Towards A National Infrastructure for Community Statistics: Filling Gaps and Increasing Data Capacity on a National Level

Rebecca Blash, Manager, NICS, UMI
Julia Lane, SVP and Director, NORC
Kathryn Pettit, Deputy Director, NNIP

CONNECTING COMMUNITIES
Using Information to Drive Change

URBAN MARKETS INITIATIVE

What is the National Infrastructure for Community Statistics (NICS)?

- NICS is focused on increasing data accessibility and use-ability at all levels – federal, state, and local - by fostering linkages among "information silos"
- NICS is focused on the removal of barriers and facilitating communication and connections between web-based data intermediaries, making them more robust, effective, and efficient
- NICS will not be one place, but rather a "system of systems" connecting local, state, and federal data information providers

Who is the audience for NICS?

Communities: Local areas in which people organize to create positive change and foster an environment for communication regarding real problems and needs of constituents

- NICS is intended to assist organizations and individuals attempting to positively transform their communities through better access to data
- NICS is focused on the dissemination of data and information, real-time for practical application
- NICS promotes making data "actionable" through the creation of connections between community statistical systems and private and public decision makers

How will NICS achieve this?

- encourage and promote data sharing at all levels: local-to-local, state-to-local, and federal-to-local through the development of use cases
- advocate for increasingly more efficient and effective data sharing and data dissemination
- provide an environment for web based data intermediaries to create linkages through advanced metadata management and the use of effective data confidentiality methodologies and best practices

Data Access: Lessons from the trenches

Julia Lane
NORC at the University of Chicago
Lane-julia@norc.uchicago.edu

Overview

- Key Issues with Data Access
  - Cooperation and Partnership
  - Understanding the data
  - Creating “products” consistent with custodians’ mission
  - Confidentiality Protection
- Examples
  - LEHD
  - NORC Data enclave

Cooperation and partnership

- Access based on trust
  - Understand the agency's mission
  - Listen to and work with the key players
  - Never, ever blindside people
- Practical examples
  - Census Bureau
  - State LMI shops

Understanding the data

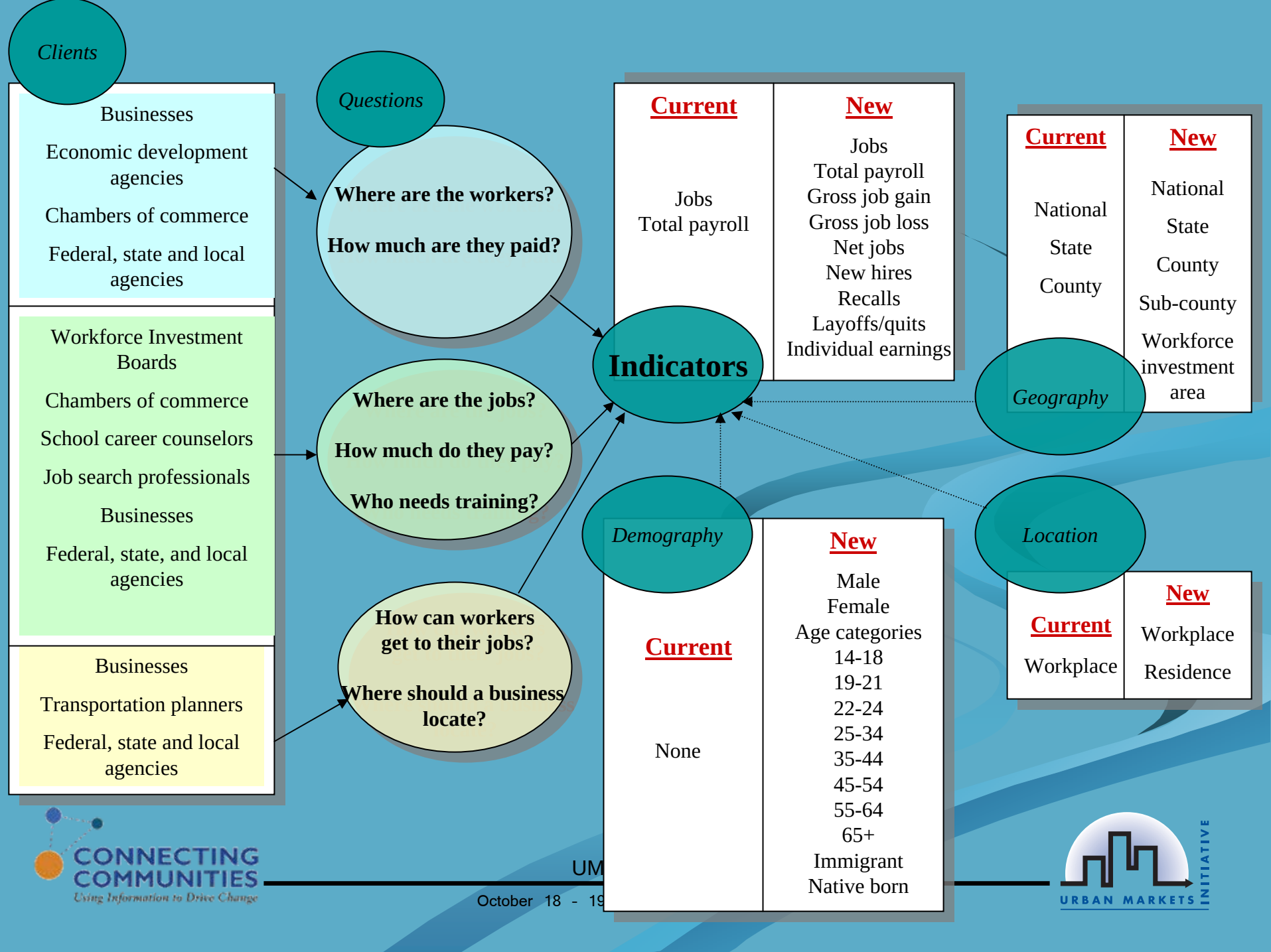
- Credibility important
  - Know the strong and weak elements
  - Coverage, frequency, item quality
  - How data have been used in the past
- Practical examples:
  - UI wage records
  - Census Business Register

Willingness to create products consistent with agency's mission

- Learn the lay of the land in terms of user base
- Jointly develop products with agency
  - Non-technical reports (e.g. Older worker reports)
  - Analytical evaluations (e.g. WIA)
  - Data enhancements (e.g. merging in new data to existing file; better documentation)
  - New data products (e.g. QWI's and On the Map)

