

# Preparing New York for a More Automated Future



Middle Class Jobs Project

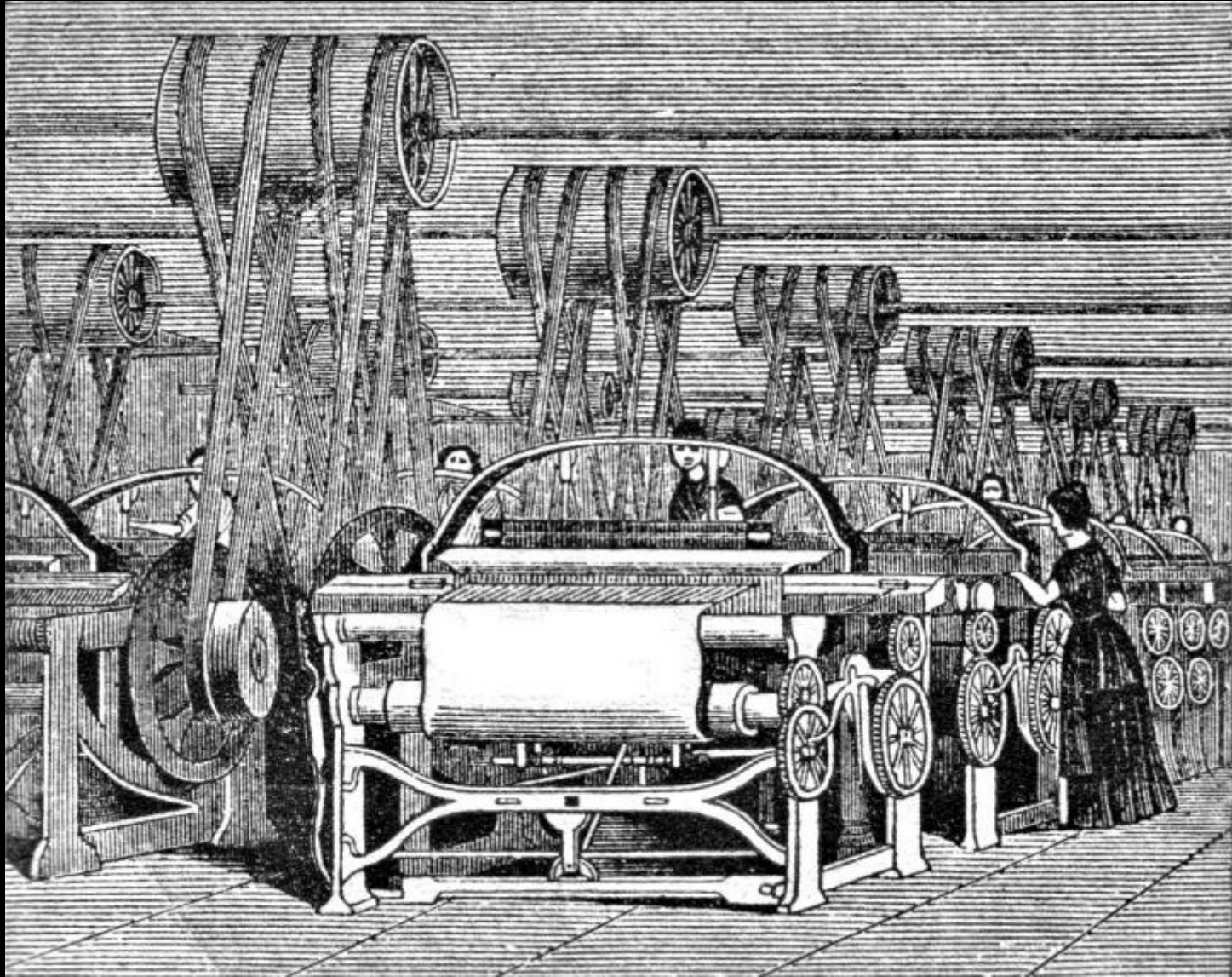
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@wetwax @nycfuture

