INDEX OF NEED

CONCEPTS, CONSTRUCTION, AND USES

DAVID E. AULT AND TIMOTHY S. SULLIVAN

ILLINOIS COMMUNITY COLLEGE BOARD

OCTOBER 22, 2025

INTRODUCTION: THE INDEX OF NEED –
CONCEPTS, CONSTRUCTION, AND USES

- THE INDEX OF NEED: 8 TABLES Distributed in October
- INDEX OF NEED
    - DEFINITION AND INTERPRETATION
    - COMPONENTS
    - CALCULATION
    - HYPOTHETICAL EXAMPLE
- DATA SOURCES
- USE OF THE INFORMATION IN THE TABLES
    - EMPHASIS ON TABLE 8 – THE INDEX OF NEED

INDEX OF NEED
MEANING AND CONSTRUCTION

- DEFINITION: PROBABILITY THAT AN ILLINOIS RESIDENT IN NEED OF ONE OR MORE ADULT EDUCATION PROGRAMS LIVES IN THAT COMMUNITY COLLEGE DISTRICT (AREA PLANNING COUNCIL – APC)
  - INDEX NUMBER IS RELATIVE TO STATE POPULATION - BASED ON STATISTICS IN A GIVEN YEAR
  - ADULTS DEFINED AS POPULATION 16 YEARS OF AGE AND OLDER
  - POPULATION STATISTICS IN TABLES 1 AND 2 ARE DERIVED FROM BUREAU OF CENSUS POPULATION RELEASES AS OF JULY 1ST OF THE PREVIOUS CALENDAR YEAR (FOR THE 2025 TABLES, THAT DATE IS JULY 1, 2024)

INDEX OF NEED
MEANING AND CONSTRUCTION (con.)

- **COMPONENTS** (Four)
  - ADULT EDUCATIONAL ATTAINMENT
    - <9 GRADES OF FORMAL EDUCATION (NUMBER WEIGHTED BY 1.5)
    - 9<HIGH SCHOOL DIPLOMA (WEIGHT: 1.0)
  - ENGLISH AS A SECOND LANGUAGE (ESL)
    - HOUSEHOLD RESIDENTS SPEAK ENGLISH "WELL" (CENSUS CATEGORIES – Very Well and Well) - Weight: 1.0
    - HOUSEHOLD RESIDENTS DO NOT SPEAK ENGLISH WELL (CENSUS CATEGORIES – Not Well or Not at All) – Weight: 1.5
  - ADULTS LIVING IN HOUSEHOLDS WITH ANNUAL INCOMES LESS THAN FEDERAL POVERTY LEVEL (WEIGHT: 1.0)
  - AVERAGE MONTHLY NUMBER UNEMPLOYED IN PREVIOUS CALENDAR YEAR (WEIGHT: 1.0)

INDEX OF NEED
CONSTRUCTION (con.)

- HYPOTHETICAL EXAMPLE
  - STATE – POPULATION: 10,000,000
    - INDEX OF NEED POPULATION
      - EDUCATIONAL ATTAINMENT (EDATT):
        - <9 GRADES OF FORMAL EDUCATION: 250,000   X 1.5 = 375,000
        - 9<HIGH SCHOOL DIPLOMA (HSD):   750,000   X 1.0 = 750,000
        - BASE NO. FOR INDEX CALCULATIONS = 1,125,000
      - ENGLISH AS A SECOND LANGUAGE (ESL):
        - DOES NOT SPEAK ENGLISH WELL (DNSEW):   50,000 X 1.5 = 75,000
        - SPEAK ENGLISH WELL (SEW):   450,000 X 1.0 = 450,000
        - BASE NO.   = 525,000
      - ADULT POPULATION IN POVERTY (POV):   1,000,000 X 1.0 = 1,000,000 (BASE NO.)
      - UNEMPLOYED (UNEMP):   250,000 X 1.0 =   250,000 (BASE NO.)

INDEX OF NEED
CONSTRUCTION (con.)

