DRAFT

Ensuring Access to Quality Distance Learning Opportunities for All

June 2020

Our Vision

The School District of Palm Beach County envisions a dynamic, *collaborative* multi-cultural community where education and lifelong learning are valued and supported and *all learners reach their highest potential* to succeed in the global economy.

Our Mission

The School District of Palm Beach County is committed to providing a *world-class education with excellence and equity* to *empower each student to reach his or her highest potential* with the most effective staff to foster the knowledge, skills, and ethics required for responsible citizenship and productive careers.

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Our mission is to grant all residents, regardless of zip code access to reliable internet service in their neighborhoods.

Challenge

Ensure equitable access to in-home Broadband Internet for all students to reach their potential by fully participating in education and community engagement opportunities.

Solution

Connect and collaborate with public and private partners to identify a series of solutions to bridge the divide to access sustainable, in-home Broadband Internet.

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Opportunities to Connected Students/Families
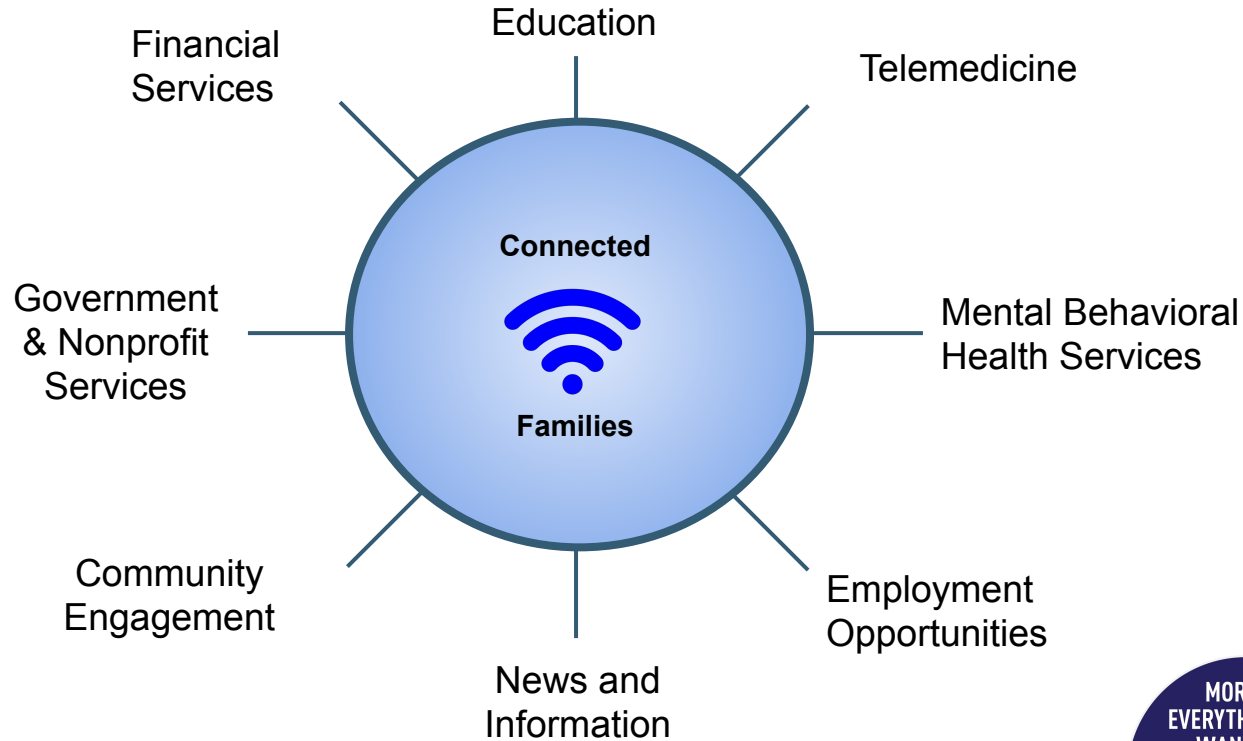
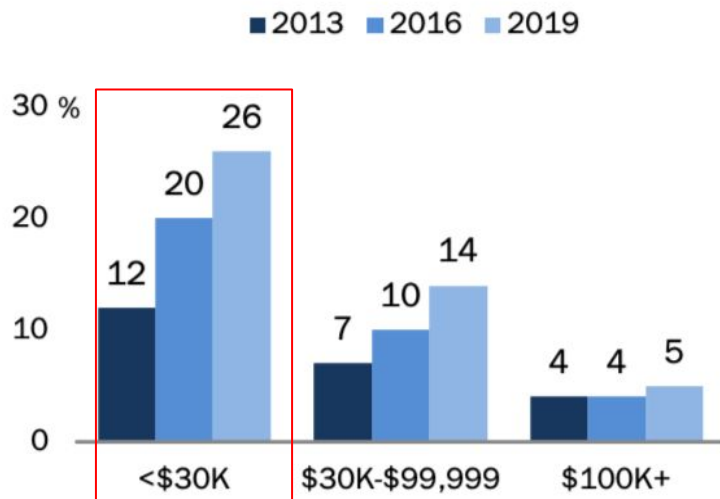MORE OF
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Lower-income Americans have lower levels of technology adoption