# How will automation affect New York?

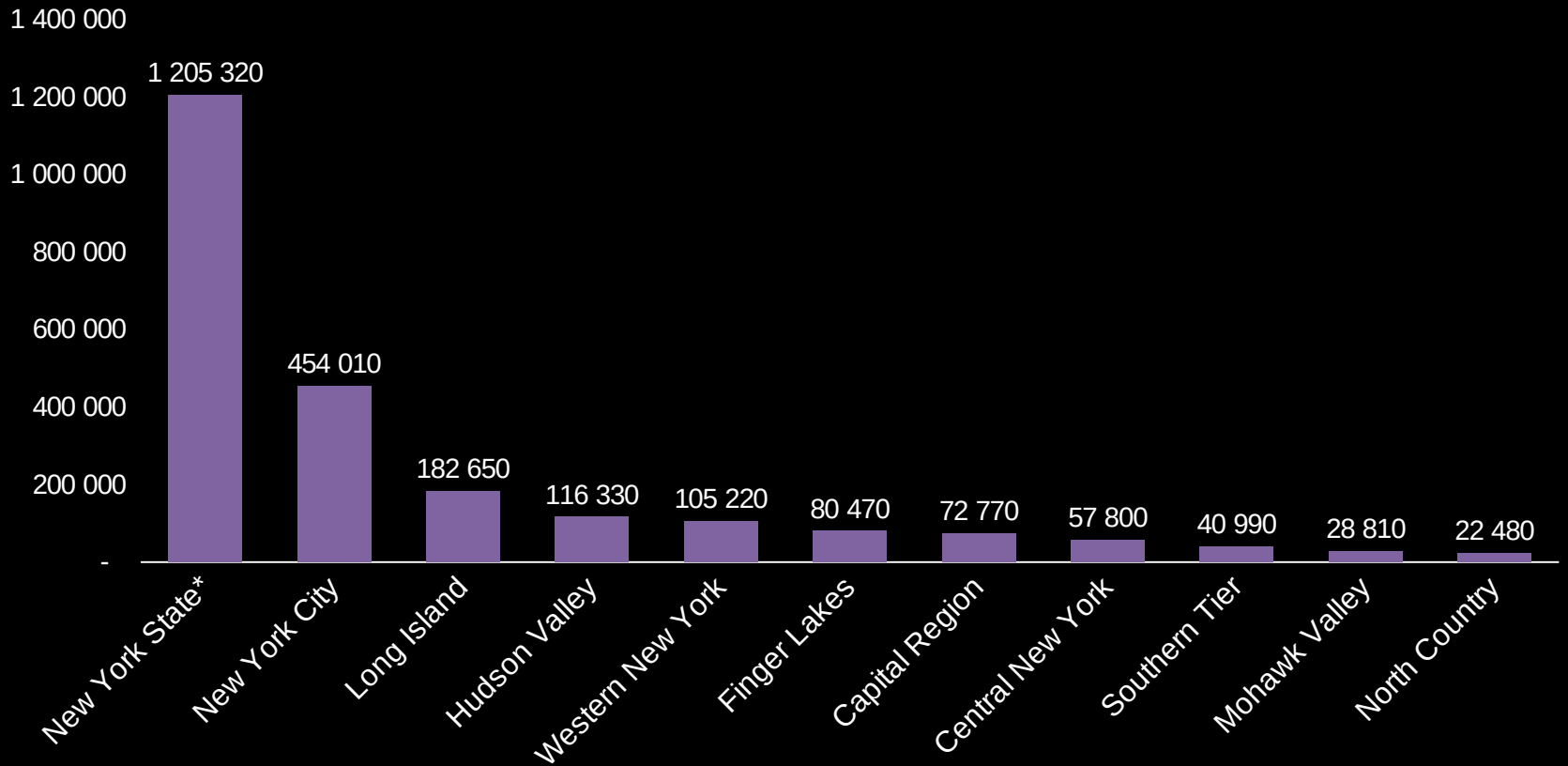
- A new research initiative:  
The Center for an Urban Future's **Middle Class Jobs Project**, supported by **Fisher Brothers** and **Winston C. Fisher**.
- The first-ever analysis of the projected **impact of automation on every occupation in New York State**.

