about NYC restaurants in perspective by looking at national trends. While the restaurant "extinction event" feared and popularized by the industry did not occur, the number of closures was well above the usual churn rate and probably totaled about 11% of the nation's roughly 660,000 restaurants. While the impacts of the pandemic still ebb and flow, the sector's recovery is facing the strong new head winds of a labor shortage, higher food costs, and more debt.<sup>12</sup>

Across the board, the recovery of restaurant spend by 2022 was lagging, and only Flushing had an increase, 5%, over its 2019 level. Midtown was still off by -35%, Lower Manhattan by -36%, and 125<sup>th</sup> St by -41%, but other areas far less dependent on tourists were also lagging at those levels: e.g., Bronx Hub, -33%; Fordham Plaza, -26%; St George/Stapleton, -37%. These three districts are all in neighborhoods where household incomes are modest, and local eateries are dominated by fast food operations. Whether a district's jobs per resident ratio was above 1.0 (-18%) or below it (-19%) made little difference. The Pearson correlation analysis shows that restaurant spend has a positive, if very weak association with resident population, 0.048, as does entertainment, 0.014. The number of jobs has somewhat stronger correlations with restaurant and entertainment spends than resident populations, but they don't cross the threshold to deem them to have explanatory importance. The ratio of jobs per resident has a correlation with restaurant spend that is not particularly robust, -0.293 but it is fairly close to the threshold of having explanatory importance.

This lack of explanatory power about restaurant spend was surprising. It may well be due to the fact that the spend data was not broken down into that for full service restaurants and that for limited service restaurants. In downtowns with large numbers of jobs, the low RTO rates of office workers caused many fast food operations to close, while anecdotal reports indicate that many full service restaurants, targeting a more affluent and evening time market segment, are doing quite well.

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<sup>12</sup> Tim Carman. "How many restaurants closed from the pandemic? Here's our best estimate." Washington Post. June 22, 2022. <https://www.washingtonpost.com/food/2022/06/21/covid-restaurant-closures/>

Placer also has published some data about restaurant foot traffics that is interesting because it

Table 6. Restaurant Chains Foot Traffic Recovery in Some Downtown BIDs in 19 of the Nation's Largest Cities: Oct. 2019 Compared to Oct 2021

| City         | Downtown EDO              | Dining | City                  | Downtown EDO | Dining |
|--------------|---------------------------|--------|-----------------------|--------------|--------|
| New York     |                           | 85%    | San Jose              |              | 86%    |
|              | Times Square              | 70%    | SJDA BID              |              | 68%    |
|              | Downtown Alliance         | 73%    | Austin                |              | 98%    |
|              | Grand Central Partnership | 51%    | Austin DID            |              | 100%   |
| Los Angeles  |                           | 97%    | Jacksonville          |              | 95%    |
|              | Downtown LA               | 69%    | Jacksonville BID      |              | 96%    |
| Chicago      |                           | 98%    | Columbus              |              | 97%    |
|              | Chicago Loop alliance     | 93%    | Dtn Columbus Dev Corp |              |        |
| Houston      |                           | 98%    | Charlotte             |              | 100%   |
|              | Downtown District         | 88%    | Charlotte Center City |              | 111%   |
| Phoenix      |                           | 100%   | San Francisco         |              | 65%    |
|              | Dtn Phoenix Partnership   | 46%    | Greater Unin Sq       |              | 63%    |
| Philadelphia |                           | 99%    | Seattle               |              | 85%    |
|              | Center City District      | 76%    | Dtn Seattle Assn      |              | 68%    |
| San Antonio  |                           | 102%   | Denver                |              | 100%   |
|              | Centro PID                | 111%   | Downtown Denver BIDs  |              | 108%   |
| San Diego    |                           | 89%    | Washington            |              | 84%    |
|              | Downtown BID              | 66%    | Dtn BID               |              | 66%    |
| Dallas       |                           | 91%    | Boston                |              | 104%   |
|              | Dallas DID                | 42%    | Downtow Boston BID    |              | 48%    |

Data Source: Placer.ai . Empty cells indicate there are no available data

shows how restaurant foot traffic had recovered by October of 2021 in the Downtown BIDs in 19 of our 24 largest cities. (See Table 6) These BIDs are often part of a downtown, and a downtown can have several of them. Midtown Manhattan, for example, has eight. The Placer data show that restaurant foot traffic in these downtowns had recovered to 76% of their 2019 levels, but generally lagged well behind the level of recovery of the restaurants in their cities.

