

Using Linked Data to Measure Income for U.S. Tribal Areas

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The Tribal GDP (gross domestic product) Research Project: adding the missing pieces of income to measure economic health for Tribal areas



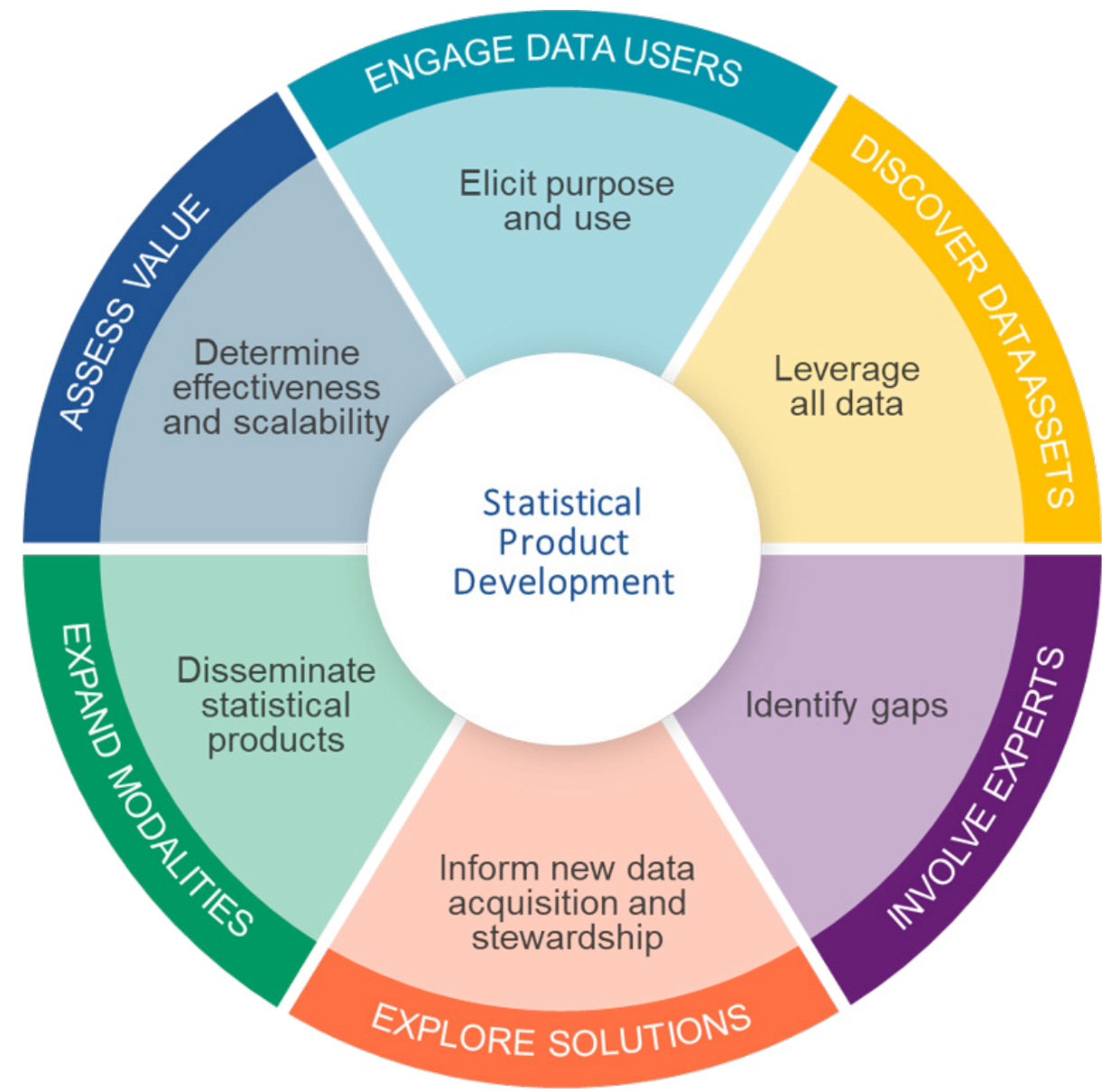
- There are over 500 federally recognized Tribal nations within the United States.
- Tribal nations are sovereign nations and have their own governments, constitutions, and laws.
- Tribal nations need GDP-like information for effective planning and administration of programs, but they currently lack this information.