Is this time different?



# Many jobs will be disrupted

Number of Highly Automatable Jobs in New York State



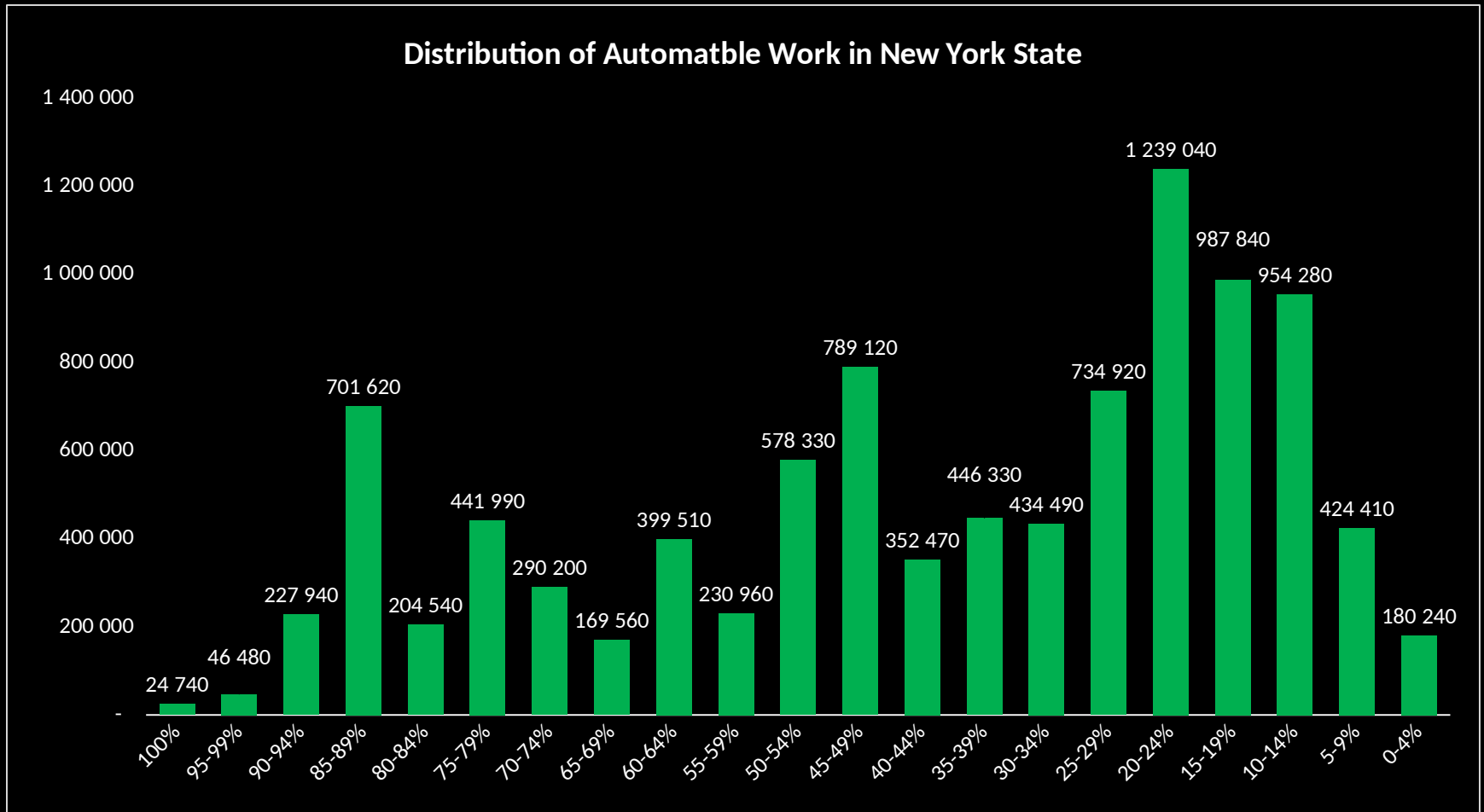
# Some jobs will be lost

- 24,740 jobs statewide are 100% automatable
  - Largest occupation:  
Packaging and filling machine operators and tenders (14,880)
  - Other occupations:  
Ophthalmic laboratory technicians (3,040)  
Machine feeders and offbearers (1,840)  
Plasterers & stucco masons (730)  
Motion picture projectionists (281)

# Some jobs will be gained

- Direct jobs in the automation economy
  - Data scientists, software engineers
- Productivity effect
  - ATMs & bank tellers
- New tasks
  - Mechanization of agriculture
  - Dawn of Computer Age
  - 1980 to 2010, new tasks = 50% job growth

# Automation in New York State



# 20 Largest Highly Automatable Jobs

Occupation	Automation Potential	Workers	Median Salary	Job Growth
Combined Food Preparation and Serving Workers, Including Fast Food	86.7%	154,570	\$20,490	28.5%
Bookkeeping, Accounting, and Auditing Clerks	85.6%	123,720	\$43,020	-1.7%
Stock Clerks and Order Fillers	86.4%	111,940	\$23,670	9.1%
Cooks, Restaurant	84.0%	65,330	\$27,120	25.9%
Food Preparation Workers	91.4%	63,850	\$23,030	15.9%
Heavy and Tractor-Trailer Truck Drivers	81.4%	60,850	\$46,560	14.1%
Billing and Posting Clerks	87.6%	35,160	\$40,500	19.5%
Dishwashers	85.6%	33,570	\$20,930	5.5%
