

## Coastal Infrastructure Program

### PROGRAM

The Coastal Infrastructure Program (CIP) aims to ensure continued economic growth through improved management and conservation of coast.

### Shoreline Stabilization

Providing coastal infrastructure to enhance amenity value of beaches for local and tourist use in three beaches on South-West Coast, including Rockley Beach as the largest investment.



### Type of Evaluation

Synthetic control method: constructing a synthetic control group from 18 non-affected beaches along the coast.



### Database

Rich time series data from administrative sources and nighttime satellite imagery to capture economic growth.

*Panel consisting of 15 years (1992-2006) for 19 beaches.*



### Economic Growth

1. Increased income from more tourism activity on/near beach.
2. Increased real estate activity near beach from rising property values.



### Innovative Evaluation

First rigorous evaluation of a shoreline stabilization program using innovative data and analytical tools.

## WHY ARE WE DOING THIS EVALUATION?

Do investments in shoreline stabilization and beach amenity enhancement have beneficial effects on medium-term economic growth?



### RESULTS

Compared to its synthetic control, we found that Rockley Beach has perceived positive impacts in ...



### Night Light Activity

Positive impact on local night time activity of approximately **22.1% in two of three years post-treatment.**



### Economic Growth

Impact in luminosity translates into an average increase of **11.7% in local GDP.**

## CONCLUSIONS

The findings provide strong evidence for the development effectiveness of shoreline stabilization in an effort not only to reverse coastal erosion, but also to promote sustainable economic growth. The technological advances that have made remote measurement of night light activity possible not only help illuminate development effectiveness; they also support efforts to continuously improve results-based policy design.

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