- COUNTY A:
  - EDUCATIONAL ATTAINMENT:
    - <9 GRADES: 2500 X 1.5 = 3750 (INDEX NO.)
    - 9<HSD: 6000 X 1.0 = 6000 (INDEX NO.)
    -                     EDATT NO. = 9750 (INDEX COMPONENT)
  - ESL:
    - DNSEW: 400 x 1.5 =   600
    - SEW: 4000 X 1.0 =   4000
    -                     ESL NO.   =   4600 (INDEX COMPONENT)
  - POV: 7500 X 1.0 = 7500 (INDEX COMPONENT)
  - UNEMP: 2500 X 1.0 =   2500 (INDEX COMPONENT)

INDEX OF NEED
CONSTRUCTION (con.)

- CALCULATION OF INDEX OF NEED FOR COUNTY A:
  - EDATT: COUNTY A INDEX COMP/STATE BASE NO. X EDATTAIN WEIGHT (0.45)
  -                 9750/1125000 = 0.0087 X 0.45 = 0.0039 (INDEX OF NEED COMP)
  - ESL: 4600/525000   = 0.0088 X 0.25 (ESL INDEX WEIGHT) = 0.0022
  - POV: 7500/1000000 = 0.0075 X 0.25 (POV INDEX WEIGHT) = 0.001875
  - UNEMP: 2500/250000   = 0.01   X 0.05 (UNEMP INDEX WEIGHT) = 0.0005

  - Note that weights sum to 1.0 (0.45 + 0.25 + 0.25 + 0.05)

- INDEX OF NEED FOR COUNTY A = SUM (EDATT, ESL,POV,UNEMP)
  - INDEX NUMBER = 0.0039+0.0022+0.001875 +0.0005 = 0.008475

INDEX OF NEED
CONSTRUCTION (con.)

- INDEX OF NEED FOR APC (COMMUNITY COLLEGE DISTRICT) NO. 1

    - COUNTY A SUBINDEX NO: 0.008475
    - COUNTY B SUBINDEX NO: 0.005125
    - COUNTY C SUBINDEX NO: 0.001350
    - COUNTY D SUBINDEX NO: 0.010205
    - COUNTY E SUBINDEX NO: 0.000500

    - INDEX OF NEED FOR APC NO. 1:   0.025655

INDEX OF NEED
TABLE 8 – APC 516
WAUBONSEE COMMUNITY COLLEGE

Table 8: Index of Need - 4 Components

APC 516	INDEX	Education Less Than HSD	Adult ESL	Adults in Poverty	Unemployed
DeKalb County	0.00070	1,187	939	421	279
Kane County	0.02379	31,359	70,713	15,833	7,351
Kendall County	0.00654	7,592	21,424	4,982	2,443
LaSalle County	0.00037	613	261	307	173
Will County	0.00064	631	3,367	226	147
Total	*0.03203*	*41,382*	*96,704*	*21,770*	*10,393*

INDEX OF NEED TABLES

- INDEX OF NEED TABLES FOR EACH APC (COMMUNITY COLLEGE DISTRICT):
  - CONSISTS OF 8 TABLES
  - DISTRIBUTED IN OCTOBER USING DATA AVAILABLE AS OF SEPTEMBER 30TH
  - ACCOMPANIED BY A COVER LETTER THAT DESCRIBES THE CONTENTS OF EACH TABLE AND ANY CHANGES THAT HAVE BEEN MADE SINCE THE PREVIOUS SET OF TABLES

INDEX OF NEED TABLES

- TABLE 1 – ESTIMATED TOTAL POPULATION FOR APC BY GENDER AND BUREAU OF THE CENSUS DEMOGRAPHIC CATEGORIES (WHITE, BLACK, NATIVE AMERICAN, ASIAN, PACIFIC ISLANDER, OTHER – nec, TWO OR MORE ETHNICIES, HISPANIC) as of July 1st of previous year
  - Total Population = Sum of White, Black, Native American, Asian, Pacific Islander, Other, and Two or More
    - HISPANIC IS A CULTURAL, NOT A DEMOGRAPHIC, CATEGORY
- DATA SOURCES (DATA.CENSUS.GOV):
  - American Community Survey (ACS) Tables: SERIES B01001, B02001, B03001
  - Bureau of the Census Population Estimates