Dining Room and Cafeteria Attendants and Bartender Helpers	86.2%	32,530	\$20,550	24.0%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	88.1%	30,790	\$21,040	22.3%



# 20 Largest Highly Automatable Jobs

Occupation	Automation Potential	Workers	Median Salary	Job Growth
Driver/Sales Workers	81.4%	23,400	\$21,230	16.9%
Painters, Construction and Maintenance	89.8%	21,250	\$47,240	18.3%
Bus Drivers, Transit and Intercity	85.4%	21,160	\$58,510	16.7%
Word Processors and Typists	90.4%	17,410	\$39,740	-13.7%
Cooks, Institution and Cafeteria	90.0%	16,680	\$31,910	16.0%
Laundry and Dry-Cleaning Workers	89.1%	16,370	\$20,700	6.4%
Cooks, Fast Food	88.5%	16,250	\$20,600	1.0%
Industrial Truck and Tractor Operators	91.7%	14,890	\$37,820	13.1%
Packaging and Filling Machine Operators and Tenders	100.0%	14,880	\$28,220	13.4%
Data Entry Keyers	86.4%	13,570	\$33,270	1.2%

# Automatability of 20 Largest Jobs

Occupation	Automation Potential	Workers	Median Salary	Job Growth (2014-2024)
Retail Salespersons	46.8%	324,170	\$22,300	10.3%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	53.6%	214,520	\$39,660	10.0%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	22.4%	211,280	\$29,890	14.5%
Office Clerks, General	61.5%	197,740	\$31,770	8.3%
Cashiers	48.6%	192,630	\$20,180	2.2%
Home Health Aides	10.8%	190,490	\$23,930	45.3%
Registered Nurses	28.9%	189,840	\$81,400	17.1%
Personal Care Aides	23.6%	174,700	\$24,460	31.1%
General and Operations Managers	22.8%	165,860	\$124,970	17.1%
Customer Service Representatives	29.3%	160,050	\$36,890	14.0%