Selected demographic characteristics



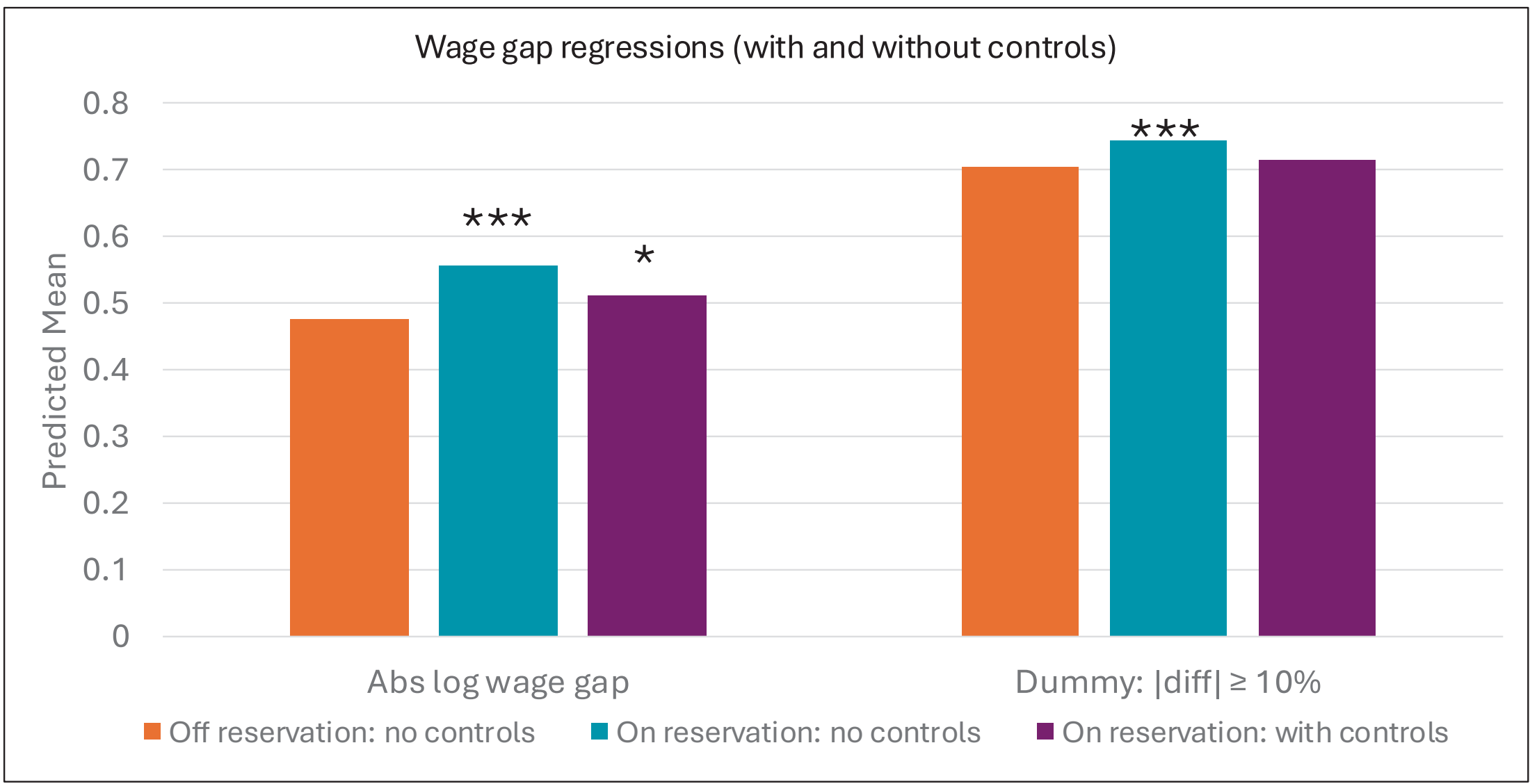
Source: U.S. Census Bureau, 1-Year American Community Survey linked to Internal Revenue Service W-2 file, 2021-2023. Approved for release under Data Management System (DMS) number: P-7503840 (P-7535195) and Disclosure Review Board (DRB) approval numbers: CBDRB-FY25-SEHSD003-116 and CBDRB-FY26-SEHSD003-040.

The Census Bureau’s Statistical Product First (SPF) framework: developing products designed from the beginning to meet users’ needs



- Engage with Tribal nations and learn about need for GDP-like measure.
- Leverage all data from the Census Bureau’s Data Linkage Infrastructure.
- Develop prototype, solicit feedback, and iterate.