INDEX OF NEED TABLES (con)

- TABLE 2: ADULT POPULATION BY GENDER AND ETHNICITY
  - SAME ETHICITY AND GENDER CATEGORIES AS TABLE 1
  - ADULTS DEFINED AS INDIVIDUALS 16 YEARS OF AGE AND OLDER
  - SAME DATA SOURCES AS TABLE 1:
    - AMERICAN COMMUNITY SURVEY (ACS) SERIES BEGINNING WITH B01001, BO2001, BO3001
    - POPULATION ESTIMATES

INDEX OF NEED TABLES (con.)

- TABLE 3: POPULATIONS OF INTEREST
  - NUMBER INCARCERATED IN PRISONS UNDER DIRECTION OF DEPARTMENT OF CORRECTIONS (IDOC)
    - ANNUAL REPORT FROM IDOC DIRECTOR RELEASED IN JULY
  - INDIVIDUALS WITH ONE OR MORE DISABILITIES THAT AFFECT ATTACHMENT TO LABOR FORCE
    - ACS TABLE B18101
  - INDIVIDUALS WITH A COGNITIVE DISORDER THAT AFFECTS ATTACHMENT TO LABOR FORCE
    - ACS TABLE B18104
  - TOTAL POPULATION ELIGIBLE TO PARTICIPATE IN ONE OR MORE PROGRAMS ADMINISTERED BY THE DEPARTMENT OF HUMAN SERVICES
    - MAY DATA PROVIDED BY DHS RESEARCH STAFF
  - ADULT POPULATION ELIGIBLE TO RECEIVE SERVICES FROM DHS
    - AGE 16 AND OVER FROM MAY DATA PROVIDED BY DHS

INDEX OF NEED (con.)

- **TABLE 4: ESTIMATE OF ADULT EDUCATION POPULATION**
  - ENTRIES
    - NUMBER OF ADULTS WITH LESS THAN 9 GRADES OF FORMAL EDUCATION (<9)
    - NUMBER OF ADULTS WITH 9 GRADES BUT NO HIGH SCHOOL DIPLOMA OR EQUIVALENT (9<HSD)
      - SOURCE: ACS B15001 AND RELATED TABLES FROM DEPARTMENT OF EDUCATION
    - IMMIGRANTS LIVING IN THE US SINCE 2010 (IMM)
      - SOURCE: ACS B05005
    - SUM OF <9, 9<HSD, IMM

INDEX OF NEED TABLES (con.)

- TABLE 5: ENGLISH AS A SECOND LANGUAGE (ESL)
  - ENTRIES
    - TOTAL NUMBER AGE 5 AND OLDER LIVING IN HOUSEHOLDS IN WHICH A LANGUAGE OTHER THAN ENGLISH IS SPOKEN
      - NUMBER THAT SPEAK SPANISH (SPAN)
      - NUMBER OF THAT SPEAK AN INDOEUROPEAN LANGUAGE OTHER THAN SPANISH (IE)
      - NUMBER THAT SPEAK AN ASIAN LANGUAGE (ASIAN)
      - NUMBER THAT SPEAK A LANGUAGE NOT ELSEWHERE CLASSIFIED (NEC)
    - TOTAL NUMBER OF ADULTS AGE 16 AND OVER IN ESL HOUSEHOLDS (ADULT)
    - NUMBER OF ADULTS THAT DO NOT SPEAK ENGLISH WELL (DNSEW = NOT WELL + NOT)
  - SOURCE: ACS B16004 (ABILITY OF HOUSEHOLD TO SPEAK SELF-ASSESSED AS VERY WELL, WELL, NOT WELL, NOT AT ALL)

INDEX OF NEED TABLES (con.)