The Placer data also support the hypothesis that weather and local regulations can be influential factors. “In downtowns where Covid regulations were looser, the recovered dining foot traffic was very impressive: Austin 100%, Charlotte 111%, San Antonio 111%, Jacksonville 96%, and Denver 108%.”<sup>13</sup> Certainly, weather and regulations may be a casual factor in NYC, too. But, the restaurant findings stand in sharp contrast to both the retail and entertainment spend recoveries, though it is reasonable to hypothesize they also would be influenced by weather, and especially regulations. The weakness of the resident population, jobs and jobs per resident variables fits with the view that the pandemic made a number of structural (Sun Belt weather) and situational (local pandemic related regs) factors that blocked their normal causal connections.

Entertainment. The term entertainment in the action plan seems to utilize BLS’s definition that includes expenditures for: fees and admissions; audio and visual equipment and services; and pets, toys, hobbies, and playground equipment. Fees and admissions, nationally, only accounted for about 18% of the \$3,568 spent by the average household on entertainment in 2021. The vast majority of these expenditures did not require trips to what conventional usage would term entertainment venues such as cinemas, theaters, museums, concert halls, game arcades, arenas, stadiums, etc. Indeed, many of the smaller districts studied have few to none of these facilities. Moreover, most of their households have annual incomes that are associated with

<sup>13</sup> N. David Milder. “Let’s Recognize and Leverage the Opportunities the Covid Crisis Has Given Our Downtowns: Some Examples.” IEDC’s *Economic Development Journal*. Fall 2022. [https://www.dropbox.com/s/v9v5y0ovtxzlkco/Milder%20leverage%20crisis%20produced%20opportunities%20EDJ\\_Fall2022\\_final.pdf?dl=0](https://www.dropbox.com/s/v9v5y0ovtxzlkco/Milder%20leverage%20crisis%20produced%20opportunities%20EDJ_Fall2022_final.pdf?dl=0)

very low spending for entertainment fees and admissions. The top quintile accounts for over half of all spending nationally for entertainment fees and admissions.

The fees and admission spend is especially important for our large downtowns because of its connections to major arts and entertainment institutions. Research by SMU DataArts has shown that, across the nation, ticket demand for arts performances has been heavily influenced by fluctuating Covid case rates and the ups and downs of the ability of vaccinations and booster shots to make people feel safe while attending arts events.<sup>14</sup> Although many smaller arts organizations in NYC, as well as across the nation, were either badly hurt or closed down by the pandemic, Manhattan's world class arts venues are managing to endure. By late 2022 the Metropolitan Museum of Art, the Metropolitan Opera Company, and the Broadway theaters had all recovered about 80% of their 2019 attendance numbers. That is a level one might argue is impressive given the persistent ebbs and flows of the Covid threat, and the substantial reduction in foreign tourists who accounted for significant percentages of their audiences.<sup>15</sup> A probable reason that the entertainment spend recovery in Midtown, 1%, was better than that in Lower Manhattan, -17%, is its larger number of major arts and cultural venues.

Table 5 shows that entertainment spending increased in all three types of business districts, but the large Core Employment Hubs were significantly lower at 6% than the 19% of the Other Downtowns, and the 16% of the Emerging Employment Hubs. Those with a ratio under 1.0 were up 28% over their 2019 entertainment spends, while those with ratios above one only increased by 9%

Of interest, the Pearson correlation analysis showed low correlations with jobs, -.155, and resident population, .014, but it found a correlation right at the explanatory power threshold of -.315 ( $r^2=9.9\%$ ) with jobs per resident. Here again, it is the relative strengths of jobs and residential populations that is of importance.