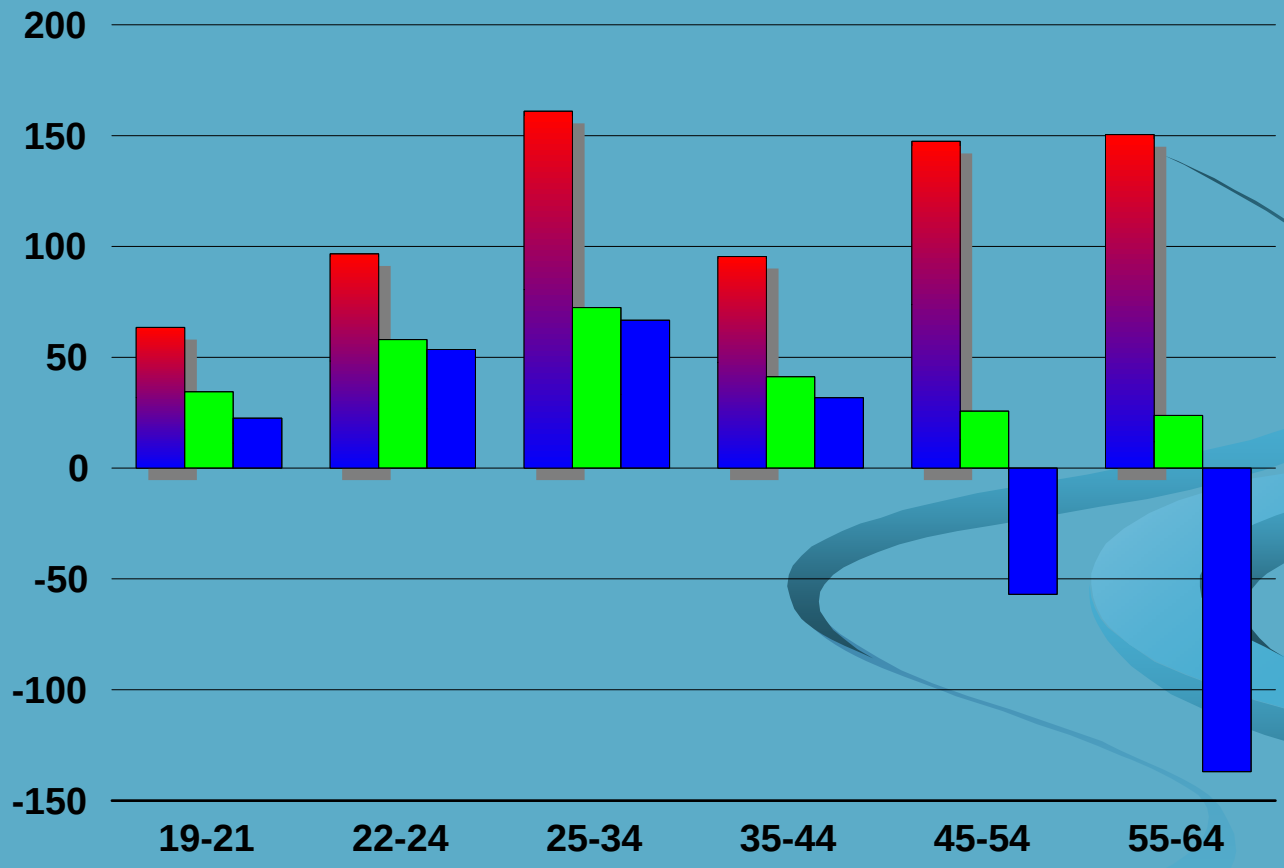
Quarterly Workforce Indicators

"The outcome for Local Workforce Investment Boards … is a portfolio of never before available labor market measures at a level of geography never before available" Deputy Governor of Illinois