- TABLE 6: POVERTY
  - ENTRY:
    - NUMBER OF ADULTS LIVING IN HOUSEHOLDS WITH ANNUAL INCOMES BELOW THE FEDERAL POVERTY LEVEL
  - DATA SOURCE: ACS B17001

INDEX OF NEED TABLES (con.)

- TABLE 7: LABOR FORCE (UNEMP)
  - ENTRIES:
    - AVERAGE MONTHLY UNEMPLOYMENT (UNEMP)
    - AVERAGE MONTHLY LABOR FORCE
      - DATA SOURCE: ILLINOIS DEPARTMENT OF EMPLOYMENT SERCURITY (IDES)
        - MOST RECENT CALENDAR YEAR
        - LOCAL AREA UNEMPLOYMENT STATISTICS (LAUS)
    - AVERAGE MONTHLY UNEMPLOYMENT RATE
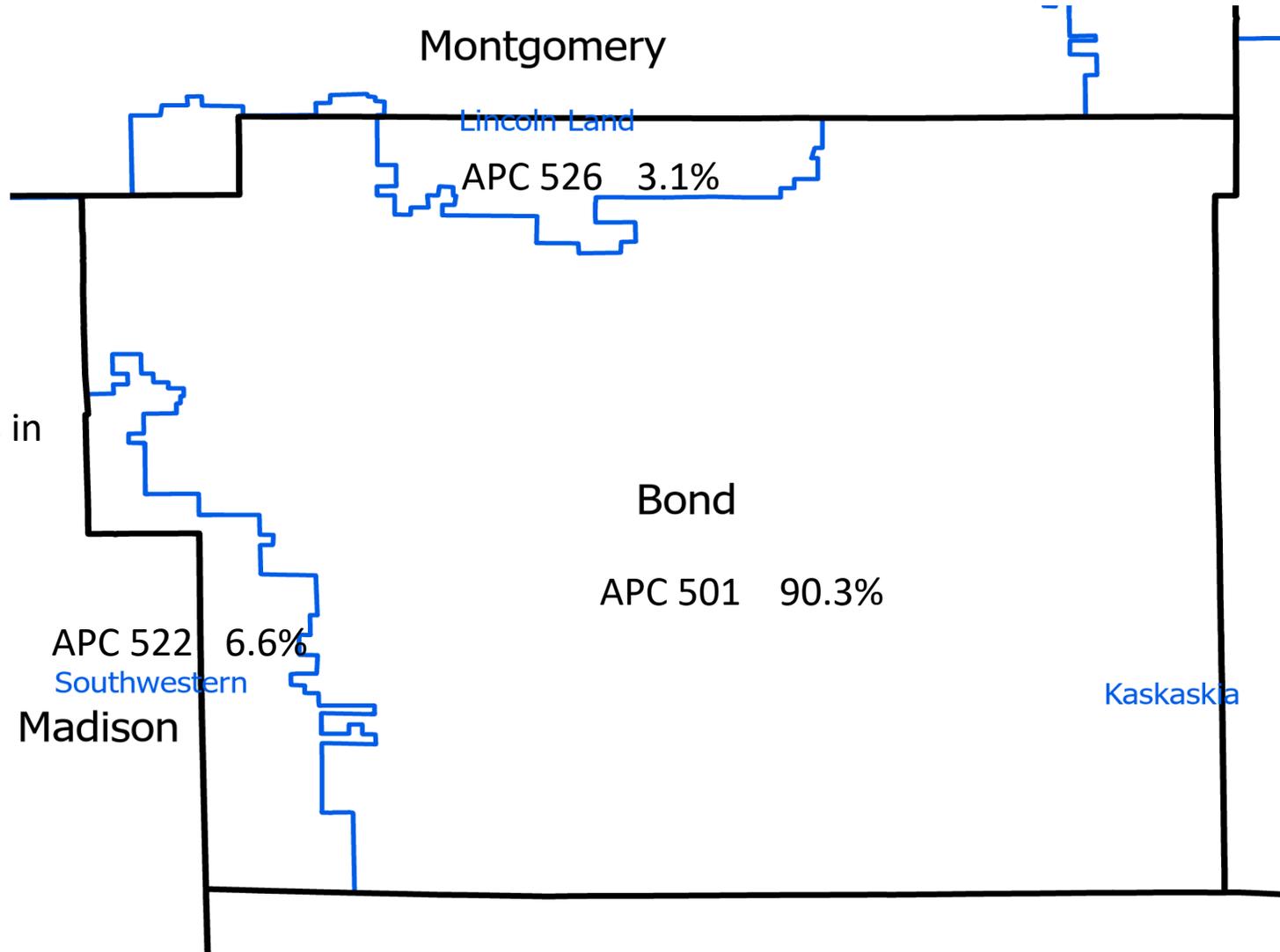
INDEX OF NEED TABLES (con.)