### **Midtown and Lower Manhattan: The Importance of Looking at Smaller Areas in Our Downtowns When Deciding Where and How New Housing Should Be Located.**

The analysis in the above section focused on 14 business districts/downtowns as geographic wholes. It also established the usefulness and explanatory power of the ratio of jobs per resident in a geographical unit. The analysis below argues that to get an appropriate understanding of where more downtown housing is needed, it is essential to look at smaller parts of these downtowns. The analysis consequently looks at the .25, .5 and 1.0 mile rings surrounding nine buildings in Manhattan.<sup>16</sup> The analysis will show that some downtown areas

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<sup>14</sup> Glenn B. Voss and Kartik Kannan. "When Will Arts Attendance Return? People are Opting to Stay Home and the Effect on Arts Ticket Sales is Clear." SMU/DataArts <https://culturaldata.org/pages/attendance-prediction-june2022/>

<sup>15</sup> See Milder, footnote 13.

<sup>16</sup> I will use .25 mile rings and five minute walk sheds interchangeably, same for .5 and 1 mile rings and 10 and 20 minute walk sheds.

might benefit from more housing while others may not. *From a policy and program perspective, the housing issue is not just how to produce more housing, but where it should go if the goal is to improve how the downtown operates.*

While there is a growing call for more downtown housing, the fact remains that within 0.5 miles and 1-mile of various points within our downtowns there already are very significant residential populations. Consequently, *two important questions are: do our downtowns now benefit from these residents who are within an easy walk or a short bus, cab or Uber ride? And if not, why not?* Moreover, these residents are often quite affluent.<sup>17</sup>

One reason may be, as in Midtown Manhattan, that major downtown merchants targeted tourists, especially the higher spending visitors from abroad, or the throngs of local office workers above all other market segments. This was most likely to happen in our largest downtowns where major retailers had relatively very small residential populations within about a five minute walk. The tourists and the office workers function as significant “captive markets,” but the residents are too few to merit merchant attention. That might be overcome if local businesses make a concerted effort to tap those potential customers who are a little farther away, but still in their easy walk – easy cab ride market areas. However, surprisingly often, famed areas in our large downtowns are not offering the kind of strong attractions their leaders and stakeholders think they have.

The restaurant scene in Rockefeller Center shows how this kind of situation can nurture underperforming downtown Central Social Functions, as well as how it can be corrected with a suitable strategic response. As the *NY Times* restaurant critic Pete Wells has noted: “For longer than anyone can remember, Rockefeller Center’s place in the conversation about dining in New York was essentially nonexistent. A lot of people ate there, but nobody talked about it.”<sup>18</sup> The Center’s owners, Tishman Speyer, responded by creating “a murderers’ row” of chef based restaurants. While their pitch to chefs included lower rents, prime locations, and help with construction costs, it also included the objective of making “Rockefeller Center the epicenter of food for New York City.” Wells notes that this “miracle off 49<sup>th</sup> Street” seems to have increased customer traffic within Rockefeller Center.<sup>19</sup> With office worker RTO rates remaining low and foreign tourism still far from a full recovery, it is very likely that this returning traffic contains a significant amount of residents from its .5 mile and 1 mile rings, as well as an uptick in domestic tourists.

The restaurants alone cannot assure either the attraction of more residents living within a 20 minute walk or the full recovery of customer traffic in Rockefeller Center. (BTW: New Yorkers walk longer distances than folks in all other parts of the US, so 20-minute walk sheds have

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<sup>17</sup> *ibid*

<sup>18</sup> Pete Wells. “Rockefeller Center Is the New York Restaurant Event of the Year.” *New York Times* December 12, 2022. <https://www.nytimes.com/2022/12/12/dining/rockefeller-center-restaurants.html?searchResultPosition=6>

<sup>19</sup> *Ibid.*

justified analytical use.) The operators of retail, entertainment and personal service establishments must also aspire to higher quality, uniqueness, and magnetism. Similarly, Rockefeller Center’s recovery cannot assure a similar recovery of what should be properly called either the Midtown Downtown or the City Central District in which it is located. Past realities