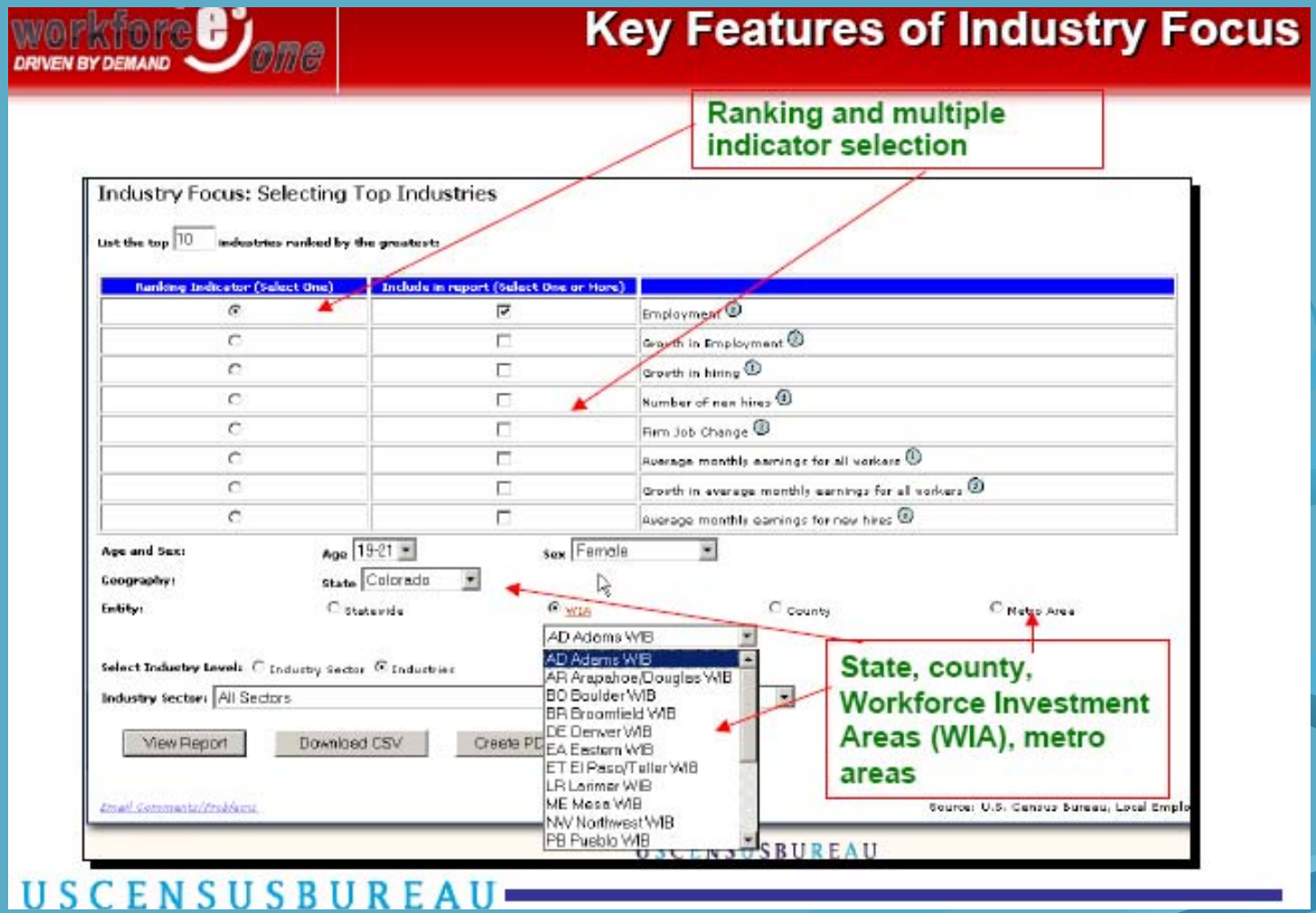

Clients
Businesses
Economic development agencies
Chambers of commerce
Federal, state and local agencies
Workforce Investment Boards
Chambers of commerce
School career counselors
Job search professionals
Businesses
Federal, state, and local agencies
Businesses
Transportation planners
Federal, state and local agencies
Questions
Where are the workers?
How much are they paid?
Where are the jobs?
How much do they pay?
Who needs training?
How can workers get to their jobs?
Where should a business locate?
Indicators
Current
Jobs
Total payroll
New
Jobs
Total payroll
Gross job gain
Gross job loss
Net jobs
New hires
Recalls
Layoffs/quits
Individual earnings
Geography
Current
National
State
County
New
National
State
County
Sub-county
Workforce investment area
Demography
Current
None
New
Male
Female
Age categories
14-18
19-21
22-24
25-34
35-44
45-54
55-64
65+
Immigrant
Native born
Location
Current
Workplace
New
Workplace
Residence

Initial Vision

Job Opportunities in Industrial Machinery, Peoria, IL
(net employment growth 21 jobs!)



Implementation

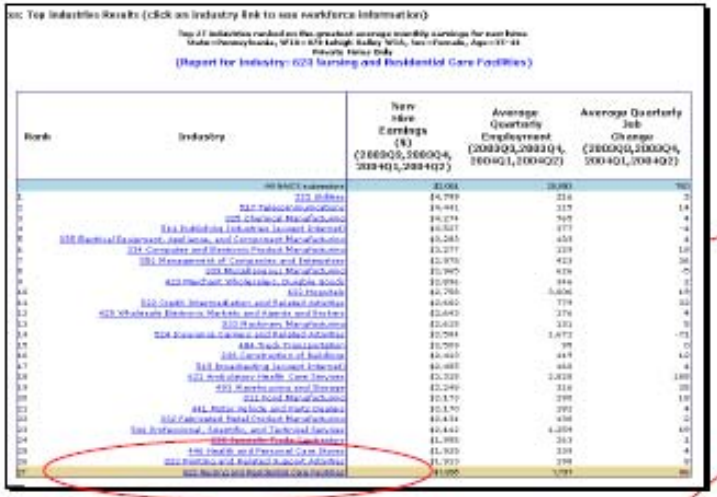


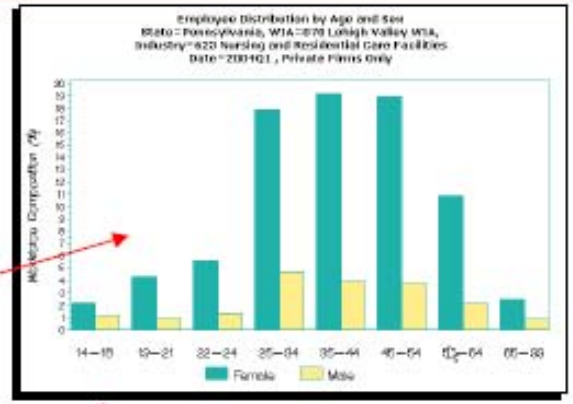
Source: Jeremy Wu LEHD presentation

Implementation

workforce e3 one
DRIVEN BY DEMAND

Industry Focus Provides…





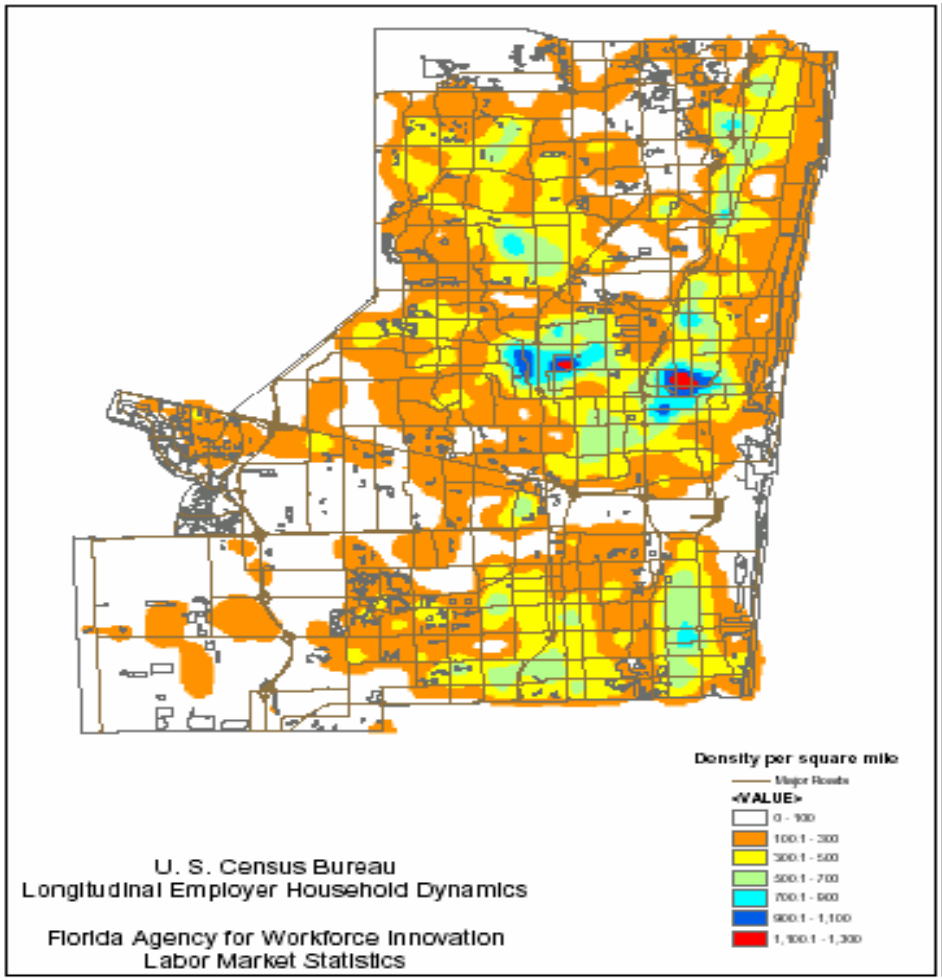
- …easy, intuitive selection criteria and economic indicators for your geography, workforce, and industry.