- TABLE 8:   INDEX OF NEED
  - ENTRIES:
    - INDEX OF NEED (CALCULATED FROM FOUR COMPONENTS)
    - FROM Table 4: EDATT (<9 X1.5 + 9<HSD) – INDEX COMPONENT WEIGHT: 0.45
    - FROM Table 5: ESL (DNSEW X 1.5+SEW) – INDEX COMPONENT WEIGHT: 0.25
    - FROM Table 6: POV – INDEX COMPONENT WEIGHT – 0.25
    - FROM Table 7: UNEMP – INDEX COMPONENT WEIGHT – 0.05
  - INDEX OF NEED (column 1): 0.45 x EDATT/STATE EDATT BASE + 0.25 x ESL/STATE ESL BASE + 0.25 x POV/STATE POV BASE+ 0.05 x UNEMP/STATE UNEMP BASE

APPLYING THE TABLE INFORMATION

- C0UNTY - BOND COUNTY (APCs 501, 522, and 526)
- APC OR DISTRICT: APC (Community College) – WAUBONSEE COMMUNITY COLLEGE

COUNTY APPLICATION:
B0ND COUNTY (2025 Population – 16576)

Montgomery

BLACK LINE –
COUNTY BOUNDARY
BLUE LINE – APC
BOUNDARY

Only 29 of 102 Counties in
one Community College
District

Lincoln Land

APC 526   3.1%

Bond
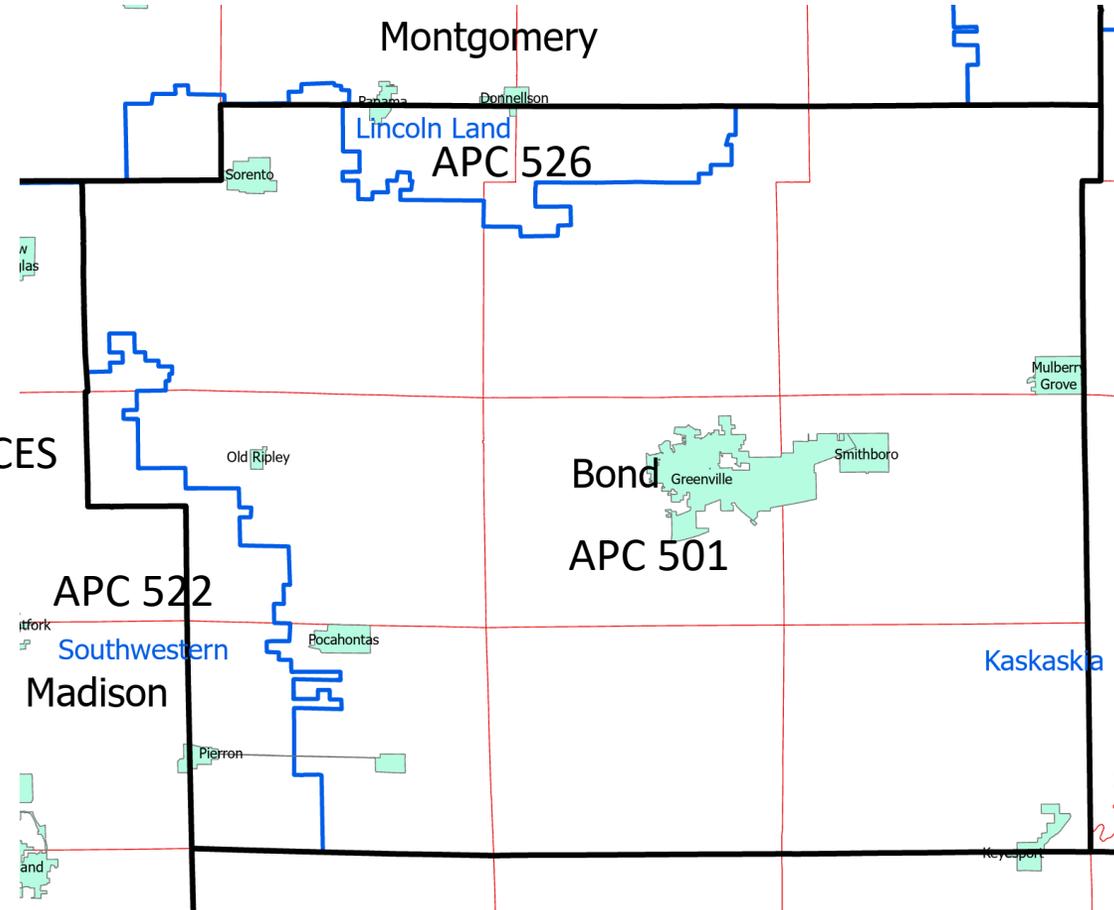
APC 501   90.3%

APC 522   6.6%
Southwestern
Madison

Kaskaskia

COUNTY APPLICATION:
BOND COUNTY (2025 Population – 16576)