**Table 7. Some Statistics on Residential Populations Around Nine Selected Buildings in Some Selected Parts of Manhattan**

| AREA                      | Buildings at Center of Rings | Workers in Ring Area |          |           | Residents in Ring Area |          |         | Residents .25 Ring as % of 1 mile Ring | Residents/SqMi in Ring Area |          |        | Employees per Resident in .25 mi Ring |
|---------------------------|------------------------------|----------------------|----------|-----------|------------------------|----------|---------|--|-----------------------------|----------|--------|---------------------------------------|
|                           |                              | 0.25 Mile            | 0.5 Mile | 1-Mile    | 0.25 Mile              | 0.5 Mile | 1-Mile  |  | 0.25 Mile                   | 0.5 Mile | 1-Mile |                                       |
| Alliance for Downtown NY  | One Wall Street              | 122,610              | 235,332  | 235,332   | 21,586                 | 50,103   | 101,821 | 21.20%                                 | 110,133                     | 63,825   | 32,427 | 5.68                                  |
| Battery Park City         | Goldman Sachs HQ             | 49,182               | 117,756  | 399,933   | 11,525                 | 38,244   | 107,985 | 10.67%                                 | 58,801                      | 48,718   | 34,390 | 4.27                                  |
| Grand Central Partnership | Seagram Building             | 122,780              | 469,590  | 991,163   | 2,775                  | 36,760   | 184,915 | 1.50%                                  | 14,158                      | 46,828   | 58,890 | 44.25                                 |
| Rockefeller Center        | 30 Rockefeller Plaza         | 184,894              | 517,832  | 1,085,863 | 1,825                  | 20,755   | 210,018 | 0.87%                                  | 9,311                       | 26,439   | 66,885 | 101.31                                |
| Bryant Park               | One Bryant Park (BoA)        | 159,843              | 570,152  | 1,187,349 | 2,105                  | 20,639   | 215,498 | 0.98%                                  | 10,740                      | 26,292   | 68,630 | 75.93                                 |
| Hudson Yards Alliance     | 10 Hudson Yards              | 27,869               | 68,219   | 551,275   | 14,536                 | 37,569   | 143,828 | 10.11%                                 | 74,163                      | 47,859   | 45,805 | 1.92                                  |
| SOHO Broadway             | 524 Broadway                 | 37,119               | 112,964  | 354,530   | 10,117                 | 52,595   | 236,079 | 4.29%                                  | 51,617                      | 67,000   | 75,184 | 3.67                                  |
| Lincoln Square            | Disney ABC                   | 17,338               | 52,957   | 323,059   | 17,459                 | 72,094   | 183,228 | 9.53%                                  | 89,077                      | 91,839   | 58,353 | 0.99                                  |
| Flatiron District         | Flatiron Bldg.               | 82,142               | 221,703  | 686,647   | 9,864                  | 72,480   | 281,216 | 3.51%                                  | 50,327                      | 92,331   | 89,559 | 8.33                                  |

Residential populations were estimated using ACS data from 5-year period estimates, vintage 2020.  
Data on employees are from OnTheMap, vintage 2019

indicate that most of the business operators in Midtown were probably doing quite well prior to the pandemic, and now are undoubtedly yearning more for a return to the old days than for the hard work of repositioning their businesses to better penetrate even easily accessible residential markets. However, *one might reasonably argue that greater numbers of residents living within a five minute walk of these business operators will probably make a significant number of them organically more inclined to reposition their business to capture the expenditures of these residents.*

As can be seen in Table 7, within 1 mile of eight office buildings and one converted former office building (One Wall Street) in Manhattan, there are between 101,821 and 281,216 residents within their one mile rings, and between 20,639 and 72,480 residents in their .5 mile rings. Within the .25 mile rings, there are between 1,825 and 21,586 residents. The differences between highs and lows are 1183% for the .25 mile rings, 350% for the .5 mile rings, and 276% for the 1 mile rings. It is in the close-in .25 mile rings where there is the greatest variation in residential populations and population densities.