# Automatability of 20 Largest Jobs

Occupation	Automation Potential	Workers	Median Salary	Job Growth
Combined Food Preparation and Serving Workers, Including Fast Food	86.7%	154,570	\$20,490	28.5%
Waiters and Waitresses	76.9%	151,380	\$23,370	12.4%
Teacher Assistants	19.9%	131,800	\$26,910	8.1%
Accountants and Auditors	12.2%	124,740	\$82,090	21.4%
Bookkeeping, Accounting, and Auditing Clerks	85.6%	123,720	\$43,020	-1.7%
First-Line Supervisors of Office and Administrative Support Workers	22.1%	119,090	\$63,450	13.7%
Security Guards	39.4%	114,180	\$30,700	16.7%
Stock Clerks and Order Fillers	86.4%	111,940	\$23,670	9.1%
Laborers and Freight, Stock, and Material Movers, Hand	6.7%	110,190	\$26,890	12.1%
Maintenance and Repair Workers, General	25.2%	106,260	\$42,770	15.0%

# 20 Largest Least Automatable Jobs

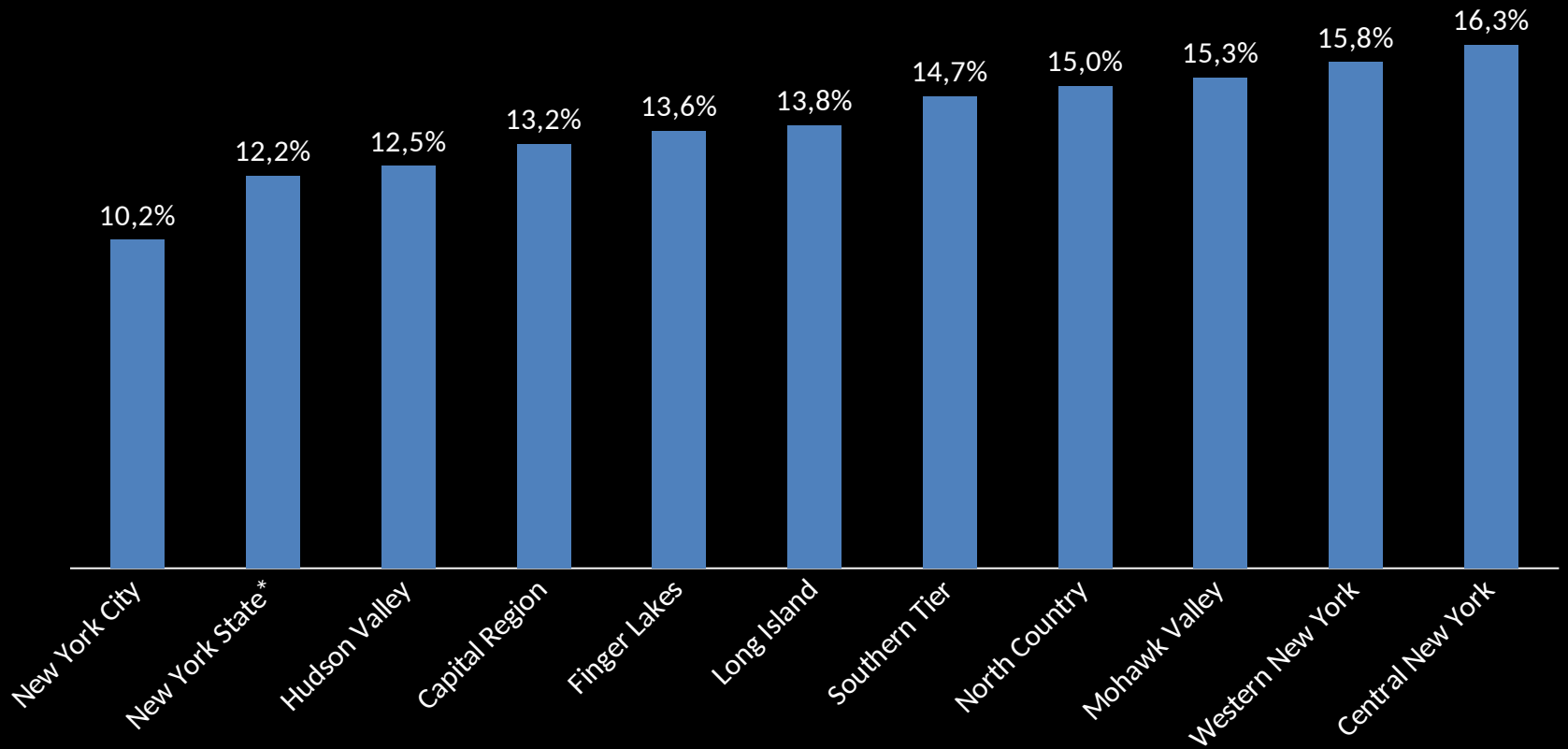
Occupation	Automation Potential	Workers	Median Salary	Job Growth
Home Health Aides	10.8%	190,490	\$23,930	45.3%
Teacher Assistants	19.9%	131,800	\$26,910	8.1%
Accountants and Auditors	12.2%	124,740	\$82,090	21.4%
Laborers and Freight, Stock, and Material Movers, Hand	6.7%	110,190	\$26,890	12.1%
Elementary School Teachers, Except Special Education	15.4%	81,290	\$75,900	3.5%
Maids and Housekeeping Cleaners	17.9%	69,730	\$28,390	15.9%
Secondary School Teachers, Except Special and Career/Technical Education	19.6%	67,230	\$78,810	3.4%
Childcare Workers	19.4%	64,260	\$27,400	10.9%
Market Research Analysts and Marketing Specialists	12.9%	60,130	\$73,480	26.4%
Landscaping and Groundskeeping Workers	9.2%	58,580	\$30,850	6.9%