BOUNDARY LINES
- BLACK – COUNTY
- BLUE – APC
- RED – TOWNSHIP
- GREEN – CENTRAL PLACES

Montgomery

Panama Donnellson

Lincoln Land

APC 526

Sorento

llas

Old Ripley

Mulberry Grove

Bond

Greenville Smithboro

APC 501

APC 522

tfork

Southwestern

Pocahontas

Madison

Kaskaskia

Pierron

Keyesport

and

APC OR DISTRICT APPLICATION: Waubonsee College (APC 516)
Waubonsee Population – 404468 (July 1, 2023 from 2024 Table 1)
APC 516 Index of Need: 0.03203
(% OF INDEX IN PARENTHESES, % OF POPULATION ON MAP)
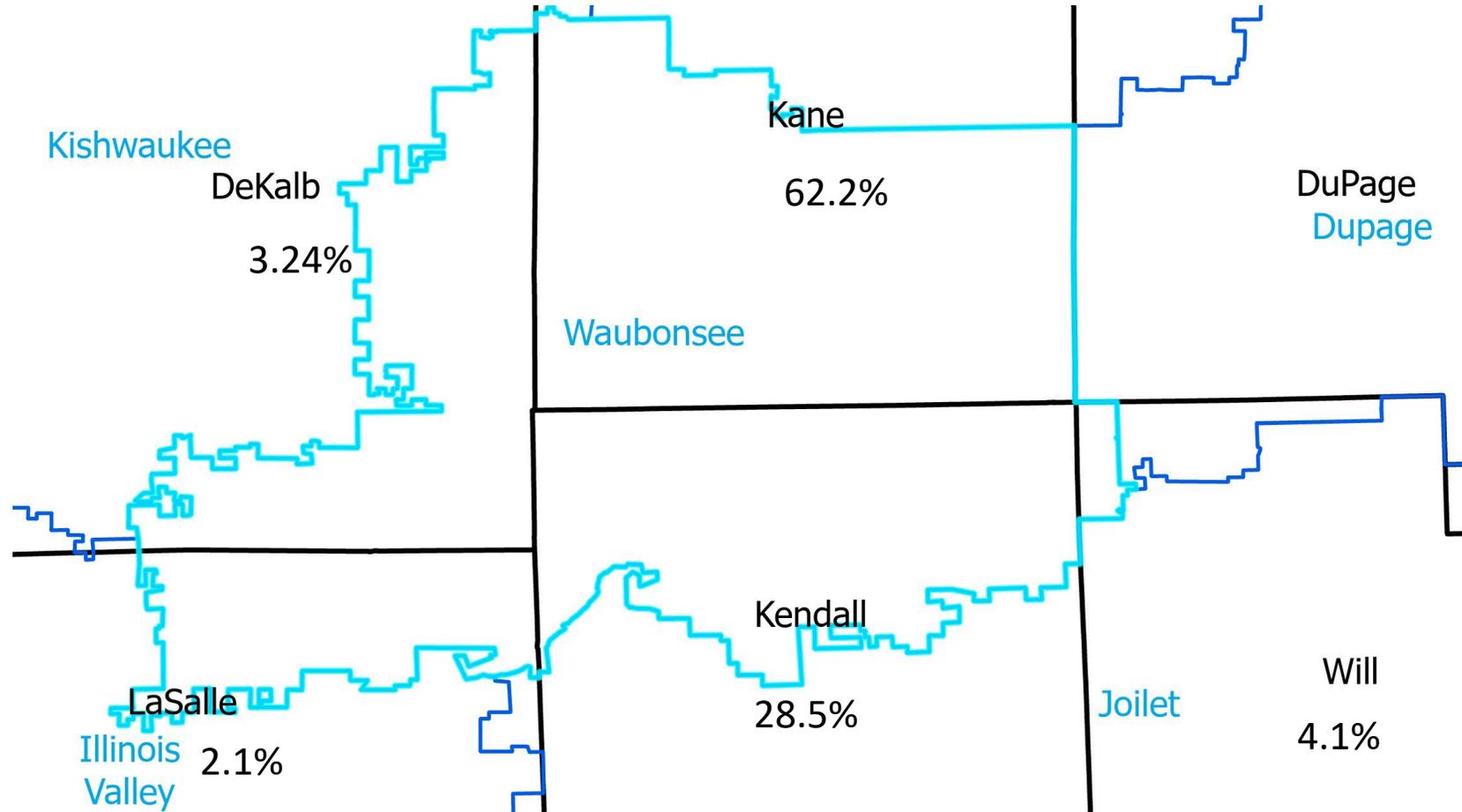
INDEX OF NEED
COUNTY INDICES

DEK: 0.0007 (2.2%)
KANE: 0.0238 (74.3%)
KND: 0.0065 (20.3%)
LAS: 0.0004 (1.25%)
WILL: 0.0006 (1.9%)

