Load from the staging table with lat/long

```sql
INSERT INTO public.mosques (name, address, geom)
SELECT
    name,
    address,
    ST_SetSRID(ST_MakePoint(longitude, latitude), 4326)
FROM public.mosques_staging;
```

Projecting Mosques to Ohio South (3735)

```sql
ALTER TABLE public.mosques
ADD COLUMN geom_3735 geometry(Point, 3735);

UPDATE public.mosques
SET geom_3735 = ST_Transform(geom, 3735);
```

Joining Mosques to ACS Block Groups

```sql
CREATE VIEW public.mosques_with_acs AS
SELECT
    m.id              AS mosque_id,
    m.name            AS mosque_name,
    m.address         AS mosque_address,
    m.geom_3735       AS mosque_geom,

    b."GEOID",
    b."NAME"          AS bg_name,

    -- a few key ACS fields
    b."POP_UNI",
    b."PCT_MIN",
    b."PCT_POV_20",
    b."PCT_65UP",

    b.geom            AS bg_geom
FROM public.mosques m
JOIN public."Census_ACS1923_5yr_BlockGroups" b
    ON ST_Intersects(m.geom_3735, b.geom)
```

Spatial Query

```sql
SELECT
    bg."GEOID",
    bg."NAME",
    COUNT(m.*) AS mosques_within_1mile
FROM public."Census_ACS1923_5yr_BlockGroups" AS bg
LEFT JOIN public.mosques AS m
       ON ST_DWithin(
            ST_Transform(bg.geom, 3735),   -- convert block group to feet
            ST_Transform(m.geom, 3735),    -- convert mosques to feet
            5280                           -- 1 mile
       )
GROUP BY bg."GEOID", bg."NAME"
ORDER BY mosques_within_1mile DESC;
```

Counts the number of mosques within 1 mile of each block group using ST_DWithin.
Uses EPSG 3735 for distance measurement.

Non spatial Query

```sql
WITH bg_mosque_counts AS (
    SELECT
        bg."GEOID",
        bg."NAME",
        COUNT(m.*) AS mosques_within_1mile
    FROM public."Census_ACS1923_5yr_BlockGroups" AS bg
    LEFT JOIN public.mosques AS m
        ON ST_DWithin(
            ST_Transform(bg.geom, 3735),  -- block groups to Ohio South
            ST_Transform(m.geom, 3735),   -- mosques to Ohio South
            5280                          -- 1 mile in feet
        )
    GROUP BY bg."GEOID", bg."NAME"
)
-- summarize
SELECT
    SUM(CASE WHEN mosques_within_1mile = 0 THEN 1 ELSE 0 END) AS blockgroups_with_0_mosques,
    SUM(CASE WHEN mosques_within_1mile BETWEEN 1 AND 2 THEN 1 ELSE 0 END) AS blockgroups_with_1_2_mosques,
    SUM(CASE WHEN mosques_within_1mile >= 3 THEN 1 ELSE 0 END) AS blockgroups_with_3plus_mosques
FROM bg_mosque_counts;
```

Summarizes block groups by how many mosques fall within 1 mile:
0 mosques = 1524 block groups
1–2 mosques = 151 block groups
3+ mosques = 30 block groups