% of U.S. adults who say they have the following ...

■ <$30K ■ $30K-$99,999 ■ $100K+

Smartphone
- 71
- 85
- 97

Desktop or laptop computer
- 54
- 83
- 94

Home broadband
- 56
- 81
- 94

Tablet computer
- 36
- 55
- 70

All of the above
- 18
- 39
- 64

Source: 2019 PEW Research

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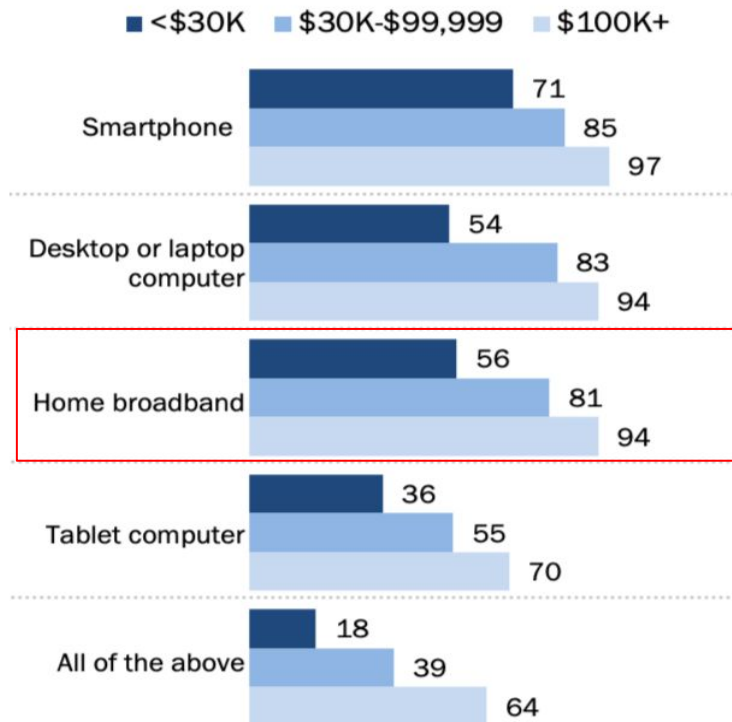
The share of lower-income Americans who rely on their smartphone for going online has roughly doubled since 2013

% of U.S. adults who say they have smartphone, but no broadband at home, by annual household income

■ 2013 ■ 2016 ■ 2019

Income	2013	2016	2019
<$30K	12	20	26
$30K-$99,999	7	10	14
$100K+	4	4	5

Source: 2019 PEW Research

Limited Engagement Students Access Internet via Cell Phone

Inst_Sup	SchoolName	% Cell
Central Elem 2	Loxahatchee Groves Elementary	36.7
South Elem 1	Sunrise Park Elementary	33.3
Central Secondary	Royal Palm Beach High	30.3
North Elem	Jupiter Elementary	27.6
North Elem	Lake Park Elementary	25.0
North Elem/Middle	HL Watkins Middle	22.7
North Regional	West Riviera Elementary	22.4
Central Elem 2	Wellington Elementary	22.2
Glades Regional	Lake Shore Middle	21.9
Central Elem 1	West Gate Elementary	20.4
Central Secondary	Polo Park Middle	20.0
Central Regional	Highland Elementary	18.4
Central Elem 1	Belvedere Elementary	18.2
South Elem 1	Plumosa Sch of the Arts	17.6
Central Regional	North Grade Elementary	17.0
South Elem 2	Hagen Road Elementary	14.3
South Elem 2	Sunset Palms Elementary	14.3
Central Elem 1	Meadow Park Elementary	14.3