Kishwaukee

DeKalb

3.24%

Waubonsee

Kane

62.2%

DuPage
Dupage

Kendall

28.5%

LaSalle

Illinois
Valley   2.1%

Joilet

Will

4.1%

APC 516 – WAUBONSEE COLLEGE (Total Pop: 404,468)
ESL POPULATIONS
2024 INDEX OF NEED TABLE 5

ESL POP
Total 106,870
DEK - 0.96%
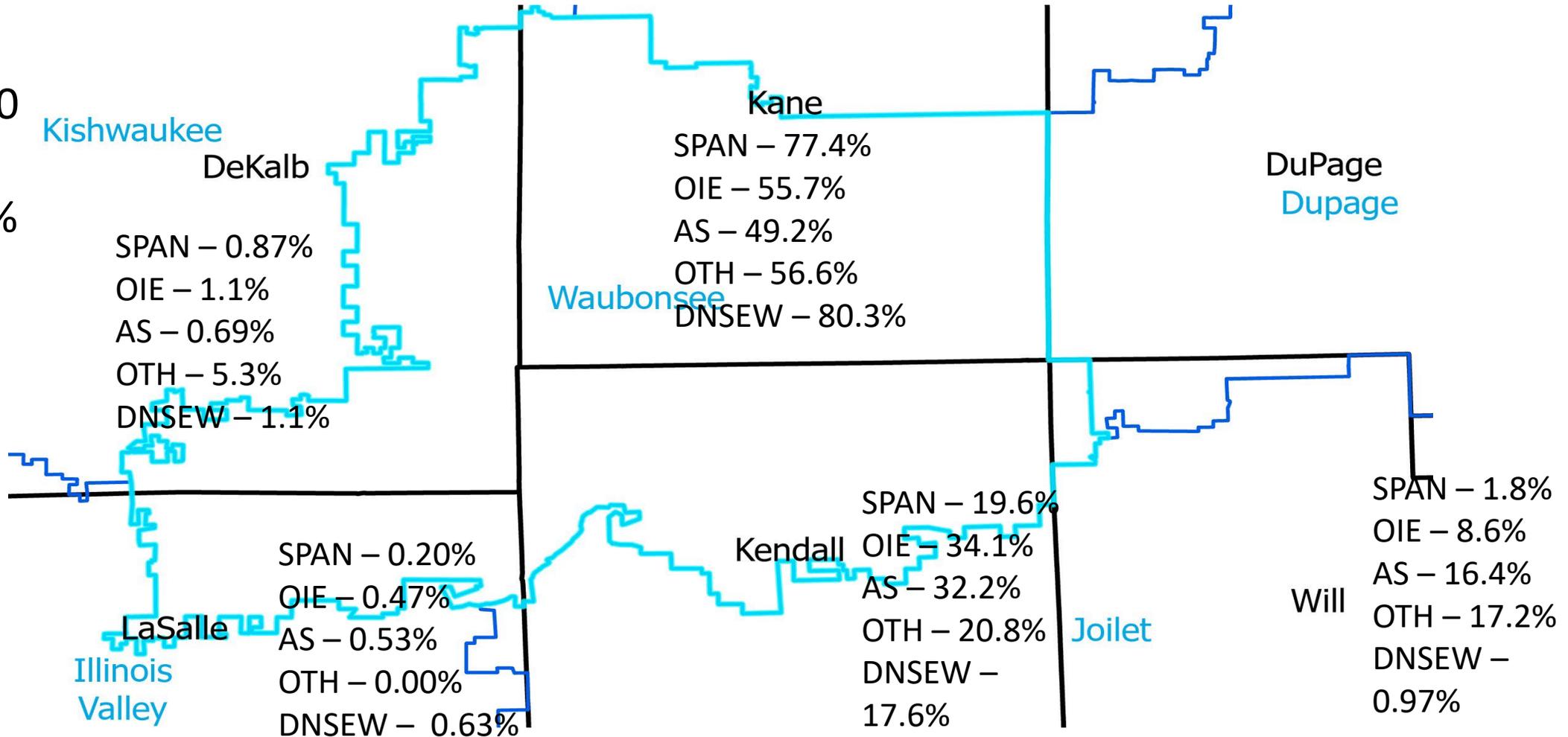KANE – 73.1%
KND – 22.1%
LAS – 0.20%
WILL – 3.6%

Kishwaukee
DeKalb

SPAN – 0.87%
OIE – 1.1%
AS – 0.69%
OTH – 5.3%
DNSEW – 1.1%

Kane
SPAN – 77.4%
OIE – 55.7%
AS – 49.2%
OTH – 56.6%
DNSEW – 80.3%

Waubonsee

DuPage
Dupage

SPAN – 0.20%
OIE – 0.47%
AS – 0.53%
OTH – 0.00%
DNSEW – 0.63%

Kendall

SPAN – 19.6%
OIE – 34.1%
AS – 32.2%
OTH – 20.8%
DNSEW – 17.6%

Joilet

SPAN – 1.8%
OIE – 8.6%
AS – 16.4%
OTH – 17.2%
DNSEW – 0.97%

Will

LaSalle
Illinois Valley

QUESTIONS AND CLOSING REMARKS