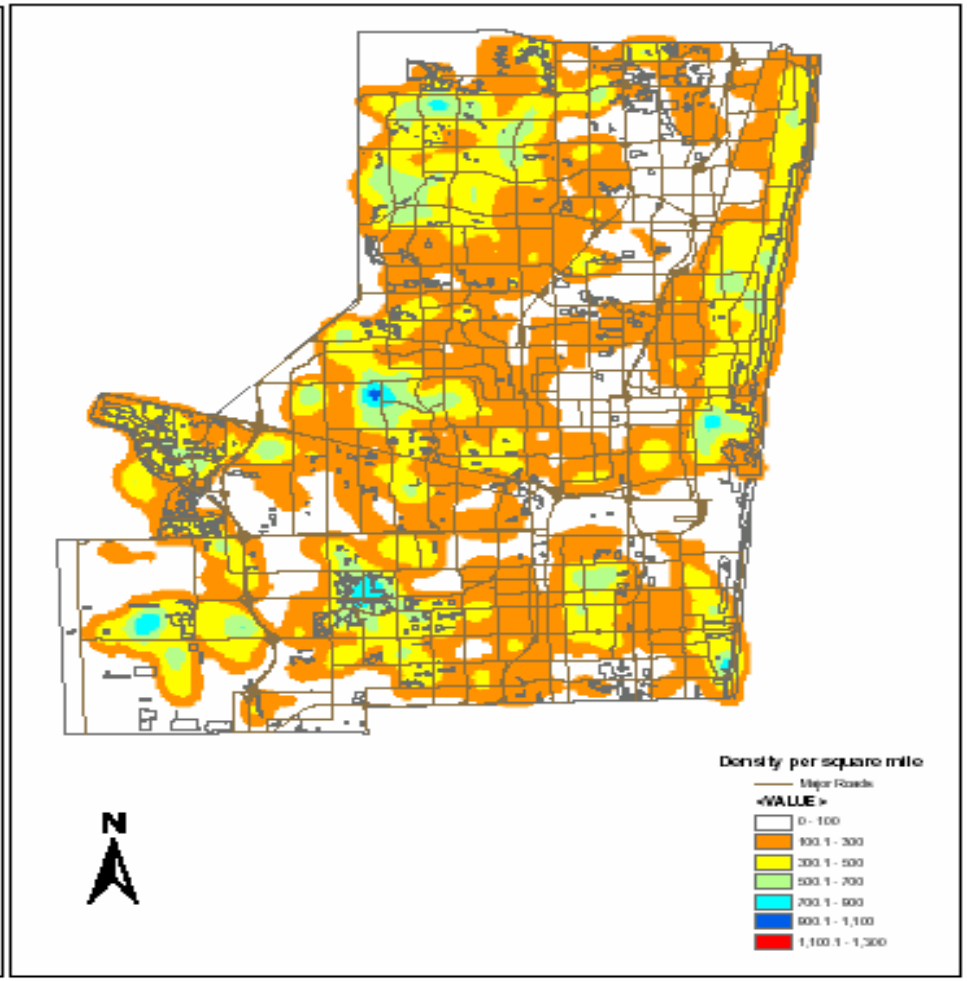
	14-18	19-21	22-24	25-34	35-44	45-54	55-64	65-99
Female	2.1%	4.39%	5.62%	17.66%	19.23%	19.11%	10.94%	2.44%
Male	1.12%	1.11%	1.35%	4.59%	3.9%	3.83%	2.3%	0.75%

Original Vision

Broward County, Florida (1998)