SDPBC Home Technology Survey
No Internet - Across Communities and Schools

15,000+ indicated NO Internet Across Each Community

School City	No Internet	% No Internet
Lake Park	233	23.3
South Bay	67	19.5
Belle Glade	625	19.7
Canal Point	39	17.5
Palm Springs	257	17.6
Pahokee	115	15.3
Greenacres	1275	16.4
Riviera Beach	438	14.4
Delray Beach	822	14.2
Lantana	563	13.7
Lake Worth	2584	14.4
West Palm Beach	3742	13.4
Boynton Beach	1166	11.4

NO Internet Across Each School

Municipality	SchoolName	Internet	No Internet	% No Internet
District Survey Total		133574	15431	10.4
Belle Glade	Crossroads Acad	17	8	32.0
Belle Glade	Glade View Elementary	238	97	29.0
Belle Glade	Lake Shore Middle	486	154	24.1
Belle Glade	Pioneer Park Elementary	341	84	19.8
Belle Glade	Glades Central High	661	140	17.5
Belle Glade	Belle Glade Elementary	317	62	16.4
Belle Glade	Gove Elementary	679	130	16.1
Belle Glade Total			675	
Boca Raton	JC Mitchell Elementary	697	65	8.5
Boca Raton	Boca Raton Elementary	266	24	8.3
Boca Raton	Boca Raton High	1911	102	5.1
Boca Raton	Boca Raton Middle	1346	70	4.9
Boca Raton	Verde Elementary	963	41	4.1
Boca Raton	Omni Middle	1526	37	2.4
Boca Raton	Spanish River High	1506	35	2.3
Boca Raton	Calusa Elementary	909	21	2.3
Boca Raton	Don Estridge High Tech Middle	1086	24	2.2
Boca Raton	Addison Mizner Elementary	933	20	2.1
Boca Raton Total			439	
Boynton Beach	Forest Park Elementary	537	178	24.9
Boynton Beach	Rolling Green Elementary	501	164	24.7
Boynton Beach	Galaxy Elementary	450	110	19.6
Boynton Beach	Congress Middle	757	167	18.1
Boynton Beach	Boynton Beach High	595	125	17.4
Boynton Beach	Crosspointe Elementary	504	78	13.4
Boynton Beach	Poinciana Elementary	562	73	11.5
Boynton Beach	Freedom Shores Elementary	667	60	8.3
Boynton Beach	Citrus Cove Elementary	966	84	8.0
Boynton Beach Total			1039	

7

Focused Strategies

Short Term
- Hotspots *(tentative and limited)*
- Income-based Subscriptions
- Internet Sponsorships

Long Term
- Municipal Wifi - Digital Inclusion
- Income-based Subscriptions
- Internet Sponsorships

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Long Term Solution - Municipal Wifi - Digital Inclusion

- **PBC Digital Inclusion $10m CARES Funds**
  - Buildout of infrastructure in coverage areas prioritized with PBC & School District
  - County-wide Community Revitalization Teams (CCRT)
  - Expend funds by December 30th
  - Pole attachment agreements with FPL
  - One-time & Recurring Costs

- **WPB (1,200+ students) and Delray**
  - Proof-of-Concept, old technology needs updated
  - PB County fiber & access points mounted on traffic signals, FPL poles
  - Student devices $50 to boost signal strength
  - Two networks available
    - Life and Safety
    - Education

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Creating a Municipal Wifi Mesh
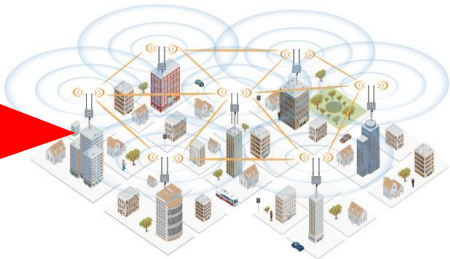
Lay Fiber Optic Cable