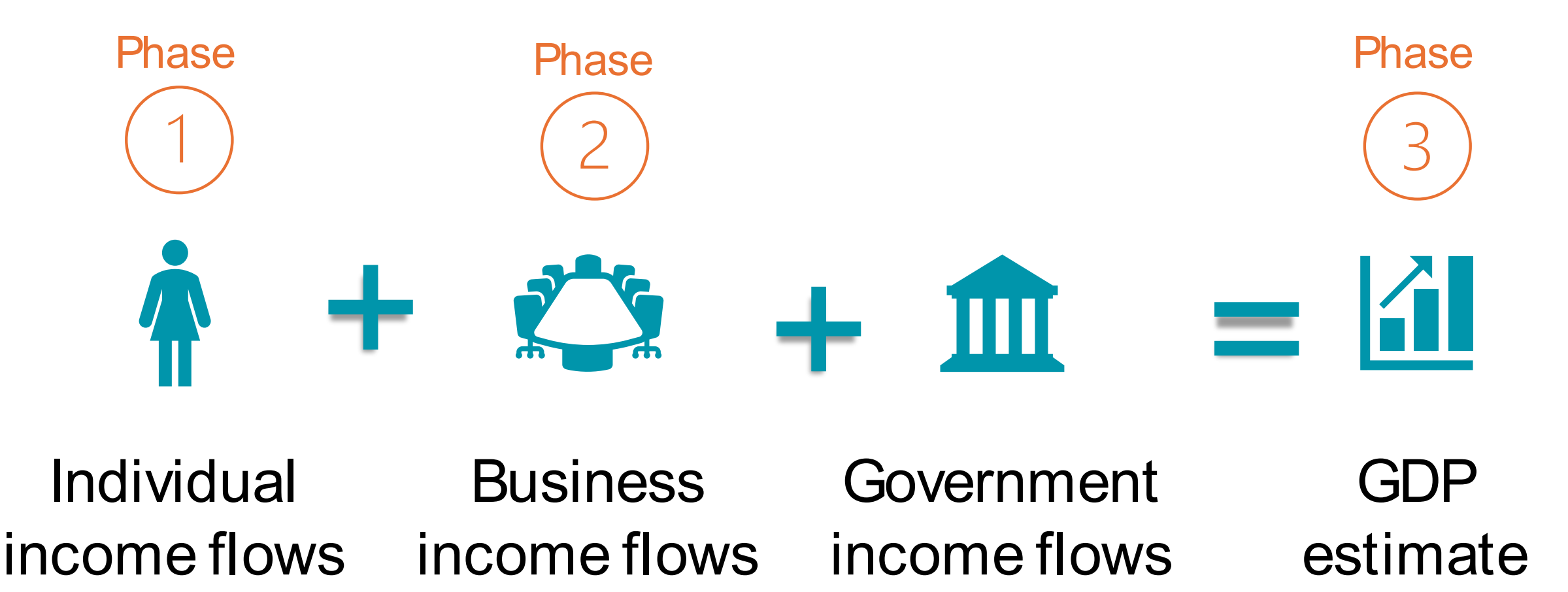
Outcomes of Interest: differences in amounts between survey and tax data



Note: * p<0.05; *** p<0.001.
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- Absolute log wage gap: absolute value of log W-2 earnings minus log ACS earnings for a worker.
- Dummy: |diff| ≥ 10%: absolute difference of the log wage gap is greater than or equal to 0.10 log points.
- Controls: education, age, age², sex, AIAN race, number of kids in household.

Gross Domestic Income: income flows approach to calculating GDP



- In this paper, we take first step of estimating GDP of Tribal areas using the Gross Domestic Income flows approach.
- Do not use standard method to produce National GDP because it relies on data not available to Tribal nations.
- GDP-like measure excludes government income flows due to Tribal data sovereignty.
- Tribal nations can combine GDP-like estimate with their own data to calculate full GDP estimate.

Tribal areas benefit from multisource data approach: Income measurement in Tribal areas is not the same as for the United States as a whole

Conclusion

- Less agreement between survey and tax records reports of wages on-reservation than off-reservation, when measuring absolute log differences.
- Demographic controls attenuate but do not eliminate this effect.

Next steps

- Nonwage income (total income, self-employment, retirement, etc.).
- Combine tax and survey data into “best” estimates of income.
- Business income flows.
- Tribal GDP-like estimates, including disclosure for small geographies.

Multisource data: blend survey and administrative records to mitigate error and improve estimates

Prototype: 2021-2023



- Federally recognized Tribal reservations in the lower 48 states.
- Prime working-age population, 25-54 years old.
- Individuals linked by Protected Identification Key (PIK).

How does this project advance the literature and support tribes?