Low wage workers by place of residence	High wage workers by place of residence

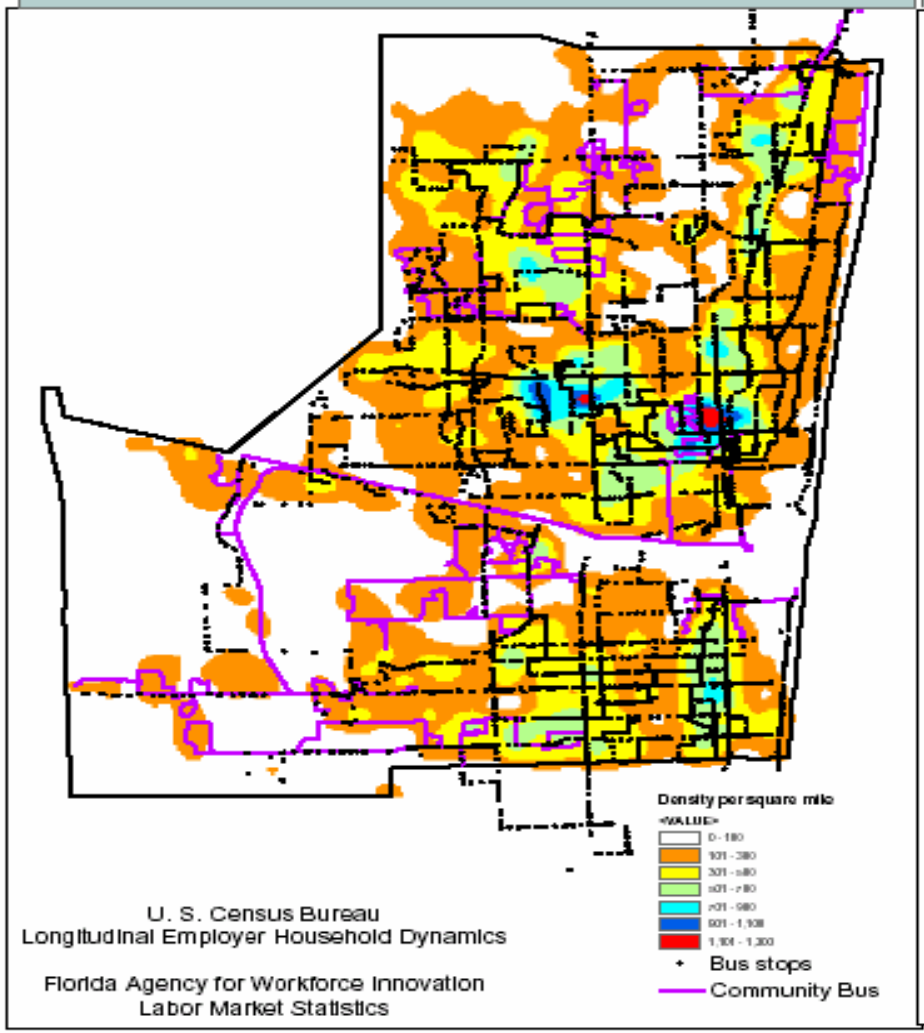




Original Vision

Broward County, Florida (1998)

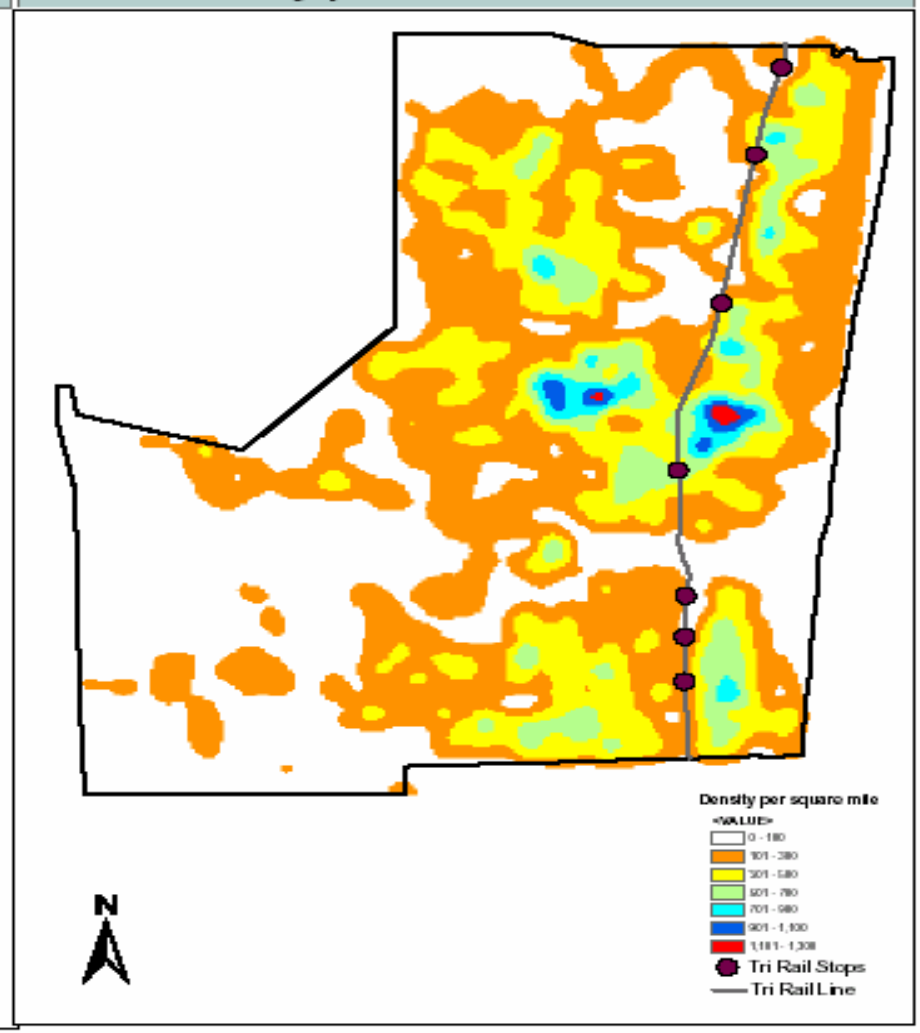
Bus Routes and low wage workers by place of residence



U. S. Census Bureau
Longitudinal Employer Household Dynamics

Florida Agency for Workforce Innovation
Labor Market Statistics

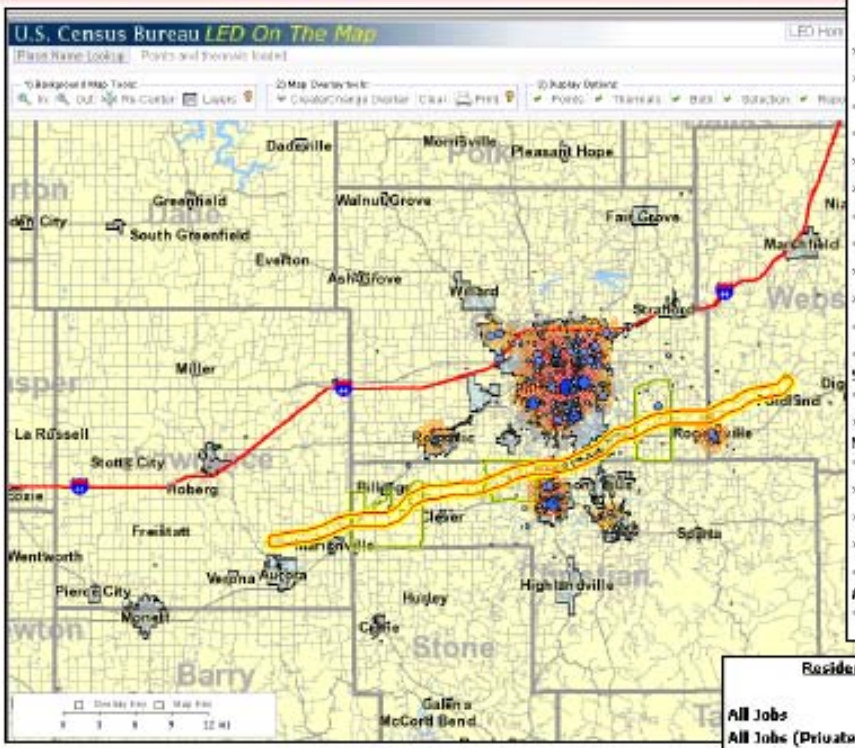
Tri Rail and low wage workers by place of residence