Connect Fiber to Root Radios

Root Radios Connect to Mesh Radios

Root & Mesh Radios Create Wifi Mesh
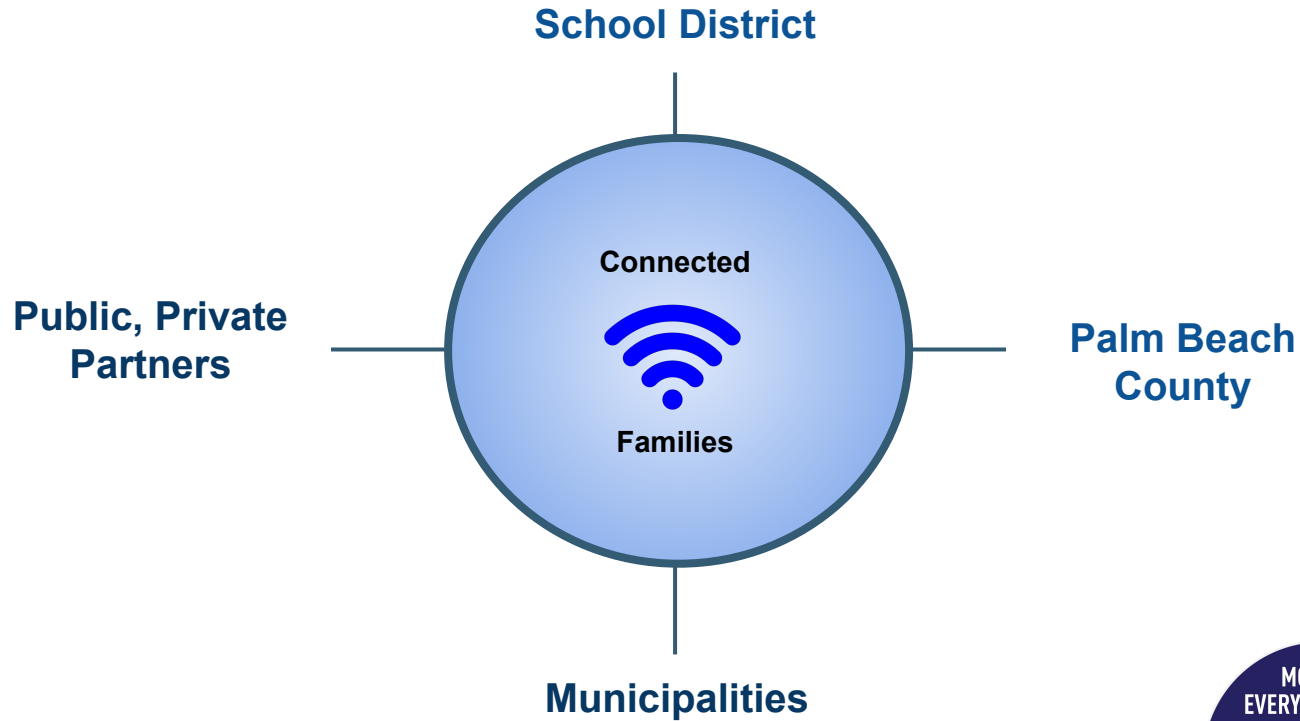
Wifi Extenders Capture Wifi Mesh Signal