Notably the three buildings with significantly lower populations in their close-in quarter mile rings are all in Midtown on Park, 5<sup>th</sup> and 6<sup>th</sup> Avenues, an area that has very dense concentrations of office workers. *Their number of jobs per resident are incredibly high – 44.25, 101.31, and 75.9 – substantially higher than the 5.2 for Midtown as a whole noted in Table 3!* These very low population .25 mile rings help explain why residential population size had such

unimpressive impacts on the recovery of foot traffic and retail, restaurant and entertainment spending.

One may reasonably argue that:

- The larger the residential population in the .25 mile ring – an easy 5 minute walk – the higher the probability that the downtown merchants within it will have offerings that are also attractive to residents in the .5 mile and 1 mile rings, i.e., their 10 and 20 minute walk sheds. For many urban restaurants, their 5 minute walksheds are where their core customer base resides.
- Merchants are also more likely to respond to residential demand when the population in the .25 mile ring constitutes a significant portion of the 1 mile ring. As also can be seen in the above table, the three buildings in the frequently called Midtown Manhattan CBD – Seagram, Comstat and Bryant Park One – have very low residential populations in their .25 mile rings, and those residents account for less than 2% of the populations in their 1 mile rings. They are far lower in this regard than the other buildings in the table.
- Conversely, one can argue that the higher the number of people employed per resident in the .25 mile ring, the lower the probability that local merchants will have strong offerings for residents in any of rings/walk sheds. Office workers tend to have a rather limited range of goods and services they buy near their workplaces. Here, the three Midtown buildings stand even farther apart from the other buildings. *Their ratios of people employed per resident in their .25 mile rings soar far above those of other buildings. As we have also seen, this variable has a large influence on the return of foot traffic and retail and entertainment spends.*
- The Disney ABC office building in Lincoln Square is surrounded by a dense affluent residential neighborhood, and its proximity to Lincoln Center for the Performing Arts and Central Park means that pre-crisis there were a lot of tourists in the area. In its .25-mile ring there are just 0.99 employees per resident. However, generally, there is no need for strict numerical parity between residents and those employed within the .25 mile ring, since the households have far greater expenditure potentials. However, the number of residents probably needs to exceed certain threshold levels for local business operators to respond to them.

Placer found in June of 2021, as NYC's business districts struggled to recover, the BIDs in Midtown had a significantly lower recovery of retail foot traffic, averaging 57.4%, than the Midtown as a whole, 75%, or the city as a whole, 86%. The recovery for the 5<sup>th</sup> Ave BID that is close to the Comcast Building was 64%, while for the Bryant Park BID that includes the Bryant Park One building was 62%, and 52% for the Grand Central Partnership that includes the Seagram Building. *The out of whack balance between jobs and residents in the close-in areas around these buildings probably explains a lot of their lower foot traffic recovery levels.*

A different picture emerges if we look at the two buildings in Table 7 that are located in the Lower Manhattan Downtown, the Goldman Sachs HQ, and One Wall Street, an old bank office

building converted to one with 500+ residential units. In contrast to the three Midtown buildings, both show all the signs that *the lack of housing is probably not a major cause of any problems with returning retail and pedestrian foot traffic that this downtown* faced while recovering from Covid. They have significant above average residential populations in their .25 mile rings, 11,525 and 21,586, that also account for meaningful portions of the residential populations in their 1 mile rings, 10.6% and 21.2%, *and while their employees per resident ratios in the .25 mile rings are relatively high at 5.7 and 4.3 for a large core employment area, they still are nowhere near the level of the three midtown buildings.* Yet the “New NY Action” study reported that foot traffic in 2022 in Lower Manhattan was still -18% off of the pre-crisis level. Certainly, Lower Manhattan’s larger in-close residential population might account for much of the difference between its -18% foot traffic recovery rate and Midtown’s -23%, but the lack of close-in residential density probably cannot account for much of the -18% fall off itself. Obviously, office worker RTO rates still in the 30% to 50% range have something to do with it. However, other factors may also have been involved. For example, the zip codes in Lower Manhattan ranked among the highest in which residents left the city early in the pandemic, and there are several places where parts of this downtown are not well integrated for pedestrians with the rest of the downtown. West Street has long served as a pedestrian moat between the whole Battery Park City complex and the area managed by the Alliance for Downtown NY.