Implementation

workforce e³ one
DRIVEN BY DEMAND

LED On the Map: Where People Go to Work
Springfield, MO Tornado Track (March 12, 2006)



Where do people who live in the path of the tornado *work*?

Workers by Industry Type (2-digit NAICS)	2003 Count	2003 Share
* Agriculture, Forestry, Fishing and Hunting	5	0.3%
* Mining	1	0.1%
* Utilities	3	0.2%
* Construction	134	8.6%
* Manufacturing	195	12.5%
* Wholesale Trade	132	8.5%
* Retail Trade	230	14.8%
* Transportation and Warehousing	79	5.1%
* Information	54	3.5%
* Finance and Insurance	82	5.3%
* Real Estate and Rental and Leasing	25	1.6%
* Professional, Scientific, and Technical Services	70	4.5%
* Management of Companies and Enterprises	35	2.2%
* Administration & Support, Waste Management and Remediation	76	4.9%
* Educational Services	13	0.8%
* Health Care and Social Assistance	202	13%
* Arts, Entertainment, and Recreation	23	1.5%
* Accommodation and Food Services	124	8%
* Other Services (excluding Public Administration)	74	4.8%
* Public Administration	0	0%

Resident Held Jobs by Category	2003 Count	2003 Share
All Jobs	1,943	100.0%
All Jobs (Private Sector Only)	1,644	84.6%
All Primary Jobs (Worker's highest paying job)	1,843	94.9%
All Primary Jobs (Private Sector Only) and Baseline Count of Workers	1,557	80.1%

Workers by Earnings Paid	2003 Count	2003 Share
$1,200 per month or less	452	29%
$1,201 to $3,400 per month	674	43.3%
More than $3,400 per month	431	27.7%

USCENSUSBUREAU

17

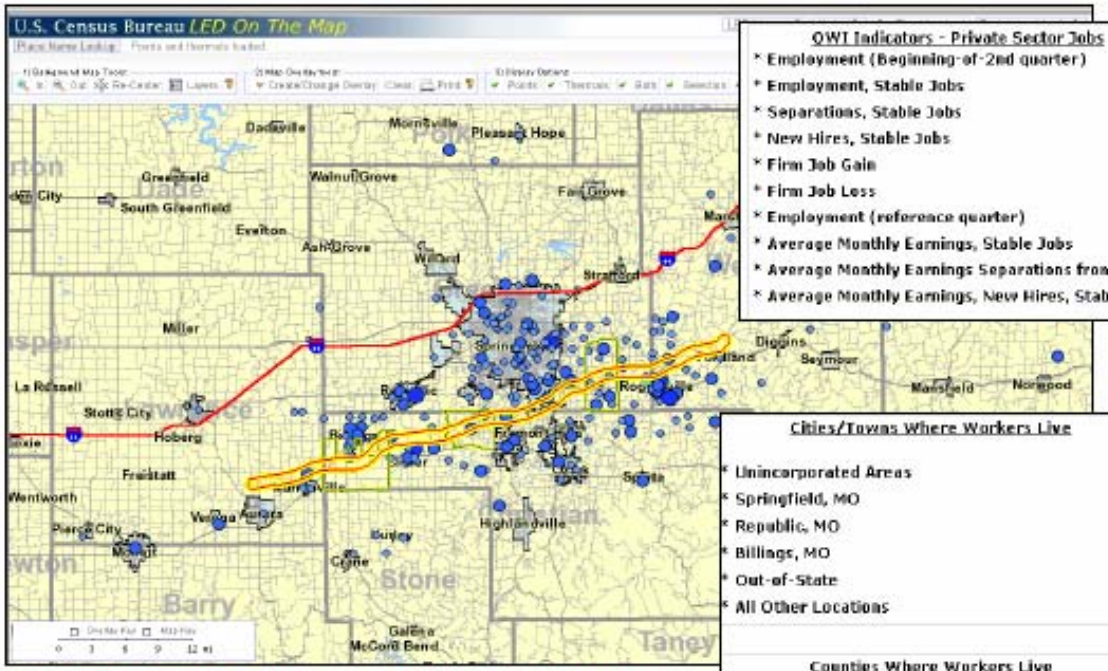
Source: Jeremy Wu LEHD presentation

Implementation

workforce e3 one
DRIVEN BY DEMAND

LED On the Map: Where Workers Live

Springfield, MO Tornado Track (March 12, 2006)



QWI Indicators - Private Sector Jobs	2003:Q2
* Employment (Beginning-of-2nd quarter)	248
* Employment, Stable Jobs	210
* Separations, Stable Jobs	24
* New Hires, Stable Jobs	21
* Firm Job Gain	38
* Firm Job Loss	21
* Employment (reference quarter)	326
* Average Monthly Earnings, Stable Jobs	$ 2,283
* Average Monthly Earnings Separations from Stable Jobs	$ 975
* Average Monthly Earnings, New Hires, Stable Jobs	$ 2,129

Cities/Towns Where Workers Live	2003 Count	2003 Share
* Unincorporated Areas	112	45.2%
* Springfield, MO	52	21%
* Republic, MO	14	5.6%
* Billings, MO	12	4.8%
* Out-of-State	9	3.6%
* All Other Locations	49	19.8%

Counties Where Workers Live	2003 Count	2003 Share
* Greene Co., MO	97	39.1%
* Christian Co., MO	73	29.4%
* Webster Co., MO	22	9.9%
* Lawrence Co., MO	14	5.6%
* Out-of-State	9	3.6%
* All Other Locations	33	13.3%

Where do workers employed at jobs located in the path of the tornado *live*?