Family Enjoys Wifi

Long Term Strategy
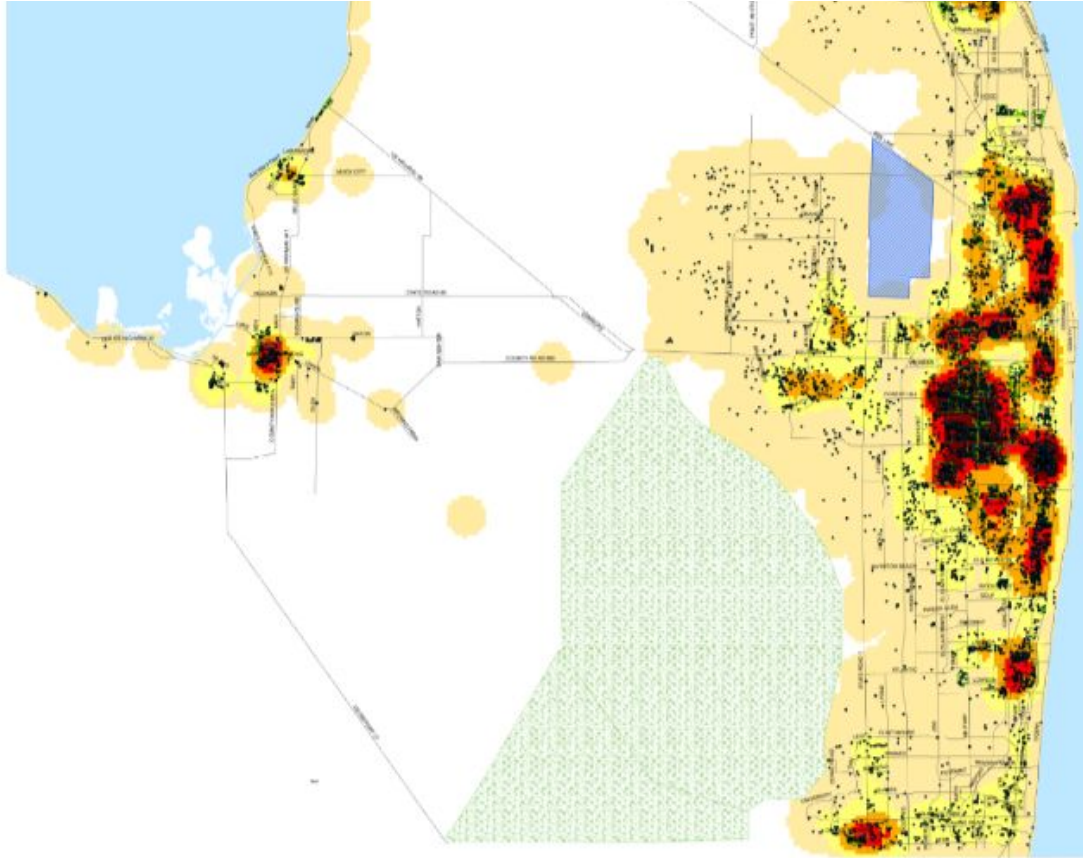# Municipal Wifi - Digital Inclusion

School District

Public, Private Partners

Connected

Families

Palm Beach County

Municipalities

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Long Term Solution - Municipal Wifi - Digital Inclusion
Agencies and Roles

Agency	Role
School District	Connect organizations, identify students, establish priority zones, provide devices, train families, communication, community engagement
PB County	CARES budget, engineering, technical setup
Municipality	Interlocal agreements, sustainability, budget, communication, services
Community Organizations	Training, support, services, funding, advocacy
Utilities	Support access to infrastructure, power
Policy Makers	Legislation, policy, funding

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Long Term Solution - Municipal Wifi - Digital Inclusion

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Long Term Solution - Municipal Wifi - Digital Inclusion Potential Municipalities

Extreme Density (Dark Red)	High Density (Red)	Medium Density + Additional (Orange) + (Yellow)	
Greenacres	Belle Glade	Belle Glade	Lantana
Haverhill	Boca Raton (Unincorp.)	Boca Raton (Unincorp.)	Mangonia Park
Lake Worth Beach	Boynton Beach	Boynton Beach	Pahokee
Lantana	Delray Beach	Delray Beach	Palm Springs
Palm Springs	Greenacres	Greenacres	Riviera Beach
Riviera Beach	Haverhill	Haverhill	South Bay
Unincorporated PBC	Hypoluxo	Hypoluxo	Royal Palm Beach
West Palm Beach	Lake Park	Jupiter	Unincorporated PBC
	Lake Worth Beach	Lake Park	Wellington
	Lantana	Lake Worth Beach	West Palm Beach
	Mangonia Park		
	Palm Springs		
	Riviera Beach		
	Unincorporated PBC		
	West Palm Beach		