### **How Much More Close-in Housing is Needed and Possible?**

Probably because the discussion about more downtown housing is focused so strongly now on its ability to save the financial values of high vacancy office buildings, no one seems to be addressing this question. Understandably, the answer to that quest seems to now be to convert, and thus save, as many outmoded buildings as possible. Nevertheless, the question is an essential one when thinking about reactivating or growing downtown pedestrian traffic and storefront visits.

Part of the answer is addressed by trip generation data and we can expect about 8.3 one way trips generated per 1,000 SF of downtown residential space.<sup>20</sup> Additional signals of an answer are probably to be found in how much housing is present in downtowns and other large commercial districts that are recovering relatively robustly from the effects of the pandemic. The data presented above are insufficient for making any firm estimates, but they are suggestive about the parameters within which such estimates are likely to fall. First, the parts of the downtown most in need of more housing are where the relationship of jobs to residents is way out of balance, and the residential populations in the .25 mile rings are low. Plainly when the jobs to residents ratio gets beyond say 30 or 40, there very probably is a need for a lot more residents. However, the benefits of adding more residents probably exists at a much lower ratio. I cannot analytically provide a precise number. At the downtown geographic level, the analysis above demonstrated that a ratio of 1.0 made a significant difference in impact levels. But the situation for the much smaller .25 rings is not as clear since I could not do a similar statistical

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<sup>20</sup> See Pushkarev and Zupan above in footnote 2.



analysis on them. My guess is that is higher than 1.0, but well below 30 or 40, and probably in the range of 5 - 15 jobs per resident.

The three buildings located in the relatively hard hit Midtown area contain comparatively anemic amounts of residential units: 2,775, 1,825, and 2,105. Those amounts can be said with some certainty to be far too low. With the exception of One Wall Street’s 21,586, the .25 mile rings of the other five buildings range from 9,864 to 17,459. To bring a proper balance between jobs and residents by “normalizing” the housing in these three Midtown .25 mile rings might require the addition of at least 7,000 or 8,000 units in each one. That would very likely be a tall order—about twice the number of residential units being built in Hudson Yards -- given the area’s prestige and high real estate prices, as well as the density of development it may require. Numbers of units of that magnitude are quickly associated with large, very expensive multi-building development projects such as Tudor City, Stuyvesant Town-Peter Cooper Village, Battery Park City, Hudson Yards, and Midtown West. Such projects are most likely to be developed around a downtown’s fringes, e.g., Tudor City, Hudson Yards and Midtown West are all on the fringes of Midtown. They are often too far from the Midtown areas that need quick and easy access to more residents, and some, like Hudson Yards, might have merchants competing with those in the Midtown’s core.

**Table 8. Units in Billionaire Row Buildings**

| Address           | Residential Units | Other Major Uses  |
|-------------------|-------------------|-------------------|
| 53 W 53rd St      | 145               | MoMA Gallery      |
| 111 W 57th        | 60                |                   |
| 220 Central Pk S. | 118               |                   |
| 252 E 57th        | 264               | 2 schools, retail |
| 432 Park Ave      | 147               |                   |
| 520 Park Ave      | 35                |                   |
| 157 W 57th        | 92                | 210 hotel suites  |
| 225 W 57th        | 179               | 5 story Nordstrom |
| Total             | 1,040             |                   |

However, large residential buildings continue to be constructed in Midtown and very near to its core. Eight extra tall residential buildings, many with views of Central Park, have been recently built along and near 57<sup>th</sup> Street. They have been deemed Billionaires Row because of their very affluent occupants. (See Table 8.) They have an estimated total of about 1,040 apartments, but many are not occupied year round. They average 130 residential units per building. The cost of developing these buildings soared into the billions, and the costs of units range from about

\$1 million to over \$250 million.