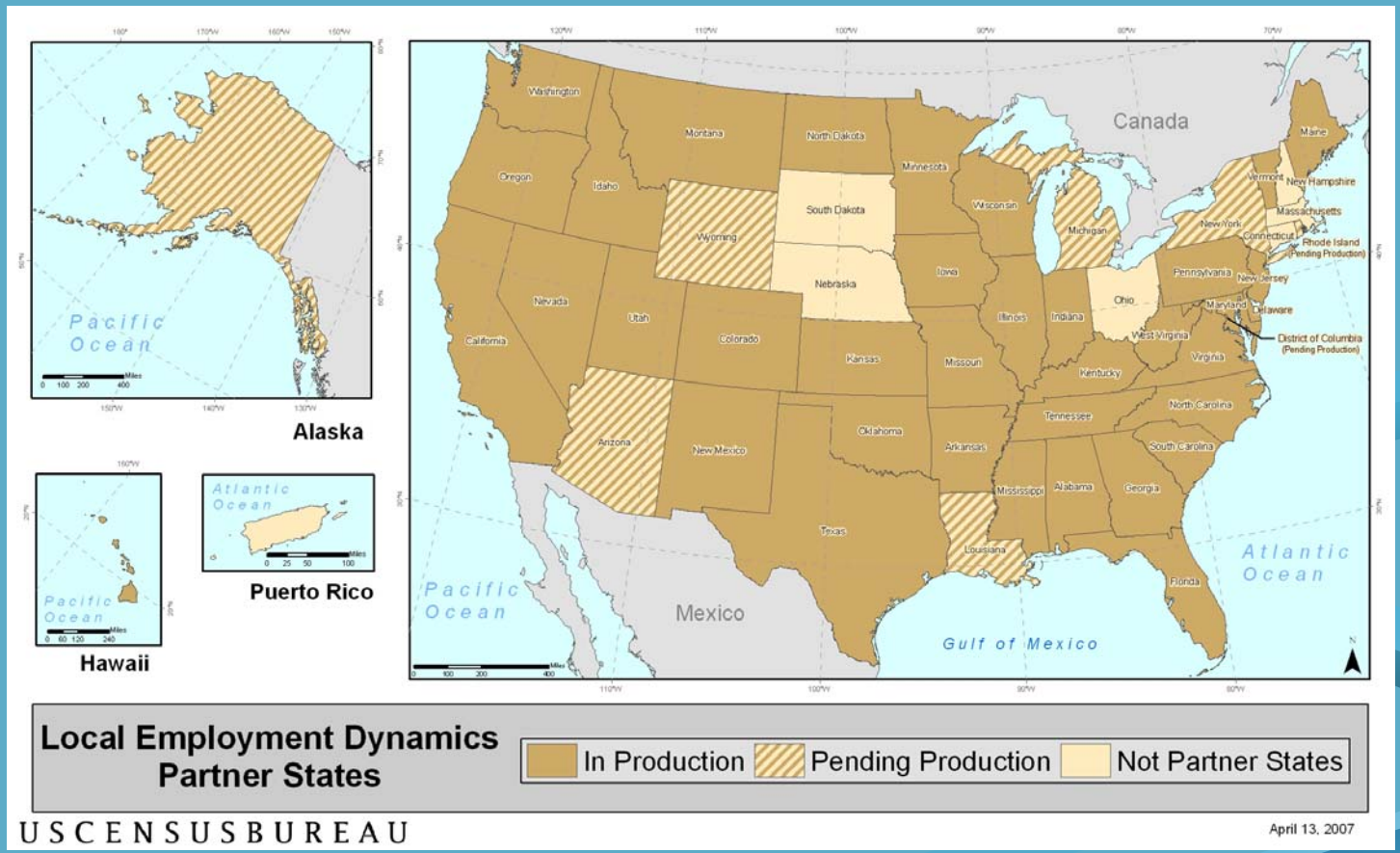
USCENSUSBUREAU

18

Source: Jeremy Wu LEHD presentation

Partnership

- 1 state (1997); 5 states (2001); 44 states (2007)



Confidentiality Protection

- Physical security
- Authorized users only
- Use for authorized purpose only
- Statistical, not programmatic purposes
- E.g. NORC data enclave

Enclave Basics

- Mission
  - To Promote Access to sensitive micro data
  - To Protect Confidentiality
  - To Archive, Index and Curate Micro-data
- Background
  - Started by NIST/ATP; Went live July 2007
  - Current data providers: NIST/ATP, USDA/ERS (pilot), Kauffman Foundation
- Innovations
  - Secure remote access
  - Collaboratory: a collaborative environment for researchers to work, share code, ideas
  - Standardized metadata documentation techniques

NORC Data Enclave:

Mechanics of Portfolio Approach to Protection

Provision of access –

a) Technical protection (IT and operational)
b) Agency-specific data protection requirements (Legal)
c) Statistical protection (Statistical)
d) Researcher training (Educational)

Provision of Research Access

Menu Options for Agency/Data Producer X and Study/Dataset Y				
Sample Modalities	Legal Options (1,2,3,4)	Statistical (1,2,3,4,5)	IT/Operational (1,2,3,4,5)	Educational (1,2,3,4)
Remote Access	3	1	4	2
	None	2	5	2
Onsite Access	**3** with customization	3,5	**1**	**None**
Licensing (different levels of anonymization)	**2**	1	2,3	1,4