# 20 Largest Least Automatable Jobs

Occupation	Automation Potential	Workers	Median Salary	Job Growth
Software Developers, Applications	8.2%	52,730	\$108,680	29.3%
Financial Analysts	10.6%	50,790	\$103,920	12.6%
Licensed Practical and Licensed Vocational Nurses	16.1%	49,250	\$47,420	18.1%
Police and Sheriff's Patrol Officers	19.2%	49,190	\$73,310	6.3%
Management Analysts	4.1%	48,600	\$93,630	22.2%
Substitute Teachers	19.8%	47,680	\$33,080	3.6%
Preschool Teachers, Except Special Education	8.3%	43,690	\$32,550	7.3%
Personal Financial Advisors	12.3%	36,320	\$134,980	25.2%
First-Line Supervisors of Non-Retail Sales Workers	19.6%	32,970	\$100,370	6.6%
Health Specialties Teachers, Postsecondary	17.5%	32,220	\$108,830	25.3%

# Automation by Region

Share of Highly Automatable Jobs in New York State



# Key Findings

- Nearly 1.2 million jobs in New York State could have 80%+ of their tasks automated by 2040.
- Roughly 3.3 million jobs could have half of all tasks automated during that time.
- New York is better positioned than many other states (41.2% NY / 51% US)
- Of the 100 most automatable occupations in NYS with 1,000+ workers, 68% earn <\$40k/year, 31% earn between 40K and 80K. Only one earns more.

# Preparing New York's Workforce

- Aligning to labor market demand and for automation resiliency
- Building soft skills & digital skills
- Preparing for augmented occupations (customer support, healthcare, construction)
- Mitigating dislocation through upskilling



# Preparing New York's Workforce

- Boosting college success
  - Nontuition barriers
  - Some college, no degree
- Investing in HSE attainment
- Apprenticeships for the new economy
- Making life-long learning affordable
- Automation Preparation Fund