The emerging plan to redevelop the area around Penn Station calls for 10 tall new buildings, though just one would be for residential use. Nevertheless, the Penn Station Plan somehow claims that it will create 1,800 new residential units, a lot more than the eight Billionaire Row buildings, but with prices that will probably be cheaper, if still hefty.

Around Grand Central Terminal, a number of tall new office buildings have been developed independently. It is a pity that these buildings are not following a growing national trend for important downtown buildings to have a significant amount of mixed use in which residential units are strongly present. This is a pattern that has existed on 5<sup>th</sup> Ave for many years now: The Plaza hotel has 181 apartments, The Pierre 77. The Crown Building has been converted in a

hotel with 83 suites and 22 apartments. Olympic Tower combines 19 floors of office space with 230 condo units, and trophy retailers on the ground floor. As can be seen in Table 8, four of the Billionaire Row buildings have followed this development strategy.

Midtown Manhattan is very unlikely to build the very large number of new buildings containing the housing units needed to counter the lost pedestrian traffic due to remote work any time soon. On the other hand, it is very likely to create a smaller yet significant number of new and very expensive dwelling units that will contribute to the consolidation and growth of its captured consumer market for luxe goods and services, such as trophy retail, fine dining, high culture performances, and expensive sports and concert tickets. Luxe businesses do not need the high counts of customer visits that more moderately priced operations do, since their average sales transactions have so much higher dollar values.

The Flagler District in Miami, however, suggests that dropping even a good number of new expensive condo and rental units into a struggling area may not significantly alter an area’s retailing very quickly.<sup>21</sup> On one hand, many of these new units may not be fully occupied year round, creating in a sense a residential version of our downtown office buildings’ RTO problem. If these units are only occupied 30% to 50% of the year, their impacts on local retail demand will be commensurately lower than their numbers might suggest. On the other hand, it is easier for new housing units to have some meaningful impact on retail spend if the right retailers are already there, but far more units would be needed to attract retailers to the area. This is another reason why looking closely at the area immediately surrounding potential housing development sites, as in their .25 mile rings, is of analytical importance.

Recent development patterns in Midtown indicate that these new very affluent Midtown residents are more likely to appear through the separate development of several large new multi-use buildings with very high proportions of residential spaces, than with large multi-building projects.

**Table 9. Potential Amount of Office Space Available for Conversion to Residential Uses**

| Total Jobs Midtown: 894,659  |            |            |
|--|------------|------------|
|  | At 8%*     | At 14%**   |
| Estimated SF at:   |            |            |
| 150 SF/wkr   | 10,735,950 | 18,787,800 |
| 175 SF/wkr   | 12,525,275 | 21,919,100 |
| 200 SF/wkr   | 14,314,600 | 25,050,400 |
| * Estimated percentage in Manhattan of convertible office space by Moody's |            |            |
| ** Estimated percentage in Manhattan of convertible office space by REBNY  |            |            |

The Conversion Potential. Such mixed uses may also characterize some conversions of outmoded office buildings to more residential uses in Midtown. Because of the huge absolute number of people who work in Midtown, 894,659, mostly in office buildings, even the conversion of modest percentages of office space, e.g., 8% to 14%, could mean the

potential availability in Midtown of between about 10.7 million SF and 25 million SF for

<sup>21</sup> Rachel Felder. “Miami’s Jewelry District Is Getting a New Gem.” *New York Times*. January 22, 2023.

<https://www.nytimes.com/2023/01/22/fashion/miami-time-century-jewelry-center.html>

conversion to residential uses – see Table 9. To generate some ballpark estimates for heuristic purposes let's stipulate that the converted new residential units averaged about 1,200 SF. That would translate into the potential conversion of Midtown's outmoded office buildings into about 12,000 to 20,000 new units. While those numbers are impressive, they probably would represent just a denting effort to rebalance Midtown's mix of jobs and residents. As was noted above, rebalancing that mix in just the .25 mile rings of three large Midtown office buildings might require roughly 7,000 to 8,000 units for each ring.<sup>22</sup> Of course, Midtown has many other buildings/building clusters that also need their jobs/residents mix rebalanced, so the potential number of units conversions might produce would not come close to meeting how many Midtown' needs. Most importantly, the potentially convertible buildings are where they are, and the areas around them may not be either in serious need of rebalancing or be very significant for the district's magnetism and economic power. The converted units cannot help rebalance many other parts of Midtown that are beyond a quarter mile away.