High-performing A-rated District

Long Term Solution - Municipal Wifi - Digital Inclusion

Heat Map Zone	Square Miles	# of Students Impacted
Extreme Density (Dark Red)	14.6	21,710 (19,435 FRL)
High Density (Red)	35.62	32,009 (28,251 FRL)
Medium Density (Orange)	56.1	29,418 (22,341 FRL)
Additional Area	1.04	443 (288 FRL)
Total	107.34	83,580 (70,225 FRL)
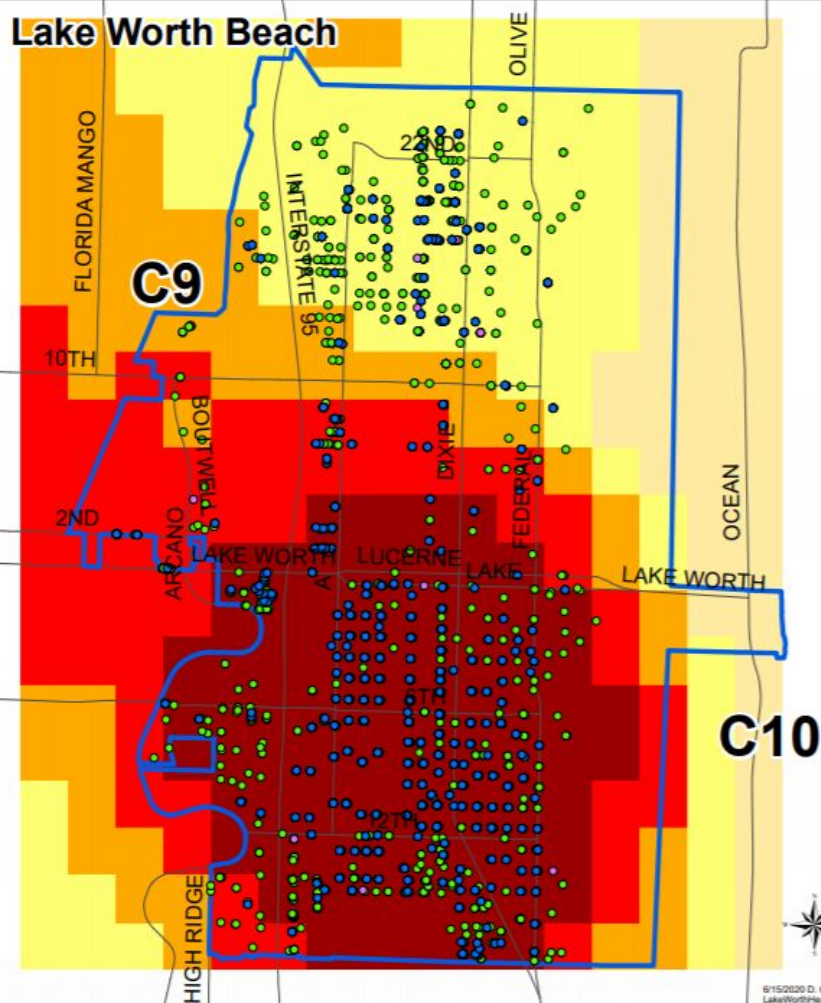
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High-performing A-rated District

Students in Lake Worth Beach

School Name	Enrolled	% ELL	% FRL	% SWD	Disrict Devices n	%	Internet at Home Yes n	%	No n	%
District Total	174813	18.4	63.7	16.6	68215	39.0	133574	89.6	15431	10.4
Barton Elementary	1120	66.4	99.0	12.9	604	53.9	521	60.6	339	39.4
Highland Elementary	1092	72.9	98.4	13.4	676	61.9	542	65.9	281	34.1
South Grade Elementary	745	73.3	98.8	11.1	573	76.9	160	66.1	82	33.9
Lake Worth Middle	1282	50.1	93.5	17.5	694	54.1	771	68.5	354	31.5
North Grade Elementary	755	49.4	78.4	13.8	482	63.8	562	75.2	185	24.8
Lake Worth High	2429	31.0	89.6	16.4	1262	52.0	1556	76.6	476	23.4
	7,423	57.18	92.95			60.4				31.2

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