Payroll mobility tax (PMT)

- Conclusion
  - Raising the top rates by 21.6%, from 0.60% to 0.73% (NYC) and from 0.34% to 0.413% (Suburbs), offset partly by increasing the quarterly payroll threshold for taxation from $1.25 million annual equivalent to $1.6 million would:
    - Increase net PMT revenue by about $500 million annually
    - Remove approximately 20,000 small businesses with about 300,000 employees from the tax
  - Comparable rate increases in the complementary self-employment tax would raise an additional $12 million.
- Option summary
  - Variants that might involve increasing the taxability threshold (the payroll above which a business becomes taxable), reducing the number of small taxpayers, combined with increasing the top rate.
- Methodology
  - Introduction
    - Ideally we want a database of MTA-region employers by size of payroll, by industry and county
    - No such data are publicly available Data are available for establishments, not employers (firms). Data are available by establishment size, but not firm size.
    - Quarterly Census of Employment and Wages (QCEW)(U.S. Bureau of Labor Statistics and NY Department of Labor) has total number of establishments (workplaces), total employment, and total wages, by county and industry. Latest year is 2023.
    - County Business Patterns (CBP)(U.S. Bureau of the Census) has number of establishments, employment, and payroll by size of establishment measured by number of employees in the establishment. Latest year is 2022.

- U.S. Bureau of the Census also has Statistics of U.S. Businessses (SUSB), which they derive from unpublished details from CBP. SUSB gives # of firms, # of establishments, # of employees, and $ payroll by size of firm based on # of employees in the firm, by industry, for the U.S., states, counties, and selected other geographies. Unfortunately the data on firm size are not directly useful because they measure firm size nationally and the PMT measures firm size in the MTA region; there are other technical issues as well. There are some ways in which SUSB could be useful, but they are not yet incorporated into the approach. Latest year is 2021.

- Approach
  - Use QCEW 2023 by county and industry to define total payroll potentially subject to tax.
  - Use CBP 2022 to estimate how many establishments and employees and how much payroll, by establishment size, is in each QCEW county-industry group. Ensure that sums of estimated establishments, employees, and payroll in county-industry-size groups add to QCEW sums for each county-industry.
  - Forecast to 2024.
  - Perform various checks (e.g., compare calculated total tax to reported tax collections).
  - Calculate tax under current and alternative tax rules for each county-industry-size group and summarize.
- Steps
  - Important notes:
    - Data use:
      - Use QCEW for control totals for # establishments, # employees, $ payroll by owner type
      - Use CBP for the distribution of the number of establishments owned by private entitities, by 9 establishment size groups:
        - < 5 employees, 5-9 employees, 10-19 employees, 20-49 employees, 50-99 employees, 100-249 employees, 250-499 employees, 500-000 employees, 1000+ employees

        - Our interest is in the *distribution* of number of establishments (e.g., what % of the establishments in county X, industry Y have 20-49 employees), but we do spot check totals for various county-industry groups to see how well the CBP data correspond to QCEW data
    - Industry classification
        - QCEW 2023 industries are classified by NAICS 2022
        - CBP 2022 industries are classified by NAICS 2017
    - Ownership
        - QCEW has data on private ownership and on federal, state, and local government ownership of establishments
        - CBP only has data on private ownership
- Prepare QCEW 2023 data:
    - Select MTA counties (including 5 counties of NYC)
    - Select QCEW details that add to totals (removing subtotal categories):
        - Private owners: keep 3-digit industries (sums of 3-digit industries generally are quite close to all-industry private totals)
        - Federal, state, and local government owners: keep 2-digit industries (greater detail is rarely available; as a result, sums of government 3-digit industries rarely are close to all-industry government totals).
    - Create "all other" categories, to ensure that details add to QCEW totals
        - Calculate sums of details for owner-county-industry groups
        - Subtract sums from 1-digit control totals, label as NAICS 99x all other and include them in the file of details, so that details add to known totals
    - Mark certain private NAICS codes as untaxable so that they can be excluded from tax in later calculations
        - NAICS 491 U.S. Postal Service private

        - NAICS 814 Private Households (e.g., households that employ workers to run the household such as cooks, maids, and gardeners)