Moreover, the realization of this large potential for converting office spaces in Midtown, and its benefits, face a number of challenges. First and foremost, the regulatory changes and incentives recommended by the Office Adaptive Reuse Task Force (see footnote 8) need to be implemented and in a timely manner. Then there are Midtown's high property values that can discourage outsiders from coming in to do the conversions. While the value of such conversions to exiting building owners is clear, their ability to have needed strong positive impacts on the areas surrounding them is not. For example, the conversion of a 100,000 SF office building to housing on W40th St between 5<sup>th</sup> and 6<sup>th</sup> Aves would replace about 1,500 office worker in and out trips with about 830 resident trips on a block that has about 19,600 pedestrians per day. Certainly, the 830 trips are better than the building generating no trips. Under normal conditions, the residential trips might represent only about 4% of the block's daily pedestrian flow. Under abnormal conditions, though those 830 trips might have greater impact, particularly on perceptions of threats and safety. A cluster of such converted office buildings obviously would have stronger potential impacts on its block and 5-minute walk shed.

That said, they still may be of value to the city if they add badly needed new affordable units. They may also be clustered and their conversion would stimulate a new or revived strong commercial node in Midtown. Or such a cluster could be assembled into a larger redevelopment project involving one or more large buildings. In other words, a good deal of uncertainty surrounds these struggling buildings and the potential benefits of converting them to housing for the downtown as a whole as well as for the city.

### **Looking Ahead**

If downtown housing growth is to be meaningful, it must involve many other ways of providing new units than just the conversion of outmoded office spaces.

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<sup>22</sup> Since the rings of 330 Rock and 1 Bryant Park overlap, the need for them might be somewhat less.

The locations of potential converted units are preset, meaning urban strategists can't influence key locational decisions about them. Consequently, they have fewer opportunities to match resource allocations with the maximization of positive impacts throughout the downtown. New housing is freed of those constraints, and a key issue for downtown and city leaders will indeed be where that housing should go to maximize positive impacts within the district.

The analysis above argues that effective strategies will be developed if they utilize a bottom up approach, based on assessing the potential impacts of the new housing on the close-in areas, say a 5-minute walk shed or .25 mile ring surrounding potential locations. The results of such analyses can then be aggregated to provide information about building clusters and even results at the level of the whole downtown.

The analysis of these close-in areas surrounding potential housing development sites should also be informed by:

- The desired impacts that housing in that subarea should produce in order to improve its quality of life, and then later those objectives should be matched up with what the new housing could reasonably be expected to produce.
- The awareness that housing can have different levels of positive impacts on foot traffic and consumer behaviors, and *those levels of impact are very strongly influenced by the relative strength of housing to other functions, such as jobs and tourism*, looking at those relative strengths both before and after the new housing is developed. In the above analysis, because of limited research resources, only the relationship between jobs and resident populations was looked at. It would be valuable to look at other measures such as tourist pedestrian flows or occupied hotel rooms/resident. It would also be worthwhile to explore existing measures in the political fragmentation literature that can compare three or more functions -- like jobs, residents and tourism -- at the same time.
- The simple jobs per resident measure, for example, was found above to have far greater explanatory power than either the jobs or residential population variables alone had on foot traffic and consumer behaviors.
- Strong downtowns have several significant functions, not just one. They are meaningfully multifunctional. The analysis above demonstrates that these functions do not exist in isolated silos, but significantly interact with each other. Downtown housing development strategies need to be very cognizant of those functional interactions.

If utilized smartly, newly constructed, market supported units can have a significant potential for making substantial subarea improvements. To the contrary, new downtown housing just thrown around in an unguided fashion, is bound to have far less bang for the public sector's scarce buck.