Effective Data Sharing: Lessons from NNIP

Kathy Pettit
National Neighborhood Indicators Partnership
kpettit@ui.urban.org

Data Sharing Guidebook

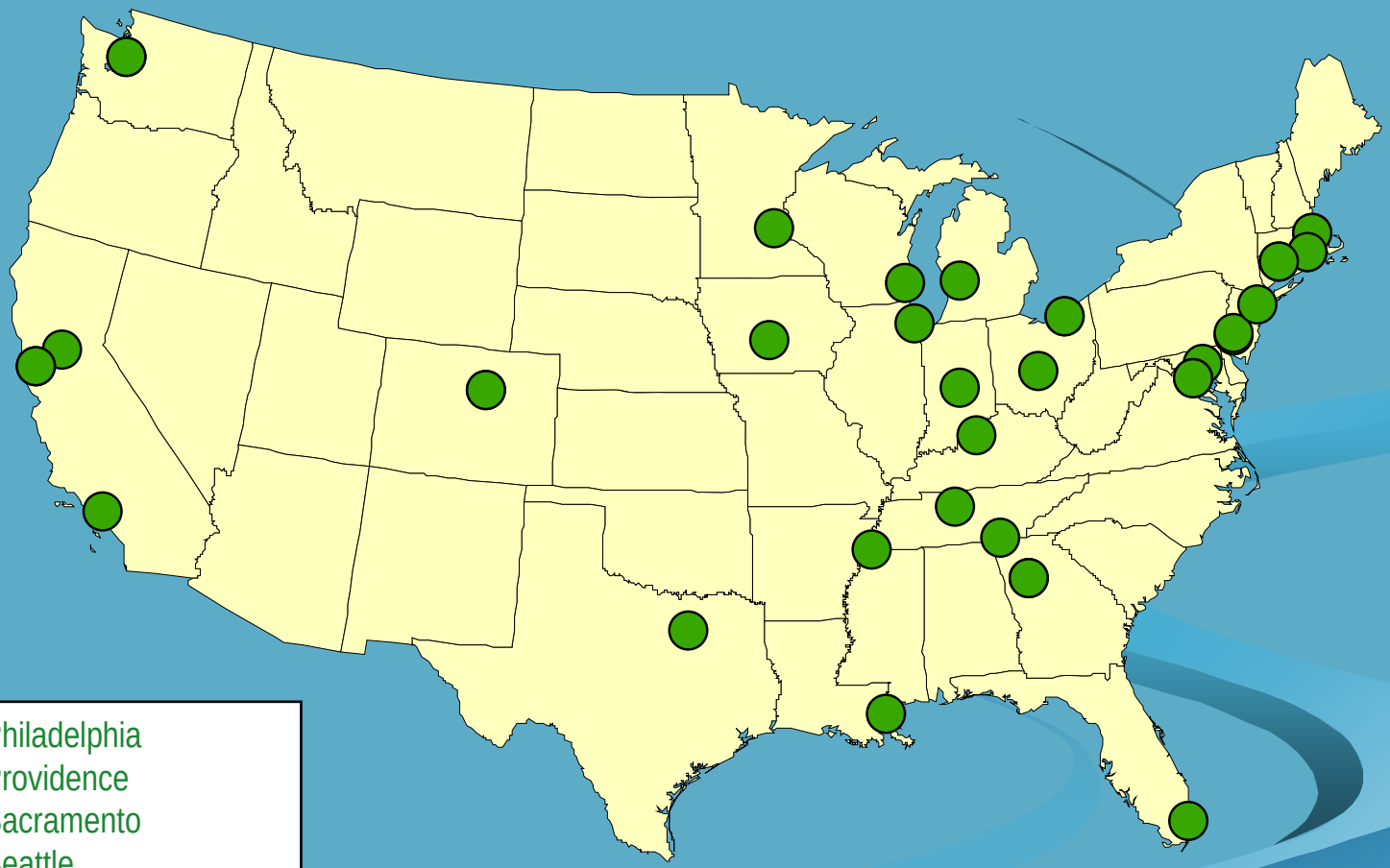
- Today's Presentation
  - Introduction to NNIP
  - Strategies for negotiating data access
  - Elements of formal data agreements
- Also included in guidebook
  - Overview of the legal framework
  - Basics of handling confidential data responsibly

National Neighborhood Indicators Partnership (NNIP)

- Collaborative effort since 1995 of Urban Institute and local partners in 29 cities
- Partners operate information systems
  - Recurrently updated neighborhood data
- Shared mission: Democratizing Information
  - Facilitate the direct use of data by stakeholders
  - Focus on strengthening & empowering low-income neighborhoods

National Neighborhood Indicators Partners

Atlanta
Baltimore
Boston
Camden
Chattanooga
Chicago
Cleveland
Columbus
Dallas
Denver
Des Moines
Grand Rapids
Hartford
Indianapolis
Louisville
Los Angeles
Memphis
Miami
Milwaukee
Minneapolis
Nashville
New Orleans
New York City
Oakland
Philadelphia
Providence
Sacramento
Seattle
Washington, DC



CONNECTING COMMUNITIES
Using Information to Drive Change

Strategies for negotiating data access

What You Need to Get Started

- Knowledge of regulations that can restrict or facilitate access to data
- Time and patience to identify and cultivate the right people
- Careful procedures for handling data
- Staff to evaluate, process, analyze data

Why Data Providers Say No…

- Preparing the file will burden my already overworked staff.
- We're afraid of being burned by bad publicity.
- I'm worried about mishandling or improper release of the data.
- The source data is a mess.
- We're making money from selling the data.

Why Data Providers Should Say Yes…

"Preparing the file will burden my already overworked staff."

- Quid pro quo
- Access to information from other agencies
- Geocoding/maps/supplemental analysis
- We have qualified staff to process the data
- And future requests can be referred to us.

Why Data Providers Should Say Yes…

"We're afraid of being burned by bad publicity."

- Examples of benefits to agencies & communities - or at least of not being harmed
- Defining credit or disclaimers
- Peer pressure: other cities are putting these data to practical use to improve policy and programs

Common Stumbling Blocks to Sharing Data

- Staff turnover on both sides
- Data really is too terrible to be useful
- Tensions between relationships with data provider & issue advocacy

Elements of Formal Data Agreements

Major Sections of MOU

- Purpose of agreement & organizations involved
- Data transmission and description
- Treatment of data and analysis
- Procedural and contractual issues

ELEMENTS OF FORMAL AGREEMENTS
Data Transmission & Description

- Data transmission
  - Format, approved delivery methods
- Data description
  - Fields, time period, geographic levels, identifiers
- Agency disclaimers of quality and liability

ELEMENTS OF FORMAL AGREEMENTS
Treatment of Data and Analysis

- Data security requirements and confidentiality protections
- Conditions for release of data to third parties
- Conditions for release of data analysis
- Source requirements

ELEMENTS OF FORMAL AGREEMENTS
Procedural & contractual issues

- Update schedule and process
- Amendment process
- Termination causes
- Authorized signatures

Towards a Culture of Data Sharing

- Over time, trusted local institutions can foster an expectation of data-sharing
- Data sharing among organizations can level the playing field around access to information.
- A peer network and tools based on practitioner experience can spread these ideas and practices to other communities.