- Prepare CBP 2022 data to obtain distribution of establishments by employment size (Note: industries are NAICS 2017 industries)
    - Select MTA counties and 1, 2, and 3-digit industry details
    - Note: CBP data are only available for private owners
- Construct crosswalk between QCEW NAICS 2022 industries and CBP NAICS 2017 industries
    - Goal: link every QCEW 3-digit industry to a closely related CBP industry, ideally at the 3-digit level
    - Where QCEW 3-digit NAICS 2022 concepts correspond to CBP 3-digit NAICS 2017 concept, use direct match
    - Where QCEW 3-digit NAICS 2022 concepts correspond to different CBP 3-digit NAICS 2017 concepts (due to the 2022 reclassification), use direct match of the new 3-digit industry to the old 3-digit industry
    - Where QCEW 3-digit industry does not have a corresponding CBP 3-digit industry but a CBP 2-digit industry exists, match the QCEW 3-digit industry with the CBP 2-digit industry. For example, QCEW NAICS 211 Oil and Gas Extraction matched with CBP NAICS 21 Mining, Quarrying, and Oil and Gas Extraction
    - When all else fails, match QCEW records with CBP overall totals.
- Merge QCEW with CBP using the constructed crosswalk
    - Make a few minor adjustments
- Estimate # of establishments and # employees by establishment size
    - Goals
        - For each combination of county, industry, establishment size (the 9 establishment sizes in the CBP data) -- approximately 9,000 combinations -- estimate the number of QCEW establishments and employees in the cell
        - Do this in a manner that ensures that:

        - For each county-industry group the sum of the number of establishments and # of employees across the 9 size groups equals the county-industry QCEW totals
        - The number of establishments in the size groups follows the CBP pattern of establishments by size for that county-industry group to the greatest extent possible. However, because CBP and QCEW data are collected differently and do not match precisely, use this as a guideline rather than a rigid rule.
        - The number of employees per establishment in each size group is within or very close to the lower upper and bounds for the group (e.g., for the 20-49 employees size group, ensure that the estimated number of employees coupled with the estimated number of establishments is falls within 20-49 employees per establishment or is very close.

- Method
    - For each of approximately 1,000 county-industry combinations jointly estimate the number of establishments and employees-per-establishment in each of the 9 size groups such that (1) the sum of the number of establishments equals or nearly-equals the QCEW value for the county-industry group, (2) the sum of the number of employees nearly equals the QCEW value, and (3) the percentage distribution of QCEW establishments across the 9 size ranges for the county-industry group does not deviate from the CBP distribution of establishments any more than needed.
    - Do this by minimizing 3 values (for each county-industry group):
        - Penatly for missing establishments target: the difference between the sum of the number of establishments over 9 groups and the QCEW reported sum, squared
        - Penatly for missing employment target: the difference between the sum of the number of employees over the 9 groups and the QCEW reported sum, squared
        - Penalty for missing distribution of establishments target: for each of the 9 groups, compute the difference between the estimated number of establishments in the group and the number implied by the CBP distribution of establishments; square ths number; and get the sum

        - Weight these 3 penalties in a way that gives greater emphasis on hitting the establishments and employment targets than on matching the CBP distribution of establishments
    - Result: A data file that matches QCEW totals for establishments and employment by county-industry, that has breakdowns by establishment size that match these totals, and that are reasonably close to the CBP distributions of establishments by establishment size for each county-industry.
  - Estimate payroll by county-industry-size group
    - Assume all size groups have the county-industry average pay per employee. (This probably overstates payroll for small establishments and understates it for large establishments, as external data tell us that pay per employee often rises with firm size. It often rises in the CBP data but not uniformly so; estimating pay per worker by establishment size would complicate the data construction considerably and require a lot more time.)
    - Calculate total payroll and payroll per establishment in each size group
- Result: A file that has estimates of the number of establishments, number of employees, and average establishment payroll in the MTA region by county, industry, and establishment size group at 2023 levels. This is sufficient to estimate the impact of alternative PMT rate structures.
- Final step: Estimate values at 2024 levels. Current assumption is that MTA-area employment grew 2% in 2024 and average wages grew 4%, reflecting continued post-COVID recovery and post-COVID inflation creeping into wages.